

A Study for the U.S. Department of the Interior,  
Minerals Management Service



**MMS**

Department of the Interior

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**Decommissioning Cost Update for Removing Pacific OCS Region  
Offshore Oil and Gas Facilities, January 2010, Volume 2**  
USDOT Contract M09PC00024

Conducted by



**PROSERV OFFSHORE**  
HOUSTON, TX  
PROJECT NO. 29056-11

JANUARY, 2010

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## Decommissioning Cost Update for Removing Pacific OCS Region Offshore Oil and Gas Facilities, January 2010, Volume 2 M09PC00024

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Date	Rev. No.	Revisions
01/29/10	6	Final Report Volume 2

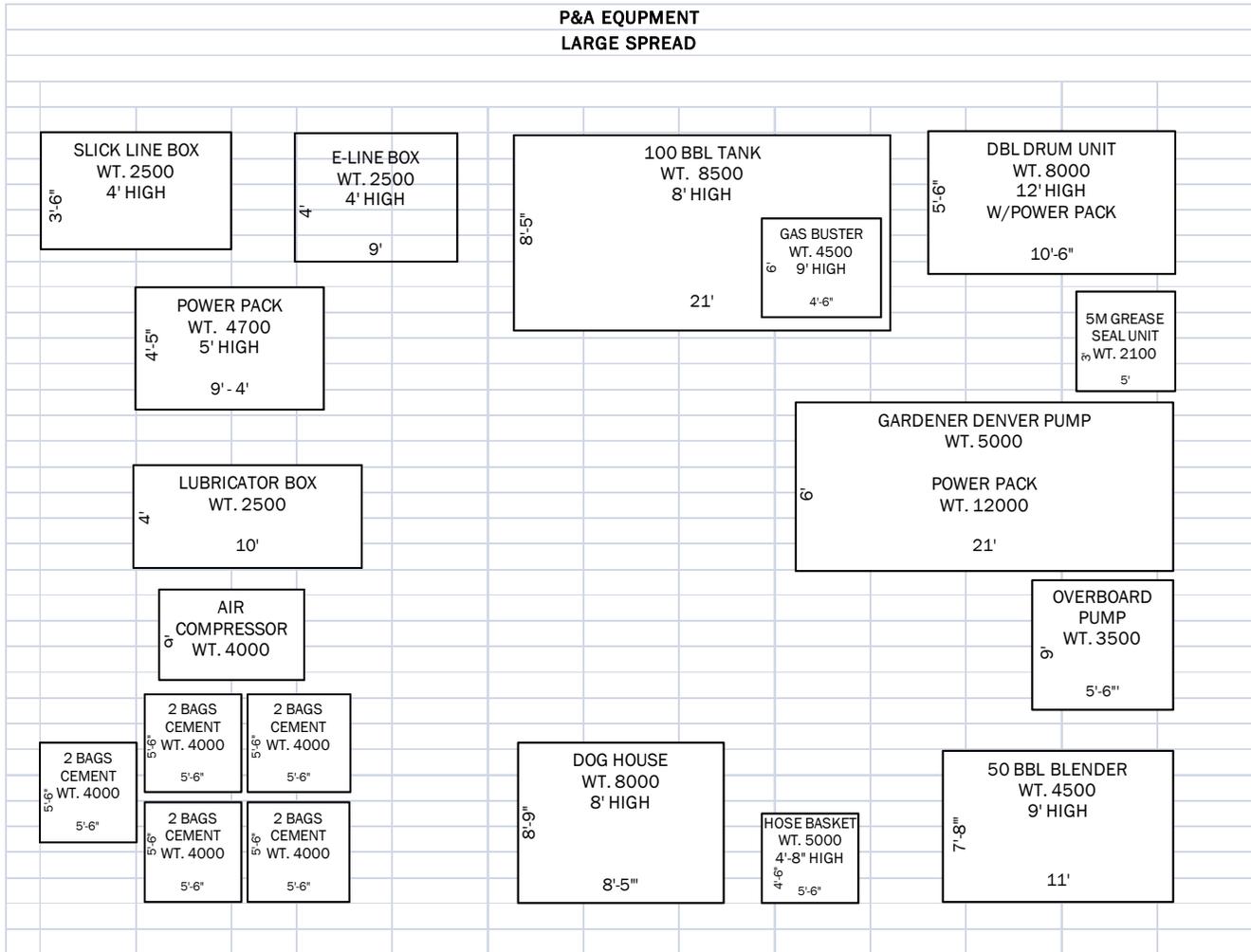
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Appendices

**Appendix 1: Typical Rig-Less P&A Spread Footprint**





**Appendix 2: Complete Rig-Less Well P&A Estimates**

Platform Rig-less Estimate										
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days
A	52	0.1	0.15	0.08	45	5	1	1	13	168
Well Complexity Work Days Table										
Well Complexity		Low	Med-Low	Med-High	High					
Days/Well		3	4	5	8					
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		170	\$306,000.00				
Rental Crane	174	days	\$800.00	\$139,200.00	1	\$139,200.00				
Supply Boat	170	days	\$7,500.00	\$1,275,000.00	1	\$1,275,000.00				
Catering, Meals & Lodging	170	days	\$1,200.00	\$204,000.00	1	\$204,000.00				
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00				
<b>Spread Total=</b>						<b>\$1,720,200.00</b>				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost						
Miscellaneous										
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00				
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		172	\$1,403,520.00				
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		172	\$868,944.00				
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		172	\$430,000.00				
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		3.9	\$62,400.00				
Cement	300	sacks per well	\$15.00	\$4,500.00	52	\$234,000.00				
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	52	\$520,000.00				
<b>Misc. Total=</b>						<b>\$3,518,864.00</b>				
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days										
** Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges										
<b>Total w/o Cont.:</b>						<b>\$5,239,064.00</b>				
Cost per Well						\$ 100,751				



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Platform Rig-less Estimate										
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days
B	57	0.1	0.15	0.08	49	6	1	1	13	184
Well Complexity Work Days Table										
		Well Complexity	Low	Med-Low	Med-High	High				
		Days/Well	3	4	5	8				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		186	\$334,800.00				
Rental Crane	190	days	\$800.00	\$152,000.00	1	\$152,000.00				
Supply Boat	186	days	\$7,500.00	\$1,395,000.00	1	\$1,395,000.00				
Catering, Meals & Lodging	186	days	\$1,200.00	\$223,200.00	1	\$223,200.00				
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00				
			<b>Spread Total=</b>			<b>\$1,881,800.00</b>				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
<b>Miscellaneous</b>										
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00				
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		188	\$1,534,080.00				
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		188	\$949,776.00				
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		188	\$470,000.00				
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		3.9	\$62,400.00				
Cement	300	sacks per well	\$15.00	\$4,500.00	57	\$256,500.00				
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	57	\$570,000.00				
			<b>Misc. Total=</b>			<b>\$3,842,756.00</b>				
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days										
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges										
				<b>Total w/o Cont.:</b>		<b>\$5,724,556.00</b>				
						Cost per Well	\$	100,431		



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Platform Rig-less Estimate										
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days
C	38	0.1	0.15	0.08	33	3	1	1	13	124
Well Complexity Work Days Table										
Well Complexity		Low	Med-Low	Med-High	High					
Days/Well		3	4	5	8					
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		126	\$226,800.00				
Rental Crane	130	days	\$800.00	\$104,000.00	1	\$104,000.00				
Supply Boat	126	days	\$7,500.00	\$945,000.00	1	\$945,000.00				
Catering, Meals & Lodging	126	days	\$1,200.00	\$151,200.00	1	\$151,200.00				
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00				
<b>Spread Total=</b>						<b>\$1,275,800.00</b>				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost						
Miscellaneous										
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00				
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		128	\$1,044,480.00				
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		128	\$646,656.00				
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		128	\$320,000.00				
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		3.9	\$62,400.00				
Cement	300	sacks per well	\$15.00	\$4,500.00	38	\$171,000.00				
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	38	\$380,000.00				
<b>Misc. Total=</b>						<b>\$2,624,536.00</b>				
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days										
** Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges										
					<b>Total w/o Cont.:</b>	<b>\$3,900,336.00</b>				
						Cost per Well	\$	102,640		



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Platform Rig-less Estimate										
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days
Edith	18	0.05	0.15	0.08	12	4	1	1	13	65
Well Complexity Work Days Table										
Well Complexity		Low	Med-Low	Med-High	High					
Days/Well		3	4	5	8					
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		67	\$120,600.00				
Rental Crane	71	days	\$800.00	\$56,800.00	1	\$56,800.00				
Supply Boat	67	days	\$7,500.00	\$502,500.00	1	\$502,500.00				
Catering, Meals & Lodging	67	days	\$1,200.00	\$80,400.00	1	\$80,400.00				
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00				
			<b>Spread Total=</b>			<b>\$679,900.00</b>				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
<b>Miscellaneous</b>										
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00				
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		69	\$563,040.00				
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		69	\$348,588.00				
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		69	\$172,500.00				
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		3.9	\$62,400.00				
Cement	300	sacks per well	\$15.00	\$4,500.00	18	\$81,000.00				
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	18	\$180,000.00				
			<b>Misc. Total=</b>			<b>\$1,407,528.00</b>				
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days										
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges										
				<b>Total w/o Cont.:</b>		<b>\$2,087,428.00</b>				
					Cost Per Well	\$ 115,968				



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Platform Rig-less Estimate										
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days
Ellen	61	0.05	0.15	0.08	18	39	3	1	23	233
Well Complexity Work Days Table										
Well Complexity		Low	Med-Low	Med-High	High					
Days/Well		3	4	5	8					
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		235	\$423,000.00				
Rental Crane	239	days	\$800.00	\$191,200.00	1	\$191,200.00				
Supply Boat	235	days	\$7,500.00	\$1,762,500.00	1	\$1,762,500.00				
Catering, Meals & Lodging	235	days	\$1,200.00	\$282,000.00	1	\$282,000.00				
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00				
			<b>Spread Total=</b>			<b>\$2,376,700.00</b>				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
<b>Miscellaneous</b>										
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00				
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		237	\$1,933,920.00				
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		237	\$1,197,324.00				
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		237	\$592,500.00				
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		6.9	\$110,400.00				
Cement	300	sacks per well	\$15.00	\$4,500.00	61	\$274,500.00				
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	61	\$610,000.00				
			<b>Misc. Total=</b>			<b>\$4,718,644.00</b>				
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days										
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges										
				<b>Total w/o Cont.:</b>		<b>\$7,095,344.00</b>				
					Cost Per Well	\$	116,317			



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Platform Rig-less Estimate										
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days
Eureka	50	0.05	0.15	0.08	6	38	5	1	33	203
Well Complexity Work Days Table										
		Well Complexity	Low	Med-Low	Med-High	High				
		Days/Well	3	4	5	8				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		205	\$369,000.00				
Rental Crane	209	days	\$800.00	\$167,200.00	1	\$167,200.00				
Supply Boat	205	days	\$7,500.00	\$1,537,500.00	1	\$1,537,500.00				
Catering, Meals & Lodging	205	days	\$1,200.00	\$246,000.00	1	\$246,000.00				
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00				
			<b>Spread Total=</b>			<b>\$2,073,700.00</b>				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
<b>Miscellaneous</b>										
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00				
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		207	\$1,689,120.00				
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		207	\$1,045,764.00				
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		207	\$517,500.00				
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		9.9	\$158,400.00				
Cement	300	sacks per well	\$15.00	\$4,500.00	50	\$225,000.00				
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	50	\$500,000.00				
			<b>Misc. Total=</b>			<b>\$4,135,784.00</b>				
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days										
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges										
				<b>Total w/o Cont.:</b>		<b>\$6,209,484.00</b>				
						Cost per Well	\$	124,190		





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Platform Rig-less Estimate											
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days	
Gilda	63	0.1	0.15	0.08	8	47	6	2	46	258	
						Well Complexity Work Days Table					
						Well Complexity Days/Well	Low	Med-Low	Med-High	High	
							3	4	5	8	
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals					
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		260	\$468,000.00					
Rental Crane	264	days	\$800.00	\$211,200.00	1	\$211,200.00					
Supply Boat	260	days	\$7,500.00	\$1,950,000.00	1	\$1,950,000.00					
Catering, Meals & Lodging	260	days	\$1,200.00	\$312,000.00	1	\$312,000.00					
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00					
						<b>Spread Total=</b>	<b>\$2,629,200.00</b>				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost							
Miscellaneous											
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00					
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		262	\$2,137,920.00					
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		262	\$1,323,624.00					
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		262	\$655,000.00					
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		13.8	\$220,800.00					
Cement	300	sacks per well	\$15.00	\$4,500.00	63	\$283,500.00					
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	63	\$630,000.00					
						<b>Misc. Total=</b>	<b>\$5,250,844.00</b>				
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days											
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges							<b>Total w/o Cont.:</b>	<b>\$7,880,044.00</b>			
						Cost per Well	\$	125,080			



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Platform Rig-less Estimate										
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days
Gina	12	0.1	0.15	0.08	7	3	1	1	13	46
Well Complexity Work Days Table										
Well Complexity		Low	Med-Low	Med-High	High					
Days/Well		3	4	5	8					
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		48	\$86,400.00				
Rental Crane	52	days	\$800.00	\$41,600.00	1	\$41,600.00				
Supply Boat	48	days	\$7,500.00	\$360,000.00	1	\$360,000.00				
Catering, Meals & Lodging	48	days	\$1,200.00	\$57,600.00	1	\$57,600.00				
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00				
				<b>Spread Total=</b>		<b>\$488,000.00</b>				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost						
Miscellaneous										
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00				
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		50	\$408,000.00				
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		50	\$252,600.00				
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		50	\$125,000.00				
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		3.9	\$62,400.00				
Cement	300	sacks per well	\$15.00	\$4,500.00	12	\$54,000.00				
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	12	\$120,000.00				
				<b>Misc. Total=</b>		<b>\$1,022,000.00</b>				
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days										
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges										
				<b>Total w/o Cont.:</b>		<b>\$1,510,000.00</b>				
						Cost Per Well	\$	125,833		



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Platform Rig-less Estimate											
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days	
Grace	28	0.1	0.15	0.08	0	13	13	2	81	133	
Well Complexity Work Days Table											
Well Complexity		Low	Med-Low	Med-High	High						
Days/Well		3	4	5	8						
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals					
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		135	\$243,000.00					
Rental Crane	139	days	\$800.00	\$111,200.00	1	\$111,200.00					
Supply Boat	135	days	\$7,500.00	\$1,012,500.00	1	\$1,012,500.00					
Catering, Meals & Lodging	135	days	\$1,200.00	\$162,000.00	1	\$162,000.00					
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00					
			<b>Spread Total=</b>			<b>\$1,366,700.00</b>					
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost							
Miscellaneous											
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00					
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		137	\$1,117,920.00					
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		137	\$692,124.00					
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		137	\$342,500.00					
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		24.3	\$388,800.00					
Cement	300	sacks per well	\$15.00	\$4,500.00	28	\$126,000.00					
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	28	\$280,000.00					
			<b>Misc. Total=</b>			<b>\$2,947,344.00</b>					
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days											
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges					<b>Total w/o Cont.:</b>		<b>\$4,314,044.00</b>				
						Cost per Well	\$	154,073			





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Platform Rig-less Estimate											
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days	
Harmony	34	0.1	0.15	0.08	0	0	20	14	212	212	
							Well Complexity Work Days Table				
							Well Complexity	Low	Med-Low	Med-High	High
							Days/Well	3	4	5	8
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals					
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		214	\$385,200.00					
Rental Crane	218	days	\$800.00	\$174,400.00	1	\$174,400.00					
Supply Boat	214	days	\$7,500.00	\$1,605,000.00	1	\$1,605,000.00					
Catering, Meals & Lodging	214	days	\$1,200.00	\$256,800.00	1	\$256,800.00					
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00					
						<b>Spread Total=</b>				<b>\$2,164,600.00</b>	
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals					
Miscellaneous											
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00					
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		216	\$1,762,560.00					
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		216	\$1,091,232.00					
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		216	\$540,000.00					
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		63.6	\$1,017,600.00					
Cement	300	sacks per well	\$15.00	\$4,500.00	34	\$153,000.00					
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	34	\$340,000.00					
						<b>Misc. Total=</b>				<b>\$4,904,392.00</b>	
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days											
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges											
						<b>Total w/o Cont.:</b>				<b>\$7,068,992.00</b>	
							Cost Per Well	\$	207,912		



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Platform Rig-less Estimate										
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days
Harvest	19	0.15	0.15	0.08	0	0	14	5	110	110
Well Complexity Work Days Table										
Well Complexity		Low	Med-Low	Med-High	High					
Days/Well		3	4	5	8					
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		112	\$201,600.00				
Rental Crane	116	days	\$800.00	\$92,800.00	1	\$92,800.00				
Supply Boat	112	days	\$7,500.00	\$840,000.00	1	\$840,000.00				
Catering, Meals & Lodging	112	days	\$1,200.00	\$134,400.00	1	\$134,400.00				
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00				
			<b>Spread Total=</b>			<b>\$1,134,400.00</b>				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
<b>Miscellaneous</b>										
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00				
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		114	\$930,240.00				
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		114	\$575,928.00				
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		114	\$285,000.00				
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		33	\$528,000.00				
Cement	300	sacks per well	\$15.00	\$4,500.00	19	\$85,500.00				
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	19	\$190,000.00				
			<b>Misc. Total=</b>			<b>\$2,594,668.00</b>				
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days										
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges										
				<b>Total w/o Cont.:</b>		<b>\$3,729,068.00</b>				
						Cost Per Well	\$	196,267		



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Platform Rig-less Estimate											
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days	
Henry	23	0.1	0.15	0.08	20	1	1	1	13	77	
							Well Complexity Work Days Table				
							Well Complexity	Low	Med-Low	Med-High	High
							Days/Well	3	4	5	8
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals					
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		79	\$142,200.00					
Rental Crane	83	days	\$800.00	\$66,400.00	1	\$66,400.00					
Supply Boat	79	days	\$7,500.00	\$592,500.00	1	\$592,500.00					
Catering, Meals & Lodging	79	days	\$1,200.00	\$94,800.00	1	\$94,800.00					
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00					
			<b>Spread Total=</b>			<b>\$801,100.00</b>					
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals					
<b>Miscellaneous</b>											
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00					
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		81	\$660,960.00					
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		81	\$409,212.00					
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		81	\$202,500.00					
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		3.9	\$62,400.00					
Cement	300	sacks per well	\$15.00	\$4,500.00	23	\$103,500.00					
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	23	\$230,000.00					
			<b>Misc. Total=</b>			<b>\$1,668,572.00</b>					
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days											
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges											
				<b>Total w/o Cont.:</b>		<b>\$2,469,672.00</b>					
						Cost Per Well	\$	107,377			



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Platform Rig-less Estimate											
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days	
Heritage	48	0.1	0.15	0.08	0	0	25	23	309	309	
							Well Complexity Work Days Table				
							Well Complexity	Low	Med-Low	Med-High	High
							Days/Well	3	4	5	8
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals					
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		311	\$559,800.00					
Rental Crane	315	days	\$800.00	\$252,000.00	1	\$252,000.00					
Supply Boat	311	days	\$7,500.00	\$2,332,500.00	1	\$2,332,500.00					
Catering, Meals & Lodging	311	days	\$1,200.00	\$373,200.00	1	\$373,200.00					
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00					
			<b>Spread Total=</b>			<b>\$3,144,300.00</b>					
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals					
<b>Miscellaneous</b>											
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00					
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		313	\$2,554,080.00					
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		313	\$1,581,276.00					
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		313	\$782,500.00					
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		92.7	\$1,483,200.00					
Cement	300	sacks per well	\$15.00	\$4,500.00	48	\$216,000.00					
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	48	\$480,000.00					
			<b>Misc. Total=</b>			<b>\$7,097,056.00</b>					
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days											
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges											
				<b>Total w/o Cont.:</b>		<b>\$10,241,356.00</b>					
						Cost Per Well	\$	213,362			



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Platform Rig-less Estimate										
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days
Hermosa	13	0.15	0.15	0.08	0	0	10	3	74	74
						Well Complexity Work Days Table				
						Well Complexity	Low	Med-Low	Med-High	High
						Days/Well	3	4	5	8
<b>DESCRIPTION</b>										
<b>DURATION</b>										
<b>UNITS</b>										
<b>RATE</b>										
<b>Estimated Cost</b>										
<b>Qty.</b>										
<b>Subtotals</b>										
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		76					\$136,800.00
Rental Crane	80	days	\$800.00	\$64,000.00	1					\$64,000.00
Supply Boat	76	days	\$7,500.00	\$570,000.00	1					\$570,000.00
Catering, Meals & Lodging	76	days	\$1,200.00	\$91,200.00	1					\$91,200.00
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1					\$30,000.00
<b>Spread Total=</b>										
<b>\$770,800.00</b>										
<b>DESCRIPTION</b>										
<b>DURATION</b>										
<b>UNITS</b>										
<b>RATE</b>										
<b>Estimated Cost</b>										
<b>Miscellaneous</b>										
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1					\$27,968.00
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		78					\$636,480.00
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		78					\$394,056.00
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		78					\$195,000.00
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		22.2					\$355,200.00
Cement	300	sacks per well	\$15.00	\$4,500.00	13					\$58,500.00
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	13					\$130,000.00
<b>Misc. Total=</b>										
<b>\$1,769,236.00</b>										
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days										
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges										
<b>Total w/o Cont.:</b>										
<b>\$2,540,036.00</b>										
						Cost Per well	\$	195,387		



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Platform Rig-less Estimate											
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days	
Hidalgo	14	0.15	0.15	0.08	0	0	8	6	88	88	
							Well Complexity Work Days Table				
							Well Complexity	Low	Med-Low	Med-High	High
							Days/Well	3	4	5	8
<b>DESCRIPTION</b>	<b>DURATION</b>	<b>UNITS</b>	<b>RATE</b>	<b>Estimated Cost</b>	<b>Qty.</b>	<b>Subtotals</b>					
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		90	\$162,000.00					
Rental Crane	94	days	\$800.00	\$75,200.00	1	\$75,200.00					
Supply Boat	90	days	\$7,500.00	\$675,000.00	1	\$675,000.00					
Catering, Meals & Lodging	90	days	\$1,200.00	\$108,000.00	1	\$108,000.00					
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00					
						<b>Spread Total=</b>				<b>\$912,200.00</b>	
<b>DESCRIPTION</b>	<b>DURATION</b>	<b>UNITS</b>	<b>RATE</b>	<b>Estimated Cost</b>							
<b>Miscellaneous</b>											
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00					
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00	\$750,720.00	92	\$750,720.00					
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00	\$464,784.00	92	\$464,784.00					
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00	\$230,000.00	92	\$230,000.00					
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00	\$422,400.00	26.4	\$422,400.00					
Cement	300	sacks per well	\$15.00	\$4,500.00	14	\$63,000.00					
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	14	\$140,000.00					
						<b>Misc. Total=</b>				<b>\$2,070,904.00</b>	
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days											
** Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges											
						<b>Total w/o Cont.:</b>				<b>\$2,983,104.00</b>	
							Cost Per well	\$	213,079		





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Platform Rig-less Estimate										
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days
Hogan	39	0.1	0.15	0.08	13	18	4	4	52	163
Well Complexity Work Days Table										
Well Complexity		Low	Med-Low	Med-High	High					
Days/Well		3	4	5	8					
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		165	\$297,000.00				
Rental Crane	169	days	\$800.00	\$135,200.00	1	\$135,200.00				
Supply Boat	165	days	\$7,500.00	\$1,237,500.00	1	\$1,237,500.00				
Catering, Meals & Lodging	165	days	\$1,200.00	\$198,000.00	1	\$198,000.00				
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00				
<b>Spread Total=</b>						<b>\$1,669,700.00</b>				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
<b>Miscellaneous</b>										
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00				
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		167	\$1,362,720.00				
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		167	\$843,684.00				
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		167	\$417,500.00				
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		15.6	\$249,600.00				
Cement	300	sacks per well	\$15.00	\$4,500.00	39	\$175,500.00				
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	39	\$390,000.00				
<b>Misc. Total=</b>						<b>\$3,439,004.00</b>				
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days										
** Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges										
					<b>Total w/o Cont.:</b>	<b>\$5,108,704.00</b>				
						Cost Per Well	\$	130,992		



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Platform Rig-less Estimate										
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days
Hondo	28	0.1	0.15	0.08	0	0	24	4	152	152
Well Complexity Work Days Table										
Well Complexity		Low	Med-Low	Med-High	High					
Days/Well		3	4	5	8					
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		154	\$277,200.00				
Rental Crane	158	days	\$800.00	\$126,400.00	1	\$126,400.00				
Supply Boat	154	days	\$7,500.00	\$1,155,000.00	1	\$1,155,000.00				
Catering, Meals & Lodging	154	days	\$1,200.00	\$184,800.00	1	\$184,800.00				
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00				
<b>Spread Total=</b>						<b>\$1,558,600.00</b>				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost						
Miscellaneous										
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00				
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		156	\$1,272,960.00				
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		156	\$788,112.00				
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		156	\$390,000.00				
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		45.6	\$729,600.00				
Cement	300	sacks per well	\$15.00	\$4,500.00	28	\$126,000.00				
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	28	\$280,000.00				
<b>Misc. Total=</b>						<b>\$3,586,672.00</b>				
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days										
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges										
					<b>Total w/o Cont.:</b>	<b>\$5,145,272.00</b>				
						Cost Per well	\$	183,760		





Decommissioning Cost Update for Removing Pacific OCS  
 Region Offshore Oil and Gas Facilities, January 2010  
 MMS M09PC00024, Proserv Offshore Project 29056-11  
 Final Report – January 2010

Platform Rig-less Estimate										
Platform	Wells to P&A	Weather Cont.	Provisional Cont.	Engineering Cont.	Low # of Wells	Med Low # of Wells	Med High # of Wells	High # of Wells	# Med-High and High Well P&A Days	Well P&A Work Days
Irene	24	0.15	0.15	0.08	0	2	20	2	116	124
					Well Complexity Work Days Table					
					Well Complexity Days/Well	Low 3	Med-Low 4	Med-High 5	High 8	
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost	Qty.	Subtotals				
Well P&A Fuel Costs	3-8	days (See Table)	\$1,800.00		126	\$226,800.00				
Rental Crane	130	days	\$800.00	\$104,000.00	1	\$104,000.00				
Supply Boat	126	days	\$7,500.00	\$945,000.00	1	\$945,000.00				
Catering, Meals & Lodging	126	days	\$1,200.00	\$151,200.00	1	\$151,200.00				
Workboat to Mob/Demob equipment and crew	4	days	\$7,500.00	\$30,000.00	1	\$30,000.00				
			<b>Spread Total=</b>			<b>\$1,275,800.00</b>				
DESCRIPTION	DURATION	UNITS	RATE	Estimated Cost						
Miscellaneous										
Crew and Spread travel/shipping costs from GOM (round trip)	1	Lump Sum	\$27,968.00	\$27,968.00	1	\$27,968.00				
10 Man P&A Crew (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$8,160.00		128	\$1,044,480.00				
10k P&A Equip Spread (Includes Mob/Demob)	3-8	days (See Table)	\$5,052.00		128	\$646,656.00				
Rentals (Includes Setup, Breakdown, Mob/Demob)	3-8	days (See Table)	\$2,500.00		128	\$320,000.00				
Coiled Tubing Unit*	2-3	days (See Table)	\$16,000.00		34.8	\$556,800.00				
Cement	300	sacks per well	\$15.00	\$4,500.00	24	\$108,000.00				
Misc. Consumables**	1	per well	\$10,000.00	\$10,000.00	24	\$240,000.00				
			<b>Misc. Total=</b>			<b>\$2,915,936.00</b>				
* Coil Tubing Unit only used on Med-High & High complexity wells @ 30% of P&A work days										
**Consumables include Cast Iron Bridge Plugs, Perforating Charges, and Tubular Cutting Charges										
				<b>Total w/o Cont.:</b>		<b>\$4,191,736.00</b>				
						Average Cost Per well	\$	174,656		





Decommissioning Cost Update for Removing Pacific OCS  
 Region Offshore Oil and Gas Facilities, January 2010  
 MMS M09PC00024, Proserv Offshore Project 29056-11  
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Mob + DeMob Time (Hr)	Sever Time (Hr)	Removal Time (Hr)	Setup + Rigdown Time (Hr)	Support Vessel Cost/hr	Support Vessel Quantity	Total Support Vessel Costs/hr	Abrasive Cutter Spread /hr	Crew&Eq uipment/ Hr	Platform Support Crew & Equip/hr	Casing Jack Rental /hr	Rental Crane/hr	Mob + DeMob Costs	Setup + Rigdown Costs	Severing Costs	Removal Costs	
42.25	248.23008	1474	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$107,758	\$18,092	\$698,103	\$3,333,456	
42.25	257.25663	1539	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$107,758	\$18,092	\$723,489	\$3,480,454	
42.25	194.07079	1169.6	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$107,758	\$18,092	\$545,790	\$2,645,054	
26.5	103.8053	554.3	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$86,785	\$18,092	\$291,934	\$1,253,551	
26.5	288.84954	2208	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$86,785	\$18,092	\$812,338	\$4,993,399	
0	0	0	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$0	\$18,092	\$0	\$0	
26.5	270.79645	4680	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$86,785	\$18,092	\$761,567	\$10,583,836	
35.25	108.31858	1965.6	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$95,018	\$18,092	\$304,627	\$4,445,211	
36	288.84954	1824	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$107,870	\$18,092	\$812,338	\$4,124,982	
36	54.159289	210	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$93,886	\$18,092	\$152,313	\$474,916	
36	162.47787	1432.8	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$96,683	\$18,092	\$456,940	\$3,240,282	
41.5	90.265482	740	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$120,077	\$18,092	\$253,856	\$1,673,512	
45.75	234.69025	6645.6	12	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$129,510	\$27,138	\$660,025	\$15,029,047	
59	112.83185	1887.5	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$147,731	\$18,092	\$317,320	\$4,268,588	
42.25	108.31858	607.2	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$107,758	\$18,092	\$304,627	\$1,373,185	
46	221.15043	5659.5	12	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$130,065	\$27,138	\$621,946	\$12,798,978	
59	72.212386	1092.8	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$147,731	\$18,092	\$203,085	\$2,471,371	
59	63.185838	714	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$147,731	\$18,092	\$177,699	\$1,614,713	
42.25	234.69025	1414.4	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$107,758	\$18,092	\$660,025	\$3,198,670	
41.75	176.01769	912.6	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$134,616	\$18,092	\$495,019	\$2,063,848	
45.5	126.37168	2581.6	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$128,955	\$18,092	\$355,398	\$5,838,297	
41.75	162.47787	874.8	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$134,616	\$18,092	\$456,940	\$1,978,363	
61.25	108.31858	772.8	8	500	2	\$1,000	\$625	\$407	\$42	\$154	\$33	\$163,913	\$18,092	\$304,627	\$1,747,690	



Removal Cost w/ Casing Jacks (USD)	Removal cost/ft w/ Jacks (USD)
\$4,157,409	\$282
\$4,329,792	\$281
\$3,316,694	\$284
\$1,650,362	\$298
\$5,910,614	\$268
\$0	\$0
\$11,450,280	\$245
\$4,862,948	\$247
\$5,063,282	\$278
\$739,207	\$352
\$3,811,997	\$266
\$2,065,538	\$279
\$15,845,720	\$238
\$4,751,731	\$252
\$1,803,662	\$297
\$13,578,128	\$240
\$2,840,279	\$260
\$1,958,236	\$274
\$3,984,545	\$282
\$2,711,575	\$297
\$6,340,742	\$246
\$2,588,012	\$296
\$2,234,321	\$289
Total	\$105,995,074
Average per Conductor	\$130,055
Average per foot	\$259



**Appendix 4: Power Cable Removal Cost Calculations**

Cable Origin	Cable Terminus	Length (ft)	Depth (ft)	Mobilization	Cargo Barge Mobilization	Remove cable from J-Tube	Reel Cable	Demobilization	Weather	Cargo Barge Demob	Total Excluding Engineering Contingencies
A	B	2640	188-190	\$5,364	\$6,050	\$60,390	\$56,236	\$5,364	10%	\$6,050	\$168,611
B	C	2640	190-192	\$5,364	\$6,050	\$60,390	\$56,236	\$5,364	10%	\$6,050	\$168,611
C	Shore	26400	160-0	\$5,364	\$12,100	\$120,780	\$562,362	\$5,364	10%	\$12,100	\$888,856
Edith	Shore	36960	160-0	\$16,093	\$12,100	\$120,780	\$787,307	\$16,093	5%	\$12,100	\$1,146,090
Ellen^		0									\$0
Elly		0									\$0
Eureka	Ellen (2)	15297	700-265	\$16,093	\$12,100	\$80,520	\$162,925	\$16,093	5%	\$12,100	\$348,520
Gail		0									\$0
Gilda	Shore	36960	205-0	\$10,729	\$12,100	\$120,780	\$787,307	\$10,729	10%	\$12,100	\$1,180,766
Gina	Shore	1584	90-0	\$5,364	\$12,100	\$120,780	\$33,742	\$5,364	10%	\$12,100	\$228,081
Grace		0									\$0
Habitat	P/F A	19536	290-188	\$10,729	\$12,100	\$120,780	\$416,148	\$10,729	10%	\$12,100	\$716,817
Harmony	Shore (2)	59664	1198-0	\$10,729	\$12,100	\$144,936	\$635,469	\$10,729	10%	\$12,100	\$1,021,164
Harvest		0									\$0
Henry	Hillhouse	13200	173-190	\$5,364	\$12,100	\$120,780	\$281,181	\$5,364	10%	\$12,100	\$537,380
Heritage	Harmony	39072	1075-1198	\$5,364	\$12,100	\$144,936	\$2,226,953	\$5,364	10%	\$12,100	\$2,999,790
Heritage	Shore	104544	1075-0	\$5,364	\$12,100	\$144,936	\$832,296	\$5,364	10%	\$12,100	\$1,256,468
Hermosa		0									\$0
Hildalgo		0									\$0
Hillhouse	Shore	17952	175-0	\$5,364	\$12,100	\$120,780	\$382,406	\$5,364	10%	\$12,100	\$663,911
Hogan	Shore	4752	154-0	\$22,143	\$12,100	\$120,780	\$101,225	\$22,143	10%	\$12,100	\$345,992
Hondo	Harmony (2)	47520	842-1198	\$10,729	\$12,100	\$144,936	\$506,126	\$10,729	10%	\$12,100	\$859,484
Houchin	Hogan	3800	163-154	\$22,143	\$12,100	\$120,780	\$80,946	\$22,143	10%	\$12,100	\$320,644
Irene	Shore	14784	242-0	\$10,729	\$12,100	\$120,780	\$314,923	\$10,729	15%	\$12,100	\$612,071
Total											\$13,463,257

Resource	Cost/Hr
Workboat	\$583
ROV	\$650
PL Survey	\$230
Cargo Barge 180 & Tug	\$550
<b>Spread Rate</b>	<b>\$2,013</b>

### Appendix 5: Schnitzer Disposal Proposal

The following disposal estimate was developed by Schnitzer Steel Products Company in 1996 and revalidated in 2004:

100 Site Preparation

A. Scope

Engineer and provide labor, material and equipment to prepare a site suitable for the receipt, transport, handling, storage, demolition and scrap processing.

Prepare a graded, graveled and drained site of about 30 acres. Provide additional compacted gravel areas for crane and crawler transporter haul roads. Install drainage basins and piping. Install protection for under ground utilities. Install protection for railroad crossings. Provide security fencing and temporary lighting.

Construct a barge reception facility suitable for barges to 150 feet in beam and 450 feet in length and 20 feet loaded draft. Install structures adequate for the anticipated ground loading of up to 10,000 psf. Installation will include a sheet pile dock structure with tie backs. To accommodate a range of river stages, provide for adding courses to the dock.

Install barge mooring fittings. Install barge utility connections for water and electricity. Perform maintenance dredging in way of the barge approach.

B. Key Assumptions

1. Twelve months is adequate to perform the project.
2. Use of a 30 acre site is adequate for the project.
3. There is no allowance for unknowns in the geo-technical qualities of the site.
4. Use of a single live loading facility is adequate for the project.

C. Estimate Accuracy

To improve estimate accuracy, the following steps are recommended:

1. Perform a detailed project review to determine optimum project schedule.
2. Analyze the site logistics, material and scrap operational work flow to determine optimum site.
3. Perform a rough geo-technical study of the site.
4. Prepare preliminary engineering for the live loading facility.

## 200 Lampson Material Handling

### A. Scope

Engineer and provide labor, material and equipment to move offshore platform topsides and jackets. These movements include removal from the delivery barges, movements to and from site storage, movement to demolition and scrap preparation operations.

Engineering effort include design of the connecting structures between crawler transporters, cranes and the platform sections.

Engineering effort includes assistance with site layout, live loading facilities, haul roads and collaboration with Chevron and Twatchman, Snyder & Thornton engineering effort. The collaboration will strive for a seamless project engineering result.

Mobilize, demobilize and operate the following equipment:

- Two—Transilift 1100 Cranes
- Two—Manitowoc 230 Ton 4100 Cranes
- One—35 Ton Rough Terrain Crane
- One—Mobile Rigging Loft
- Three—2,000 Ton Crawler Transporters
- One—70 Ton Rough Terrain Crane
- One—30 Ton Forklift
- One—Set Heavy Rigging Equipment

### B. Key Assumptions

1. Fabrication of the connecting structures between cranes, crawlers and platform pieces is not included.
2. Pricing is subject to further definition of the project requirements.
3. One Transilift crane will operate for 9 months the other will operate for 12 months.

4. Translift 1100 cranes will directly offload smaller sections from the delivery barge.

C. Estimate Accuracy

To improve estimate accuracy, the following steps are recommended:

1. Provide data and perform engineering analysis to define transport interface structures.
2. Analyze the site logistics, material and scrap operational work flow to determine optimum site.

300 Platform Offloading

A. Scope

Provide labor and equipment to receive, offload and let go barges delivering the platform sections to the scrap facility.

Provide labor to tie up, standby and let go the barges during the offloading cycle. Provide standby tugs during the heavy lift transfer operations. Provide idle berths, electric and water support utilities for towing tugs and their barges.

Provide labor to assist with the installation of the connecting framing and rigging for the crane and crawler transport operation. Remove and re-use this framing to extent possible.

Install, position and adjust temporary support structures in the onshore storage locations.

Perform a material investigation of each section for hazardous materials, non-ferrous metals, re-usable machinery and equipment, and safety hazards.

B. Key Assumptions

1. There is a total of 47 platform sections with a total weight of 37,000 short tons.
2. There is a total of 16 barges arriving over a nine month period. Best effort will be made for a barge turnaround of about 72 hours.
3. Labor and equipment for ballast additions and adjustments for offloading will be provided by the barge operator.
4. Fabrication of the connecting structure between cranes, crawlers and platform sections is not included.

C. Estimate Accuracy

To improve estimate accuracy, the following steps are recommended:

1. Perform a detailed project review to determine optimum project schedule.
2. Provide data and perform engineering analysis to define transport interface structures.

400 Platform Scrapping

A. Scope

Provide labor, material and equipment for the demolition and scrap processing of 37,000 tons of offshore platform topside structures.

Remove and properly dispose of asbestos, PCB's and other hazardous materials. Perform the personnel safety procedures required by federal, state and local regulations.

Remove major non-ferrous materials for recycling.

Remove major machinery and equipment items that are found appropriate for resale, and reconditioning for resale.

Process the platform steel to a suitable grade for steel mill recycling.

B. Key Assumptions

1. Demolition of the large platform structures to 40 or 50 ton pieces is not well defined. Processing the 40 to 50 ton pieces is well defined.
2. Total platform topsides weigh 37,000 short tons according to Twatchman, Snyder & Thornton drawing take off and estimates. More or less weight will impact the estimate.
3. This estimate provides for minimal measures for dealing with lead or other heavy metals.

C. Estimate Accuracy

To improve estimate accuracy, the following steps are recommended:

1. Perform an analysis of the platform demolition process.
2. Perform an analysis of platform weights.
3. Perform an analysis of hazardous materials including asbestos, PCB's, and heavy metals.

500 Jacket & Piling Offloading

A. Scope

Provide labor and equipment to receive, offload and let go barges delivering the jacket and piling sections to the scrap facility.

Provide labor to tie up, standby and let go the barges during the offloading cycle. Provide standby tugs during the heavy lift transfer operations. Provide idle berths, electric and water support utilities for towing tugs and their barges.

Provide labor to assist with the installation of the connecting framing and rigging for the crane and crawler transport operation. Remove and re-use this framing to extent possible.

Install, position and adjust temporary support structures in the onshore storage locations.

Perform a material investigation of each section for hazardous materials, non-ferrous metals, re-usable machinery and equipment, and safety hazards.

B. Key Assumptions

1. There is a total of 28 jacket sections with a total weight of 81,300 short tons.
2. There is a total of 28 barges arriving over a nine month period. Best effort will be made for a barge turnaround of about 72 hours.
3. Labor and equipment for ballast additions and adjustments for offloading will be provided by the barge operator.
4. Fabrication of the connecting structure between cranes, crawlers and jacket and piling sections is not included.

C. Estimate Accuracy

To improve estimate accuracy, the following steps are recommended:

1. Perform a detailed project review to determine optimum project schedule.
  
2. Provide data and perform engineering analysis to define transport interface structures for the 28 jacket and piling sections

600 Jacket Demolition

A. Scope

Engineer and provide labor, material and equipment for the demolition of 81,300 tons of offshore platform jacket structures.

Remove and dispose of marine growth from the topmost sections of each of five jackets. Provide other health and safety precautions as required by federal, state and local regulations.

Design the rigging and cutting scheme to reduce the jacket section on “on ground” parts as rapidly as possible. Reduce the major sections to 40 and 50 ton sections for delivery to scrap processing operations.

Remove and dispose of the grout installed between the piling and jacket components.

Process the platform steel to a suitable grade for steel mill recycling.

B. Key Assumptions

1. Demolition of the large platform structures to 40 or 50 ton pieces is not well defined. Processing the 40 to 50 ton pieces is well defined.
2. There is a total of 28 jacket sections with a total weight of 81,300 short tons according to Twatchman, Snyder & Thornton drawing take off and estimates. More or less weight will impact the estimate.
3. Lampson crawler and crane equipment will be used to reposition the jacket sections and “unroll” them in the most convenient method.
4. Grout between pilings and jacket sections in low density concrete without aggregate.



C. Estimate Accuracy

To improve estimate accuracy, the following steps are recommended:

1. Perform an analysis of the platform demolition process.
2. Perform an analysis of platform weights.
3. Perform an analysis of hazardous materials including heavy metals.

700 Jacket Scrap Processing

A. Scope

Provide labor, material and equipment for scrap processing of 81,300 tons of offshore platform jacket structures.

Process the platform steel to a suitable grade for steel mill recycling.

B. Key Assumptions

1. Scrap processing the 40 to 50 ton pieces is well defined.
2. There is a total of 28 jacket sections with a total weight of 81,300 short tons according to Twatchman, Snyder & Thornton drawing take off and estimates. More or less weight will impact the estimate.

C. Estimate Accuracy

To improve estimate accuracy, the following steps are recommended:

1. Perform an analysis of platform weights.
2. Perform an analysis of hazardous materials including heavy metals.

800 Scrap Credit

A. Scope

Provide a credit for the steel scrap obtained from the scrap processing operations.

Provide a credit for the non-ferrous scrap obtained from the scrap processing operations.

Provide a credit for the resale machinery and equipment items that are removed from the topside platform sections.

B. Key Assumptions

1. The scrap credit is subject to further discussions and understanding of Chevron's expectations.
2. Schnitzer Steel Products Company has a sister company specializing in the reconditioning and resale market that can provide an assessment of the platform's potential.
3. Credit for scrap will be determined by the then-prevailing scrap price posted in "American Metal Market" (a daily publication of the scrap industry) for the Portland-Seattle market area.
4. Today's prevailing price for mill delivered short ton (2,000 pounds) is \$77 to \$79.
5. The credit is estimated to include 121,300 short tons of steel, 60 short tons of non-ferrous, 80 major items of reusable machinery and equipment.

C. Estimate Accuracy

To improve estimate accuracy, the following steps are recommended:



1. Perform an analysis of platform weights.
2. Perform an analysis of hazardous materials including heavy metals.
3. Provide an analysis of the resale market for platform machinery and equipment.



<b>Schnitzer Steel Products Co.            Offshore Platform Scrapping Program            Rough Order of Magnitude Estimate</b>						
Item	Description	Unit	Quantity	Unit Cost	Total	Price/Ton
	<b>Program Summary</b>					
<b>100</b>	<b>Site Preparation</b>				<b>\$3,581,850</b>	<b>\$30</b>
<b>200</b>	<b>Lampson Material Handling</b>				<b>\$8,504,496</b>	<b>\$72</b>
<b>300</b>	<b>Platform Offloading</b>				<b>\$1,600,750</b>	<b>\$14</b>
<b>400</b>	<b>Platform Scrapping</b>				<b>\$7,179,000</b>	<b>\$61</b>
<b>500</b>	<b>Jacket &amp; Piling Offloading</b>				<b>\$3,010,000</b>	<b>\$25</b>
<b>600</b>	<b>Jacket &amp; Piling Demolition</b>				<b>\$10,383,600</b>	<b>\$88</b>
<b>700</b>	<b>Jacket &amp; Piling Scrap Processing</b>				<b>\$5,203,200</b>	<b>\$44</b>
	<b>Subtotal</b>				<b>\$39,462,896</b>	<b>\$334</b>
	<b>Contingency</b>			<b>15%</b>	<b>\$5,919,434</b>	<b>\$50</b>
	<b>Program Total</b>				<b>\$45,382,330</b>	<b>\$384</b>
<b>800</b>	<b>Scrap Credit</b>				<b>Negotiable</b>	

<b>Schnitzer Steel Products Co.            Offshore Platform Scrapping Program            Platform &amp; Jacket Steel Weights</b>				
Item	Description	Short Tons	Total	Total
	<b>Topside Platform Structure</b>			
1	GAIL	6,817		
2	GRACE	3,460		
3	HERMOSA	6,632		
4	HIDALGO	6,775		
5	HARVEST	8,500		
	Subtotal		<b>32,184</b>	
	<b>Jacket</b>			
6	GAIL	14,390		
7	GRACE	3,262		
8	HERMOSA	14,702		
9	HIDALGO	8,896		
10	HARVEST	14,350		
	Subtotal		<b>55,600</b>	
	<b>Piling</b>			
11	GAIL	3,099		
12	GRACE	1,746		
13	HERMOSA	3,953		
14	HIDALGO	2,689		
15	HARVEST	3,631		
	Subtotal		<b>15,118</b>	
	<b>Other Components</b>			
16	Conductors	3,500		
17	Anodes, Non-Ferrous	3,000		
	Subtotal		<b>6,500</b>	
	<b>Total</b>			<b>102,902</b>
18	Additions & Not Detailed		<b>15%</b>	<b>15,435</b>
	<b>Total</b>			<b>118,337</b>

Schnitzer Steel Products Offshore Platform Scrapping Program Lay Down Foot Print						
Item	Description	Length	Width	Item Area	50 Foot Access	Total
<b>GAIL Topsides</b>						
1	Flare Boom	140	12	1,680	10,100	
2	Sulferox	50	50	2,500	7,500	
3	Compressor-Scrubber	130	64	8,320	12,200	
4	Driller	130	50	6,500	11,500	
5	Quarters-Helo	70	70	4,900	9,500	
6	Generator-Switchgear	130	64	8,320	12,200	
7	West Deck	141	108	15,228	14,950	
8	East Deck	137	104	14,248	14,550	
	<b>Subtotal</b>			<b>61,696</b>	<b>92,500</b>	<b>154,196</b>
<b>GRACE Topsides</b>						
1	Flare Boom	120	21	2,520	9,550	
2	Cantilever	70	15	1,050	6,750	
3	Compressor	124	50	6,200	11,200	
4	BOP	120	40	4,800	10,500	
5	Process	142	50	7,100	12,100	
6	Wellhead	138	40	5,520	11,400	
7	Quarters-Helo	70	70	4,900	9,500	
8	MUD	90	65	5,850	10,250	
9	Personnell-MCC	61	66	4,026	8,850	
10	Generator	70	80	5,600	10,000	
11	West Cap Truss	119	62	7,378	11,550	
12	East Cap Truss	119	82	9,758	12,550	
	<b>Subtotal</b>			<b>64,702</b>	<b>124,200</b>	<b>188,902</b>
<b>HERMOSA Topsides</b>						
1	Flare Boom	117	12	1,404	8950	
2	Quarters-Helo	67	61	4,087	8900	
3	Power	156	50	7,800	12800	
4	Pipe Rack	100	73	7,300	11150	
5	Utility	156	50	7,800	12800	
6	Compression	156	40	6,240	12300	
7	Production	156	40	6,240	12300	
8	Well Head	156	49	7,644	12750	
9	Cap Truss	210	100	21,000	18000	
	<b>Subtotal</b>			<b>69,515</b>	<b>61,696</b>	<b>131,211</b>

<b>Schnitzer Steel Products            Offshore Platform Scrapping Program            Lay Down Foot Print</b>						
Item	Description	Length	Width	Item Area	50 Foot Access	Total
<b>HIDALGO Topsides</b>						
1	Flare Boom	115	12	1,380	8,850	
2	Quarters-Helo	67	63	4,221	9,000	
3	Power	156	49	7,644	12,750	
4	Pipe Rack	101	69	6,969	11,000	
5	Utility	156	49	7,644	12,750	
6	Compression	156	37	5,772	12,150	
7	Production	156	37	5,772	12,150	
8	Well Head	156	49	7,644	12,750	
9	Cap Truss	210	100	21,000	18,000	
	<b>Subtotal</b>			<b>68,046</b>	<b>109,400</b>	<b>177,446</b>
<b>HARVEST Topsides</b>						
1	Flare Boom	115	12	1,380	8850	
2	Quarters-Helo	67	63	4,221	9000	
3	Power	156	49	7,644	12750	
4	Pipe Rack	101	69	6,969	11000	
5	Utility	156	49	7,644	12750	
6	Compression	156	37	5,772	12150	
7	Production	156	37	5,772	12150	
8	Well Head	156	49	7,644	12750	
9	Cap Truss	210	100	21,000	18000	
	<b>Subtotal</b>			<b>68,046</b>	<b>109,400</b>	<b>177,446</b>
<b>GAIL Jacket</b>						
1	A-Top	90	190	17,100	16,500	
2	B	112	212	23,744	18,700	
3	C	137	237	32,469	21,200	
4	D	164	264	43,296	23,900	
5	E	180	280	50,400	25,500	
6	F-Bottom	197	297	58,509	27,200	
	<b>Subtotal</b>			<b>225,518</b>	<b>133,000</b>	<b>358,518</b>
<b>GRACE Jacket</b>						
1	A-Top	113	168	18,984	16,550	
2	B	141	196	27,636	19,350	
3	C-Bottom	158	213	33,654	21,050	
	<b>Subtotal</b>			<b>80,274</b>	<b>56,950</b>	<b>137,224</b>

<b>Schnitzer Steel Products            Offshore Platform Scrapping Program            Lay Down Foot Print</b>						
Item	Description	Length	Width	Item Area	50 Foot Access	Total
<b>HERMOSA Jacket</b>						
1	A-Top	118	198	23,364	18,300	
2	B	137	218	29,866	20,250	
3	C	149	229	34,121	21,400	
4	D	161	241	38,801	22,600	
5	E	173	253	43,769	23,800	
6	F	187	267	49,929	25,200	
7	G-Bottom	200	279	55,800	26,450	
	<b>Subtotal</b>			<b>275,650</b>	<b>158,000</b>	<b>433,650</b>
<b>HIDALGO Jacket</b>						
1	A-Top	123	203	24,969	18,800	
2	B	149	229	34,121	21,400	
3	C-Bottom	176	257	45,232	24,150	
	<b>Subtotal</b>			<b>104,322</b>	<b>64,350</b>	<b>168,672</b>
<b>HARVEST Jacket</b>						
1	A-Top	201	62	12,462	15,650	
2	B	212	75	15,900	16,850	
3	C	225	90	20,250	18,250	
4	D	237	105	24,885	19,600	
5	E	251	121	30,371	21,100	
6	F	257	139	35,723	22,300	
7	G	281	158	44,398	24,450	
8	H	298	178	53,044	26,300	
9	I-Bottom	315	200	63,000	28,250	
	<b>Subtotal</b>			<b>300,033</b>	<b>192,750</b>	<b>492,783</b>
<b>Total Square Feet</b>				<b>1,092,284</b>	<b>969,246</b>	<b>2,061,530</b>
<b>Total Acres</b>				<b>25</b>	<b>22</b>	<b>47</b>
<p><b>Note:</b> "Fifty (50) foot access" is a clear "L" shaped crane access and traffic way allowance on the one (1) length and one (1) width of each item. This must be balanced in requirements for small topside sections and large jacket sections.</p>						

<b>Schnitzer Steel Products Co. Offshore Platform Scrapping Program 100 x 400 Barge Loads</b>				
Item	Description	Barges	Total	Total
	<b>Topside Platform Structure</b>			
1	<b>GAIL</b>	3		
2	<b>GRACE</b>	4		
3	<b>HERMOSA</b>	3		
4	<b>HIDALGO</b>	3		
5	<b>HARVEST</b>	3		
	<b>Subtotal</b>		<b>16</b>	
	<b>Jacket</b>			
6	<b>GAIL</b>	7		
7	<b>GRACE</b>	3		
8	<b>HERMOSA</b>	7		
9	<b>HIDALGO</b>	7		
10	<b>HARVEST</b>	7		
	<b>Subtotal</b>		<b>31</b>	
	<b>Piling</b>			
11	<b>GAIL</b>	Included		
12	<b>GRACE</b>	Included		
13	<b>HERMOSA</b>	Included		
14	<b>HIDALGO</b>	Included		
15	<b>HARVEST</b>	Included		
	<b>Subtotal</b>		<b>0</b>	
	<b>Total</b>			<b>47</b>
<b>Important Note:</b> All the barges will be 100 x 400 Alaska Sealift-Type, except one. This exception will be 150 x 450.				

<b>Schnitzer Steel Products Co. Offshore Platform Scrapping Program Rough Order of Magnitude Estimate</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
<b>100</b>	<b>Site Preparation</b>				
	Assumes: 30 acre site, fenced, graded, graveled, portable work lights, fire protection, drainage, underground utility protection, Willamette greenway measures.				
<b>110</b>	<b>Engineering</b>				
	Design site layout	hours	320	\$95	\$30,400
	Design live loading facility	hours	640	\$95	\$60,800
	Layout for cranes & crawlers	hours	240	\$95	\$22,800
	Geo-technical investigation	hours	240	\$95	\$22,800
	Other studies & permits	hours	240	\$95	\$22,800
	<b>Subtotal</b>				<b>\$159,600</b>
<b>120</b>	<b>Site Construction</b>				
	Assumes: No geo-technical difficulties				
	Site preparations	acres	30	\$1,000	\$30,000
	Grade, 6" lift, <3/4" gravel, 30 acres	cu. yd.	24,250	\$30	\$727,500
	Grade, 6" lift, <3/4" gravel, 15 acres	cu. yd.	12,125	\$30	\$363,750
	Drainage piping & tiles	lot	1	\$100,000	\$100,000
	Protect underground utilities	lot	1	\$50,000	\$50,000
	Protect rail crossings	lot	1	\$50,000	\$50,000
	Other measures	lot	1	\$50,000	\$50,000
	<b>Subtotal</b>				<b>\$1,371,250</b>
<b>120</b>	<b>Site Utilization</b>				
	Assumes: Site utilization of 18 months including construction.				
	Rental equivalent rate	acre-mo.	540	\$750	\$405,000
	Utilities	acre-mo.	360	\$100	\$36,000
	<b>Subtotal</b>				<b>\$441,000</b>

<b>Schnitzer Steel Products Co. Offshore Platform Scrapping Program Rough Order of Magnitude Estimate</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
<b>130</b>	<b>Offloading Facility Construction</b>				
	Assumes: One live loading position for barges to 150 foot beam, 450 foot length, 20 foot draft, adjustable for river stages by addition of tied back portable concrete barriers in 2 foot increments.				
	Excavation & back fill	cu. yd.	10,000	\$20	\$200,000
	Sheet pile bulkhead, 60 feet deep	lin. ft.	300	\$3,500	\$1,050,000
	Tie backs & anchoring arrangement	lot	1	\$200,000	\$200,000
	Adjustable concrete structures	lot	1	\$60,000	\$60,000
	Barge mooring arrangements	lot	1	\$25,000	\$25,000
	Barge electric & water utility station	lot	1	\$25,000	\$25,000
	Barge slip maintenance dredging	lot	1	\$50,000	\$50,000
	<b>Subtotal</b>				<b>\$1,610,000</b>
<b>100</b>	<b>Total Site Preparation</b>				<b>\$3,581,850</b>

<b>Schnitzer Steel Products Co. Offshore Platform Scrapping Program Rough Order of Magnitude Estimate</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
<b>200</b>	<b>Lampson Material Handling</b>				
<b>210</b>	<b>Engineering</b>				
	Layout cranes & crawlers	hours	400	\$100	\$40,000
	Design crawler-component interface	hours	400	\$100	\$40,000
	Rigging design	hours	400	\$100	\$40,000
	Logistic coordination	hours	200	\$100	\$20,000
	Obtain permits	hours	100	\$100	\$10,000
	<b>Subtotal</b>				<b>\$150,000</b>
<b>220</b>	<b>Equipment Mobilization</b>				
	Transilift 1100	each	1	\$60,000	\$60,000
	Transilift 1100	each	1	\$50,000	\$50,000
	Crawler transporter 2,000 tons	each	3	\$15,000	\$45,000
	Manitowoc 4100 crane, 230 tons	each	1	\$10,000	\$10,000
	Rigging loft & gear	each	1	\$2,000	\$2,000
	Stop logs for portable supports	lot-70	1	\$20,000	\$20,000
	70 ton rough terrain crane	each	1	\$3,500	\$3,500
	35 ton rough terrain crane	each	1	\$3,500	\$3,500
	25 ton fork lift	each	1	\$3,500	\$3,500
	<b>Subtotal</b>				<b>\$197,500</b>
<b>230</b>	<b>Equipment Demobilization</b>				
	Transilift 1100	each	1	\$60,000	\$60,000
	Transilift 1100	each	1	\$50,000	\$50,000
	Crawler transporter 2,000 tons	each	3	\$15,000	\$45,000
	Manitowoc 4100 crane, 230 tons	each	1	\$10,000	\$10,000
	Rigging loft & gear	each	1	\$2,000	\$2,000
	Stop logs for portable supports	lot-70	1	\$20,000	\$20,000
	70 ton rough terrain crane	each	1	\$3,500	\$3,500
	35 ton rough terrain crane	each	1	\$3,500	\$3,500
	25 ton fork lift	each	1	\$3,500	\$3,500
	<b>Subtotal</b>				<b>\$197,500</b>

<b>Schnitzer Steel Products Co. Offshore Platform Scrapping Program Rough Order of Magnitude Estimate</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
<b>240</b>	<b>Equipment Use</b>				
	Transilift 1100	month	9	\$150,000	\$1,350,000
	Transilift 1100	month	12	\$135,000	\$1,620,000
	Crawler transporter 2,000 tons	month	36	\$50,000	\$1,800,000
	Manitowoc 4100 crane, 230 tons	month	24	\$15,000	\$360,000
	Rigging loft & gear	month	12	\$6,000	\$72,000
	Stop logs for portable supports	month	12	\$5,000	\$60,000
	70 ton rough terrain crane	month	12	\$6,500	\$78,000
	35 ton rough terrain crane	month	12	\$5,500	\$66,000
	25 ton fork lift	month	12	\$4,500	\$54,000
	<b>Subtotal</b>				<b>\$5,460,000</b>
<b>250</b>	<b>Operating Labor</b>				
	Superintendent	hours	4,242	\$60	\$254,520
	Transilift crew	hours	12,672	\$56	\$709,632
	Crawler transporter operators	hours	6,336	\$56	\$354,816
	Crane & fork lift operators	hours	6,336	\$50	\$316,800
	Crane oiler	hours	4,224	\$45	\$190,080
	Rigging crew	hours	6,336	\$50	\$316,800
	<b>Subtotal</b>				<b>\$2,142,648</b>
<b>260</b>	<b>Operator Lodging &amp; Subsistence</b>				
	Lodging	crew-mo.	12		\$162,624
	Subsistence	crew-mo.	12		\$162,624
	Mobilization & mileage	crew-mo.	12		\$31,600
	<b>Subtotal</b>				<b>\$356,848</b>
<b>200</b>	<b>Total Lampson Material Handling</b>				<b>\$8,504,496</b>

<b>Schnitzer Steel Products Co.</b>					
<b>Offshore Platform Scrapping Program</b>					
<b>Rough Order of Magnitude Estimate</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
<b>300</b>	<b>Platform Offloading</b>				
<b>310</b>	<b>Barge Receipt</b>				
	Assumes: 16 barges with 72 hour turnaround, over a 9 month period, labor & equipment for barge ballasting provided by barge operator.				
	Tie up & let go barge	event	32	\$2,000	\$64,000
	Offloading standby labor	event	32	\$2,000	\$64,000
	Offloading standby tugs	event	16	\$10,000	\$160,000
	Utility and other assistance	event	16	\$2,000	\$32,000
	<b>Subtotal</b>				<b>\$320,000</b>
<b>320</b>	<b>Crawler &amp; Crane Connecting Frames</b>				
	Assumes: 5 platforms, 47 topside sections, 32,184 short tons + 15% margin = 37,000 short tons. Estimate does not include fabrication of connecting frames.				
	Assemble connecting frames	each	94	\$2,500	\$235,000
	Install connecting frames	each	94	\$5,000	\$470,000
	Remove connecting frames for re-use	each	94	\$2,500	\$235,000
	<b>Subtotal</b>				<b>\$940,000</b>
<b>330</b>	<b>Topsides Rigging Assistance</b>				
	Assist Lampson with rigging	section	47	\$3,500	\$164,500
	Position stop log supports	section	47	\$500	\$23,500
	Other Lampson support	section	47	\$500	\$23,500
	<b>Subtotal</b>				<b>\$211,500</b>



<b>Schnitzer Steel Products Co.            Offshore Platform Scrapping Program            Rough Order of Magnitude Estimate</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
<b>340</b>	<b>Topsides Material Investigation</b>				
	HazMat survey	section	47	\$750	\$35,250
	Non-ferrous material survey	section	47	\$750	\$35,250
	Re-usable equipment survey	section	47	\$750	\$35,250
	Signage & safety measures	section	47	\$500	\$23,500
	<b>Subtotal</b>				<b>\$129,250</b>
<b>300</b>	<b>Total Platform Offloading</b>				<b>\$1,600,750</b>

<b>Schnitzer Steel Products Co. Offshore Platform Scrapping Program Rough Order of Magnitude Estimate</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
<b>400</b>	<b>Platform Scrapping</b>				
<b>410</b>	<b>HazMat Removal</b>				
	Remove asbestos	tons	20	\$5,000	\$100,000
	Dispose of asbestos	tons	20	\$5,000	\$100,000
	Remove PCB's	tons	10	\$5,000	\$50,000
	Dispose of PCB's	tons	10	\$10,000	\$100,000
	Other HazMat removal & disposal	tons	10	\$5,000	\$50,000
	<b>Subtotal</b>				<b>\$400,000</b>
<b>420</b>	<b>Remove Major Non-Ferrous</b>				
	Remove copper	tons	20	\$750	\$15,000
	Remove stainless steel	tons	20	\$750	\$15,000
	Other non-ferrous materials	tons	20	\$750	\$15,000
	<b>Subtotal</b>				<b>\$45,000</b>
<b>430</b>	<b>Remove Major Resale Machinery</b>				
	Remove, support, store & handle	each	80	\$3,000	\$240,000
<b>440</b>	<b>Topside Demolition</b>				
	Assumes: Reducing topside sections into 40 and 50 short ton units for scrap processing.				
	Demolition of topsides	short tons	37,000	\$118	<b>\$4,366,000</b>
<b>450</b>	<b>Topside Scrap Processing</b>				
	Assumes: 37,000 short tons reduced to charging size.				
	Scrap processing of topsides	short tons	37,000	\$64	<b>\$2,368,000</b>
<b>400</b>	<b>Total Platform Scrapping</b>				<b>\$7,419,000</b>

<b>Schnitzer Steel Products Co. Offshore Platform Scrapping Program Rough Order of Magnitude Estimate</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
<b>500</b>	<b>Jacket &amp; Piling Offloading</b>				
<b>510</b>	<b>Barge Receipt</b>				
	Assumes: 28 barges and 72 hour turnaround each. Labor and pumping equipment for ballast handling provided by barge operator.				
	Barge tie up and let go	event	56	\$2,000	\$112,000
	Offloading standby labor	event	56	\$2,000	\$112,000
	Offloading standby tugs	event	28	\$10,000	\$280,000
	Utility and other assistance	event	28	\$2,000	\$56,000
	<b>Subtotal</b>				<b>\$560,000</b>
<b>520</b>	<b>Crawler &amp; Crane Connecting Frames</b>				
	Assumes: Total 28 jacket & piling sections, 2,000 to 4,000 short tons each, 70,700 short tons + 15% margin, total 81,300 short tons. Each has 3 connecting frames. Fabrication of frames is not included.				
	Assemble connecting frames	each	84	\$6,500	\$546,000
	Install connecting frames	each	84	\$12,500	\$1,050,000
	Remove connecting frames for re-use	each	84	\$6,500	\$546,000
	<b>Subtotal</b>				<b>\$2,142,000</b>
<b>530</b>	<b>Jacket Rigging Assistance</b>				
	Assist Lampson with rigging	section	28	\$5,000	\$140,000
	Position stop log supports	section	28	\$1,000	\$28,000
	Other Lampson support	section	28	\$3,500	\$98,000
	<b>Subtotal</b>				<b>\$266,000</b>
<b>540</b>	<b>Jacket Investigation</b>				
	Hazardous materials survey	section	28	\$1,000	\$28,000
	Signage & safety measures	section	28	\$500	\$14,000
	<b>Subtotal</b>				<b>\$42,000</b>
<b>500</b>	<b>Total Jacket &amp; Piling Offloading</b>				<b>\$3,010,000</b>

<b>Schnitzer Steel Products Co.</b>					
<b>Offshore Platform Scrapping Program</b>					
<b>Rough Order of Magnitude Estimate</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
<b>600</b>	<b>Jacket &amp; Piling Demolition</b>				
<b>610</b>	<b>Engineering</b>				
	Assumes: 28 jacket & piling sections, 2,000 to 4,000 short tons each, 70,000 short tons + 15% margin, total 81,300 short tons reduced to 40 and 50 short ton units.				
	Design cutting arrangements	jackets	28	\$5,000	\$140,000
	Design rigging arrangements	sections	1,626	\$200	\$325,200
	<b>Subtotal</b>				<b>\$465,200</b>
<b>620</b>	<b>Marine Growth Measures</b>				
	Assumes: 10 uppermost jacket sections have marine growth to 6 inches.				
	Remove marine growth	sections	10	\$15,000	\$150,000
	Dispose of marine growth	tons	500	\$150	\$75,000
	Measures for health & safety	lot	5	\$5,000	\$25,000
	<b>Subtotal</b>				<b>\$250,000</b>
<b>630</b>	<b>Jacket &amp; Piling Demolition</b>				
	Assumes: Use of cranes & crawlers to "unroll" jacket sections and place large sections a ground level quickly.				
	Demolition of jacket & piling	short tons	81,300	\$118	<b>\$9,593,400</b>
<b>640</b>	<b>Piling &amp; Grout Removal</b>				
	Assumes: Aggregate free grout in one annular space between jacket & piling.				
	Remove & dispose of grout	tons	1,000	\$75	<b>\$75,000</b>
<b>600</b>	<b>Total Jacket &amp; Piling Demolition</b>				<b>\$10,383,600</b>



<b>Schnitzer Steel Products Co.            Offshore Platform Scrapping Program            Rough Order of Magnitude Estimate</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
<b>700</b>	<b>Jacket &amp; Piling Scrap Processing</b>				
<b>710</b>	<b>Jacket &amp; Piling Scrap Processing</b>				
	Assumes: 81,300 short tons reduced from 40 and 50 short ton units to charging size.				
	Jacket & piling section processing	tons	81,300	\$64	<b>\$5,203,200</b>

<b>Schnitzer Steel Products Co. Offshore Platform Scrapping Program Rough Order of Magnitude Estimate</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Total</b>
<b>800</b>	<b>Scrap Credit</b>				
	Assumes: Scrap credit is subject to further discussions and understanding of Chevron's expectations. Credits will be based on the then prevailing prices in "American Metal Market" for Portland-Seattle.				
<b>320</b>	<b>Credit Securing Frames</b>				
	Net value of securing frames	each	94	<b>Negotiable</b>	<b>Negotiable</b>
<b>420</b>	<b>Credit Copper &amp; Stainless</b>				
	Net value of copper & stainless	short tons	60	<b>Negotiable</b>	<b>Negotiable</b>
<b>430</b>	<b>Resale Machinery &amp; Equipment</b>				
	Net value of machinery & equipment	each	80	<b>Negotiable</b>	<b>Negotiable</b>
<b>440</b>	<b>Topsides Steel</b>				
	Net value of topside steel	short tons	37,000	<b>Negotiable</b>	<b>Negotiable</b>
<b>520</b>	<b>Barge Securing Frames</b>				
	Net value of barge securing frames	each	84	<b>Negotiable</b>	<b>Negotiable</b>
<b>710</b>	<b>Jacket &amp; Piling Scrap</b>				
	Net value of jacket & piling scrap	short tons	81,300	<b>Negotiable</b>	<b>Negotiable</b>
<b>800</b>	<b>Total Scrap Credit</b>			<b>Negotiable</b>	<b>Negotiable</b>

**Appendix 6: Conductor Trucking Disposal Example Calculations**

Platform	Total Conductor Length / Platform (ft)	Total Conductor Weight / Platform* (Tons)	Trucks per platform**	Cost per platform disposal fee*** (\$)	Cost per platform Trucking fee**** (\$)	Total Onshore Conductor Disposal
A	14740	2948	137.1163	\$294,800	\$68,558	\$363,358
B	15390	3078	143.1628	\$307,800	\$71,581	\$379,381
C	11696	2339.2	108.8	\$233,920	\$54,400	\$288,320
Edith	5543	1108.6	51.56279	\$110,860	\$25,781	\$136,641
Ellen	22080	4416	205.3953	\$441,600	\$102,698	\$544,298
Elly	0	0	0	\$0	\$0	\$0
Eureka	46800	9360	435.3488	\$936,000	\$217,674	\$1,153,674
Gail	19656	3931.2	182.8465	\$393,120	\$91,423	\$484,543
Gilda	18240	3648	169.6744	\$364,800	\$84,837	\$449,637
Gina	2100	420	19.53488	\$42,000	\$9,767	\$51,767
Grace	14328	2865.6	133.2837	\$286,560	\$66,642	\$353,202
Habitat	7400	1480	68.83721	\$148,000	\$34,419	\$182,419
Harmony	66456	13291.2	618.1953	\$1,329,120	\$309,098	\$1,638,218
Harvest	18875	3775	175.5814	\$377,500	\$87,791	\$465,291
Henry	6072	1214.4	56.48372	\$121,440	\$28,242	\$149,682
Heritage	56595	11319	526.4651	\$1,131,900	\$263,233	\$1,395,133
Hermosa	10928	2185.6	101.6558	\$218,560	\$50,828	\$269,388
Hidalgo	7140	1428	66.4186	\$142,800	\$33,209	\$176,009
Hillhouse	14144	2828.8	131.5721	\$282,880	\$65,786	\$348,666
Hogan	9126	1825.2	84.89302	\$182,520	\$42,447	\$224,967
Hondo	25816	5163.2	240.1488	\$516,320	\$120,074	\$636,394
Houchin	8748	1749.6	81.37674	\$174,960	\$40,688	\$215,648
Irene	7728	1545.6	71.88837	\$154,560	\$35,944	\$190,504
Total	409601	81920.2	3810.242	\$8,192,020	\$1,905,121	\$10,097,141

\* Assumes conductor/casing/annulus cement weighs 400 lbs/ft

\*\* Assumes 21.5 tons per truckload

\*\*\* Assumes cost per truckload is \$500

\*\*\*\* Assumes site disposal fee per ton is \$100

**Appendix 7: Explosives Rates and Supplemental Data**



**PRICE LIST – as of 02 February 2009**  
**Proprietary Information**

	<u>Charge type</u>	
<b><u>BULK CHARGE</u></b>		
a.	Bulk charge (50#)	\$ 3,200.00
b.	Bulk charge (80#)	\$ 5,120.00
c.	Bulk charge (100#)	\$ 6,400.00
d.	Bulk charge (150# with centralizer)	\$11,200.00
e.	Bulk charge (200# with centralizer)	\$ 14,400.00
f.	Bulk charge for subsea well (50#)	\$ 4,000.00
<b><u>SWEDE CHARGE*</u></b>		
g.	33" SWEDE for 42" Pile/Caisson (50#)	\$ 9,000.00
h.	39" SWEDE for 48" Pile/Caisson (50#)	\$10,000.00
i.	SWEDE for 54" Pile/Caisson	upon request

\* SWEDe charges are special order items that require a minimum of 4 weeks for fabrication. Please notify DEMEX as soon as possible if the task requires SWEDes

<b><u>FLEXIBLE LINEAR BULK CHARGE+</u></b>		
j.	Flexible Linear Bulk Charge for 60" Pile/Caisson (120#) 16 linear ft.	\$ 9,600.00
k.	Flexible Linear Bulk Charge for 72" Pile/Caisson (142.5#) 19 linear ft.	\$ 11,400.00
l.	Flexible Linear Bulk Charge for 84" Pile/Caisson (165#) 22 linear ft.	\$ 13,200.00

<b><u>ADVANCED CUTTING EXPLOSIVES (ACE)</u></b>		
j.	ACE - \$2000 to open case plus \$300 per ft of what is used.	

**2. EXPLOSIVE PERSONNEL**

a.	Explosive Consultant	\$ 1,800.00 per day
b.	Senior Explosive Supervisor	\$ 1,100.00 per day
c.	Assistant Explosive Technician	\$ 900.00 per day

**3. MOBILIZATION/DEMobilIZATION**

a.	Mobilization of material to Berwick or Venice	\$ 3,200.00, per occurrence
b.	Mobilization/demobilization to Sabine Pass, Texas	\$ 3,900.00, per occurrence
c.	Mobilization of material to Port O'Connor	\$ 4,800.00, per occurrence
d.	Mobilization of material to Aransas Pass	\$ 5,300.00, per occurrence
e.	Mobilization/Demobilization of personnel	\$ 2.00, per mile

*DEMEX International, Inc.*  
 phone: 281-246-4738 fax: 281-246-4739  
 www.demex.us



4. **DOCK USAGE FEES**

- |  |                             |
|--|-----------------------------|
| a. Berry Bros. Dock, Berwick                 | \$ 3,450.00, per occurrence |
| b. Martin Midstream Dock, Sabine Pass, Texas | \$ 2,300.00, per occurrence |

**EXTRA WORK RATES:**

Composition C-4	\$ 90.00 per pound
Composition B	\$ 75.00 per pound
Detonating Cord	\$ 1.00 per foot
Detonators/Delays	\$ 15.00 each
1/4" rope	\$ 0.30 per foot
1/2" wire rope	\$ 1.50 per foot



**Appendix 8: Complete Structure and Pipeline Estimates**

**A MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **A MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform A will be removed along with Platforms Hillhouse, B, C, Gina and Henry.
- Platform A is a 12-pile platform installed in 1968 in 188' of water.
- The estimated removal weight is the deck weight is 1,357 tons and the jacket weight is 1,500 tons.
- The platform has a total of 52 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 55 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and one 400' cargo barge will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 3 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The three pipelines (oil, gas, water) on the OCS will be totally removed to the state



## MMS

### Platform Salvage Option

#### A MMS POCS 29056 (Ver 1)

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water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed



## MMS

### Platform Salvage Option

#### A MMS POCS 29056 (Ver 1)

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with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$25,595,026

Estimated Decommissioning Net Cost = \$25,595,026



## MMS

### Basic Information

#### A MMS POCS 29056 (Ver 1)

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#### General Data

Platform: A MMS POCS 29056  
Function: FACILITIES  
Type: Steel  
Water Depth: 188'  
Pre 461H?: Yes  
Year Installed: 1968  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0241  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 52  
# Pipelines to Abandon: 3  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Dos Cuadras Offshore LLC	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$18,572,320	\$18,572,320
Well Plugging & Abandonment:	\$6,548,830	\$6,548,830
Pipeline Abandonment:	\$473,876	\$473,876
Total Decommissioning Cost:	\$25,595,026	\$25,595,026



## MMS

### Platform Information

#### A MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	12	40"	0.5"	Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:	112 x 134	70
Middle:	90 x 115	43
Lower:	10 x 40	28

### Conductors

Number of Slots:	57
Number Installed:	55
Outside Diameter:	20"
Wall Thickness:	0.3"
Number Slanted:	20

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:		<del>    </del>	<del>    </del>
Dry:	1500.00	<del>    </del>	<del>    </del>
Jacket Installation Date:	9/14/68		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	1357 Tons
Number of Padeyes Required:	12
Deck Installation Date:	9/14/68
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

#### **A MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 300 x 100	Equipment	Equipment	Deck 100-500T	Deck 100-500T
CB 300 x 100	Equipment	Equipment	Deck 100-500T	Deck 100-500T
CB 400 x 100	Jkt > 700T	Conductors	Conductors	

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$1,694,346.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**A MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$1,238,172.00	6.67%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.05%	\$425,833.00	2.29%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.05%	\$4,157,409.00	22.38%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.05%	\$6,993.00	0.04%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.05%	\$957,710.00	5.16%
Mobilize DB 2000	Mob from Asia, 50 days divided by 6 platforms	<input type="checkbox"/>	200.00	10.08%	\$1,530,000.00	8.24%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	22.60	1.14%	\$72,296.00	0.39%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 1)	<input type="checkbox"/>	22.60	1.14%	\$36,600.00	0.20%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	10.30	0.52%	\$46,556.00	0.25%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.34%	\$84,510.00	0.46%
Cut Deck/Equip/Misc	Seperate 4 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	1.21%	\$324,000.00	1.74%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	1.21%	\$324,000.00	1.74%
Remove 8 Pile Deck	Remove 12 Pile Deck, 4 modules	<input checked="" type="checkbox"/>	48.00	2.42%	\$648,000.00	3.49%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	22.60	1.14%	\$44,296.00	0.24%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	46.00	2.32%	\$621,920.00	3.35%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	61.68	3.11%	\$893,577.60	4.81%
Remove Jacket - Meth 1		<input checked="" type="checkbox"/>	20.75	1.05%	\$280,540.00	1.51%
Demob CB 400 & Tug	Demob to Port of LA (Qty 1)	<input type="checkbox"/>	22.60	1.14%	\$22,600.00	0.12%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.34%	\$84,510.00	0.46%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	10.30	0.52%	\$46,556.00	0.25%
Demob DB 2000	Demob to Asia, 50 days divided by 6 platforms	<input type="checkbox"/>	200.00	10.08%	\$1,530,000.00	8.24%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	3.63%	\$709,000.00	3.82%
Offload CB 300		<input type="checkbox"/>	672.00	33.87%	\$177,760.00	0.96%
Offload CB 400		<input type="checkbox"/>	408.00	20.57%	\$126,080.00	0.68%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.05%	\$6,993.00	0.04%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$168,611.00	0.91%
<b>Task Total</b>			1905.93	96.07%	\$14,564,522.60	78.42%
<b>Misc. Work Provision (15.00%)</b>			46.79	2.36%	\$1,388,068.00	7.47%
<b>Weather Contingency (10.00%)</b>			31.19	1.57%	\$925,378.80	4.98%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$1,694,346.00	9.12%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%



**MMS**

**Platform Decommission Task Information**

**A MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		Offloading		\$0.00	0.00%
		Storage / Scrapping		\$0.00	0.00%
		Reef Donation		\$0.00	0.00%
		Cost of Engineering (0.00%)		\$0.00	0.00%
			<b>Total:</b>	1983.91	100.00%
				100.00%	18,572,315.40
				100.00%	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### A MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$161,581.25	0.87%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$137,760.00	0.74%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$106,080.00	0.57%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$182,672.00	0.98%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$173,630.00	0.93%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$60,000.00	0.32%
Derrick Barge 2000	\$8,500.00	per Hour per barge	\$5,082,405.00	27.37%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$818,247.45	4.41%
Manual Calculation	\$0.00	Independently Calculated	\$7,670,721.00	41.30%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$59,664.00	0.32%
Pipeline Survey	\$230.00	per Hour	\$59,461.90	0.32%
Rig Up CB 300	\$14,000.00	per Barge	\$28,000.00	0.15%
Rig Up CB 400	\$14,000.00	per Barge	\$14,000.00	0.08%
Work Boat	\$500.00	per Hour	\$10,300.00	0.06%



**MMS**

**Platform Decommission Cost Breakdown**

**A MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,238,172.00</b>	<b>6.67%</b>
Manual Calculation			\$1,238,172.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$425,833.00</b>	<b>2.29%</b>
Manual Calculation			\$425,833.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$4,157,409.00</b>	<b>22.38%</b>
Manual Calculation			\$4,157,409.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$6,993.00</b>	<b>0.04%</b>
Manual Calculation			\$917.00	
Manual Calculation			\$352.00	
Manual Calculation			\$4,000.00	
Manual Calculation			\$1,724.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$957,710.00</b>	<b>5.16%</b>
Manual Calculation			\$957,710.00	
<b>Mobilize DB 2000</b>	<b>200.00</b>	<b>10.08%</b>	<b>\$1,530,000.00</b>	<b>8.24%</b>
Derrick Barge 2000			\$1,530,000.00	
<b>Mobilize CB 300 &amp; Tug</b>	<b>22.60</b>	<b>1.14%</b>	<b>\$72,296.00</b>	<b>0.39%</b>
CB 300 & Tug			\$44,296.00	
Rig Up CB 300			\$28,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**A MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>22.60</b>	<b>1.14%</b>	<b>\$36,600.00</b>	<b>0.20%</b>
Rig Up CB 400			\$14,000.00	
CB 400 & Tug			\$22,600.00	
<b>Mobilize Dive Spread</b>	<b>10.30</b>	<b>0.52%</b>	<b>\$46,556.00</b>	<b>0.25%</b>
Work Boat			\$5,150.00	
Dive Basic Spread Saturation			\$32,599.50	
Abrasive Cutter Spread			\$6,437.50	
Pipeline Survey			\$2,369.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.34%</b>	<b>\$84,510.00</b>	<b>0.46%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>1.21%</b>	<b>\$324,000.00</b>	<b>1.74%</b>
Derrick Barge 2000			\$204,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	



## MMS

### Platform Decommission Cost Breakdown

#### A MMS POCS 29056 (Ver 1)

Task		Task Hours		Task Cost	
<b>Remove Equipment</b>		<b>24.00</b>	<b>1.21%</b>	<b>\$324,000.00</b>	<b>1.74%</b>
Derrick Barge 2000	\$204,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
<b>Remove 8 Pile Deck</b>		<b>48.00</b>	<b>2.42%</b>	<b>\$648,000.00</b>	<b>3.49%</b>
Derrick Barge 2000	\$408,000.00				
Dive Basic Spread Saturation	\$151,920.00				
Pipeline Survey	\$11,040.00				
Abrasive Cutter Spread	\$30,000.00				
CB 300 & Tug	\$47,040.00				
<b>Demob CB 300 &amp; Tug</b>		<b>22.60</b>	<b>1.14%</b>	<b>\$44,296.00</b>	<b>0.24%</b>
CB 300 & Tug	\$44,296.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>46.00</b>	<b>2.32%</b>	<b>\$621,920.00</b>	<b>3.35%</b>
Derrick Barge 2000	\$391,000.00				
Dive Basic Spread Saturation	\$145,590.00				
Pipeline Survey	\$10,580.00				
Abrasive Cutter Spread	\$28,750.00				
CB 400 & Tug	\$46,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**A MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>	<b>61.68</b>	<b>3.11%</b>	<b>\$893,577.60</b>	<b>4.81%</b>
Derrick Barge 2000			\$524,280.00	
Dive Basic Spread Saturation			\$195,217.20	
Pipeline Survey			\$14,186.40	
Abrasive Cutter Spread			\$38,550.00	
CB 400 & Tug			\$61,680.00	
Pile Abrasive Cut 7 to 48 inches			\$59,664.00	
<b>Remove Jacket - Meth 1</b>	<b>20.75</b>	<b>1.05%</b>	<b>\$280,540.00</b>	<b>1.51%</b>
Derrick Barge 2000			\$176,375.00	
Dive Basic Spread Saturation			\$65,673.75	
Pipeline Survey			\$4,772.50	
Abrasive Cutter Spread			\$12,968.75	
CB 400 & Tug			\$20,750.00	
<b>Demob CB 400 &amp; Tug</b>	<b>22.60</b>	<b>1.14%</b>	<b>\$22,600.00</b>	<b>0.12%</b>
CB 400 & Tug			\$22,600.00	
<b>Pick Up DB Anchors</b>	<b>6.75</b>	<b>0.34%</b>	<b>\$84,510.00</b>	<b>0.46%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	



**MMS**

**Platform Decommission Cost Breakdown**

**A MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Demob Dive Spread</b>	<b>10.30</b>	<b>0.52%</b>	<b>\$46,556.00</b>	<b>0.25%</b>
Work Boat			\$5,150.00	
Dive Basic Spread Saturation			\$32,599.50	
Abrasive Cutter Spread			\$6,437.50	
Pipeline Survey			\$2,369.00	
<b>Demob DB 2000</b>	<b>200.00</b>	<b>10.08%</b>	<b>\$1,530,000.00</b>	<b>8.24%</b>
Derrick Barge 2000			\$1,530,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>3.63%</b>	<b>\$709,000.00</b>	<b>3.82%</b>
Manual Calculation			\$709,000.00	
<b>Offload CB 300</b>	<b>672.00</b>	<b>33.87%</b>	<b>\$177,760.00</b>	<b>0.96%</b>
Cargo Barge 300			\$137,760.00	
CB Damage Deduct			\$40,000.00	
<b>Offload CB 400</b>	<b>408.00</b>	<b>20.57%</b>	<b>\$126,080.00</b>	<b>0.68%</b>
Cargo Barge 400			\$106,080.00	
CB Damage Deduct			\$20,000.00	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$6,993.00</b>	<b>0.04%</b>
Manual Calculation			\$917.00	
Manual Calculation			\$352.00	
Manual Calculation			\$4,000.00	
Manual Calculation			\$1,724.00	



**MMS**

**Platform Decommission Cost Breakdown**

**A MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$168,611.00</b>	<b>0.91%</b>
Manual Calculation			\$168,611.00	
<b>Total</b>	<b>1905.93</b>	<b>96.07%</b>	<b>\$14,564,522.60</b>	<b>78.42%</b>



## MMS

### Pipeline Information

#### A MMS POCS 29056 (Ver1) Segment#:1030241

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### General Data

Water Depth: 188'  
Origin / Terminus: Origin  
Opposite End Name: B  
Opposite End Water Depth: 190'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 6.625"	Wall Thickness:	Length: 3974'
Depth of Burial:	# Crossings:	Product: H20
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to a tie-in associated with B platform. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### A MMS POCS 29056 (Ver1) Segment#:810241

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### General Data

Water Depth: 188'  
Origin / Terminus: Origin  
Opposite End Name: B  
Opposite End Water Depth: 190'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 8"	Wall Thickness:	Length: 3974'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to a tie-in associated with B platform. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### A MMS POCS 29056 (Ver1) Segment#:920241

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### General Data

Water Depth: 188'  
Origin / Terminus: Origin  
Opposite End Name: B  
Opposite End Water Depth: 190'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 8"	Wall Thickness:	Length: 3974'
Depth of Burial:	# Crossings:	Product: GAS
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to a tie-in associated with B platform. It is estimated as abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**A MMS POCS 29056 (Ver 1) Segment#:1030241**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	5.00	5.79%	\$9,052.50	5.79%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.79%	\$9,052.50	5.79%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	2.37	2.75%	\$4,290.88	2.75%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.32%	\$3,621.00	2.32%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.00	4.63%	\$7,242.00	4.63%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.00	4.63%	\$7,242.00	4.63%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Reposition Workboat		<input checked="" type="checkbox"/>	3.08	3.57%	\$5,576.34	3.57%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.00	4.63%	\$7,242.00	4.63%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.00	4.63%	\$7,242.00	4.63%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Demob Work Boat		<input type="checkbox"/>	5.00	5.79%	\$9,052.50	5.79%
<b>Task Total</b>			<b>72.47</b>	<b>83.94%</b>	<b>\$131,206.94</b>	<b>83.94%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>8.32</b>	<b>9.64%</b>	<b>\$15,064.27</b>	<b>9.64%</b>
<b>Other Contingency (10.00%)</b>			<b>5.55</b>	<b>6.42%</b>	<b>\$10,042.84</b>	<b>6.42%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>86.34</b>	<b>100.00%</b>	<b>\$156,314.05</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**A MMS POCS 29056 (Ver 1) Segment#:810241**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	5.00	5.70%	\$9,052.50	5.70%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.70%	\$9,052.50	5.70%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	3.46	3.95%	\$6,264.33	3.95%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.28%	\$3,621.00	2.28%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	7.27%	\$11,550.99	7.27%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	7.27%	\$11,550.99	7.27%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.00	4.56%	\$7,242.00	4.56%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.00	4.56%	\$7,242.00	4.56%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.85%	\$7,694.63	4.85%
Reposition Workboat		<input checked="" type="checkbox"/>	3.08	3.51%	\$5,576.34	3.51%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	7.27%	\$11,550.99	7.27%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	7.27%	\$11,550.99	7.27%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.00	4.56%	\$7,242.00	4.56%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.00	4.56%	\$7,242.00	4.56%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.85%	\$7,694.63	4.85%
Demob Work Boat		<input type="checkbox"/>	5.00	5.70%	\$9,052.50	5.70%
<b>Task Total</b>			<b>73.56</b>	<b>83.88%</b>	<b>\$133,180.39</b>	<b>83.88%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>8.48</b>	<b>9.67%</b>	<b>\$15,360.28</b>	<b>9.67%</b>
<b>Other Contingency (10.00%)</b>			<b>5.66</b>	<b>6.45%</b>	<b>\$10,240.19</b>	<b>6.45%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>87.70</b>	<b>100.00%</b>	<b>\$158,780.86</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**A MMS POCS 29056 (Ver 1) Segment#:920241**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	5.00	5.70%	\$9,052.50	5.70%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.70%	\$9,052.50	5.70%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	3.46	3.95%	\$6,264.33	3.95%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.28%	\$3,621.00	2.28%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	7.27%	\$11,550.99	7.27%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	7.27%	\$11,550.99	7.27%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.00	4.56%	\$7,242.00	4.56%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.00	4.56%	\$7,242.00	4.56%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.85%	\$7,694.63	4.85%
Reposition Workboat		<input checked="" type="checkbox"/>	3.08	3.51%	\$5,576.34	3.51%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	7.27%	\$11,550.99	7.27%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	7.27%	\$11,550.99	7.27%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.00	4.56%	\$7,242.00	4.56%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.00	4.56%	\$7,242.00	4.56%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.85%	\$7,694.63	4.85%
Demob Work Boat		<input type="checkbox"/>	5.00	5.70%	\$9,052.50	5.70%
<b>Task Total</b>			<b>73.56</b>	<b>83.88%</b>	<b>\$133,180.39</b>	<b>83.88%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>8.48</b>	<b>9.67%</b>	<b>\$15,360.28</b>	<b>9.67%</b>
<b>Other Contingency (10.00%)</b>			<b>5.66</b>	<b>6.45%</b>	<b>\$10,240.19</b>	<b>6.45%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>87.70</b>	<b>100.00%</b>	<b>\$158,780.86</b>	<b>100.00%</b>



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **A MMS POCS 29056 (Ver 1) Segment#:1030241**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$8,152.88	5.22%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$64,135.95	41.03%
Pipeline Surveying	\$230.00	per Hour	\$16,668.10	10.66%
Work Boat	\$583.00	per Hour	\$42,250.01	27.03%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **A MMS POCS 29056 (Ver 1) Segment#:810241**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$8,275.51	5.21%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$65,100.60	41.00%
Pipeline Surveying	\$230.00	per Hour	\$16,918.80	10.66%
Work Boat	\$583.00	per Hour	\$42,885.48	27.01%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **A MMS POCS 29056 (Ver 1) Segment#:920241**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$8,275.51	5.21%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$65,100.60	41.00%
Pipeline Surveying	\$230.00	per Hour	\$16,918.80	10.66%
Work Boat	\$583.00	per Hour	\$42,885.48	27.01%



**MMS**

**Pipeline Decommission Cost Breakdown**

**A MMS POCS 29056 (Ver 1) Segment#:1030241**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize Work Boat</b>	<b>5.00</b>	<b>5.79%</b>	<b>\$9,052.50</b>	<b>5.79%</b>
Work Boat			\$2,915.00	
Dive Basic Spread- Mixed Gas			\$4,425.00	
Decommissioning Crew			\$562.50	
Pipeline Surveying			\$1,150.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00</b>	<b>5.79%</b>	<b>\$9,052.50</b>	<b>5.79%</b>
Work Boat			\$2,915.00	
Dive Basic Spread- Mixed Gas			\$4,425.00	
Decommissioning Crew			\$562.50	
Pipeline Surveying			\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>2.37</b>	<b>2.75%</b>	<b>\$4,290.88</b>	<b>2.75%</b>
Work Boat			\$1,381.71	
Dive Basic Spread- Mixed Gas			\$2,097.45	
Decommissioning Crew			\$266.62	
Pipeline Surveying			\$545.10	
<b>Derig Decomm Equipment</b>	<b>2.00</b>	<b>2.32%</b>	<b>\$3,621.00</b>	<b>2.32%</b>
Work Boat			\$1,166.00	
Dive Basic Spread- Mixed Gas			\$1,770.00	
Decommissioning Crew			\$225.00	
Pipeline Surveying			\$460.00	
<b>Expose Pipeline</b>	<b>6.38</b>	<b>7.39%</b>	<b>\$11,550.99</b>	<b>7.39%</b>
Work Boat			\$3,719.54	
Dive Basic Spread- Mixed Gas			\$5,646.30	
Decommissioning Crew			\$717.75	
Pipeline Surveying			\$1,467.40	
<b>Cut &amp; Plug Pipeline</b>	<b>6.38</b>	<b>7.39%</b>	<b>\$11,550.99</b>	<b>7.39%</b>
Work Boat			\$3,719.54	
Dive Basic Spread- Mixed Gas			\$5,646.30	
Decommissioning Crew			\$717.75	
Pipeline Surveying			\$1,467.40	



## MMS

### Pipeline Decommission Cost Breakdown

<b>Cut Pipeline Riser</b>		<b>4.00</b>	<b>4.63%</b>	<b>\$7,242.00</b>	<b>4.63%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<hr/>					
<b>Remove Tube Turn</b>		<b>4.00</b>	<b>4.63%</b>	<b>\$7,242.00</b>	<b>4.63%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<hr/>					
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<hr/>					
<b>Reposition Workboat</b>		<b>3.08</b>	<b>3.57%</b>	<b>\$5,576.34</b>	<b>3.57%</b>
Work Boat	\$1,795.64				
Dive Basic Spread- Mixed Gas	\$2,725.80				
Decommissioning Crew	\$346.50				
Pipeline Surveying	\$708.40				
<hr/>					
<b>Expose Pipeline</b>		<b>6.38</b>	<b>7.39%</b>	<b>\$11,550.99</b>	<b>7.39%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>6.38</b>	<b>7.39%</b>	<b>\$11,550.99</b>	<b>7.39%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.00</b>	<b>4.63%</b>	<b>\$7,242.00</b>	<b>4.63%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<b>Remove Tube Turn</b>		<b>4.00</b>	<b>4.63%</b>	<b>\$7,242.00</b>	<b>4.63%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Demob Work Boat</b>		<b>5.00</b>	<b>5.79%</b>	<b>\$9,052.50</b>	<b>5.79%</b>
Work Boat	\$2,915.00				
Dive Basic Spread- Mixed Gas	\$4,425.00				
Decommissioning Crew	\$562.50				
Pipeline Surveying	\$1,150.00				
<b>Total</b>		<b>72.47</b>	<b>83.94%</b>	<b>\$131,206.94</b>	<b>83.94%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**A MMS POCS 29056 (Ver 1) Segment#:810241**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>5.00 5.70%</b>	<b>\$9,052.50 5.70%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 5.70%</b>	<b>\$9,052.50 5.70%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>3.46 3.95%</b>	<b>\$6,264.33 3.95%</b>
Work Boat	\$2,017.18	
Dive Basic Spread- Mixed Gas	\$3,062.10	
Decommissioning Crew	\$389.25	
Pipeline Surveying	\$795.80	
<b>Derig Decomm Equipment</b>	<b>2.00 2.28%</b>	<b>\$3,621.00 2.28%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Expose Pipeline</b>	<b>6.38 7.27%</b>	<b>\$11,550.99 7.27%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	
<b>Cut &amp; Plug Pipeline</b>	<b>6.38 7.27%</b>	<b>\$11,550.99 7.27%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	



## MMS

### Pipeline Decommission Cost Breakdown

<b>Cut Pipeline Riser</b>		<b>4.00</b>	<b>4.56%</b>	<b>\$7,242.00</b>	<b>4.56%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<hr/>					
<b>Remove Tube Turn</b>		<b>4.00</b>	<b>4.56%</b>	<b>\$7,242.00</b>	<b>4.56%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<hr/>					
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.85%</b>	<b>\$7,694.63</b>	<b>4.85%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<hr/>					
<b>Reposition Workboat</b>		<b>3.08</b>	<b>3.51%</b>	<b>\$5,576.34</b>	<b>3.51%</b>
Work Boat	\$1,795.64				
Dive Basic Spread- Mixed Gas	\$2,725.80				
Decommissioning Crew	\$346.50				
Pipeline Surveying	\$708.40				
<hr/>					
<b>Expose Pipeline</b>		<b>6.38</b>	<b>7.27%</b>	<b>\$11,550.99</b>	<b>7.27%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>6.38</b>	<b>7.27%</b>	<b>\$11,550.99</b>	<b>7.27%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.00</b>	<b>4.56%</b>	<b>\$7,242.00</b>	<b>4.56%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<b>Remove Tube Turn</b>		<b>4.00</b>	<b>4.56%</b>	<b>\$7,242.00</b>	<b>4.56%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.85%</b>	<b>\$7,694.63</b>	<b>4.85%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Demob Work Boat</b>		<b>5.00</b>	<b>5.70%</b>	<b>\$9,052.50</b>	<b>5.70%</b>
Work Boat	\$2,915.00				
Dive Basic Spread- Mixed Gas	\$4,425.00				
Decommissioning Crew	\$562.50				
Pipeline Surveying	\$1,150.00				
<b>Total</b>		<b>73.56</b>	<b>83.88%</b>	<b>\$133,180.39</b>	<b>83.88%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**A MMS POCS 29056 (Ver 1) Segment#:920241**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>5.00 5.70%</b>	<b>\$9,052.50 5.70%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 5.70%</b>	<b>\$9,052.50 5.70%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>3.46 3.95%</b>	<b>\$6,264.33 3.95%</b>
Work Boat	\$2,017.18	
Dive Basic Spread- Mixed Gas	\$3,062.10	
Decommissioning Crew	\$389.25	
Pipeline Surveying	\$795.80	
<b>Derig Decomm Equipment</b>	<b>2.00 2.28%</b>	<b>\$3,621.00 2.28%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Expose Pipeline</b>	<b>6.38 7.27%</b>	<b>\$11,550.99 7.27%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	
<b>Cut &amp; Plug Pipeline</b>	<b>6.38 7.27%</b>	<b>\$11,550.99 7.27%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	



## MMS

### Pipeline Decommission Cost Breakdown

<b>Cut Pipeline Riser</b>		<b>4.00</b>	<b>4.56%</b>	<b>\$7,242.00</b>	<b>4.56%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<hr/>					
<b>Remove Tube Turn</b>		<b>4.00</b>	<b>4.56%</b>	<b>\$7,242.00</b>	<b>4.56%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<hr/>					
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.85%</b>	<b>\$7,694.63</b>	<b>4.85%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<hr/>					
<b>Reposition Workboat</b>		<b>3.08</b>	<b>3.51%</b>	<b>\$5,576.34</b>	<b>3.51%</b>
Work Boat	\$1,795.64				
Dive Basic Spread- Mixed Gas	\$2,725.80				
Decommissioning Crew	\$346.50				
Pipeline Surveying	\$708.40				
<hr/>					
<b>Expose Pipeline</b>		<b>6.38</b>	<b>7.27%</b>	<b>\$11,550.99</b>	<b>7.27%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>6.38</b>	<b>7.27%</b>	<b>\$11,550.99</b>	<b>7.27%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.00</b>	<b>4.56%</b>	<b>\$7,242.00</b>	<b>4.56%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<b>Remove Tube Turn</b>		<b>4.00</b>	<b>4.56%</b>	<b>\$7,242.00</b>	<b>4.56%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.85%</b>	<b>\$7,694.63</b>	<b>4.85%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Demob Work Boat</b>		<b>5.00</b>	<b>5.70%</b>	<b>\$9,052.50</b>	<b>5.70%</b>
Work Boat	\$2,915.00				
Dive Basic Spread- Mixed Gas	\$4,425.00				
Decommissioning Crew	\$562.50				
Pipeline Surveying	\$1,150.00				
		<b>Total</b>	<b>73.56 83.88%</b>	<b>\$133,180.39</b>	<b>83.88%</b>



## **MMS**

### **Well Information**

#### **A MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:                      Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:              15.00%

Weather Contingency %:                      10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Dos Cuadras Offshore LLC	100.00%

### **Well Data**

	<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
Tubing:			
Production Casing:			
Liner:			
Protective Casing:			
Surface Casing:			
Drive Pipe:			
Caisson:			
Perforated Depth:			

### **Comments**



**MMS**

**Well Decommission Task Information**

**A MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$5,239,064.00 80.00%
		<b>Task Total</b>	0.00	\$5,239,064.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$785,859.63 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$523,906.41 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$6,548,830.04 100.00%



**MMS**

**Well Decommission Resources Breakdown**

**A MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$5,239,064.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**A MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$5,239,064.00</b>	<b>80.00%</b>	
Manual Calculation			\$5,239,064.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$5,239,064.00</b>	<b>80.00%</b>

**B MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **B MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform B will be removed along with Platforms A, C, Hillhouse, Gina and Henry.
- Platform B is a 12-pile platform installed in 1968 in 190' of water.
- The estimated removal weight is the deck weight is 1,357 tons and the jacket weight is 1,500 tons.
- The platform has a total of 57 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 57 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and one 400' cargo barge will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 3 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The three pipelines (oil, gas, water) on the OCS will be totally removed to the state



## MMS

### Platform Salvage Option

#### **B MMS POCS 29056 (Ver 1)**

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water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed



## MMS

### Platform Salvage Option

#### **B MMS POCS 29056 (Ver 1)**

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with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$30,548,963

Estimated Decommissioning Net Cost = \$30,548,963



## MMS

### Basic Information

#### B MMS POCS 29056 (Ver 1)

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#### General Data

Platform: B MMS POCS 29056  
Function: FACILITIES  
Type: Steel  
Water Depth: 190'  
Pre 461H?: Yes  
Year Installed: 1968  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0241  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 57  
# Pipelines to Abandon: 3  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Dos Cuadras Offshore LLC	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$19,503,130	\$19,503,130
Well Plugging & Abandonment:	\$7,155,695	\$7,155,695
Pipeline Abandonment:	\$3,890,138	\$3,890,138
Total Decommissioning Cost:	\$30,548,963	\$30,548,963



## MMS

### Platform Information

### B MMS POCS 29056 (Ver 1)

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#### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	12	40"	0.5"	Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

#### Deck Dimensions

	Dimensions	Elevation
Upper:	112 x 134	70
Middle:	90 x 115	43
Lower:	10 x 40	39

#### Conductors

Number of Slots:	63
Number Installed:	57
Outside Diameter:	20"
Wall Thickness:	0.3"
Number Slanted:	20

#### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	1500.00		
Jacket Installation Date:	11/8/68		
Jacket Contractor:	Unknown		

#### Deck Data

Deck Lift Weight with Equipment:	1357 Tons
Number of Padeyes Required:	12
Deck Installation Date:	11/8/68
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

#### **B MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 300 x 100	Equipment	Equipment	Deck 100-500T	Deck 100-500T
CB 300 x 100	Equipment	Equipment	Deck 100-500T	Deck 100-500T
CB 400 x 100	Jkt > 700T	Conductors	Conductors	

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$2,137,769.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**B MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$1,510,081.00	7.74%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.05%	\$425,833.00	2.18%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.05%	\$4,329,792.00	22.20%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.05%	\$6,993.00	0.04%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.05%	\$957,710.00	4.91%
Mobilize DB 2000	Mob from Asia, 50 days divided by 6 platforms	<input type="checkbox"/>	200.00	10.08%	\$1,530,000.00	7.84%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	22.60	1.14%	\$72,296.00	0.37%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 1)	<input type="checkbox"/>	22.60	1.14%	\$36,600.00	0.19%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	10.30	0.52%	\$46,556.00	0.24%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.34%	\$84,510.00	0.43%
Cut Deck/Equip/Misc	Seperate 4 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	1.21%	\$324,000.00	1.66%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	1.21%	\$324,000.00	1.66%
Remove 8 Pile Deck	Remove 12 Pile Deck, 4 modules	<input checked="" type="checkbox"/>	48.00	2.42%	\$648,000.00	3.32%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	22.60	1.14%	\$44,296.00	0.23%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	46.00	2.32%	\$621,920.00	3.19%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	61.68	3.11%	\$893,577.60	4.58%
Remove Jacket - Meth 1		<input checked="" type="checkbox"/>	20.75	1.05%	\$280,540.00	1.44%
Demob CB 400 & Tug	Demob to Port of LA (Qty 1)	<input type="checkbox"/>	22.60	1.14%	\$22,600.00	0.12%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.34%	\$84,510.00	0.43%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	10.30	0.52%	\$46,556.00	0.24%
Demob DB 2000	Demob to Asia, 50 days divided by 6 platforms	<input type="checkbox"/>	200.00	10.08%	\$1,530,000.00	7.84%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	3.63%	\$709,000.00	3.64%
Offload CB 300		<input type="checkbox"/>	672.00	33.87%	\$177,760.00	0.91%
Offload CB 400		<input type="checkbox"/>	408.00	20.57%	\$126,080.00	0.65%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.05%	\$6,993.00	0.04%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$168,611.00	0.86%
<b>Task Total</b>			1905.93	96.07%	\$15,008,814.60	76.96%
<b>Misc. Work Provision (15.00%)</b>			46.79	2.36%	\$1,413,926.00	7.25%
<b>Weather Contingency (10.00%)</b>			31.19	1.57%	\$942,617.10	4.83%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$2,137,769.00	10.96%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%



**MMS**

**Platform Decommission Task Information**

**B MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		Offloading		\$0.00	0.00%
		Storage / Scrapping		\$0.00	0.00%
		Reef Donation		\$0.00	0.00%
		Cost of Engineering (0.00%)		\$0.00	0.00%
<b>Total:</b>			1983.91	100.00%	\$19,503,126.70 100.00%



## MMS

### Platform Decommission Resources Breakdown

#### B MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$161,581.25	0.83%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$137,760.00	0.71%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$106,080.00	0.54%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$182,672.00	0.94%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$173,630.00	0.89%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$60,000.00	0.31%
Derrick Barge 2000	\$8,500.00	per Hour per barge	\$5,082,405.00	26.06%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$818,247.45	4.20%
Manual Calculation	\$0.00	Independently Calculated	\$8,115,013.00	41.61%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$59,664.00	0.31%
Pipeline Survey	\$230.00	per Hour	\$59,461.90	0.30%
Rig Up CB 300	\$14,000.00	per Barge	\$28,000.00	0.14%
Rig Up CB 400	\$14,000.00	per Barge	\$14,000.00	0.07%
Work Boat	\$500.00	per Hour	\$10,300.00	0.05%



**MMS**

**Platform Decommission Cost Breakdown**

**B MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,510,081.00</b>	<b>7.74%</b>
Manual Calculation			\$1,510,081.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$425,833.00</b>	<b>2.18%</b>
Manual Calculation			\$425,833.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$4,329,792.00</b>	<b>22.20%</b>
Manual Calculation			\$4,329,792.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$6,993.00</b>	<b>0.04%</b>
Manual Calculation			\$917.00	
Manual Calculation			\$352.00	
Manual Calculation			\$4,000.00	
Manual Calculation			\$1,724.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$957,710.00</b>	<b>4.91%</b>
Manual Calculation			\$957,710.00	
<b>Mobilize DB 2000</b>	<b>200.00</b>	<b>10.08%</b>	<b>\$1,530,000.00</b>	<b>7.84%</b>
Derrick Barge 2000			\$1,530,000.00	
<b>Mobilize CB 300 &amp; Tug</b>	<b>22.60</b>	<b>1.14%</b>	<b>\$72,296.00</b>	<b>0.37%</b>
CB 300 & Tug			\$44,296.00	
Rig Up CB 300			\$28,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**B MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>22.60</b>	<b>1.14%</b>	<b>\$36,600.00</b>	<b>0.19%</b>
Rig Up CB 400			\$14,000.00	
CB 400 & Tug			\$22,600.00	
<b>Mobilize Dive Spread</b>	<b>10.30</b>	<b>0.52%</b>	<b>\$46,556.00</b>	<b>0.24%</b>
Work Boat			\$5,150.00	
Dive Basic Spread Saturation			\$32,599.50	
Abrasive Cutter Spread			\$6,437.50	
Pipeline Survey			\$2,369.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.34%</b>	<b>\$84,510.00</b>	<b>0.43%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>1.21%</b>	<b>\$324,000.00</b>	<b>1.66%</b>
Derrick Barge 2000			\$204,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	



## MMS

### Platform Decommission Cost Breakdown

#### B MMS POCS 29056 (Ver 1)

Task		Task Hours		Task Cost	
<b>Remove Equipment</b>		<b>24.00</b>	<b>1.21%</b>	<b>\$324,000.00</b>	<b>1.66%</b>
Derrick Barge 2000	\$204,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
<b>Remove 8 Pile Deck</b>		<b>48.00</b>	<b>2.42%</b>	<b>\$648,000.00</b>	<b>3.32%</b>
Derrick Barge 2000	\$408,000.00				
Dive Basic Spread Saturation	\$151,920.00				
Pipeline Survey	\$11,040.00				
Abrasive Cutter Spread	\$30,000.00				
CB 300 & Tug	\$47,040.00				
<b>Demob CB 300 &amp; Tug</b>		<b>22.60</b>	<b>1.14%</b>	<b>\$44,296.00</b>	<b>0.23%</b>
CB 300 & Tug	\$44,296.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>46.00</b>	<b>2.32%</b>	<b>\$621,920.00</b>	<b>3.19%</b>
Derrick Barge 2000	\$391,000.00				
Dive Basic Spread Saturation	\$145,590.00				
Pipeline Survey	\$10,580.00				
Abrasive Cutter Spread	\$28,750.00				
CB 400 & Tug	\$46,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**B MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>	<b>61.68</b>	<b>3.11%</b>	<b>\$893,577.60</b>	<b>4.58%</b>
Derrick Barge 2000			\$524,280.00	
Dive Basic Spread Saturation			\$195,217.20	
Pipeline Survey			\$14,186.40	
Abrasive Cutter Spread			\$38,550.00	
CB 400 & Tug			\$61,680.00	
Pile Abrasive Cut 7 to 48 inches			\$59,664.00	
<b>Remove Jacket - Meth 1</b>	<b>20.75</b>	<b>1.05%</b>	<b>\$280,540.00</b>	<b>1.44%</b>
Derrick Barge 2000			\$176,375.00	
Dive Basic Spread Saturation			\$65,673.75	
Pipeline Survey			\$4,772.50	
Abrasive Cutter Spread			\$12,968.75	
CB 400 & Tug			\$20,750.00	
<b>Demob CB 400 &amp; Tug</b>	<b>22.60</b>	<b>1.14%</b>	<b>\$22,600.00</b>	<b>0.12%</b>
CB 400 & Tug			\$22,600.00	
<b>Pick Up DB Anchors</b>	<b>6.75</b>	<b>0.34%</b>	<b>\$84,510.00</b>	<b>0.43%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	



**MMS**

**Platform Decommission Cost Breakdown**

**B MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Demob Dive Spread</b>	<b>10.30</b>	<b>0.52%</b>	<b>\$46,556.00</b>	<b>0.24%</b>
Work Boat			\$5,150.00	
Dive Basic Spread Saturation			\$32,599.50	
Abrasive Cutter Spread			\$6,437.50	
Pipeline Survey			\$2,369.00	
<b>Demob DB 2000</b>	<b>200.00</b>	<b>10.08%</b>	<b>\$1,530,000.00</b>	<b>7.84%</b>
Derrick Barge 2000			\$1,530,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>3.63%</b>	<b>\$709,000.00</b>	<b>3.64%</b>
Manual Calculation			\$709,000.00	
<b>Offload CB 300</b>	<b>672.00</b>	<b>33.87%</b>	<b>\$177,760.00</b>	<b>0.91%</b>
Cargo Barge 300			\$137,760.00	
CB Damage Deduct			\$40,000.00	
<b>Offload CB 400</b>	<b>408.00</b>	<b>20.57%</b>	<b>\$126,080.00</b>	<b>0.65%</b>
Cargo Barge 400			\$106,080.00	
CB Damage Deduct			\$20,000.00	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$6,993.00</b>	<b>0.04%</b>
Manual Calculation			\$917.00	
Manual Calculation			\$352.00	
Manual Calculation			\$4,000.00	
Manual Calculation			\$1,724.00	



**MMS**

**Platform Decommission Cost Breakdown**

**B MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$168,611.00</b>	<b>0.86%</b>
Manual Calculation			\$168,611.00	
<b>Total</b>	<b>1905.93</b>	<b>96.07%</b>	<b>\$15,008,814.60</b>	<b>76.96%</b>



## MMS

### Pipeline Information

#### **B MMS POCS 29056 (Ver1) Segment#:1110241-Sho**

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### General Data

Water Depth: 190'  
Origin / Terminus: Origin  
Opposite End Name: Rincon  
Opposite End Water Depth: 10'  
Pipeline Operator: Spirit 76  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter:	12.75"	Wall Thickness:	0.688"	Length:	35582'
Depth of Burial:	3'	# Crossings:		Product:	Oil
Installation Date:		Weight Coating:	No	J Tube:	No
Riser?:	Yes	Riser Guard?:	No		

### Comments

This pipeline runs to the Rincon Onshore facility.  
Pipeline Removed to State Waters  
Estimated that ~35582' Removed



## MMS

### Pipeline Information

#### **B MMS POCS 29056 (Ver1) Segment#:1220241-Sho**

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### General Data

Water Depth: 190'  
Origin / Terminus: Origin  
Opposite End Name: Rincon  
Opposite End Water Depth: 10'  
Pipeline Operator: Spirit 76  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter:	12.75"	Wall Thickness:	0.688"	Length:	35582'
Depth of Burial:	3'	# Crossings:		Product:	Gas
Installation Date:		Weight Coating:	No	J Tube:	No
Riser?:	Yes	Riser Guard?:	No		

### Comments

This pipeline runs to the Rincon Onshore facility.  
Pipeline Removed to State Waters  
Estimated that ~35582' Removed



## MMS

### Pipeline Information

#### **B MMS POCS 29056 (Ver1) Segment#:1330241-Sho**

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### General Data

Water Depth: 190'  
Origin / Terminus: Origin  
Opposite End Name: Rincon  
Opposite End Water Depth: 10'  
Pipeline Operator: Spirit 76  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 6"	Wall Thickness: 0.432"	Length: 35582'
Depth of Burial: 3'	# Crossings:	Product: Water
Installation Date:	Weight Coating: No	J Tube: No
Riser?: Yes	Riser Guard?: No	

### Comments

This pipeline runs to the Rincon Onshore facility.  
Pipeline Removed to State Waters  
Estimated that ~35582' Removed



**MMS**

**Pipeline Decommission Task Information**

**B MMS POCS 29056 (Ver 1) Segment#:1110241-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	5.00	0.80%	\$3,477.50	0.27%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.80%	\$3,477.50	0.27%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	42.00	6.72%	\$29,211.00	2.23%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.32%	\$1,391.00	0.11%
Demob Work Boat		<input type="checkbox"/>	10.30	1.65%	\$7,163.65	0.55%
Mob P/L Removal Spread		<input type="checkbox"/>	5.00	0.80%	\$15,345.00	1.17%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	1.02%	\$20,297.97	1.55%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.00	0.64%	\$12,726.00	0.97%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.00	0.64%	\$12,726.00	0.97%
Mobilize Vessel		<input checked="" type="checkbox"/>	5.00	0.80%	\$21,500.00	1.64%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	1.02%	\$23,089.22	1.76%
Remove Pipeline		<input checked="" type="checkbox"/>	228.00	36.46%	\$825,132.00	63.07%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	0.68%	\$15,380.75	1.18%
Demob Vessel		<input checked="" type="checkbox"/>	5.00	0.80%	\$5,500.00	0.42%
Demob P/L Removal Spread		<input type="checkbox"/>	5.00	0.80%	\$18,095.00	1.38%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	26.87%	\$41,000.00	3.13%
<b>Task Total</b>			<b>505.31</b>	<b>80.81%</b>	<b>\$1,055,512.59</b>	<b>80.67%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>72.00</b>	<b>11.51%</b>	<b>\$151,714.72</b>	<b>11.60%</b>
<b>Other Contingency (10.00%)</b>			<b>48.00</b>	<b>7.68%</b>	<b>\$101,143.15</b>	<b>7.73%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>625.31</b>	<b>100.00%</b>	<b>\$1,308,370.46</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**B MMS POCS 29056 (Ver 1) Segment#:1220241-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	5.00	0.80%	\$3,477.50	0.27%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.80%	\$3,477.50	0.27%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	42.00	6.72%	\$29,211.00	2.23%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.32%	\$1,391.00	0.11%
Demob Work Boat		<input type="checkbox"/>	10.30	1.65%	\$7,163.65	0.55%
Mob P/L Removal Spread		<input type="checkbox"/>	5.00	0.80%	\$15,345.00	1.17%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	1.02%	\$20,297.97	1.55%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.00	0.64%	\$12,726.00	0.97%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.00	0.64%	\$12,726.00	0.97%
Mobilize Vessel		<input checked="" type="checkbox"/>	5.00	0.80%	\$21,500.00	1.64%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	1.02%	\$23,089.22	1.76%
Remove Pipeline		<input checked="" type="checkbox"/>	228.00	36.46%	\$825,132.00	63.07%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	0.68%	\$15,380.75	1.18%
Demob Vessel		<input checked="" type="checkbox"/>	5.00	0.80%	\$5,500.00	0.42%
Demob P/L Removal Spread		<input type="checkbox"/>	5.00	0.80%	\$18,095.00	1.38%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	26.87%	\$41,000.00	3.13%
<b>Task Total</b>			<b>505.31</b>	<b>80.81%</b>	<b>\$1,055,512.59</b>	<b>80.67%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>72.00</b>	<b>11.51%</b>	<b>\$151,714.72</b>	<b>11.60%</b>
<b>Other Contingency (10.00%)</b>			<b>48.00</b>	<b>7.68%</b>	<b>\$101,143.15</b>	<b>7.73%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>625.31</b>	<b>100.00%</b>	<b>\$1,308,370.46</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**B MMS POCS 29056 (Ver 1) Segment#:1330241-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	5.00	0.85%	\$3,477.50	0.27%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.85%	\$3,477.50	0.27%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	9.00	1.53%	\$6,259.50	0.49%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.34%	\$1,391.00	0.11%
Demob Work Boat		<input type="checkbox"/>	10.30	1.75%	\$7,163.65	0.56%
Mob P/L Removal Spread		<input type="checkbox"/>	5.00	0.85%	\$15,345.00	1.21%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	1.09%	\$20,297.97	1.59%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.00	0.68%	\$12,726.00	1.00%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.00	0.68%	\$12,726.00	1.00%
Mobilize Vessel		<input checked="" type="checkbox"/>	10.30	1.75%	\$27,330.00	2.15%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	1.09%	\$23,089.22	1.81%
Remove Pipeline		<input checked="" type="checkbox"/>	225.00	38.33%	\$814,275.00	63.95%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	0.72%	\$15,380.75	1.21%
Demob Vessel		<input checked="" type="checkbox"/>	5.00	0.85%	\$5,500.00	0.43%
Demob P/L Removal Spread		<input type="checkbox"/>	5.00	0.85%	\$18,095.00	1.42%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	28.62%	\$41,000.00	3.22%
<b>Task Total</b>			474.61	80.86%	\$1,027,534.09	80.69%
<b>Misc. Work Provision (15.00%)</b>			67.40	11.48%	\$147,517.95	11.58%
<b>Other Contingency (10.00%)</b>			44.93	7.66%	\$98,345.30	7.72%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			586.94	100.00%	\$1,273,397.33	100.00%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **B MMS POCS 29056 (Ver 1) Segment#:1110241-Sh**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	1.61%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$144,996.50	11.08%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	1.53%
Decommissioning Crew	\$0.00	Calculated from tables	\$8,851.50	0.68%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$232,763.85	17.79%
Manual Calculation	\$0.00	Independently Calculated	\$0.00	0.00%
Pipelay Barge	\$1,954.00	per Hour	\$513,921.54	39.28%
Pipeline Surveying	\$230.00	per Hour	\$60,492.30	4.62%
Rig Up CB 180	\$8,000.00	per Barge	\$16,000.00	1.22%
Work Boat	\$583.00	per Hour	\$37,486.90	2.87%



**MMS**

**Pipeline Decommission Resources Breakdown**

**B MMS POCS 29056 (Ver 1) Segment#:1220241-Sh**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	1.61%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$144,996.50	11.08%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	1.53%
Decommissioning Crew	\$0.00	Calculated from tables	\$8,851.50	0.68%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$232,763.85	17.79%
Manual Calculation	\$0.00	Independently Calculated	\$0.00	0.00%
Pipelay Barge	\$1,954.00	per Hour	\$513,921.54	39.28%
Pipeline Surveying	\$230.00	per Hour	\$60,492.30	4.62%
Rig Up CB 180	\$8,000.00	per Barge	\$16,000.00	1.22%
Work Boat	\$583.00	per Hour	\$37,486.90	2.87%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **B MMS POCS 29056 (Ver 1) Segment#:1330241-Sh**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	1.65%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$149,176.50	11.71%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	1.57%
Decommissioning Crew	\$0.00	Calculated from tables	\$5,139.00	0.40%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$230,108.85	18.07%
Manual Calculation	\$0.00	Independently Calculated	\$0.00	0.00%
Pipelay Barge	\$1,954.00	per Hour	\$508,059.54	39.90%
Pipeline Surveying	\$230.00	per Hour	\$59,802.30	4.70%
Rig Up CB 180	\$8,000.00	per Barge	\$16,000.00	1.26%
Work Boat	\$583.00	per Hour	\$18,247.90	1.43%



**MMS**

**Pipeline Decommission Cost Breakdown**

**B MMS POCS 29056 (Ver 1) Segment#:1110241-Sh**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>5.00 0.80%</b>	<b>\$3,477.50 0.27%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.80%</b>	<b>\$3,477.50 0.27%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Pig &amp; Flush Pipeline</b>	<b>42.00 6.72%</b>	<b>\$29,211.00 2.23%</b>
Work Boat	\$24,486.00	
Decommissioning Crew	\$4,725.00	
<b>Derig Decomm Equipment</b>	<b>2.00 0.32%</b>	<b>\$1,391.00 0.11%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Demob Work Boat</b>	<b>10.30 1.65%</b>	<b>\$7,163.65 0.55%</b>
Work Boat	\$6,004.90	
Decommissioning Crew	\$1,158.75	
<b>Mob P/L Removal Spread</b>	<b>5.00 0.80%</b>	<b>\$15,345.00 1.17%</b>
Dive Basic Spread- Mixed Gas	\$4,425.00	
Pipeline Surveying	\$1,150.00	
Pipelay Barge	\$9,770.00	
Manual Calculation	\$0.00	
<b>Cut &amp; Plug Pipeline</b>	<b>6.38 1.02%</b>	<b>\$20,297.97 1.55%</b>
Dive Basic Spread- Mixed Gas	\$5,646.30	
Pipeline Surveying	\$1,467.40	
Pipelay Barge	\$12,466.52	
Decommissioning Crew	\$717.75	
<b>Cut Pipeline Riser</b>	<b>4.00 0.64%</b>	<b>\$12,726.00 0.97%</b>
Dive Basic Spread- Mixed Gas	\$3,540.00	
Pipeline Surveying	\$920.00	
Pipelay Barge	\$7,816.00	
Decommissioning Crew	\$450.00	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Remove Tube Turn</b>		<b>4.00</b>	<b>0.64%</b>	<b>\$12,726.00</b>	<b>0.97%</b>	
Dive Basic Spread- Mixed Gas	\$3,540.00					
Pipeline Surveying	\$920.00					
Pipelay Barge	\$7,816.00					
Decommissioning Crew	\$450.00					
<b>Mobilize Vessel</b>		<b>5.00</b>	<b>0.80%</b>	<b>\$21,500.00</b>	<b>1.64%</b>	
CB 180 & Tug	\$5,500.00					
Rig Up CB 180	\$16,000.00					
<b>Expose Pipeline</b>		<b>6.38</b>	<b>1.02%</b>	<b>\$23,089.22</b>	<b>1.76%</b>	
Pipeline Surveying	\$1,467.40					
Dive Basic Spread- Mixed Gas	\$5,646.30					
Pipelay Barge	\$12,466.52					
CB 180 & Tug	\$3,509.00					
<b>Remove Pipeline</b>		<b>228.00</b>	<b>36.46%</b>	<b>\$825,132.00</b>	<b>63.07%</b>	
Pipeline Surveying	\$52,440.00					
Dive Basic Spread- Mixed Gas	\$201,780.00					
Pipelay Barge	\$445,512.00					
CB 180 & Tug	\$125,400.00					
<b>Bury Pipeline</b>		<b>4.25</b>	<b>0.68%</b>	<b>\$15,380.75</b>	<b>1.18%</b>	
Pipeline Surveying	\$977.50					
Dive Basic Spread- Mixed Gas	\$3,761.25					
Pipelay Barge	\$8,304.50					
CB 180 & Tug	\$2,337.50					
<b>Demob Vessel</b>		<b>5.00</b>	<b>0.80%</b>	<b>\$5,500.00</b>	<b>0.42%</b>	
CB 180 & Tug	\$5,500.00					
<b>Demob P/L Removal Spread</b>		<b>5.00</b>	<b>0.80%</b>	<b>\$18,095.00</b>	<b>1.38%</b>	
Pipeline Surveying	\$1,150.00					
Dive Basic Spread- Mixed Gas	\$4,425.00					
Pipelay Barge	\$9,770.00					
CB 180 & Tug	\$2,750.00					
<b>Offload CB 180</b>		<b>168.00</b>	<b>26.87%</b>	<b>\$41,000.00</b>	<b>3.13%</b>	
Cargo Barge 180	\$21,000.00					
CB Damage Deduct	\$20,000.00					
		<b>Total</b>	<b>505.31</b>	<b>80.81%</b>	<b>\$1,055,512.59</b>	<b>80.67%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**B MMS POCS 29056 (Ver 1) Segment#:1220241-Sh**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>5.00 0.80%</b>	<b>\$3,477.50 0.27%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.80%</b>	<b>\$3,477.50 0.27%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Pig &amp; Flush Pipeline</b>	<b>42.00 6.72%</b>	<b>\$29,211.00 2.23%</b>
Work Boat	\$24,486.00	
Decommissioning Crew	\$4,725.00	
<b>Derig Decomm Equipment</b>	<b>2.00 0.32%</b>	<b>\$1,391.00 0.11%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Demob Work Boat</b>	<b>10.30 1.65%</b>	<b>\$7,163.65 0.55%</b>
Work Boat	\$6,004.90	
Decommissioning Crew	\$1,158.75	
<b>Mob P/L Removal Spread</b>	<b>5.00 0.80%</b>	<b>\$15,345.00 1.17%</b>
Dive Basic Spread- Mixed Gas	\$4,425.00	
Pipeline Surveying	\$1,150.00	
Pipelay Barge	\$9,770.00	
Manual Calculation	\$0.00	
<b>Cut &amp; Plug Pipeline</b>	<b>6.38 1.02%</b>	<b>\$20,297.97 1.55%</b>
Dive Basic Spread- Mixed Gas	\$5,646.30	
Pipeline Surveying	\$1,467.40	
Pipelay Barge	\$12,466.52	
Decommissioning Crew	\$717.75	
<b>Cut Pipeline Riser</b>	<b>4.00 0.64%</b>	<b>\$12,726.00 0.97%</b>
Dive Basic Spread- Mixed Gas	\$3,540.00	
Pipeline Surveying	\$920.00	
Pipelay Barge	\$7,816.00	
Decommissioning Crew	\$450.00	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Remove Tube Turn</b>		<b>4.00</b>	<b>0.64%</b>	<b>\$12,726.00</b>	<b>0.97%</b>	
Dive Basic Spread- Mixed Gas	\$3,540.00					
Pipeline Surveying	\$920.00					
Pipelay Barge	\$7,816.00					
Decommissioning Crew	\$450.00					
<b>Mobilize Vessel</b>		<b>5.00</b>	<b>0.80%</b>	<b>\$21,500.00</b>	<b>1.64%</b>	
CB 180 & Tug	\$5,500.00					
Rig Up CB 180	\$16,000.00					
<b>Expose Pipeline</b>		<b>6.38</b>	<b>1.02%</b>	<b>\$23,089.22</b>	<b>1.76%</b>	
Pipeline Surveying	\$1,467.40					
Dive Basic Spread- Mixed Gas	\$5,646.30					
Pipelay Barge	\$12,466.52					
CB 180 & Tug	\$3,509.00					
<b>Remove Pipeline</b>		<b>228.00</b>	<b>36.46%</b>	<b>\$825,132.00</b>	<b>63.07%</b>	
Pipeline Surveying	\$52,440.00					
Dive Basic Spread- Mixed Gas	\$201,780.00					
Pipelay Barge	\$445,512.00					
CB 180 & Tug	\$125,400.00					
<b>Bury Pipeline</b>		<b>4.25</b>	<b>0.68%</b>	<b>\$15,380.75</b>	<b>1.18%</b>	
Pipeline Surveying	\$977.50					
Dive Basic Spread- Mixed Gas	\$3,761.25					
Pipelay Barge	\$8,304.50					
CB 180 & Tug	\$2,337.50					
<b>Demob Vessel</b>		<b>5.00</b>	<b>0.80%</b>	<b>\$5,500.00</b>	<b>0.42%</b>	
CB 180 & Tug	\$5,500.00					
<b>Demob P/L Removal Spread</b>		<b>5.00</b>	<b>0.80%</b>	<b>\$18,095.00</b>	<b>1.38%</b>	
Pipeline Surveying	\$1,150.00					
Dive Basic Spread- Mixed Gas	\$4,425.00					
Pipelay Barge	\$9,770.00					
CB 180 & Tug	\$2,750.00					
<b>Offload CB 180</b>		<b>168.00</b>	<b>26.87%</b>	<b>\$41,000.00</b>	<b>3.13%</b>	
Cargo Barge 180	\$21,000.00					
CB Damage Deduct	\$20,000.00					
		<b>Total</b>	<b>505.31</b>	<b>80.81%</b>	<b>\$1,055,512.59</b>	<b>80.67%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**B MMS POCS 29056 (Ver 1) Segment#:1330241-Sh**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>5.00 0.85%</b>	<b>\$3,477.50 0.27%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.85%</b>	<b>\$3,477.50 0.27%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Pig &amp; Flush Pipeline</b>	<b>9.00 1.53%</b>	<b>\$6,259.50 0.49%</b>
Work Boat	\$5,247.00	
Decommissioning Crew	\$1,012.50	
<b>Derig Decomm Equipment</b>	<b>2.00 0.34%</b>	<b>\$1,391.00 0.11%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Demob Work Boat</b>	<b>10.30 1.75%</b>	<b>\$7,163.65 0.56%</b>
Work Boat	\$6,004.90	
Decommissioning Crew	\$1,158.75	
<b>Mob P/L Removal Spread</b>	<b>5.00 0.85%</b>	<b>\$15,345.00 1.21%</b>
Dive Basic Spread- Mixed Gas	\$4,425.00	
Pipeline Surveying	\$1,150.00	
Pipelay Barge	\$9,770.00	
Manual Calculation	\$0.00	
<b>Cut &amp; Plug Pipeline</b>	<b>6.38 1.09%</b>	<b>\$20,297.97 1.59%</b>
Dive Basic Spread- Mixed Gas	\$5,646.30	
Pipeline Surveying	\$1,467.40	
Pipelay Barge	\$12,466.52	
Decommissioning Crew	\$717.75	
<b>Cut Pipeline Riser</b>	<b>4.00 0.68%</b>	<b>\$12,726.00 1.00%</b>
Dive Basic Spread- Mixed Gas	\$3,540.00	
Pipeline Surveying	\$920.00	
Pipelay Barge	\$7,816.00	
Decommissioning Crew	\$450.00	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Remove Tube Turn</b>		<b>4.00</b>	<b>0.68%</b>	<b>\$12,726.00</b>	<b>1.00%</b>	
Dive Basic Spread- Mixed Gas	\$3,540.00					
Pipeline Surveying	\$920.00					
Pipelay Barge	\$7,816.00					
Decommissioning Crew	\$450.00					
<b>Mobilize Vessel</b>		<b>10.30</b>	<b>1.75%</b>	<b>\$27,330.00</b>	<b>2.15%</b>	
CB 180 & Tug	\$11,330.00					
Rig Up CB 180	\$16,000.00					
<b>Expose Pipeline</b>		<b>6.38</b>	<b>1.09%</b>	<b>\$23,089.22</b>	<b>1.81%</b>	
Pipeline Surveying	\$1,467.40					
Dive Basic Spread- Mixed Gas	\$5,646.30					
Pipelay Barge	\$12,466.52					
CB 180 & Tug	\$3,509.00					
<b>Remove Pipeline</b>		<b>225.00</b>	<b>38.33%</b>	<b>\$814,275.00</b>	<b>63.95%</b>	
Pipeline Surveying	\$51,750.00					
Dive Basic Spread- Mixed Gas	\$199,125.00					
Pipelay Barge	\$439,650.00					
CB 180 & Tug	\$123,750.00					
<b>Bury Pipeline</b>		<b>4.25</b>	<b>0.72%</b>	<b>\$15,380.75</b>	<b>1.21%</b>	
Pipeline Surveying	\$977.50					
Dive Basic Spread- Mixed Gas	\$3,761.25					
Pipelay Barge	\$8,304.50					
CB 180 & Tug	\$2,337.50					
<b>Demob Vessel</b>		<b>5.00</b>	<b>0.85%</b>	<b>\$5,500.00</b>	<b>0.43%</b>	
CB 180 & Tug	\$5,500.00					
<b>Demob P/L Removal Spread</b>		<b>5.00</b>	<b>0.85%</b>	<b>\$18,095.00</b>	<b>1.42%</b>	
Pipeline Surveying	\$1,150.00					
Dive Basic Spread- Mixed Gas	\$4,425.00					
Pipelay Barge	\$9,770.00					
CB 180 & Tug	\$2,750.00					
<b>Offload CB 180</b>		<b>168.00</b>	<b>28.62%</b>	<b>\$41,000.00</b>	<b>3.22%</b>	
Cargo Barge 180	\$21,000.00					
CB Damage Deduct	\$20,000.00					
		<b>Total</b>	<b>474.61</b>	<b>80.86%</b>	<b>\$1,027,534.09</b>	<b>80.69%</b>



## **MMS**

### **Well Information**

#### **B MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:   15.00%

Weather Contingency %:       10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Dos Cuadras Offshore LLC	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**B MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$5,724,556.00 80.00%
		<b>Task Total</b>	0.00	\$5,724,556.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$858,683.43 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$572,455.61 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$7,155,695.04 100.00%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Well Decommission Resources Breakdown**

#### **B MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$5,724,556.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**B MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$5,724,556.00</b>	<b>80.00%</b>
Manual Calculation			\$5,724,556.00	
<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$5,724,556.00</b>	<b>80.00%</b>

**C MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **C MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform C will be removed along with Platforms A, B, Hillhouse, Gina and Henry.
- Platform C is a 12-pile platform installed in 1977 in 192' of water.
- The estimated removal weight is the deck weight is 1,357 tons and the jacket weight is 1,500 tons.
- The platform has a total of 38 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 43 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and one 400' cargo barge will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 3 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The three pipelines (oil, gas, water) on the OCS will be totally removed to the state



## MMS

### Platform Salvage Option

#### C MMS POCS 29056 (Ver 1)

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water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed



## MMS

### Platform Salvage Option

#### C MMS POCS 29056 (Ver 1)

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with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$23,683,644

Estimated Decommissioning Net Cost = \$23,683,644



## MMS

### Basic Information

#### C MMS POCS 29056 (Ver 1)

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#### General Data

Platform: C MMS POCS 29056  
Function: FACILITIES  
Type: Steel  
Water Depth: 192'  
Pre 461H?: Yes  
Year Installed: 1977  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0241  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 38  
# Pipelines to Abandon: 3  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Dos Cuadras Offshore LLC	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$18,339,350	\$18,339,350
Well Plugging & Abandonment:	\$4,875,420	\$4,875,420
Pipeline Abandonment:	\$468,874	\$468,874
Total Decommissioning Cost:	\$23,683,644	\$23,683,644



## MMS

### Platform Information

### C MMS POCS 29056 (Ver 1)

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#### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	12	40"	0.5"	Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

#### Deck Dimensions

	Dimensions	Elevation
Upper:	112 x 134	70
Middle:	90 x 115	43
Lower:	10 x 40	39

#### Conductors

Number of Slots:	60
Number Installed:	43
Outside Diameter:	20"
Wall Thickness:	0.3"
Number Slanted:	10

#### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	1500.00		
Jacket Installation Date:	2/28/77		
Jacket Contractor:	Unknown		

#### Deck Data

Deck Lift Weight with Equipment:	1357 Tons
Number of Padeyes Required:	12
Deck Installation Date:	2/28/77
Deck Contractor:	Unknown



## MMS

### Platform Information

### C MMS POCS 29056 (Ver 1)

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### Equipment Lift Weights

### Members to be Cut Data

### Cargo Descriptions

Cargo Barge Size	Cargo Description			
CB 300 x 100	Equipment	Equipment	Deck 100-500T	Deck 100-500T
CB 300 x 100	Equipment	Equipment	Deck 100-500T	Deck 100-500T
CB 400 x 100	Jkt > 700T	Conductors	Conductors	

### Miscellaneous Data

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### Miscellaneous Cost

Consumables:	\$0.00
Waste Disposal:	\$1,636,808.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**C MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$1,126,663.00	6.14%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.05%	\$425,833.00	2.32%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.05%	\$3,316,694.00	18.09%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.05%	\$6,993.00	0.04%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.05%	\$957,710.00	5.22%
Mobilize DB 2000	Mob from Asia, 50 days divided by 6 platforms	<input type="checkbox"/>	200.00	10.08%	\$1,530,000.00	8.34%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	22.60	1.14%	\$72,296.00	0.39%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 1)	<input type="checkbox"/>	22.60	1.14%	\$36,600.00	0.20%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	10.30	0.52%	\$46,556.00	0.25%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.34%	\$84,510.00	0.46%
Cut Deck/Equip/Misc	Seperate 4 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	1.21%	\$324,000.00	1.77%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	1.21%	\$324,000.00	1.77%
Remove 8 Pile Deck	Remove 12 Pile Deck, 4 modules	<input checked="" type="checkbox"/>	48.00	2.42%	\$648,000.00	3.53%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	22.60	1.14%	\$44,296.00	0.24%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	46.00	2.32%	\$621,920.00	3.39%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	61.68	3.11%	\$962,913.60	5.25%
Remove Jacket - Meth 1		<input checked="" type="checkbox"/>	20.75	1.05%	\$280,540.00	1.53%
Demob CB 400 & Tug	Demob to Port of LA (Qty 1)	<input type="checkbox"/>	22.60	1.14%	\$22,600.00	0.12%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.34%	\$84,510.00	0.46%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	10.30	0.52%	\$46,556.00	0.25%
Demob DB 2000	Demob to Asia, 50 days divided by 6 platforms	<input type="checkbox"/>	200.00	10.08%	\$1,530,000.00	8.34%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	3.63%	\$709,000.00	3.87%
Offload CB 300		<input type="checkbox"/>	672.00	33.87%	\$177,760.00	0.97%
Offload CB 400		<input type="checkbox"/>	408.00	20.57%	\$126,080.00	0.69%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.05%	\$6,993.00	0.04%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$888,856.00	4.85%
<b>Task Total</b>			1905.93	96.07%	\$14,401,879.60	78.53%
<b>Misc. Work Provision (15.00%)</b>			46.79	2.36%	\$1,380,398.00	7.53%
<b>Weather Contingency (10.00%)</b>			31.19	1.57%	\$920,265.40	5.02%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$1,636,808.00	8.93%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%



**MMS**

**Platform Decommission Task Information**

**C MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		Offloading		\$0.00	0.00%
		Storage / Scrapping		\$0.00	0.00%
		Reef Donation		\$0.00	0.00%
		Cost of Engineering (0.00%)		\$0.00	0.00%
			<b>Total:</b>	1983.91	100.00%
				18,339,351.00	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### C MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$161,581.25	0.88%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$137,760.00	0.75%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$106,080.00	0.58%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$182,672.00	1.00%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$173,630.00	0.95%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$60,000.00	0.33%
Derrick Barge 2000	\$8,500.00	per Hour per barge	\$5,082,405.00	27.71%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$818,247.45	4.46%
Manual Calculation	\$0.00	Independently Calculated	\$7,438,742.00	40.56%
Pile Abrasive Cut 70 to 96 inches	\$5,375.00	per Cut	\$129,000.00	0.70%
Pipeline Survey	\$230.00	per Hour	\$59,461.90	0.32%
Rig Up CB 300	\$14,000.00	per Barge	\$28,000.00	0.15%
Rig Up CB 400	\$14,000.00	per Barge	\$14,000.00	0.08%
Work Boat	\$500.00	per Hour	\$10,300.00	0.06%



**MMS**

**Platform Decommission Cost Breakdown**

**C MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,126,663.00</b>	<b>6.14%</b>
Manual Calculation			\$1,126,663.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$425,833.00</b>	<b>2.32%</b>
Manual Calculation			\$425,833.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$3,316,694.00</b>	<b>18.09%</b>
Manual Calculation			\$3,316,694.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$6,993.00</b>	<b>0.04%</b>
Manual Calculation			\$917.00	
Manual Calculation			\$352.00	
Manual Calculation			\$4,000.00	
Manual Calculation			\$1,724.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$957,710.00</b>	<b>5.22%</b>
Manual Calculation			\$957,710.00	
<b>Mobilize DB 2000</b>	<b>200.00</b>	<b>10.08%</b>	<b>\$1,530,000.00</b>	<b>8.34%</b>
Derrick Barge 2000			\$1,530,000.00	
<b>Mobilize CB 300 &amp; Tug</b>	<b>22.60</b>	<b>1.14%</b>	<b>\$72,296.00</b>	<b>0.39%</b>
CB 300 & Tug			\$44,296.00	
Rig Up CB 300			\$28,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**C MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize CB 400 &amp; Tug</b>	<b>22.60</b>	<b>1.14%</b>	<b>\$36,600.00</b>	<b>0.20%</b>
Rig Up CB 400			\$14,000.00	
CB 400 & Tug			\$22,600.00	
<b>Mobilize Dive Spread</b>	<b>10.30</b>	<b>0.52%</b>	<b>\$46,556.00</b>	<b>0.25%</b>
Work Boat			\$5,150.00	
Dive Basic Spread Saturation			\$32,599.50	
Abrasive Cutter Spread			\$6,437.50	
Pipeline Survey			\$2,369.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.34%</b>	<b>\$84,510.00</b>	<b>0.46%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>1.21%</b>	<b>\$324,000.00</b>	<b>1.77%</b>
Derrick Barge 2000			\$204,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	



**MMS**

**Platform Decommission Cost Breakdown**

**C MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>24.00</b>	<b>1.21%</b>	<b>\$324,000.00</b>	<b>1.77%</b>
Derrick Barge 2000	\$204,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
<b>Remove 8 Pile Deck</b>		<b>48.00</b>	<b>2.42%</b>	<b>\$648,000.00</b>	<b>3.53%</b>
Derrick Barge 2000	\$408,000.00				
Dive Basic Spread Saturation	\$151,920.00				
Pipeline Survey	\$11,040.00				
Abrasive Cutter Spread	\$30,000.00				
CB 300 & Tug	\$47,040.00				
<b>Demob CB 300 &amp; Tug</b>		<b>22.60</b>	<b>1.14%</b>	<b>\$44,296.00</b>	<b>0.24%</b>
CB 300 & Tug	\$44,296.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>46.00</b>	<b>2.32%</b>	<b>\$621,920.00</b>	<b>3.39%</b>
Derrick Barge 2000	\$391,000.00				
Dive Basic Spread Saturation	\$145,590.00				
Pipeline Survey	\$10,580.00				
Abrasive Cutter Spread	\$28,750.00				
CB 400 & Tug	\$46,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**C MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>	<b>61.68</b>	<b>3.11%</b>	<b>\$962,913.60</b>	<b>5.25%</b>
Derrick Barge 2000			\$524,280.00	
Dive Basic Spread Saturation			\$195,217.20	
Pipeline Survey			\$14,186.40	
Abrasive Cutter Spread			\$38,550.00	
CB 400 & Tug			\$61,680.00	
Pile Abrasive Cut 70 to 96 inches			\$129,000.00	
<b>Remove Jacket - Meth 1</b>	<b>20.75</b>	<b>1.05%</b>	<b>\$280,540.00</b>	<b>1.53%</b>
Derrick Barge 2000			\$176,375.00	
Dive Basic Spread Saturation			\$65,673.75	
Pipeline Survey			\$4,772.50	
Abrasive Cutter Spread			\$12,968.75	
CB 400 & Tug			\$20,750.00	
<b>Demob CB 400 &amp; Tug</b>	<b>22.60</b>	<b>1.14%</b>	<b>\$22,600.00</b>	<b>0.12%</b>
CB 400 & Tug			\$22,600.00	
<b>Pick Up DB Anchors</b>	<b>6.75</b>	<b>0.34%</b>	<b>\$84,510.00</b>	<b>0.46%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	



**MMS**

**Platform Decommission Cost Breakdown**

**C MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Demob Dive Spread</b>	<b>10.30</b>	<b>0.52%</b>	<b>\$46,556.00</b>	<b>0.25%</b>
Work Boat			\$5,150.00	
Dive Basic Spread Saturation			\$32,599.50	
Abrasive Cutter Spread			\$6,437.50	
Pipeline Survey			\$2,369.00	
<b>Demob DB 2000</b>	<b>200.00</b>	<b>10.08%</b>	<b>\$1,530,000.00</b>	<b>8.34%</b>
Derrick Barge 2000			\$1,530,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>3.63%</b>	<b>\$709,000.00</b>	<b>3.87%</b>
Manual Calculation			\$709,000.00	
<b>Offload CB 300</b>	<b>672.00</b>	<b>33.87%</b>	<b>\$177,760.00</b>	<b>0.97%</b>
Cargo Barge 300			\$137,760.00	
CB Damage Deduct			\$40,000.00	
<b>Offload CB 400</b>	<b>408.00</b>	<b>20.57%</b>	<b>\$126,080.00</b>	<b>0.69%</b>
Cargo Barge 400			\$106,080.00	
CB Damage Deduct			\$20,000.00	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$6,993.00</b>	<b>0.04%</b>
Manual Calculation			\$917.00	
Manual Calculation			\$352.00	
Manual Calculation			\$4,000.00	
Manual Calculation			\$1,724.00	



**MMS**

**Platform Decommission Cost Breakdown**

**C MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$888,856.00</b>	<b>4.85%</b>
Manual Calculation			\$888,856.00	
<b>Total</b>	<b>1905.93</b>	<b>96.07%</b>	<b>\$14,401,879.60</b>	<b>78.53%</b>



## MMS

### Pipeline Information

#### C MMS POCS 29056 (Ver1) Segment#:510241

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#### General Data

Water Depth: 192'  
Origin / Terminus: Origin  
Opposite End Name: DC B Self  
Opposite End Water Depth: 190'  
Pipeline Operator: Spirit 76  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter: 6"	Wall Thickness: 0.432"	Length: 2839'
Depth of Burial: 3'	# Crossings:	Product: Oil
Installation Date:	Weight Coating: No	J Tube: No
Riser?: Yes	Riser Guard?: No	

#### Comments

This segment runs to the B platform. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### C MMS POCS 29056 (Ver1) Segment#:620241

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#### General Data

Water Depth: 192'  
Origin / Terminus: Origin  
Opposite End Name: DC B Self  
Opposite End Water Depth: 190'  
Pipeline Operator: Spirit 76  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter: 6"	Wall Thickness: 0.432"	Length: 2839'
Depth of Burial: 3'	# Crossings:	Product: Gas
Installation Date:	Weight Coating: No	J Tube: No
Riser?: Yes	Riser Guard?: No	

#### Comments

This segment runs to the B platform. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### C MMS POCS 29056 (Ver1) Segment#:730241

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### General Data

Water Depth: 192'  
Origin / Terminus: Origin  
Opposite End Name: DC B Self  
Opposite End Water Depth: 190'  
Pipeline Operator: Spirit 76  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 6"	Wall Thickness: 0.432"	Length: 2839'
Depth of Burial: 3'	# Crossings:	Product: Water
Installation Date:	Weight Coating: No	J Tube: No
Riser?: Yes	Riser Guard?: No	

### Comments

This segment runs to the B platform. It is estimated as abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**C MMS POCS 29056 (Ver 1) Segment#:510241**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	5.00	5.79%	\$9,052.50	5.79%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.79%	\$9,052.50	5.79%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	1.39	1.61%	\$2,516.59	1.61%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.32%	\$3,621.00	2.32%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Reposition Workboat		<input checked="" type="checkbox"/>	3.05	3.53%	\$5,522.02	3.53%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Demob Work Boat		<input type="checkbox"/>	5.00	5.79%	\$9,052.50	5.79%
<b>Task Total</b>			<b>72.46</b>	<b>83.94%</b>	<b>\$131,188.85</b>	<b>83.94%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>8.32</b>	<b>9.64%</b>	<b>\$15,061.55</b>	<b>9.64%</b>
<b>Other Contingency (10.00%)</b>			<b>5.55</b>	<b>6.42%</b>	<b>\$10,041.04</b>	<b>6.42%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>86.33</b>	<b>100.00%</b>	<b>\$156,291.44</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**C MMS POCS 29056 (Ver 1) Segment#:620241**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	5.00	5.79%	\$9,052.50	5.79%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.79%	\$9,052.50	5.79%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	1.39	1.61%	\$2,516.59	1.61%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.32%	\$3,621.00	2.32%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Reposition Workboat		<input checked="" type="checkbox"/>	3.05	3.53%	\$5,522.02	3.53%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Demob Work Boat		<input type="checkbox"/>	5.00	5.79%	\$9,052.50	5.79%
<b>Task Total</b>			<b>72.46</b>	<b>83.94%</b>	<b>\$131,188.85</b>	<b>83.94%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>8.32</b>	<b>9.64%</b>	<b>\$15,061.55</b>	<b>9.64%</b>
<b>Other Contingency (10.00%)</b>			<b>5.55</b>	<b>6.42%</b>	<b>\$10,041.04</b>	<b>6.42%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>86.33</b>	<b>100.00%</b>	<b>\$156,291.44</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**C MMS POCS 29056 (Ver 1) Segment#:730241**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	5.00	5.79%	\$9,052.50	5.79%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.79%	\$9,052.50	5.79%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	1.39	1.61%	\$2,516.59	1.61%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.32%	\$3,621.00	2.32%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Reposition Workboat		<input checked="" type="checkbox"/>	3.05	3.53%	\$5,522.02	3.53%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	7.39%	\$11,550.99	7.39%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.92%	\$7,694.63	4.92%
Demob Work Boat		<input type="checkbox"/>	5.00	5.79%	\$9,052.50	5.79%
<b>Task Total</b>			<b>72.46</b>	<b>83.94%</b>	<b>\$131,188.85</b>	<b>83.94%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>8.32</b>	<b>9.64%</b>	<b>\$15,061.55</b>	<b>9.64%</b>
<b>Other Contingency (10.00%)</b>			<b>5.55</b>	<b>6.42%</b>	<b>\$10,041.04</b>	<b>6.42%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>86.33</b>	<b>100.00%</b>	<b>\$156,291.44</b>	<b>100.00%</b>



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **C MMS POCS 29056 (Ver 1) Segment#:510241**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$8,151.77	5.22%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$64,127.10	41.03%
Pipeline Surveying	\$230.00	per Hour	\$16,665.80	10.66%
Work Boat	\$583.00	per Hour	\$42,244.18	27.03%



**TWACHTMAN SNYDER & BYRD, INC.**

**MMS**

**Pipeline Decommission Resources Breakdown**

**C MMS POCS 29056 (Ver 1) Segment#:620241**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$8,151.77	5.22%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$64,127.10	41.03%
Pipeline Surveying	\$230.00	per Hour	\$16,665.80	10.66%
Work Boat	\$583.00	per Hour	\$42,244.18	27.03%



**TWACHTMAN SNYDER & BYRD, INC.**

**MMS**

**Pipeline Decommission Resources Breakdown**

**C MMS POCS 29056 (Ver 1) Segment#:730241**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$8,151.77	5.22%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$64,127.10	41.03%
Pipeline Surveying	\$230.00	per Hour	\$16,665.80	10.66%
Work Boat	\$583.00	per Hour	\$42,244.18	27.03%



**MMS**

**Pipeline Decommission Cost Breakdown**

**C MMS POCS 29056 (Ver 1) Segment#:510241**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>5.00 5.79%</b>	<b>\$9,052.50 5.79%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 5.79%</b>	<b>\$9,052.50 5.79%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>1.39 1.61%</b>	<b>\$2,516.59 1.61%</b>
Work Boat	\$810.37	
Dive Basic Spread- Mixed Gas	\$1,230.15	
Decommissioning Crew	\$156.37	
Pipeline Surveying	\$319.70	
<b>Derig Decomm Equipment</b>	<b>2.00 2.32%</b>	<b>\$3,621.00 2.32%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Expose Pipeline</b>	<b>6.38 7.39%</b>	<b>\$11,550.99 7.39%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	
<b>Cut &amp; Plug Pipeline</b>	<b>6.38 7.39%</b>	<b>\$11,550.99 7.39%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Remove Tube Turn</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Reposition Workboat</b>		<b>3.05</b>	<b>3.53%</b>	<b>\$5,522.02</b>	<b>3.53%</b>
Work Boat	\$1,778.15				
Dive Basic Spread- Mixed Gas	\$2,699.25				
Decommissioning Crew	\$343.12				
Pipeline Surveying	\$701.50				
<b>Expose Pipeline</b>		<b>6.38</b>	<b>7.39%</b>	<b>\$11,550.99</b>	<b>7.39%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				
<b>Cut &amp; Plug Pipeline</b>		<b>6.38</b>	<b>7.39%</b>	<b>\$11,550.99</b>	<b>7.39%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Remove Tube Turn</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Demob Work Boat</b>		<b>5.00</b>	<b>5.79%</b>	<b>\$9,052.50</b>	<b>5.79%</b>
Work Boat	\$2,915.00				
Dive Basic Spread- Mixed Gas	\$4,425.00				
Decommissioning Crew	\$562.50				
Pipeline Surveying	\$1,150.00				
<b>Total</b>		<b>72.46</b>	<b>83.94%</b>	<b>\$131,188.85</b>	<b>83.94%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**C MMS POCS 29056 (Ver 1) Segment#:620241**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>5.00 5.79%</b>	<b>\$9,052.50 5.79%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 5.79%</b>	<b>\$9,052.50 5.79%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>1.39 1.61%</b>	<b>\$2,516.59 1.61%</b>
Work Boat	\$810.37	
Dive Basic Spread- Mixed Gas	\$1,230.15	
Decommissioning Crew	\$156.37	
Pipeline Surveying	\$319.70	
<b>Derig Decomm Equipment</b>	<b>2.00 2.32%</b>	<b>\$3,621.00 2.32%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Expose Pipeline</b>	<b>6.38 7.39%</b>	<b>\$11,550.99 7.39%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	
<b>Cut &amp; Plug Pipeline</b>	<b>6.38 7.39%</b>	<b>\$11,550.99 7.39%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Remove Tube Turn</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Reposition Workboat</b>		<b>3.05</b>	<b>3.53%</b>	<b>\$5,522.02</b>	<b>3.53%</b>
Work Boat	\$1,778.15				
Dive Basic Spread- Mixed Gas	\$2,699.25				
Decommissioning Crew	\$343.12				
Pipeline Surveying	\$701.50				
<b>Expose Pipeline</b>		<b>6.38</b>	<b>7.39%</b>	<b>\$11,550.99</b>	<b>7.39%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				
<b>Cut &amp; Plug Pipeline</b>		<b>6.38</b>	<b>7.39%</b>	<b>\$11,550.99</b>	<b>7.39%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Remove Tube Turn</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Demob Work Boat</b>		<b>5.00</b>	<b>5.79%</b>	<b>\$9,052.50</b>	<b>5.79%</b>
Work Boat	\$2,915.00				
Dive Basic Spread- Mixed Gas	\$4,425.00				
Decommissioning Crew	\$562.50				
Pipeline Surveying	\$1,150.00				
		<b>Total</b>	<b>72.46 83.94%</b>	<b>\$131,188.85</b>	<b>83.94%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**C MMS POCS 29056 (Ver 1) Segment#:730241**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>5.00 5.79%</b>	<b>\$9,052.50 5.79%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 5.79%</b>	<b>\$9,052.50 5.79%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>1.39 1.61%</b>	<b>\$2,516.59 1.61%</b>
Work Boat	\$810.37	
Dive Basic Spread- Mixed Gas	\$1,230.15	
Decommissioning Crew	\$156.37	
Pipeline Surveying	\$319.70	
<b>Derig Decomm Equipment</b>	<b>2.00 2.32%</b>	<b>\$3,621.00 2.32%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Expose Pipeline</b>	<b>6.38 7.39%</b>	<b>\$11,550.99 7.39%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	
<b>Cut &amp; Plug Pipeline</b>	<b>6.38 7.39%</b>	<b>\$11,550.99 7.39%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	



## **MMS**

### **Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<hr/>					
<b>Remove Tube Turn</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<hr/>					
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<hr/>					
<b>Reposition Workboat</b>		<b>3.05</b>	<b>3.53%</b>	<b>\$5,522.02</b>	<b>3.53%</b>
Work Boat	\$1,778.15				
Dive Basic Spread- Mixed Gas	\$2,699.25				
Decommissioning Crew	\$343.12				
Pipeline Surveying	\$701.50				
<hr/>					
<b>Expose Pipeline</b>		<b>6.38</b>	<b>7.39%</b>	<b>\$11,550.99</b>	<b>7.39%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>6.38</b>	<b>7.39%</b>	<b>\$11,550.99</b>	<b>7.39%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Remove Tube Turn</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.92%</b>	<b>\$7,694.63</b>	<b>4.92%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Demob Work Boat</b>		<b>5.00</b>	<b>5.79%</b>	<b>\$9,052.50</b>	<b>5.79%</b>
Work Boat	\$2,915.00				
Dive Basic Spread- Mixed Gas	\$4,425.00				
Decommissioning Crew	\$562.50				
Pipeline Surveying	\$1,150.00				
		<b>Total</b>	<b>72.46 83.94%</b>	<b>\$131,188.85</b>	<b>83.94%</b>



## **MMS**

### **Well Information**

#### **C MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:                      Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:              15.00%

Weather Contingency %:                      10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Dos Cuadras Offshore LLC	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**C MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$3,900,336.00 80.00%
		<b>Task Total</b>	0.00	\$3,900,336.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$585,050.42 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$390,033.61 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$4,875,420.03 100.00%



**MMS**

**Well Decommission Resources Breakdown**

**C MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$3,900,336.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**C MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$3,900,336.00</b>	<b>80.00%</b>	
Manual Calculation			\$3,900,336.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$3,900,336.00</b>	<b>80.00%</b>

**Edith MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Edith MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Edith will be removed along with Platforms Eureka, Ellen and Elly.
- Platform Edith is a 12-pile platform installed in 1983 in 161' of water.
- The estimated removal weight is the deck weight is 4,134 tons and the jacket weight is 3,454 tons.
- The platform has a total of 18 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 23 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and three 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 5 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The two pipelines (oil, gas) on the OCS will be totally removed to the state water



## MMS

### Platform Salvage Option

#### Edith MMS POCS 29056 (Ver 1)

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boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 5% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed



## MMS

### Platform Salvage Option

#### Edith MMS POCS 29056 (Ver 1)

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with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$29,178,546

Estimated Decommissioning Net Cost = \$29,178,546



## MMS

### Basic Information

#### Edith MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Edith MMS POCS 29056  
Function: FACILITIES  
Type: Steel  
Water Depth: 161'  
Pre 461H?: No  
Year Installed: 1983  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0296  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 18  
# Pipelines to Abandon: 2  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Dos Cuadras Offshore LLC	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$26,387,740	\$26,387,740
Well Plugging & Abandonment:	\$2,504,914	\$2,504,914
Pipeline Abandonment:	\$285,893	\$285,893
Total Decommissioning Cost:	\$29,178,546	\$29,178,546



## MMS

### Platform Information

### Edith MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	12	48"	1.75"	Yes	No	
Skirt/Braced	24	60"		No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:	116 x 66	63
Middle:		
Lower:	170 x 194	46

### Conductors

Number of Slots:	70
Number Installed:	23
Outside Diameter:	26"
Wall Thickness:	1.25"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	3454.00		
Jacket Installation Date:	1/12/83		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	4134 Tons
Number of Padeyes Required:	12
Deck Installation Date:	1/12/83
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

#### **Edith MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 300 x 100	Equipment	Equipment	Deck 100-500T	Deck 100-500T
CB 300 x 100	Deck > 500T	Deck 100-500T	Deck 100-500T	Deck 100-500T
CB 400 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck > 500T
CB 400 x 100	Jkt > 700T	Deck > 500T	Deck > 500T	
CB 400 x 100	Jkt > 700T	Jkt > 700T		

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	50.00
Provision for Misc. Work%:	15.00%
Weather Contingency%:	5.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$3,272,233.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Edith MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$1,310,058.00	4.96%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.02%	\$638,750.00	2.42%
Mobilize Abrasive Cutting Spread	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input type="checkbox"/>	1.00	0.02%	\$10,488.00	0.04%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet. Assume Planning can accommodate DB arrival immediately following conductor removal completion, allowing Abrasive spread to remain in LA/ Long Beach.	<input checked="" type="checkbox"/>	1.00	0.02%	\$1,650,362.00	6.25%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.02%	\$1,163,564.00	4.41%
Mobilize DB 2000	Mob from Asia, 50 days divided by 4 platforms	<input type="checkbox"/>	300.00	5.33%	\$2,295,000.00	8.70%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	10.00	0.18%	\$47,600.00	0.18%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 3)	<input type="checkbox"/>	10.00	0.18%	\$72,000.00	0.27%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	4.00	0.07%	\$18,080.00	0.07%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.12%	\$84,510.00	0.32%
Cut Deck/Equip/Misc	Seperate 12 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	0.43%	\$324,000.00	1.23%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.43%	\$324,000.00	1.23%
Remove 8 Pile Deck	Remove 8 Pile Deck, 12 modules	<input checked="" type="checkbox"/>	96.00	1.71%	\$1,296,000.00	4.91%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	10.00	0.18%	\$19,600.00	0.07%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	46.00	0.82%	\$621,920.00	2.36%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	230.26	4.09%	\$3,473,115.16	13.16%
Cut Jacket	16 Hours per section, times 3 section(s), per MMS	<input checked="" type="checkbox"/>	48.00	0.85%	\$827,952.00	3.14%
Remove Jacket - Meth 1	24 Hours per section, times 3 section(s), per MMS	<input checked="" type="checkbox"/>	72.00	1.28%	\$973,440.00	3.69%
Demob CB 400 & Tug	Demob to Port of LA (Qty 3)	<input type="checkbox"/>	10.00	0.18%	\$30,000.00	0.11%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.12%	\$84,510.00	0.32%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	4.00	0.07%	\$18,080.00	0.07%
Demob DB 2000	Mob from Asia, 50 days divided by 4 platforms	<input type="checkbox"/>	300.00	5.33%	\$2,295,000.00	8.70%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	1.28%	\$709,000.00	2.69%
Offload CB 300		<input type="checkbox"/>	1128.00	20.04%	\$271,240.00	1.03%
Offload CB 400		<input type="checkbox"/>	3096.00	55.01%	\$864,960.00	3.28%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.02%	\$10,488.00	0.04%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$1,146,090.00	4.34%
<b>Task Total</b>			<b>5502.76</b>	<b>97.77%</b>	<b>\$20,579,807.16</b>	<b>77.99%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>94.16</b>	<b>1.67%</b>	<b>\$1,901,770.00</b>	<b>7.21%</b>
<b>Weather Contingency (5.00%)</b>			<b>31.39</b>	<b>0.56%</b>	<b>\$633,923.20</b>	<b>2.40%</b>



**MMS**

**Platform Decommission Task Information**

**Edith MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
		Consumables		\$0.00 0.00%
		Waste Disposal		\$3,272,233.00 12.40%
		Structure & Equipment Disposal		\$0.00 0.00%
		Offloading		\$0.00 0.00%
		Storage / Scrapping		\$0.00 0.00%
		Reef Donation		\$0.00 0.00%
		Cost of Engineering (0.00%)		\$0.00 0.00%
		<b>Total:</b>	<b>5628.31 100.00%</b>	<b>26,387,733.36 100.00%</b>



## MMS

### Platform Decommission Resources Breakdown

#### Edith MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$351,100.00	1.33%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$231,240.00	0.88%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$804,960.00	3.05%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$180,320.00	0.68%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$456,259.98	1.73%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$100,000.00	0.38%
Derrick Barge 2000	\$8,500.00	per Hour per barge	\$9,296,960.00	35.23%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$1,777,970.38	6.74%
Manual Calculation	\$0.00	Independently Calculated	\$6,638,800.00	25.16%
Pile Abrasive Cut 49 to 69 inches	\$5,000.00	per Cut	\$360,000.00	1.36%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$178,992.00	0.68%
Pipeline Survey	\$230.00	per Hour	\$129,204.80	0.49%
Rig Up CB 300	\$14,000.00	per Barge	\$28,000.00	0.11%
Rig Up CB 400	\$14,000.00	per Barge	\$42,000.00	0.16%
Work Boat	\$500.00	per Hour	\$4,000.00	0.02%



**MMS**

**Platform Decommission Cost Breakdown**

**Edith MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,310,058.00</b>	<b>4.96%</b>
Manual Calculation			\$1,310,058.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$638,750.00</b>	<b>2.42%</b>
Manual Calculation			\$638,750.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$10,488.00</b>	<b>0.04%</b>
Manual Calculation			\$1,374.75	
Manual Calculation			\$527.25	
Manual Calculation			\$6,000.00	
Manual Calculation			\$2,586.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$1,650,362.00</b>	<b>6.25%</b>
Manual Calculation			\$1,650,362.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$1,163,564.00</b>	<b>4.41%</b>
Manual Calculation			\$1,163,564.00	
<b>Mobilize DB 2000</b>	<b>300.00</b>	<b>5.33%</b>	<b>\$2,295,000.00</b>	<b>8.70%</b>
Derrick Barge 2000			\$2,295,000.00	
<b>Mobilize CB 300 &amp; Tug</b>	<b>10.00</b>	<b>0.18%</b>	<b>\$47,600.00</b>	<b>0.18%</b>
CB 300 & Tug			\$19,600.00	
Rig Up CB 300			\$28,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Edith MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>10.00</b>	<b>0.18%</b>	<b>\$72,000.00</b>	<b>0.27%</b>
Rig Up CB 400			\$42,000.00	
CB 400 & Tug			\$30,000.00	
<b>Mobilize Dive Spread</b>	<b>4.00</b>	<b>0.07%</b>	<b>\$18,080.00</b>	<b>0.07%</b>
Work Boat			\$2,000.00	
Dive Basic Spread Saturation			\$12,660.00	
Abrasive Cutter Spread			\$2,500.00	
Pipeline Survey			\$920.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.12%</b>	<b>\$84,510.00</b>	<b>0.32%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>0.43%</b>	<b>\$324,000.00</b>	<b>1.23%</b>
Derrick Barge 2000			\$204,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Edith MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>24.00</b>	<b>0.43%</b>	<b>\$324,000.00</b>	<b>1.23%</b>
Derrick Barge 2000	\$204,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
<b>Remove 8 Pile Deck</b>		<b>96.00</b>	<b>1.71%</b>	<b>\$1,296,000.00</b>	<b>4.91%</b>
Derrick Barge 2000	\$816,000.00				
Dive Basic Spread Saturation	\$303,840.00				
Pipeline Survey	\$22,080.00				
Abrasive Cutter Spread	\$60,000.00				
CB 300 & Tug	\$94,080.00				
<b>Demob CB 300 &amp; Tug</b>		<b>10.00</b>	<b>0.18%</b>	<b>\$19,600.00</b>	<b>0.07%</b>
CB 300 & Tug	\$19,600.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>46.00</b>	<b>0.82%</b>	<b>\$621,920.00</b>	<b>2.36%</b>
Derrick Barge 2000	\$391,000.00				
Dive Basic Spread Saturation	\$145,590.00				
Pipeline Survey	\$10,580.00				
Abrasive Cutter Spread	\$28,750.00				
CB 400 & Tug	\$46,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Edith MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Sever Piles- Abrasive</b>	<b>230.26</b>	<b>4.09%</b>	<b>\$3,473,115.16</b>	<b>13.16%</b>
Derrick Barge 2000			\$1,957,210.00	
Dive Basic Spread Saturation			\$728,772.88	
Pipeline Survey			\$52,959.80	
Abrasive Cutter Spread			\$143,912.50	
CB 400 & Tug			\$230,259.98	
Pile Abrasive Cut 49 to 69 inches			\$360,000.00	
<b>Cut Jacket</b>	<b>48.00</b>	<b>0.85%</b>	<b>\$827,952.00</b>	<b>3.14%</b>
Derrick Barge 2000			\$408,000.00	
Dive Basic Spread Saturation			\$151,920.00	
Pipeline Survey			\$11,040.00	
Abrasive Cutter Spread			\$30,000.00	
CB 400 & Tug			\$48,000.00	
Pile Abrasive Cut 7 to 48 inches			\$178,992.00	
<b>Remove Jacket - Meth 1</b>	<b>72.00</b>	<b>1.28%</b>	<b>\$973,440.00</b>	<b>3.69%</b>
Derrick Barge 2000			\$612,000.00	
Dive Basic Spread Saturation			\$227,880.00	
Pipeline Survey			\$16,560.00	
Abrasive Cutter Spread			\$45,000.00	
CB 400 & Tug			\$72,000.00	
<b>Demob CB 400 &amp; Tug</b>	<b>10.00</b>	<b>0.18%</b>	<b>\$30,000.00</b>	<b>0.11%</b>
CB 400 & Tug			\$30,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Edith MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.12%</b>	<b>\$84,510.00</b>	<b>0.32%</b>
Derrick Barge 2000	\$57,375.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
<b>Demob Dive Spread</b>		<b>4.00</b>	<b>0.07%</b>	<b>\$18,080.00</b>	<b>0.07%</b>
Work Boat	\$2,000.00				
Dive Basic Spread Saturation	\$12,660.00				
Abrasive Cutter Spread	\$2,500.00				
Pipeline Survey	\$920.00				
<b>Demob DB 2000</b>		<b>300.00</b>	<b>5.33%</b>	<b>\$2,295,000.00</b>	<b>8.70%</b>
Derrick Barge 2000	\$2,295,000.00				
<b>Site Clearance - with Divers</b>		<b>72.00</b>	<b>1.28%</b>	<b>\$709,000.00</b>	<b>2.69%</b>
Manual Calculation	\$709,000.00				
<b>Offload CB 300</b>		<b>1128.00</b>	<b>20.04%</b>	<b>\$271,240.00</b>	<b>1.03%</b>
Cargo Barge 300	\$231,240.00				
CB Damage Deduct	\$40,000.00				
<b>Offload CB 400</b>		<b>3096.00</b>	<b>55.01%</b>	<b>\$864,960.00</b>	<b>3.28%</b>
Cargo Barge 400	\$804,960.00				
CB Damage Deduct	\$60,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Edith MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$10,488.00</b>	<b>0.04%</b>
Manual Calculation			\$1,374.75	
Manual Calculation			\$527.25	
Manual Calculation			\$6,000.00	
Manual Calculation			\$2,586.00	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,146,090.00</b>	<b>4.34%</b>
Manual Calculation			\$1,146,090.00	
<b>Total</b>	<b>5502.76</b>	<b>97.77%</b>	<b>\$20,579,807.16</b>	<b>77.99%</b>



## MMS

### Pipeline Information

#### Edith MMS POCS 29056 (Ver1) Segment#:3610296

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### General Data

Water Depth: 161'  
Origin / Terminus: Origin  
Opposite End Name: Ely  
Opposite End Water Depth: 257'  
Pipeline Operator: Spirit 76  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 5.00%

### Pipeline Data

Outside Diameter: 6"	Wall Thickness: 0.432"	Length: 6336'
Depth of Burial: 3'	# Crossings:	Product: Oil
Installation Date:	Weight Coating: No	J Tube: No
Riser?: Yes	Riser Guard?: No	

### Comments

This segment runs to Ely. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Edith MMS POCS 29056 (Ver1) Segment#:3720296

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#### General Data

Water Depth: 161'  
Origin / Terminus: Origin  
Opposite End Name: Eva  
Opposite End Water Depth: 60'  
Pipeline Operator: Spirit 76  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 5.00%

#### Pipeline Data

Outside Diameter: 6"	Wall Thickness: 0.432"	Length: 26849'
Depth of Burial: 3'	# Crossings:	Product: Gas
Installation Date:	Weight Coating: No	J Tube: No
Riser?: Yes	Riser Guard?: No	

#### Comments

This segment runs to Eva. It is estimated as abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**Edith MMS POCS 29056 (Ver 1) Segment#:3610296**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	4.00	5.49%	\$7,242.00	5.49%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	6.86%	\$9,052.50	6.86%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	3.10	4.25%	\$5,612.55	4.25%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.74%	\$3,621.00	2.74%
Expose Pipeline		<input checked="" type="checkbox"/>	5.21	7.14%	\$9,432.71	7.14%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.21	7.14%	\$9,432.71	7.14%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.47	4.76%	\$6,282.44	4.76%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.47	4.76%	\$6,282.44	4.76%
Bury Pipeline		<input checked="" type="checkbox"/>	3.47	4.76%	\$6,282.44	4.76%
Reposition Workboat		<input checked="" type="checkbox"/>	3.51	4.81%	\$6,354.85	4.81%
Expose Pipeline		<input checked="" type="checkbox"/>	5.21	7.14%	\$9,432.71	7.14%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.21	7.14%	\$9,432.71	7.14%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.47	4.76%	\$6,282.44	4.76%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.47	4.76%	\$6,282.44	4.76%
Bury Pipeline		<input checked="" type="checkbox"/>	3.47	4.76%	\$6,282.44	4.76%
Demob Work Boat		<input type="checkbox"/>	4.00	5.49%	\$7,242.00	5.49%
<b>Task Total</b>			<b>63.27</b>	<b>86.76%</b>	<b>\$114,550.38</b>	<b>86.76%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>7.24</b>	<b>9.93%</b>	<b>\$13,108.93</b>	<b>9.93%</b>
<b>Weather Contingency (5.00%)</b>			<b>2.41</b>	<b>3.31%</b>	<b>\$4,369.64</b>	<b>3.31%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>72.92</b>	<b>100.00%</b>	<b>\$132,028.96</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Edith MMS POCS 29056 (Ver 1) Segment#:3720296**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	4.00	4.71%	\$7,242.00	4.71%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.88%	\$9,052.50	5.88%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	13.15	15.47%	\$23,808.07	15.47%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.35%	\$3,621.00	2.35%
Expose Pipeline		<input checked="" type="checkbox"/>	5.21	6.13%	\$9,432.71	6.13%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.21	6.13%	\$9,432.71	6.13%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.47	4.08%	\$6,282.44	4.08%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.47	4.08%	\$6,282.44	4.08%
Bury Pipeline		<input checked="" type="checkbox"/>	3.47	4.08%	\$6,282.44	4.08%
Reposition Workboat		<input checked="" type="checkbox"/>	3.51	4.13%	\$6,354.85	4.13%
Expose Pipeline		<input checked="" type="checkbox"/>	5.21	6.13%	\$9,432.71	6.13%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.21	6.13%	\$9,432.71	6.13%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.47	4.08%	\$6,282.44	4.08%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.47	4.08%	\$6,282.44	4.08%
Bury Pipeline		<input checked="" type="checkbox"/>	3.47	4.08%	\$6,282.44	4.08%
Demob Work Boat		<input type="checkbox"/>	4.00	4.71%	\$7,242.00	4.71%
<b>Task Total</b>			<b>73.32</b>	<b>86.28%</b>	<b>\$132,745.90</b>	<b>86.28%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>8.75</b>	<b>10.29%</b>	<b>\$15,838.26</b>	<b>10.29%</b>
<b>Weather Contingency (5.00%)</b>			<b>2.92</b>	<b>3.43%</b>	<b>\$5,279.42</b>	<b>3.43%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>84.98</b>	<b>100.00%</b>	<b>\$153,863.58</b>	<b>100.00%</b>



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Edith MMS POCS 29056 (Ver 1) Segment#:361029**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$7,117.92	5.39%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$55,993.95	42.41%
Pipeline Surveying	\$230.00	per Hour	\$14,552.10	11.02%
Work Boat	\$583.00	per Hour	\$36,886.41	27.94%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Edith MMS POCS 29056 (Ver 1) Segment#:372029**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$8,248.54	5.36%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$64,888.20	42.17%
Pipeline Surveying	\$230.00	per Hour	\$16,863.60	10.96%
Work Boat	\$583.00	per Hour	\$42,745.56	27.78%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Edith MMS POCS 29056 (Ver 1) Segment#:3610296**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize Work Boat</b>	<b>4.00</b>	<b>5.49%</b>	<b>\$7,242.00</b>	<b>5.49%</b>
Work Boat			\$2,332.00	
Dive Basic Spread- Mixed Gas			\$3,540.00	
Decommissioning Crew			\$450.00	
Pipeline Surveying			\$920.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00</b>	<b>6.86%</b>	<b>\$9,052.50</b>	<b>6.86%</b>
Work Boat			\$2,915.00	
Dive Basic Spread- Mixed Gas			\$4,425.00	
Decommissioning Crew			\$562.50	
Pipeline Surveying			\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>3.10</b>	<b>4.25%</b>	<b>\$5,612.55</b>	<b>4.25%</b>
Work Boat			\$1,807.30	
Dive Basic Spread- Mixed Gas			\$2,743.50	
Decommissioning Crew			\$348.75	
Pipeline Surveying			\$713.00	
<b>Derig Decomm Equipment</b>	<b>2.00</b>	<b>2.74%</b>	<b>\$3,621.00</b>	<b>2.74%</b>
Work Boat			\$1,166.00	
Dive Basic Spread- Mixed Gas			\$1,770.00	
Decommissioning Crew			\$225.00	
Pipeline Surveying			\$460.00	
<b>Expose Pipeline</b>	<b>5.21</b>	<b>7.14%</b>	<b>\$9,432.71</b>	<b>7.14%</b>
Work Boat			\$3,037.43	
Dive Basic Spread- Mixed Gas			\$4,610.85	
Decommissioning Crew			\$586.13	
Pipeline Surveying			\$1,198.30	
<b>Cut &amp; Plug Pipeline</b>	<b>5.21</b>	<b>7.14%</b>	<b>\$9,432.71</b>	<b>7.14%</b>
Work Boat			\$3,037.43	
Dive Basic Spread- Mixed Gas			\$4,610.85	
Decommissioning Crew			\$586.13	
Pipeline Surveying			\$1,198.30	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>3.47</b>	<b>4.76%</b>	<b>\$6,282.44</b>	<b>4.76%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Remove Tube Turn</b>		<b>3.47</b>	<b>4.76%</b>	<b>\$6,282.44</b>	<b>4.76%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Bury Pipeline</b>		<b>3.47</b>	<b>4.76%</b>	<b>\$6,282.44</b>	<b>4.76%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Reposition Workboat</b>		<b>3.51</b>	<b>4.81%</b>	<b>\$6,354.85</b>	<b>4.81%</b>
Work Boat	\$2,046.33				
Dive Basic Spread- Mixed Gas	\$3,106.35				
Decommissioning Crew	\$394.87				
Pipeline Surveying	\$807.30				
<b>Expose Pipeline</b>		<b>5.21</b>	<b>7.14%</b>	<b>\$9,432.71</b>	<b>7.14%</b>
Work Boat	\$3,037.43				
Dive Basic Spread- Mixed Gas	\$4,610.85				
Decommissioning Crew	\$586.13				
Pipeline Surveying	\$1,198.30				
<b>Cut &amp; Plug Pipeline</b>		<b>5.21</b>	<b>7.14%</b>	<b>\$9,432.71</b>	<b>7.14%</b>
Work Boat	\$3,037.43				
Dive Basic Spread- Mixed Gas	\$4,610.85				
Decommissioning Crew	\$586.13				
Pipeline Surveying	\$1,198.30				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>3.47</b>	<b>4.76%</b>	<b>\$6,282.44</b>	<b>4.76%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Remove Tube Turn</b>		<b>3.47</b>	<b>4.76%</b>	<b>\$6,282.44</b>	<b>4.76%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Bury Pipeline</b>		<b>3.47</b>	<b>4.76%</b>	<b>\$6,282.44</b>	<b>4.76%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Demob Work Boat</b>		<b>4.00</b>	<b>5.49%</b>	<b>\$7,242.00</b>	<b>5.49%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<b>Total</b>		<b>63.27</b>	<b>86.76%</b>	<b>\$114,550.38</b>	<b>86.76%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Edith MMS POCS 29056 (Ver 1) Segment#:3720296**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize Work Boat</b>	<b>4.00</b>	<b>4.71%</b>	<b>\$7,242.00</b>	<b>4.71%</b>
Work Boat			\$2,332.00	
Dive Basic Spread- Mixed Gas			\$3,540.00	
Decommissioning Crew			\$450.00	
Pipeline Surveying			\$920.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00</b>	<b>5.88%</b>	<b>\$9,052.50</b>	<b>5.88%</b>
Work Boat			\$2,915.00	
Dive Basic Spread- Mixed Gas			\$4,425.00	
Decommissioning Crew			\$562.50	
Pipeline Surveying			\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>13.15</b>	<b>15.47%</b>	<b>\$23,808.07</b>	<b>15.47%</b>
Work Boat			\$7,666.45	
Dive Basic Spread- Mixed Gas			\$11,637.75	
Decommissioning Crew			\$1,479.37	
Pipeline Surveying			\$3,024.50	
<b>Derig Decomm Equipment</b>	<b>2.00</b>	<b>2.35%</b>	<b>\$3,621.00</b>	<b>2.35%</b>
Work Boat			\$1,166.00	
Dive Basic Spread- Mixed Gas			\$1,770.00	
Decommissioning Crew			\$225.00	
Pipeline Surveying			\$460.00	
<b>Expose Pipeline</b>	<b>5.21</b>	<b>6.13%</b>	<b>\$9,432.71</b>	<b>6.13%</b>
Work Boat			\$3,037.43	
Dive Basic Spread- Mixed Gas			\$4,610.85	
Decommissioning Crew			\$586.13	
Pipeline Surveying			\$1,198.30	
<b>Cut &amp; Plug Pipeline</b>	<b>5.21</b>	<b>6.13%</b>	<b>\$9,432.71</b>	<b>6.13%</b>
Work Boat			\$3,037.43	
Dive Basic Spread- Mixed Gas			\$4,610.85	
Decommissioning Crew			\$586.13	
Pipeline Surveying			\$1,198.30	



## MMS

### Pipeline Decommission Cost Breakdown

<b>Cut Pipeline Riser</b>		<b>3.47</b>	<b>4.08%</b>	<b>\$6,282.44</b>	<b>4.08%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<hr/>					
<b>Remove Tube Turn</b>		<b>3.47</b>	<b>4.08%</b>	<b>\$6,282.44</b>	<b>4.08%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<hr/>					
<b>Bury Pipeline</b>		<b>3.47</b>	<b>4.08%</b>	<b>\$6,282.44</b>	<b>4.08%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<hr/>					
<b>Reposition Workboat</b>		<b>3.51</b>	<b>4.13%</b>	<b>\$6,354.85</b>	<b>4.13%</b>
Work Boat	\$2,046.33				
Dive Basic Spread- Mixed Gas	\$3,106.35				
Decommissioning Crew	\$394.87				
Pipeline Surveying	\$807.30				
<hr/>					
<b>Expose Pipeline</b>		<b>5.21</b>	<b>6.13%</b>	<b>\$9,432.71</b>	<b>6.13%</b>
Work Boat	\$3,037.43				
Dive Basic Spread- Mixed Gas	\$4,610.85				
Decommissioning Crew	\$586.13				
Pipeline Surveying	\$1,198.30				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>5.21</b>	<b>6.13%</b>	<b>\$9,432.71</b>	<b>6.13%</b>
Work Boat	\$3,037.43				
Dive Basic Spread- Mixed Gas	\$4,610.85				
Decommissioning Crew	\$586.13				
Pipeline Surveying	\$1,198.30				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>3.47</b>	<b>4.08%</b>	<b>\$6,282.44</b>	<b>4.08%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Remove Tube Turn</b>		<b>3.47</b>	<b>4.08%</b>	<b>\$6,282.44</b>	<b>4.08%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Bury Pipeline</b>		<b>3.47</b>	<b>4.08%</b>	<b>\$6,282.44</b>	<b>4.08%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Demob Work Boat</b>		<b>4.00</b>	<b>4.71%</b>	<b>\$7,242.00</b>	<b>4.71%</b>
Work Boat	\$2,332.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Decommissioning Crew	\$450.00				
Pipeline Surveying	\$920.00				
<b>Total</b>		<b>73.32</b>	<b>86.28%</b>	<b>\$132,745.90</b>	<b>86.28%</b>



## **MMS**

### **Well Information**

#### **Edith MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:   15.00%

Weather Contingency %:       5.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Dos Cuadras Offshore LLC	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>

Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**Edith MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$2,087,428.00 83.33%
		<b>Task Total</b>	0.00	\$2,087,428.00 83.33%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$313,114.21 12.50%
		<b>Weather Contingency (5.00%)</b>	0.00	\$104,371.40 4.17%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$2,504,913.61 100.00%



**MMS**

**Well Decommission Resources Breakdown**

**Edith MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$2,087,428.00 83.33%



**MMS**

**Well Decommission Cost Breakdown**

**Edith MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$2,087,428.00</b>	<b>83.33%</b>	
Manual Calculation			\$2,087,428.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$2,087,428.00</b>	<b>83.33%</b>

**Ellen MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Ellen MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Ellen will be removed along with Platforms Eureka, Edith and Elly.
- Platform Ellen is an 8-pile platform installed in 1980 in 265' of water.
- The estimated removal weight is the deck weight is 5,300 tons and the jacket weight is 3,200 tons.
- The platform has a total of 61 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 64 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and three 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 5 cargo barge trips will be required.
- Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Huenem Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.
- Platform Removal cost displayed on the next page includes the following costs: All of



## **MMS**

### **Platform Salvage Option**

#### **Ellen MMS POCS 29056 (Ver 1)**

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the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 5% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Site Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$35,919,113

Estimated Decommissioning Net Cost = \$35,919,113



## **MMS**

### **Basic Information**

#### **Ellen MMS POCS 29056 (Ver 1)**

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#### **General Data**

Platform: Ellen MMS POCS 29056  
Function: FACILITIES  
Type: Steel  
Water Depth: 265'  
Pre 461H?: Yes  
Year Installed: 1980  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0300  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 61  
# Pipelines to Abandon: 0  
Estimate Complete?: Yes

#### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Pacific Energy Resources, Ltd	100.00%

#### **Estimated Costs**

	<b>Gross Cost</b>	<b>Net Cost</b>
Platform Removal:	\$27,404,700	\$27,404,700
Well Plugging & Abandonment:	\$8,514,413	\$8,514,413
Pipeline Abandonment:	\$0	\$0
<b>Total Decommissioning Cost:</b>	<b>\$35,919,113</b>	<b>\$35,919,113</b>



## MMS

### Platform Information

### Ellen MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	8	60"	2.25"	Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:	155 x 132	64
Middle:	0	0
Lower:	175 x 108	46

### Conductors

Number of Slots:	80
Number Installed:	64
Outside Diameter:	24"
Wall Thickness:	0.625"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	3200.00		
Jacket Installation Date:	1/1/80		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	5300 Tons
Number of Padeyes Required:	16
Deck Installation Date:	1/1/80
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

### **Ellen MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

#### **Members to be Cut Data**

<b>Top Members</b>		<b>Underwater Members</b>	
<b>Size</b>	<b>Qty</b>	<b>Size</b>	<b>Qty</b>
36.00	16.00	0.00	0.00
54.00	4.00		
72.00	4.00		

#### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 300 x 100	Equipment	Equipment	Equipment	Equipment
CB 300 x 100	Deck 100-500T	Deck 100-500T	Deck 100-500T	Deck 100-500T
CB 400 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck 100-500T
CB 400 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck 100-500T
CB 400 x 100	Jkt > 700T	Jkt > 700T		

#### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	
Provision for Misc. Work%:	15.00%
Weather Contingency%:	5.00%
Engineering%:	0.00%

#### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$4,230,698.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Ellen MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$1,669,514.00	6.09%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.02%	\$638,750.00	2.33%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.02%	\$10,488.00	0.04%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.02%	\$5,910,614.00	21.57%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.02%	\$1,215,564.00	4.44%
Mobilize DB 2000	Mob from Asia, 50 days divided by 4 platforms	<input type="checkbox"/>	300.00	6.14%	\$2,295,000.00	8.37%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	10.00	0.20%	\$47,600.00	0.17%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 3)	<input type="checkbox"/>	10.00	0.20%	\$72,000.00	0.26%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	4.00	0.08%	\$18,080.00	0.07%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.14%	\$84,510.00	0.31%
Cut Deck/Equip/Misc	Seperate 12 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	0.49%	\$324,000.00	1.18%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.49%	\$324,000.00	1.18%
Remove 8 Pile Deck	Remove 12 Pile Deck, 12 modules	<input checked="" type="checkbox"/>	96.00	1.96%	\$1,296,000.00	4.73%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	10.00	0.20%	\$19,600.00	0.07%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	31.00	0.63%	\$419,120.00	1.53%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	53.68	1.10%	\$805,753.60	2.94%
Cut Jacket	24 Hours per section, times 2 section(s), per MMS	<input checked="" type="checkbox"/>	48.00	0.98%	\$688,736.00	2.51%
Remove Jacket - Meth 1	24 Hours per section, times 2 section(s), per MMS	<input checked="" type="checkbox"/>	48.00	0.98%	\$648,960.00	2.37%
Demob CB 400 & Tug	Demob to Port of LA (Qty 3)	<input type="checkbox"/>	10.00	0.20%	\$30,000.00	0.11%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.14%	\$84,510.00	0.31%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	4.00	0.08%	\$18,080.00	0.07%
Demob DB 2000	Mob from Asia, 50 days divided by 4 platforms	<input type="checkbox"/>	300.00	6.14%	\$2,295,000.00	8.37%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	1.47%	\$709,000.00	2.59%
Offload CB 300		<input type="checkbox"/>	672.00	13.74%	\$177,760.00	0.65%
Offload CB 400		<input type="checkbox"/>	3072.00	62.83%	\$858,720.00	3.13%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.02%	\$10,488.00	0.04%
<b>Task Total</b>			<b>4807.18</b>	<b>98.31%</b>	<b>\$20,671,847.60</b>	<b>75.43%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>61.83</b>	<b>1.26%</b>	<b>\$1,876,615.00</b>	<b>6.85%</b>
<b>Weather Contingency (5.00%)</b>			<b>20.61</b>	<b>0.42%</b>	<b>\$625,538.40</b>	<b>2.28%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$4,230,698.00</b>	<b>15.44%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>



**MMS**

**Platform Decommission Task Information**

**Ellen MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		Offloading		\$0.00	0.00%
		Storage / Scrapping		\$0.00	0.00%
		Reef Donation		\$0.00	0.00%
		Cost of Engineering (0.00%)		\$0.00	0.00%
			<b>Total:</b>	4889.62	100.00%
				127,404,699.00	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Ellen MMS POCS 29056 (Ver 1)

Resource Used	Unit Cost	Cost
Abrasive Cutter Spread	\$625.00 per Hour	\$216,362.50 0.79%
Cargo Barge 300	\$4,920.00 per Day per Barge	\$137,760.00 0.50%
Cargo Barge 400	\$6,240.00 per Day per Barge	\$798,720.00 2.91%
CB 300 & Tug	\$980.00 per Hour per Barge/Tug	\$180,320.00 0.66%
CB 400 & Tug	\$1,000.00 per Hour per Barge/Tug	\$240,680.00 0.88%
CB Damage Deduct	\$20,000.00 per Cargo Barge	\$100,000.00 0.36%
Derrick Barge 2000	\$8,500.00 per Hour per barge	\$7,464,530.00 27.24%
Dive Basic Spread Saturation	\$3,165.00 Per Hour	\$1,095,659.70 4.00%
Manual Calculation	\$0.00 Independently Calculated	10,164,418.00 37.09%
Pile Abrasive Cut 49 to 69 inches	\$5,000.00 per Cut	\$80,000.00 0.29%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00 per Cut	\$39,776.00 0.15%
Pipeline Survey	\$230.00 per Hour	\$79,621.40 0.29%
Rig Up CB 300	\$14,000.00 per Barge	\$28,000.00 0.10%
Rig Up CB 400	\$14,000.00 per Barge	\$42,000.00 0.15%
Work Boat	\$500.00 per Hour	\$4,000.00 0.01%



**MMS**

**Platform Decommission Cost Breakdown**

**Ellen MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,669,514.00</b>	<b>6.09%</b>
Manual Calculation			\$1,669,514.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$638,750.00</b>	<b>2.33%</b>
Manual Calculation			\$638,750.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$10,488.00</b>	<b>0.04%</b>
Manual Calculation			\$1,374.75	
Manual Calculation			\$527.25	
Manual Calculation			\$6,000.00	
Manual Calculation			\$2,586.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$5,910,614.00</b>	<b>21.57%</b>
Manual Calculation			\$5,910,614.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$1,215,564.00</b>	<b>4.44%</b>
Manual Calculation			\$1,215,564.00	
<b>Mobilize DB 2000</b>	<b>300.00</b>	<b>6.14%</b>	<b>\$2,295,000.00</b>	<b>8.37%</b>
Derrick Barge 2000			\$2,295,000.00	
<b>Mobilize CB 300 &amp; Tug</b>	<b>10.00</b>	<b>0.20%</b>	<b>\$47,600.00</b>	<b>0.17%</b>
CB 300 & Tug			\$19,600.00	
Rig Up CB 300			\$28,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Ellen MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>10.00</b>	<b>0.20%</b>	<b>\$72,000.00</b>	<b>0.26%</b>
Rig Up CB 400			\$42,000.00	
CB 400 & Tug			\$30,000.00	
<b>Mobilize Dive Spread</b>	<b>4.00</b>	<b>0.08%</b>	<b>\$18,080.00</b>	<b>0.07%</b>
Work Boat			\$2,000.00	
Dive Basic Spread Saturation			\$12,660.00	
Abrasive Cutter Spread			\$2,500.00	
Pipeline Survey			\$920.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.14%</b>	<b>\$84,510.00</b>	<b>0.31%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>0.49%</b>	<b>\$324,000.00</b>	<b>1.18%</b>
Derrick Barge 2000			\$204,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Ellen MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>	<b>24.00</b>	<b>0.49%</b>	<b>\$324,000.00</b>	<b>1.18%</b>
Derrick Barge 2000			\$204,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	
<b>Remove 8 Pile Deck</b>	<b>96.00</b>	<b>1.96%</b>	<b>\$1,296,000.00</b>	<b>4.73%</b>
Derrick Barge 2000			\$816,000.00	
Dive Basic Spread Saturation			\$303,840.00	
Pipeline Survey			\$22,080.00	
Abrasive Cutter Spread			\$60,000.00	
CB 300 & Tug			\$94,080.00	
<b>Demob CB 300 &amp; Tug</b>	<b>10.00</b>	<b>0.20%</b>	<b>\$19,600.00</b>	<b>0.07%</b>
CB 300 & Tug			\$19,600.00	
<b>Jet/Airlift Pile Mud Plug</b>	<b>31.00</b>	<b>0.63%</b>	<b>\$419,120.00</b>	<b>1.53%</b>
Derrick Barge 2000			\$263,500.00	
Dive Basic Spread Saturation			\$98,115.00	
Pipeline Survey			\$7,130.00	
Abrasive Cutter Spread			\$19,375.00	
CB 400 & Tug			\$31,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Ellen MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>	<b>53.68</b>	<b>1.10%</b>	<b>\$805,753.60</b>	<b>2.94%</b>
Derrick Barge 2000			\$456,280.00	
Dive Basic Spread Saturation			\$169,897.20	
Pipeline Survey			\$12,346.40	
Abrasive Cutter Spread			\$33,550.00	
CB 400 & Tug			\$53,680.00	
Pile Abrasive Cut 49 to 69 inches			\$80,000.00	
<b>Cut Jacket</b>	<b>48.00</b>	<b>0.98%</b>	<b>\$688,736.00</b>	<b>2.51%</b>
Derrick Barge 2000			\$408,000.00	
Dive Basic Spread Saturation			\$151,920.00	
Pipeline Survey			\$11,040.00	
Abrasive Cutter Spread			\$30,000.00	
CB 400 & Tug			\$48,000.00	
Pile Abrasive Cut 7 to 48 inches			\$39,776.00	
<b>Remove Jacket - Meth 1</b>	<b>48.00</b>	<b>0.98%</b>	<b>\$648,960.00</b>	<b>2.37%</b>
Derrick Barge 2000			\$408,000.00	
Dive Basic Spread Saturation			\$151,920.00	
Pipeline Survey			\$11,040.00	
Abrasive Cutter Spread			\$30,000.00	
CB 400 & Tug			\$48,000.00	
<b>Demob CB 400 &amp; Tug</b>	<b>10.00</b>	<b>0.20%</b>	<b>\$30,000.00</b>	<b>0.11%</b>
CB 400 & Tug			\$30,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Ellen MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.14%</b>	<b>\$84,510.00</b>	<b>0.31%</b>
Derrick Barge 2000	\$57,375.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
<b>Demob Dive Spread</b>		<b>4.00</b>	<b>0.08%</b>	<b>\$18,080.00</b>	<b>0.07%</b>
Work Boat	\$2,000.00				
Dive Basic Spread Saturation	\$12,660.00				
Abrasive Cutter Spread	\$2,500.00				
Pipeline Survey	\$920.00				
<b>Demob DB 2000</b>		<b>300.00</b>	<b>6.14%</b>	<b>\$2,295,000.00</b>	<b>8.37%</b>
Derrick Barge 2000	\$2,295,000.00				
<b>Site Clearance - with Divers</b>		<b>72.00</b>	<b>1.47%</b>	<b>\$709,000.00</b>	<b>2.59%</b>
Manual Calculation	\$709,000.00				
<b>Offload CB 300</b>		<b>672.00</b>	<b>13.74%</b>	<b>\$177,760.00</b>	<b>0.65%</b>
Cargo Barge 300	\$137,760.00				
CB Damage Deduct	\$40,000.00				
<b>Offload CB 400</b>		<b>3072.00</b>	<b>62.83%</b>	<b>\$858,720.00</b>	<b>3.13%</b>
Cargo Barge 400	\$798,720.00				
CB Damage Deduct	\$60,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Ellen MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$10,488.00</b>	<b>0.04%</b>
Manual Calculation			\$1,374.75	
Manual Calculation			\$527.25	
Manual Calculation			\$6,000.00	
Manual Calculation			\$2,586.00	
<b>Total</b>	<b>4807.18</b>	<b>98.31%</b>	<b>\$20,671,847.60</b>	<b>75.43%</b>



## **MMS**

### **Well Information**

#### **Ellen MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:                      No

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:              15.00%

Weather Contingency %:                  5.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Pacific Energy Resources, Ltd	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**Ellen MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$7,095,344.00 83.33%
		<b>Task Total</b>	0.00	\$7,095,344.00 83.33%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$1,064,301.64 12.50%
		<b>Weather Contingency (5.00%)</b>	0.00	\$354,767.21 4.17%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$8,514,412.85 100.00%



# **MMS**

## **Well Decommission Resources Breakdown**

### **Ellen MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$7,095,344.00 83.33%



**MMS**

**Well Decommission Cost Breakdown**

**Ellen MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$7,095,344.00</b>	<b>83.33%</b>
Manual Calculation			\$7,095,344.00	
<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$7,095,344.00</b>	<b>83.33%</b>

**Elly MMS POCS 29056**



## MMS

### Platform Salvage Option

### Elly MMS POCS 29056 (Ver 1)

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#### COMPLETE REMOVAL

- Platform Elly will be removed along with Platforms Edith, Ellen and Eureka.
- Platform Elly is a 12-pile platform installed in 1980 in 255' of water.
- The estimated removal weight is the deck weight is 4,700 tons and the jacket weight is 3,300 tons.
- The platform has a total of 0 wells that will be plugged and abandoned.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and three 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 5 cargo barge trips will be required.
- The one pipeline (oil) on the OCS will be totally removed to the state water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater that 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.
- A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.
- Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.



## MMS

### Platform Salvage Option

#### Elly MMS POCS 29056 (Ver 1)

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-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 5% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Site Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$21,360,857

Estimated Decommissioning Net Cost = \$21,360,857



## MMS

### Basic Information

### Elly MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Elly MMS POCS 29056  
Function: SELF CONTAINED  
Type: Steel  
Water Depth: 257'  
Pre 461H?: Yes  
Year Installed: 1980  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0300  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 0  
# Pipelines to Abandon: 1  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Pacific Energy Resources, Ltd	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$20,613,070	\$20,613,070
Well Plugging & Abandonment:	\$0	\$0
Pipeline Abandonment:	\$747,787	\$747,787
Total Decommissioning Cost:	\$21,360,857	\$21,360,857



## MMS

### Platform Information

### Elly MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	12	48"	2"	Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:		
Middle:		
Lower:	250 x 200	43

### Conductors

Number of Slots:	0
Number Installed:	0
Outside Diameter:	
Wall Thickness:	
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	3300.00		
Jacket Installation Date:	1/1/80		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	4700 Tons
Number of Padeyes Required:	10
Deck Installation Date:	1/1/80
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

### **Elly MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

#### **Top Members**

<b>Size</b>	<b>Qty</b>
36.00	6.00
54.00	12.00

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 300 x 100	Equipment	Equipment	Equipment	Equipment
CB 300 x 100	Deck 100-500T	Deck 100-500T	Deck 100-500T	Deck 100-500T
CB 400 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck > 500T
CB 400 x 100	Deck > 500T	Deck > 500T	Jkt > 700T	
CB 400 x 100	Jkt > 700T	Jkt > 700T		

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	
Provision for Misc. Work%:	15.00%
Weather Contingency%:	5.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$3,704,800.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Elly MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$794,189.00	3.85%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.02%	\$638,750.00	3.10%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.02%	\$10,488.00	0.05%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.02%	\$1,891,564.00	9.18%
Mobilize DB 2000	Mob from Asia, 50 days divided by 4 platforms	<input type="checkbox"/>	300.00	6.03%	\$2,295,000.00	11.13%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	10.00	0.20%	\$47,600.00	0.23%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 3)	<input type="checkbox"/>	10.00	0.20%	\$72,000.00	0.35%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	4.00	0.08%	\$18,080.00	0.09%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.14%	\$84,510.00	0.41%
Cut Deck/Equip/Misc	Seperate 10 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	0.48%	\$324,000.00	1.57%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.48%	\$324,000.00	1.57%
Remove 8 Pile Deck	Remove 12 Pile Deck, 10 modules	<input checked="" type="checkbox"/>	72.00	1.45%	\$972,000.00	4.72%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	10.00	0.20%	\$19,600.00	0.10%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	46.00	0.92%	\$621,920.00	3.02%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	69.22	1.39%	\$995,518.40	4.83%
Cut Jacket	24 Hours per section, times 3 section(s), per MMS	<input checked="" type="checkbox"/>	72.00	1.45%	\$1,033,104.00	5.01%
Remove Jacket - Meth 1	24 Hours per section, times 3 section(s), per MMS	<input checked="" type="checkbox"/>	72.00	1.45%	\$973,440.00	4.72%
Demob CB 400 & Tug	Demob to Port of LA (Qty 3)	<input type="checkbox"/>	10.00	0.20%	\$30,000.00	0.15%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.14%	\$84,510.00	0.41%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	4.00	0.08%	\$18,080.00	0.09%
Demob DB 2000	Mob from Asia, 50 days divided by 4 platforms	<input type="checkbox"/>	300.00	6.03%	\$2,295,000.00	11.13%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	1.45%	\$709,000.00	3.44%
Offload CB 300		<input type="checkbox"/>	672.00	13.50%	\$177,760.00	0.86%
Offload CB 400		<input type="checkbox"/>	3096.00	62.20%	\$864,960.00	4.20%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.02%	\$10,488.00	0.05%
<b>Task Total</b>			<b>4884.72</b>	<b>98.13%</b>	<b>\$15,305,561.40</b>	<b>74.25%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>69.86</b>	<b>1.40%</b>	<b>\$1,202,035.00</b>	<b>5.83%</b>
<b>Weather Contingency (5.00%)</b>			<b>23.29</b>	<b>0.47%</b>	<b>\$400,678.30</b>	<b>1.94%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$3,704,800.00</b>	<b>17.97%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>



**MMS**

**Platform Decommission Task Information**

**Elly MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		Reef Donation		\$0.00	0.00%
		Cost of Engineering (0.00%)		\$0.00	0.00%
<b>Total:</b>			4977.87	100.00%	20,613,074.70 100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Elly MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$250,450.00	1.22%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$137,760.00	0.67%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$804,960.00	3.91%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$156,800.00	0.76%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$319,220.00	1.55%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$100,000.00	0.49%
Derrick Barge 2000	\$8,500.00	per Hour per barge	\$7,928,120.00	38.46%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$1,268,278.80	6.15%
Manual Calculation	\$0.00	Independently Calculated	\$4,054,479.00	19.67%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$119,328.00	0.58%
Pipeline Survey	\$230.00	per Hour	\$92,165.60	0.45%
Rig Up CB 300	\$14,000.00	per Barge	\$28,000.00	0.14%
Rig Up CB 400	\$14,000.00	per Barge	\$42,000.00	0.20%
Work Boat	\$500.00	per Hour	\$4,000.00	0.02%



**MMS**

**Platform Decommission Cost Breakdown**

**Elly MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00 0.00%</b>	<b>\$794,189.00 3.85%</b>
Manual Calculation		\$794,189.00
<b>NMFS Marine Observation</b>	<b>1.00 0.02%</b>	<b>\$638,750.00 3.10%</b>
Manual Calculation		\$638,750.00
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00 0.02%</b>	<b>\$10,488.00 0.05%</b>
Manual Calculation		\$1,374.75
Manual Calculation		\$527.25
Manual Calculation		\$6,000.00
Manual Calculation		\$2,586.00
<b>Platform Removal Preparation</b>	<b>1.00 0.02%</b>	<b>\$1,891,564.00 9.18%</b>
Manual Calculation		\$1,891,564.00
<b>Mobilize DB 2000</b>	<b>300.00 6.03%</b>	<b>\$2,295,000.00 11.13%</b>
Derrick Barge 2000		\$2,295,000.00
<b>Mobilize CB 300 &amp; Tug</b>	<b>10.00 0.20%</b>	<b>\$47,600.00 0.23%</b>
CB 300 & Tug		\$19,600.00
Rig Up CB 300		\$28,000.00
<b>Mobilize CB 400 &amp; Tug</b>	<b>10.00 0.20%</b>	<b>\$72,000.00 0.35%</b>
Rig Up CB 400		\$42,000.00
CB 400 & Tug		\$30,000.00



**MMS**

**Platform Decommission Cost Breakdown**

**Elly MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize Dive Spread</b>	<b>4.00</b>	<b>0.08%</b>	<b>\$18,080.00</b>	<b>0.09%</b>
Work Boat			\$2,000.00	
Dive Basic Spread Saturation			\$12,660.00	
Abrasive Cutter Spread			\$2,500.00	
Pipeline Survey			\$920.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.14%</b>	<b>\$84,510.00</b>	<b>0.41%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>0.48%</b>	<b>\$324,000.00</b>	<b>1.57%</b>
Derrick Barge 2000			\$204,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	
<b>Remove Equipment</b>	<b>24.00</b>	<b>0.48%</b>	<b>\$324,000.00</b>	<b>1.57%</b>
Derrick Barge 2000			\$204,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Elly MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove 8 Pile Deck</b>		<b>72.00</b>	<b>1.45%</b>	<b>\$972,000.00</b>	<b>4.72%</b>
Derrick Barge 2000	\$612,000.00				
Dive Basic Spread Saturation	\$227,880.00				
Pipeline Survey	\$16,560.00				
Abrasive Cutter Spread	\$45,000.00				
CB 300 & Tug	\$70,560.00				
<b>Demob CB 300 &amp; Tug</b>		<b>10.00</b>	<b>0.20%</b>	<b>\$19,600.00</b>	<b>0.10%</b>
CB 300 & Tug	\$19,600.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>46.00</b>	<b>0.92%</b>	<b>\$621,920.00</b>	<b>3.02%</b>
Derrick Barge 2000	\$391,000.00				
Dive Basic Spread Saturation	\$145,590.00				
Pipeline Survey	\$10,580.00				
Abrasive Cutter Spread	\$28,750.00				
CB 400 & Tug	\$46,000.00				
<b>Sever Piles- Abrasive</b>		<b>69.22</b>	<b>1.39%</b>	<b>\$995,518.40</b>	<b>4.83%</b>
Derrick Barge 2000	\$588,370.00				
Dive Basic Spread Saturation	\$219,081.30				
Pipeline Survey	\$15,920.60				
Abrasive Cutter Spread	\$43,262.50				
CB 400 & Tug	\$69,220.00				
Pile Abrasive Cut 7 to 48 inches	\$59,664.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Elly MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Cut Jacket</b>		<b>72.00</b>	<b>1.45%</b>	<b>\$1,033,104.00</b>	<b>5.01%</b>
Derrick Barge 2000	\$612,000.00				
Dive Basic Spread Saturation	\$227,880.00				
Pipeline Survey	\$16,560.00				
Abrasive Cutter Spread	\$45,000.00				
CB 400 & Tug	\$72,000.00				
Pile Abrasive Cut 7 to 48 inches	\$59,664.00				
<b>Remove Jacket - Meth 1</b>		<b>72.00</b>	<b>1.45%</b>	<b>\$973,440.00</b>	<b>4.72%</b>
Derrick Barge 2000	\$612,000.00				
Dive Basic Spread Saturation	\$227,880.00				
Pipeline Survey	\$16,560.00				
Abrasive Cutter Spread	\$45,000.00				
CB 400 & Tug	\$72,000.00				
<b>Demob CB 400 &amp; Tug</b>		<b>10.00</b>	<b>0.20%</b>	<b>\$30,000.00</b>	<b>0.15%</b>
CB 400 & Tug	\$30,000.00				
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.14%</b>	<b>\$84,510.00</b>	<b>0.41%</b>
Derrick Barge 2000	\$57,375.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				



**MMS**

**Platform Decommission Cost Breakdown**

**Elly MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Demob Dive Spread</b>	<b>4.00</b>	<b>0.08%</b>	<b>\$18,080.00</b>	<b>0.09%</b>
Work Boat			\$2,000.00	
Dive Basic Spread Saturation			\$12,660.00	
Abrasive Cutter Spread			\$2,500.00	
Pipeline Survey			\$920.00	
<b>Demob DB 2000</b>	<b>300.00</b>	<b>6.03%</b>	<b>\$2,295,000.00</b>	<b>11.13%</b>
Derrick Barge 2000			\$2,295,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>1.45%</b>	<b>\$709,000.00</b>	<b>3.44%</b>
Manual Calculation			\$709,000.00	
<b>Offload CB 300</b>	<b>672.00</b>	<b>13.50%</b>	<b>\$177,760.00</b>	<b>0.86%</b>
Cargo Barge 300			\$137,760.00	
CB Damage Deduct			\$40,000.00	
<b>Offload CB 400</b>	<b>3096.00</b>	<b>62.20%</b>	<b>\$864,960.00</b>	<b>4.20%</b>
Cargo Barge 400			\$804,960.00	
CB Damage Deduct			\$60,000.00	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$10,488.00</b>	<b>0.05%</b>
Manual Calculation			\$1,374.75	
Manual Calculation			\$527.25	
Manual Calculation			\$6,000.00	
Manual Calculation			\$2,586.00	
<b>Total</b>	<b>4884.72</b>	<b>98.13%</b>	<b>\$15,305,561.40</b>	<b>74.25%</b>



## MMS

### Pipeline Information

### Elly MMS POCS 29056 (Ver1) Segment#:2610300-S

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#### General Data

Water Depth: 255'  
Origin / Terminus: Origin  
Opposite End Name: Beta Pum  
Opposite End Water Depth:  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 5.00%

#### Pipeline Data

Outside Diameter: 16"	Wall Thickness:	Length: 33677'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to an Onshore facility.  
Remove pipeline to state waters.  
Estimate ~23760' removed



**MMS**

**Pipeline Decommission Task Information**

**Elly MMS POCS 29056 (Ver 1) Segment#:2610300-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	2.00	0.46%	\$1,391.00	0.19%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.16%	\$3,477.50	0.47%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	52.00	12.02%	\$36,166.00	4.84%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.46%	\$1,391.00	0.19%
Demob Work Boat		<input type="checkbox"/>	2.00	0.46%	\$1,391.00	0.19%
Mob P/L Removal Spread		<input type="checkbox"/>	4.00	0.92%	\$112,276.00	15.01%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	9.10	2.10%	\$28,951.65	3.87%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	6.07	1.40%	\$19,311.71	2.58%
Remove Tube Turn		<input checked="" type="checkbox"/>	6.07	1.40%	\$19,311.71	2.58%
Mobilize Vessel		<input checked="" type="checkbox"/>	4.00	0.92%	\$20,400.00	2.73%
Expose Pipeline		<input checked="" type="checkbox"/>	9.10	2.10%	\$32,932.90	4.40%
Remove Pipeline		<input checked="" type="checkbox"/>	79.00	18.27%	\$285,901.00	38.23%
Bury Pipeline		<input checked="" type="checkbox"/>	6.07	1.40%	\$21,967.33	2.94%
Demob Vessel		<input checked="" type="checkbox"/>	4.00	0.92%	\$4,400.00	0.59%
Demob P/L Removal Spread		<input type="checkbox"/>	4.00	0.92%	\$14,476.00	1.94%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	38.84%	\$41,000.00	5.48%
<b>Task Total</b>			<b>362.41</b>	<b>83.80%</b>	<b>\$644,744.80</b>	<b>86.22%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>52.56</b>	<b>12.15%</b>	<b>\$77,281.62</b>	<b>10.33%</b>
<b>Weather Contingency (5.00%)</b>			<b>17.52</b>	<b>4.05%</b>	<b>\$25,760.54</b>	<b>3.44%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>432.49</b>	<b>100.00%</b>	<b>\$747,786.97</b>	<b>100.00%</b>



TWACHTMAN SNYDER & BYRD, INC.

## MMS

### Pipeline Decommission Resources Breakdown

#### Elly MMS POCS 29056 (Ver 1) Segment#:2610300-

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	2.81%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$62,793.50	8.40%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	2.67%
Decommissioning Crew	\$0.00	Calculated from tables	\$9,477.01	1.27%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$109,217.85	14.61%
Manual Calculation	\$0.00	Independently Calculated	\$100,000.00	13.37%
Pipelay Barge	\$1,954.00	per Hour	\$241,143.14	32.25%
Pipeline Surveying	\$230.00	per Hour	\$28,384.30	3.80%
Rig Up CB 180	\$8,000.00	per Barge	\$16,000.00	2.14%
Work Boat	\$583.00	per Hour	\$36,729.00	4.91%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Elly MMS POCS 29056 (Ver 1) Segment#:2610300-**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>2.00 0.46%</b>	<b>\$1,391.00 0.19%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.16%</b>	<b>\$3,477.50 0.47%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Pig &amp; Flush Pipeline</b>	<b>52.00 12.02%</b>	<b>\$36,166.00 4.84%</b>
Work Boat	\$30,316.00	
Decommissioning Crew	\$5,850.00	
<b>Derig Decomm Equipment</b>	<b>2.00 0.46%</b>	<b>\$1,391.00 0.19%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Demob Work Boat</b>	<b>2.00 0.46%</b>	<b>\$1,391.00 0.19%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Mob P/L Removal Spread</b>	<b>4.00 0.92%</b>	<b>\$112,276.00 15.01%</b>
Dive Basic Spread- Mixed Gas	\$3,540.00	
Pipeline Surveying	\$920.00	
Pipelay Barge	\$7,816.00	
Manual Calculation	\$100,000.00	
<b>Cut &amp; Plug Pipeline</b>	<b>9.10 2.10%</b>	<b>\$28,951.65 3.87%</b>
Dive Basic Spread- Mixed Gas	\$8,053.50	
Pipeline Surveying	\$2,093.00	
Pipelay Barge	\$17,781.40	
Decommissioning Crew	\$1,023.75	
<b>Cut Pipeline Riser</b>	<b>6.07 1.40%</b>	<b>\$19,311.71 2.58%</b>
Dive Basic Spread- Mixed Gas	\$5,371.95	
Pipeline Surveying	\$1,396.10	
Pipelay Barge	\$11,860.78	
Decommissioning Crew	\$682.88	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Remove Tube Turn</b>		<b>6.07</b>	<b>1.40%</b>	<b>\$19,311.71</b>	<b>2.58%</b>
Dive Basic Spread- Mixed Gas	\$5,371.95				
Pipeline Surveying	\$1,396.10				
Pipelay Barge	\$11,860.78				
Decommissioning Crew	\$682.88				
<b>Mobilize Vessel</b>		<b>4.00</b>	<b>0.92%</b>	<b>\$20,400.00</b>	<b>2.73%</b>
CB 180 & Tug	\$4,400.00				
Rig Up CB 180	\$16,000.00				
<b>Expose Pipeline</b>		<b>9.10</b>	<b>2.10%</b>	<b>\$32,932.90</b>	<b>4.40%</b>
Pipeline Surveying	\$2,093.00				
Dive Basic Spread- Mixed Gas	\$8,053.50				
Pipelay Barge	\$17,781.40				
CB 180 & Tug	\$5,005.00				
<b>Remove Pipeline</b>		<b>79.00</b>	<b>18.27%</b>	<b>\$285,901.00</b>	<b>38.23%</b>
Pipeline Surveying	\$18,170.00				
Dive Basic Spread- Mixed Gas	\$69,915.00				
Pipelay Barge	\$154,366.00				
CB 180 & Tug	\$43,450.00				
<b>Bury Pipeline</b>		<b>6.07</b>	<b>1.40%</b>	<b>\$21,967.33</b>	<b>2.94%</b>
Pipeline Surveying	\$1,396.10				
Dive Basic Spread- Mixed Gas	\$5,371.95				
Pipelay Barge	\$11,860.78				
CB 180 & Tug	\$3,338.50				
<b>Demob Vessel</b>		<b>4.00</b>	<b>0.92%</b>	<b>\$4,400.00</b>	<b>0.59%</b>
CB 180 & Tug	\$4,400.00				
<b>Demob P/L Removal Spread</b>		<b>4.00</b>	<b>0.92%</b>	<b>\$14,476.00</b>	<b>1.94%</b>
Pipeline Surveying	\$920.00				
Dive Basic Spread- Mixed Gas	\$3,540.00				
Pipelay Barge	\$7,816.00				
CB 180 & Tug	\$2,200.00				
<b>Offload CB 180</b>		<b>168.00</b>	<b>38.84%</b>	<b>\$41,000.00</b>	<b>5.48%</b>
Cargo Barge 180	\$21,000.00				
CB Damage Deduct	\$20,000.00				
<b>Total</b>		<b>362.41</b>	<b>83.80%</b>	<b>\$644,744.80</b>	<b>86.22%</b>

**Eureka MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Eureka MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Eureka will be removed along with Platforms Edith, Ellen and Elly.
- Platform Eureka is an 8-leg platform (24 Skirt Pile) installed in 1985 in 700' of water.
- The estimated removal weight is the deck weight is 8,000 tons and the jacket weight is 19,000 tons.
- The platform has a total of 50 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 60 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Four 300' cargo barges will transport the deck modules to shore and six 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 10 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The three pipelines (2 oil, 1 gas) on the OCS will be totally removed to the state water



## MMS

### Platform Salvage Option

#### Eureka MMS POCS 29056 (Ver 1)

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boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 5% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed



## MMS

### Platform Salvage Option

#### Eureka MMS POCS 29056 (Ver 1)

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with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$94,234,597

Estimated Decommissioning Net Cost = \$94,234,597



## MMS

### Basic Information

### Eureka MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Eureka MMS POCS 29056  
Function: SELF CONTAINED  
Type: Steel  
Water Depth: 700'  
Pre 461H?: No  
Year Installed: 1985  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0301  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 50  
# Pipelines to Abandon: 3  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Pacific Energy Resources, Ltd	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$77,236,656	\$77,236,656
Well Plugging & Abandonment:	\$7,451,381	\$7,451,381
Pipeline Abandonment:	\$9,546,560	\$9,546,560
Total Decommissioning Cost:	\$94,234,597	\$94,234,597



## MMS

### Platform Information

### Eureka MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	0			Yes	No	
Skirt/Braced	24	60"	2.75"	No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:	165 x 160	71
Middle:		
Lower:	175 x 180	45

### Conductors

Number of Slots:	60
Number Installed:	60
Outside Diameter:	24"
Wall Thickness:	0.75"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	19000.00		
Jacket Installation Date:	1/1/85		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	8000 Tons
Number of Padeyes Required:	8
Deck Installation Date:	1/1/85
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

### **Eureka MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

#### **Top Members**

<b>Size</b>	<b>Qty</b>
42.00	16.00
72.00	8.00

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 300 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck > 500T
CB 400 x 100	Jkt 300-700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt 300-700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt 300-700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	
Provision for Misc. Work%:	15.00%
Weather Contingency%:	5.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$12,309,974.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Eureka MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$4,911,102.00	6.36%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.01%	\$638,750.00	0.83%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.01%	\$10,488.00	0.01%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.01%	\$1,450,280.00	14.82%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.01%	\$2,628,383.00	3.40%
Mobilize DB 2000	Mob from Asia, 50 days divided by 4 platforms	<input type="checkbox"/>	300.00	2.42%	\$2,295,000.00	2.97%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 4)	<input type="checkbox"/>	10.00	0.08%	\$95,200.00	0.12%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 6)	<input type="checkbox"/>	10.00	0.08%	\$144,000.00	0.19%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	4.00	0.03%	\$18,080.00	0.02%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.05%	\$95,310.00	0.12%
Cut Deck/Equip/Misc	Seperate 10 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	0.19%	\$362,400.00	0.47%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.19%	\$362,400.00	0.47%
Remove 8 Pile Deck	Remove 8 Pile Deck, 10 modules	<input checked="" type="checkbox"/>	72.00	0.58%	\$1,087,200.00	1.41%
Demob CB 300 & Tug	Demob to Port of LA (Qty 4)	<input type="checkbox"/>	10.00	0.08%	\$39,200.00	0.05%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	35.00	0.28%	\$529,200.00	0.69%
Sever Piles- Abrasive	Manual calc resource is cost per pile cut @ \$10,000 per skirt pile	<input checked="" type="checkbox"/>	161.04	1.30%	\$2,674,924.76	3.46%
Cut Jacket	38 Hours per section, times 19 section(s), per MMS. Man Calc Resource is cost per jkt leg cut @ \$4972 per leg cut x qty 48 cuts.	<input checked="" type="checkbox"/>	731.00	5.89%	\$11,291,366.00	14.62%
Remove Jacket - Meth 1	38 Hours per section, times 19 section(s), per MMS	<input checked="" type="checkbox"/>	731.00	5.89%	\$11,052,720.00	14.31%
Demob CB 400 & Tug	Demob to Port of LA (Qty 6)	<input type="checkbox"/>	10.00	0.08%	\$60,000.00	0.08%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.05%	\$95,310.00	0.12%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	4.00	0.03%	\$18,080.00	0.02%
Demob DB 2000	Mob from Asia, 50 days divided by 4 platforms	<input type="checkbox"/>	300.00	2.42%	\$2,295,000.00	2.97%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	0.58%	\$1,282,000.00	1.66%
Offload CB 300	10 deck modules	<input type="checkbox"/>	3600.00	28.99%	\$818,000.00	1.06%
Offload CB 400	19 jacket sections	<input type="checkbox"/>	5928.00	47.74%	\$1,661,280.00	2.15%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.01%	\$10,488.00	0.01%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$348,520.00	0.45%
<b>Task Total</b>			12044.54	97.00%	\$6,274,681.76	72.86%
<b>Misc. Work Provision (15.00%)</b>			279.83	2.25%	\$6,489,003.00	8.40%
<b>Weather Contingency (5.00%)</b>			93.28	0.75%	\$2,163,001.00	2.80%



**MMS**

**Platform Decommission Task Information**

**Eureka MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
		Consumables		\$0.00 0.00%
		Waste Disposal	12,309,970.00	15.94%
		Structure & Equipment Disposal		\$0.00 0.00%
		Offloading		\$0.00 0.00%
		Storage / Scrapping		\$0.00 0.00%
		Reef Donation		\$0.00 0.00%
		Cost of Engineering (0.00%)		\$0.00 0.00%
<b>Total:</b>			12417.65 100.00%	177,236,655.76 100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Eureka MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$1,124,712.50	1.46%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$738,000.00	0.96%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$1,541,280.00	2.00%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$196,000.00	0.25%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$1,778,039.98	2.30%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$200,000.00	0.26%
Derrick Barge 2000	\$8,500.00	per Hour per barge	\$19,818,090.00	25.66%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$5,695,544.09	7.37%
Manual Calculation	\$0.00	Independently Calculated	\$21,758,657.00	28.17%
Pipeline Survey	\$230.00	per Hour	\$413,894.20	0.54%
Rem. Operated Vehicle	\$800.00	per Hour	\$2,866,463.98	3.71%
Rig Up CB 300	\$14,000.00	per Barge	\$56,000.00	0.07%
Rig Up CB 400	\$14,000.00	per Barge	\$84,000.00	0.11%
Work Boat	\$500.00	per Hour	\$4,000.00	0.01%



**MMS**

**Platform Decommission Cost Breakdown**

**Eureka MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$4,911,102.00</b>	<b>6.36%</b>
Manual Calculation			\$4,911,102.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$638,750.00</b>	<b>0.83%</b>
Manual Calculation			\$638,750.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$10,488.00</b>	<b>0.01%</b>
Manual Calculation			\$1,374.75	
Manual Calculation			\$527.25	
Manual Calculation			\$6,000.00	
Manual Calculation			\$2,586.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$11,450,280.00</b>	<b>14.82%</b>
Manual Calculation			\$11,450,280.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$2,628,383.00</b>	<b>3.40%</b>
Manual Calculation			\$2,628,383.00	
<b>Mobilize DB 2000</b>	<b>300.00</b>	<b>2.42%</b>	<b>\$2,295,000.00</b>	<b>2.97%</b>
Derrick Barge 2000			\$2,295,000.00	
<b>Mobilize CB 300 &amp; Tug</b>	<b>10.00</b>	<b>0.08%</b>	<b>\$95,200.00</b>	<b>0.12%</b>
CB 300 & Tug			\$39,200.00	
Rig Up CB 300			\$56,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Eureka MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize CB 400 &amp; Tug</b>	<b>10.00</b>	<b>0.08%</b>	<b>\$144,000.00</b>	<b>0.19%</b>
Rig Up CB 400			\$84,000.00	
CB 400 & Tug			\$60,000.00	
<b>Mobilize Dive Spread</b>	<b>4.00</b>	<b>0.03%</b>	<b>\$18,080.00</b>	<b>0.02%</b>
Work Boat			\$2,000.00	
Dive Basic Spread Saturation			\$12,660.00	
Abrasive Cutter Spread			\$2,500.00	
Pipeline Survey			\$920.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.05%</b>	<b>\$95,310.00</b>	<b>0.12%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
Rem. Operated Vehicle			\$10,800.00	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>0.19%</b>	<b>\$362,400.00</b>	<b>0.47%</b>
Derrick Barge 2000			\$204,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	
Rem. Operated Vehicle			\$38,400.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Eureka MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>24.00</b>	<b>0.19%</b>	<b>\$362,400.00</b>	<b>0.47%</b>
Derrick Barge 2000	\$204,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
Rem. Operated Vehicle	\$38,400.00				
<b>Remove 8 Pile Deck</b>		<b>72.00</b>	<b>0.58%</b>	<b>\$1,087,200.00</b>	<b>1.41%</b>
Derrick Barge 2000	\$612,000.00				
Dive Basic Spread Saturation	\$227,880.00				
Pipeline Survey	\$16,560.00				
Abrasive Cutter Spread	\$45,000.00				
CB 300 & Tug	\$70,560.00				
Rem. Operated Vehicle	\$115,200.00				
<b>Demob CB 300 &amp; Tug</b>		<b>10.00</b>	<b>0.08%</b>	<b>\$39,200.00</b>	<b>0.05%</b>
CB 300 & Tug	\$39,200.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>35.00</b>	<b>0.28%</b>	<b>\$529,200.00</b>	<b>0.69%</b>
Derrick Barge 2000	\$297,500.00				
Dive Basic Spread Saturation	\$110,775.00				
Pipeline Survey	\$8,050.00				
Abrasive Cutter Spread	\$21,875.00				
CB 400 & Tug	\$35,000.00				
Rem. Operated Vehicle	\$56,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Eureka MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>		<b>161.04</b>	<b>1.30%</b>	<b>\$2,674,924.76</b>	<b>3.46%</b>
Derrick Barge 2000	\$1,368,840.00				
Dive Basic Spread Saturation	\$509,691.59				
Pipeline Survey	\$37,039.20				
Abrasive Cutter Spread	\$100,650.00				
CB 400 & Tug	\$161,039.98				
Manual Calculation	\$240,000.00				
Rem. Operated Vehicle	\$257,663.98				
<b>Cut Jacket</b>		<b>731.00</b>	<b>5.89%</b>	<b>\$11,291,366.00</b>	<b>14.62%</b>
Derrick Barge 2000	\$6,213,500.00				
Dive Basic Spread Saturation	\$2,313,615.00				
Pipeline Survey	\$168,130.00				
Abrasive Cutter Spread	\$456,875.00				
CB 400 & Tug	\$731,000.00				
Manual Calculation	\$238,646.00				
Rem. Operated Vehicle	\$1,169,600.00				
<b>Remove Jacket - Meth 1</b>		<b>731.00</b>	<b>5.89%</b>	<b>\$11,052,720.00</b>	<b>14.31%</b>
Derrick Barge 2000	\$6,213,500.00				
Dive Basic Spread Saturation	\$2,313,615.00				
Pipeline Survey	\$168,130.00				
Abrasive Cutter Spread	\$456,875.00				
CB 400 & Tug	\$731,000.00				
Rem. Operated Vehicle	\$1,169,600.00				
<b>Demob CB 400 &amp; Tug</b>		<b>10.00</b>	<b>0.08%</b>	<b>\$60,000.00</b>	<b>0.08%</b>
CB 400 & Tug	\$60,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Eureka MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Pick Up DB Anchors</b>	<b>6.75</b>	<b>0.05%</b>	<b>\$95,310.00</b>	<b>0.12%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
Rem. Operated Vehicle			\$10,800.00	
<b>Demob Dive Spread</b>	<b>4.00</b>	<b>0.03%</b>	<b>\$18,080.00</b>	<b>0.02%</b>
Work Boat			\$2,000.00	
Dive Basic Spread Saturation			\$12,660.00	
Abrasive Cutter Spread			\$2,500.00	
Pipeline Survey			\$920.00	
<b>Demob DB 2000</b>	<b>300.00</b>	<b>2.42%</b>	<b>\$2,295,000.00</b>	<b>2.97%</b>
Derrick Barge 2000			\$2,295,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>0.58%</b>	<b>\$1,282,000.00</b>	<b>1.66%</b>
Manual Calculation			\$1,282,000.00	
<b>Offload CB 300</b>	<b>3600.00</b>	<b>28.99%</b>	<b>\$818,000.00</b>	<b>1.06%</b>
Cargo Barge 300			\$738,000.00	
CB Damage Deduct			\$80,000.00	
<b>Offload CB 400</b>	<b>5928.00</b>	<b>47.74%</b>	<b>\$1,661,280.00</b>	<b>2.15%</b>
Cargo Barge 400			\$1,541,280.00	
CB Damage Deduct			\$120,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Eureka MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$10,488.00</b>	<b>0.01%</b>
Manual Calculation			\$1,374.75	
Manual Calculation			\$527.25	
Manual Calculation			\$6,000.00	
Manual Calculation			\$2,586.00	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$348,520.00</b>	<b>0.45%</b>
Manual Calculation			\$348,520.00	
<b>Total</b>	<b>12044.54</b>	<b>97.00%</b>	<b>\$56,274,681.76</b>	<b>72.86%</b>



## MMS

### Pipeline Information

#### Eureka MMS POCS 29056 (Ver1) Segment#:391030

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### General Data

Water Depth: 700'  
Origin / Terminus: Origin  
Opposite End Name: ELLY  
Opposite End Water Depth: 255'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 5.00%

### Pipeline Data

Outside Diameter: 12.75"	Wall Thickness:	Length: 9330'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to Elly. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Eureka MMS POCS 29056 (Ver1) Segment#:402030

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### General Data

Water Depth: 700'  
Origin / Terminus: Origin  
Opposite End Name: ELLY  
Opposite End Water Depth: 255'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 5.00%

### Pipeline Data

Outside Diameter: 6"	Wall Thickness:	Length: 9330'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to Elly. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Eureka MMS POCS 29056 (Ver1) Segment#:413030

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### General Data

Water Depth: 700'  
Origin / Terminus: Origin  
Opposite End Name: Elly  
Opposite End Water Depth: 255'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 5.00%

### Pipeline Data

Outside Diameter: 10"	Wall Thickness:	Length: 9330'
Depth of Burial:	# Crossings:	Product: GAS
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to Elly. It is estimated as abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**Eureka MMS POCS 29056 (Ver 1) Segment#:3910301**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Dive Boat	Shared between 3	<input type="checkbox"/>	330.00	40.68%	\$1,089,000.00	33.53%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.37%	\$53,755.50	1.66%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.62%	\$34,037.50	1.05%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	20.63	2.54%	\$140,438.72	4.32%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.25%	\$13,615.00	0.42%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	1.42%	\$78,626.63	2.42%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	1.42%	\$78,626.63	2.42%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	0.95%	\$52,417.75	1.61%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	0.95%	\$52,417.75	1.61%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	0.95%	\$52,417.75	1.61%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.37%	\$20,422.50	0.63%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	1.42%	\$78,626.63	2.42%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	1.42%	\$78,626.63	2.42%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	0.95%	\$52,417.75	1.61%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	0.95%	\$52,417.75	1.61%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	0.95%	\$52,417.75	1.61%
Demob Dive Boat	Shared between 3	<input type="checkbox"/>	330.00	40.68%	\$1,089,000.00	33.53%
<b>Task Total</b>			<b>786.03</b>	<b>96.89%</b>	<b>\$3,069,282.24</b>	<b>94.51%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>18.90</b>	<b>2.33%</b>	<b>\$133,692.34</b>	<b>4.12%</b>
<b>Weather Contingency (5.00%)</b>			<b>6.30</b>	<b>0.78%</b>	<b>\$44,564.11</b>	<b>1.37%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>811.24</b>	<b>100.00%</b>	<b>\$3,247,538.69</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Eureka MMS POCS 29056 (Ver 1) Segment#:4020301**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Dive Boat		<input type="checkbox"/>	330.00	41.67%	\$1,089,000.00	34.94%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.38%	\$53,755.50	1.72%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.63%	\$34,037.50	1.09%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	4.57	0.58%	\$31,110.28	1.00%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.25%	\$13,615.00	0.44%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	1.46%	\$78,626.63	2.52%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	1.46%	\$78,626.63	2.52%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	0.97%	\$52,417.75	1.68%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	0.97%	\$52,417.75	1.68%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	0.97%	\$52,417.75	1.68%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.38%	\$20,422.50	0.66%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	1.46%	\$78,626.63	2.52%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	1.46%	\$78,626.63	2.52%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	0.97%	\$52,417.75	1.68%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	0.97%	\$52,417.75	1.68%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	0.97%	\$52,417.75	1.68%
Demob Dive Boat		<input type="checkbox"/>	330.00	41.67%	\$1,089,000.00	34.94%
<b>Task Total</b>			<b>769.97</b>	<b>97.22%</b>	<b>\$2,959,953.80</b>	<b>94.98%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>16.50</b>	<b>2.08%</b>	<b>\$117,293.07</b>	<b>3.76%</b>
<b>Weather Contingency (5.00%)</b>			<b>5.50</b>	<b>0.69%</b>	<b>\$39,097.69</b>	<b>1.25%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>791.96</b>	<b>100.00%</b>	<b>\$3,116,344.57</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Eureka MMS POCS 29056 (Ver 1) Segment#:4130301**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Dive Boat		<input type="checkbox"/>	330.00	41.16%	\$1,089,000.00	34.22%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.37%	\$53,755.50	1.69%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.62%	\$34,037.50	1.07%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	12.69	1.58%	\$86,387.17	2.71%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.25%	\$13,615.00	0.43%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	1.44%	\$78,626.63	2.47%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	1.44%	\$78,626.63	2.47%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	0.96%	\$52,417.75	1.65%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	0.96%	\$52,417.75	1.65%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	0.96%	\$52,417.75	1.65%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.37%	\$20,422.50	0.64%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	1.44%	\$78,626.63	2.47%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	1.44%	\$78,626.63	2.47%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	0.96%	\$52,417.75	1.65%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	0.96%	\$52,417.75	1.65%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	0.96%	\$52,417.75	1.65%
Demob Dive Boat		<input type="checkbox"/>	330.00	41.16%	\$1,089,000.00	34.22%
<b>Task Total</b>			778.09	97.05%	\$3,015,230.69	94.74%
<b>Misc. Work Provision (15.00%)</b>			17.71	2.21%	\$125,584.61	3.95%
<b>Weather Contingency (5.00%)</b>			5.90	0.74%	\$41,861.54	1.32%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			801.71	100.00%	\$3,182,676.84	100.00%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Eureka MMS POCS 29056 (Ver 1) Segment#:39103**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$14,178.39	0.44%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$398,884.95	12.28%
DP Dive Boat	\$3,300.00	per Hour	\$2,593,899.00	79.87%
Manual Calculation	\$0.00	Independently Calculated	\$33,333.00	1.03%
Pipeline Surveying	\$230.00	per Hour	\$28,986.90	0.89%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Eureka MMS POCS 29056 (Ver 1) Segment#:40203**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$12,371.65	0.40%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$348,055.05	11.17%
DP Dive Boat	\$3,300.00	per Hour	\$2,540,901.00	81.53%
Manual Calculation	\$0.00	Independently Calculated	\$33,333.00	1.07%
Pipeline Surveying	\$230.00	per Hour	\$25,293.10	0.81%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Eureka MMS POCS 29056 (Ver 1) Segment#:41303**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$13,285.14	0.42%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$373,754.85	11.74%
DP Dive Boat	\$3,300.00	per Hour	\$2,567,697.00	80.68%
Manual Calculation	\$0.00	Independently Calculated	\$33,333.00	1.05%
Pipeline Surveying	\$230.00	per Hour	\$27,160.70	0.85%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Eureka MMS POCS 29056 (Ver 1) Segment#:39103**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>330.00 40.68%</b>	<b>\$1,089,000.00 33.53%</b>
DP Dive Boat		\$1,089,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.37%</b>	<b>\$53,755.50 1.66%</b>
DP Dive Boat		\$9,900.00
Dive Basic Spread Saturation		\$9,495.00
Decommissioning Crew		\$337.50
Pipeline Surveying		\$690.00
Manual Calculation		\$33,333.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.62%</b>	<b>\$34,037.50 1.05%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
<b>Pig &amp; Flush Pipeline</b>	<b>20.63 2.54%</b>	<b>\$140,438.72 4.32%</b>
DP Dive Boat		\$68,079.00
Dive Basic Spread Saturation		\$65,293.95
Decommissioning Crew		\$2,320.87
Pipeline Surveying		\$4,744.90
<b>Derig Decomm Equipment</b>	<b>2.00 0.25%</b>	<b>\$13,615.00 0.42%</b>
DP Dive Boat		\$6,600.00
Dive Basic Spread Saturation		\$6,330.00
Decommissioning Crew		\$225.00
Pipeline Surveying		\$460.00
<b>Expose Pipeline</b>	<b>11.55 1.42%</b>	<b>\$78,626.63 2.42%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>1.42%</b>	<b>\$78,626.63</b>	<b>2.42%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>0.95%</b>	<b>\$52,417.75</b>	<b>1.61%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>0.95%</b>	<b>\$52,417.75</b>	<b>1.61%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>0.95%</b>	<b>\$52,417.75</b>	<b>1.61%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.37%</b>	<b>\$20,422.50</b>	<b>0.63%</b>
DP Dive Boat	\$9,900.00				
Dive Basic Spread Saturation	\$9,495.00				
Decommissioning Crew	\$337.50				
Pipeline Surveying	\$690.00				
<b>Expose Pipeline</b>		<b>11.55</b>	<b>1.42%</b>	<b>\$78,626.63</b>	<b>2.42%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>1.42%</b>	<b>\$78,626.63</b>	<b>2.42%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>0.95%</b>	<b>\$52,417.75</b>	<b>1.61%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>0.95%</b>	<b>\$52,417.75</b>	<b>1.61%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>0.95%</b>	<b>\$52,417.75</b>	<b>1.61%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Demob Dive Boat</b>		<b>330.00</b>	<b>40.68%</b>	<b>\$1,089,000.00</b>	<b>33.53%</b>
DP Dive Boat	\$1,089,000.00				
		<b>Total</b>	<b>786.03 96.89%</b>	<b>\$3,069,282.24</b>	<b>94.51%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Eureka MMS POCS 29056 (Ver 1) Segment#:40203**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>330.00 41.67%</b>	<b>\$1,089,000.00 34.94%</b>
DP Dive Boat		\$1,089,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.38%</b>	<b>\$53,755.50 1.72%</b>
DP Dive Boat		\$9,900.00
Dive Basic Spread Saturation		\$9,495.00
Decommissioning Crew		\$337.50
Pipeline Surveying		\$690.00
Manual Calculation		\$33,333.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.63%</b>	<b>\$34,037.50 1.09%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
<b>Pig &amp; Flush Pipeline</b>	<b>4.57 0.58%</b>	<b>\$31,110.28 1.00%</b>
DP Dive Boat		\$15,081.00
Dive Basic Spread Saturation		\$14,464.05
Decommissioning Crew		\$514.13
Pipeline Surveying		\$1,051.10
<b>Derig Decomm Equipment</b>	<b>2.00 0.25%</b>	<b>\$13,615.00 0.44%</b>
DP Dive Boat		\$6,600.00
Dive Basic Spread Saturation		\$6,330.00
Decommissioning Crew		\$225.00
Pipeline Surveying		\$460.00
<b>Expose Pipeline</b>	<b>11.55 1.46%</b>	<b>\$78,626.63 2.52%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>1.46%</b>	<b>\$78,626.63</b>	<b>2.52%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<hr/>					
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>0.97%</b>	<b>\$52,417.75</b>	<b>1.68%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<hr/>					
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>0.97%</b>	<b>\$52,417.75</b>	<b>1.68%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<hr/>					
<b>Bury Pipeline</b>		<b>7.70</b>	<b>0.97%</b>	<b>\$52,417.75</b>	<b>1.68%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<hr/>					
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.38%</b>	<b>\$20,422.50</b>	<b>0.66%</b>
DP Dive Boat	\$9,900.00				
Dive Basic Spread Saturation	\$9,495.00				
Decommissioning Crew	\$337.50				
Pipeline Surveying	\$690.00				
<hr/>					
<b>Expose Pipeline</b>		<b>11.55</b>	<b>1.46%</b>	<b>\$78,626.63</b>	<b>2.52%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>1.46%</b>	<b>\$78,626.63</b>	<b>2.52%</b>	
DP Dive Boat	\$38,115.00					
Dive Basic Spread Saturation	\$36,555.75					
Decommissioning Crew	\$1,299.38					
Pipeline Surveying	\$2,656.50					
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>0.97%</b>	<b>\$52,417.75</b>	<b>1.68%</b>	
DP Dive Boat	\$25,410.00					
Dive Basic Spread Saturation	\$24,370.50					
Decommissioning Crew	\$866.25					
Pipeline Surveying	\$1,771.00					
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>0.97%</b>	<b>\$52,417.75</b>	<b>1.68%</b>	
DP Dive Boat	\$25,410.00					
Dive Basic Spread Saturation	\$24,370.50					
Decommissioning Crew	\$866.25					
Pipeline Surveying	\$1,771.00					
<b>Bury Pipeline</b>		<b>7.70</b>	<b>0.97%</b>	<b>\$52,417.75</b>	<b>1.68%</b>	
DP Dive Boat	\$25,410.00					
Dive Basic Spread Saturation	\$24,370.50					
Decommissioning Crew	\$866.25					
Pipeline Surveying	\$1,771.00					
<b>Demob Dive Boat</b>		<b>330.00</b>	<b>41.67%</b>	<b>\$1,089,000.00</b>	<b>34.94%</b>	
DP Dive Boat	\$1,089,000.00					
		<b>Total</b>	<b>769.97</b>	<b>97.22%</b>	<b>\$2,959,953.80</b>	<b>94.98%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Eureka MMS POCS 29056 (Ver 1) Segment#:41303**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>330.00 41.16%</b>	<b>\$1,089,000.00 34.22%</b>
DP Dive Boat		\$1,089,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.37%</b>	<b>\$53,755.50 1.69%</b>
DP Dive Boat		\$9,900.00
Dive Basic Spread Saturation		\$9,495.00
Decommissioning Crew		\$337.50
Pipeline Surveying		\$690.00
Manual Calculation		\$33,333.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.62%</b>	<b>\$34,037.50 1.07%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
<b>Pig &amp; Flush Pipeline</b>	<b>12.69 1.58%</b>	<b>\$86,387.17 2.71%</b>
DP Dive Boat		\$41,877.00
Dive Basic Spread Saturation		\$40,163.85
Decommissioning Crew		\$1,427.62
Pipeline Surveying		\$2,918.70
<b>Derig Decomm Equipment</b>	<b>2.00 0.25%</b>	<b>\$13,615.00 0.43%</b>
DP Dive Boat		\$6,600.00
Dive Basic Spread Saturation		\$6,330.00
Decommissioning Crew		\$225.00
Pipeline Surveying		\$460.00
<b>Expose Pipeline</b>	<b>11.55 1.44%</b>	<b>\$78,626.63 2.47%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>1.44%</b>	<b>\$78,626.63</b>	<b>2.47%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>0.96%</b>	<b>\$52,417.75</b>	<b>1.65%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>0.96%</b>	<b>\$52,417.75</b>	<b>1.65%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>0.96%</b>	<b>\$52,417.75</b>	<b>1.65%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.37%</b>	<b>\$20,422.50</b>	<b>0.64%</b>
DP Dive Boat	\$9,900.00				
Dive Basic Spread Saturation	\$9,495.00				
Decommissioning Crew	\$337.50				
Pipeline Surveying	\$690.00				
<b>Expose Pipeline</b>		<b>11.55</b>	<b>1.44%</b>	<b>\$78,626.63</b>	<b>2.47%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>1.44%</b>	<b>\$78,626.63</b>	<b>2.47%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>0.96%</b>	<b>\$52,417.75</b>	<b>1.65%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>0.96%</b>	<b>\$52,417.75</b>	<b>1.65%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>0.96%</b>	<b>\$52,417.75</b>	<b>1.65%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Demob Dive Boat</b>		<b>330.00</b>	<b>41.16%</b>	<b>\$1,089,000.00</b>	<b>34.22%</b>
DP Dive Boat	\$1,089,000.00				
		<b>Total</b>	<b>778.09 97.05%</b>	<b>\$3,015,230.69</b>	<b>94.74%</b>



## **MMS**

### **Well Information**

#### **Eureka MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           No

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:   15.00%

Weather Contingency %:       5.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Pacific Energy Resources, Ltd	100.00%

### **Well Data**

	<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
Tubing:			
Production Casing:			
Liner:			
Protective Casing:			
Surface Casing:			
Drive Pipe:			
Caisson:			
Perforated Depth:			

### **Comments**



**MMS**

**Well Decommission Task Information**

**Eureka MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$6,209,484.00 83.33%
		<b>Task Total</b>	0.00	\$6,209,484.00 83.33%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$931,422.64 12.50%
		<b>Weather Contingency (5.00%)</b>	0.00	\$310,474.20 4.17%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$7,451,380.84 100.00%



# MMS

## Well Decommission Resources Breakdown

### Eureka MMS POCS 29056 (Ver 1) Well#:All

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$6,209,484.00 83.33%



**MMS**

**Well Decommission Cost Breakdown**

**Eureka MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$6,209,484.00</b>	<b>83.33%</b>
Manual Calculation			\$6,209,484.00	
<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$6,209,484.00</b>	<b>83.33%</b>

**Gail MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Gail MMS POCS 29056 (Ver 1)**

---

##### COMPLETE REMOVAL

-Platform Gail will be removed along with Platforms Harvest, Hermosa, Hidalgo and Grace.

-Platform Gail is an 8-pile platform installed in 1987 in 739' of water.

-The estimated removal weight is the deck weight is 7,693 tons and the jacket weight is 18,300 tons.

-The platform has a total of 24 wells that will be plugged and abandoned.

-The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR

-Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.

-A total of 24 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.

-The platform topsides and jacket will be removed by a DB 4000 that will be mobilized from the GOM or North Sea. The total mob/demob time will be 200 days.

-The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.

-Four 300' cargo barges will transport the deck modules to shore and six 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 10 cargo barge trips will be required.

-The three pipelines (1 oil, 2 gas) on the OCS will be totally removed to the state water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total



## **MMS**

### **Platform Salvage Option**

#### **Gail MMS POCS 29056 (Ver 1)**

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mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Huenem Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix 1 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management,



## **MMS**

### **Platform Salvage Option**

#### **Gail MMS POCS 29056 (Ver 1)**

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Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$88,839,895

Estimated Decommissioning Net Cost = \$88,839,895



## **MMS**

### **Basic Information**

#### **Gail MMS POCS 29056 (Ver 1)**

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#### **General Data**

Platform: Gail MMS POCS 29056  
 Function: SELF CONTAINED  
 Type: Steel  
 Water Depth: 739'  
 Pre 461H?: No  
 Year Installed: 1987  
 Year Estimate Developed: 2009  
 District: California  
 Lease Number: OCS-P 0205  
 Account Code: TSB - 29056  
 Amortization: 1.00  
 # Wells to P & A: 24  
 # Pipelines to Abandon: 3  
 Estimate Complete?: Yes

#### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Venoco, Inc.	100.00%

#### **Estimated Costs**

	<b>Gross Cost</b>	<b>Net Cost</b>
Platform Removal:	\$79,721,208	\$79,721,208
Well Plugging & Abandonment:	\$4,295,960	\$4,295,960
Pipeline Abandonment:	\$4,822,727	\$4,822,727
Total Decommissioning Cost:	\$88,839,895	\$88,839,895



## MMS

### Platform Information

### Gail MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	8	60"		Yes	No	
Skirt/Braced	12	72"		No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:		
Middle:		
Lower:		

### Conductors

Number of Slots:	36
Number Installed:	24
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	18300.00		
Jacket Installation Date:	1/1/1987		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	7693 Tons
Number of Padeyes Required:	0
Deck Installation Date:	1/1/1987
Deck Contractor:	Unknown



## MMS

### Platform Information

### Gail MMS POCS 29056 (Ver 1)

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### Equipment Lift Weights

### Members to be Cut Data

### Cargo Descriptions

Cargo Barge Size	Cargo Description			
CB 300 x 100	Deck > 500T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T

### Miscellaneous Data

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	0.00
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### Miscellaneous Cost

Consumables:	\$0.00
Waste Disposal:	\$12,001,855.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Gail MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$4,104,205.00	5.15%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.01%	\$511,000.00	0.64%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.01%	\$8,391.00	0.01%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.01%	\$4,862,948.00	6.10%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.01%	\$3,264,383.00	4.09%
Mobilize DB 4000	Mob from GOM or North Sea, 100 days divided by 5 platforms	<input type="checkbox"/>	480.00	4.93%	\$4,536,000.00	5.69%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 4)	<input type="checkbox"/>	17.00	0.17%	\$122,640.00	0.15%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 6)	<input type="checkbox"/>	17.00	0.17%	\$186,000.00	0.23%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	7.50	0.08%	\$33,900.00	0.04%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.07%	\$108,810.00	0.14%
Cut Deck/Equip/Misc	Seperate 7 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	0.25%	\$410,400.00	0.51%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.25%	\$410,400.00	0.51%
Remove 8 Pile Deck	Remove 8 Pile Deck, 7 modules	<input checked="" type="checkbox"/>	48.00	0.49%	\$820,800.00	1.03%
Demob CB 300 & Tug	Demob to Port of LA (Qty 4)	<input type="checkbox"/>	17.00	0.17%	\$66,640.00	0.08%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	35.00	0.36%	\$599,200.00	0.75%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	145.50	1.49%	\$2,690,960.00	3.38%
Cut Jacket	41 Hours per section, times 19 section(s), per MMS	<input checked="" type="checkbox"/>	780.00	8.01%	\$13,453,040.00	16.88%
Remove Jacket - Meth 1	41 Hours per section, times 19 section(s), per MMS	<input checked="" type="checkbox"/>	780.00	8.01%	\$13,353,600.00	16.75%
Demob CB 400 & Tug	Demob to Port of LA (Qty 6)	<input type="checkbox"/>	17.00	0.17%	\$102,000.00	0.13%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.07%	\$108,810.00	0.14%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	7.50	0.08%	\$33,900.00	0.04%
Demob DB 4000	Demob to GOM or North Sea, 100 days divided by 5 platforms	<input type="checkbox"/>	480.00	4.93%	\$4,536,000.00	5.69%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	0.74%	\$1,282,000.00	1.61%
Offload CB 300		<input type="checkbox"/>	1296.00	13.31%	\$345,680.00	0.43%
Offload CB 400		<input type="checkbox"/>	4992.00	51.26%	\$1,417,920.00	1.78%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.01%	\$8,391.00	0.01%
<b>Task Total</b>			9258.00	95.06%	\$7,378,018.00	71.97%
<b>Misc. Work Provision (15.00%)</b>			288.6	2.96%	\$6,204,803.00	7.78%
<b>Weather Contingency (10.00%)</b>			192.4	1.98%	\$4,136,535.00	5.19%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$12,001,860.00	15.05%



**MMS**

**Platform Decommission Task Information**

**Gail MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		<b>Structure &amp; Equipment Disposal</b>		\$0.00	0.00%
		<b>Offloading</b>		\$0.00	0.00%
		<b>Storage / Scrapping</b>		\$0.00	0.00%
		<b>Reef Donation</b>		\$0.00	0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00	0.00%
			<b>Total:</b>	9739.00	100.00%
				100.00%	79,721,216.00
				100.00%	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Gail MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$1,165,625.00	1.46%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$265,680.00	0.33%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$1,297,920.00	1.63%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$227,360.00	0.29%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$1,944,500.00	2.44%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$200,000.00	0.25%
Derrick Barge 4000	\$10,500.00	per Hour per barge	28,497,000.00	35.75%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$5,902,725.00	7.40%
Manual Calculation	\$0.00	Independently Calculated	14,041,318.00	17.61%
Pile Abrasive Cut 49 to 69 inches	\$5,000.00	per Cut	\$200,000.00	0.25%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$99,440.00	0.12%
Pipeline Survey	\$230.00	per Hour	\$428,950.00	0.54%
Rem. Operated Vehicle	\$800.00	per Hour	\$2,960,000.00	3.71%
Rig Up CB 300	\$14,000.00	per Barge	\$56,000.00	0.07%
Rig Up CB 400	\$14,000.00	per Barge	\$84,000.00	0.11%
Work Boat	\$500.00	per Hour	\$7,500.00	0.01%



**MMS**

**Platform Decommission Cost Breakdown**

**Gail MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$4,104,205.00</b>	<b>5.15%</b>
Manual Calculation			\$4,104,205.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$511,000.00</b>	<b>0.64%</b>
Manual Calculation			\$511,000.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$8,391.00</b>	<b>0.01%</b>
Manual Calculation			\$1,100.00	
Manual Calculation			\$422.00	
Manual Calculation			\$4,800.00	
Manual Calculation			\$2,069.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$4,862,948.00</b>	<b>6.10%</b>
Manual Calculation			\$4,862,948.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$3,264,383.00</b>	<b>4.09%</b>
Manual Calculation			\$3,264,383.00	
<b>Mobilize DB 4000</b>	<b>480.00</b>	<b>4.93%</b>	<b>\$4,536,000.00</b>	<b>5.69%</b>
Derrick Barge 4000			\$4,536,000.00	
<b>Mobilize CB 300 &amp; Tug</b>	<b>17.00</b>	<b>0.17%</b>	<b>\$122,640.00</b>	<b>0.15%</b>
CB 300 & Tug			\$66,640.00	
Rig Up CB 300			\$56,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Gail MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>17.00</b>	<b>0.17%</b>	<b>\$186,000.00</b>	<b>0.23%</b>
Rig Up CB 400			\$84,000.00	
CB 400 & Tug			\$102,000.00	
<b>Mobilize Dive Spread</b>	<b>7.50</b>	<b>0.08%</b>	<b>\$33,900.00</b>	<b>0.04%</b>
Work Boat			\$3,750.00	
Dive Basic Spread Saturation			\$23,737.50	
Abrasive Cutter Spread			\$4,687.50	
Pipeline Survey			\$1,725.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.07%</b>	<b>\$108,810.00</b>	<b>0.14%</b>
Derrick Barge 4000			\$70,875.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
Rem. Operated Vehicle			\$10,800.00	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>0.25%</b>	<b>\$410,400.00</b>	<b>0.51%</b>
Derrick Barge 4000			\$252,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	
Rem. Operated Vehicle			\$38,400.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Gail MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>24.00</b>	<b>0.25%</b>	<b>\$410,400.00</b>	<b>0.51%</b>
Derrick Barge 4000	\$252,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
Rem. Operated Vehicle	\$38,400.00				
<b>Remove 8 Pile Deck</b>		<b>48.00</b>	<b>0.49%</b>	<b>\$820,800.00</b>	<b>1.03%</b>
Derrick Barge 4000	\$504,000.00				
Dive Basic Spread Saturation	\$151,920.00				
Pipeline Survey	\$11,040.00				
Abrasive Cutter Spread	\$30,000.00				
CB 300 & Tug	\$47,040.00				
Rem. Operated Vehicle	\$76,800.00				
<b>Demob CB 300 &amp; Tug</b>		<b>17.00</b>	<b>0.17%</b>	<b>\$66,640.00</b>	<b>0.08%</b>
CB 300 & Tug	\$66,640.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>35.00</b>	<b>0.36%</b>	<b>\$599,200.00</b>	<b>0.75%</b>
Derrick Barge 4000	\$367,500.00				
Dive Basic Spread Saturation	\$110,775.00				
Pipeline Survey	\$8,050.00				
Abrasive Cutter Spread	\$21,875.00				
CB 400 & Tug	\$35,000.00				
Rem. Operated Vehicle	\$56,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Gail MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>		<b>145.50</b>	<b>1.49%</b>	<b>\$2,690,960.00</b>	<b>3.38%</b>
Derrick Barge 4000	\$1,527,750.00				
Dive Basic Spread Saturation	\$460,507.50				
Pipeline Survey	\$33,465.00				
Abrasive Cutter Spread	\$90,937.50				
CB 400 & Tug	\$145,500.00				
Pile Abrasive Cut 49 to 69 inches	\$200,000.00				
Rem. Operated Vehicle	\$232,800.00				
<b>Cut Jacket</b>		<b>780.00</b>	<b>8.01%</b>	<b>\$13,453,040.00</b>	<b>16.88%</b>
Derrick Barge 4000	\$8,190,000.00				
Dive Basic Spread Saturation	\$2,468,700.00				
Pipeline Survey	\$179,400.00				
Abrasive Cutter Spread	\$487,500.00				
CB 400 & Tug	\$780,000.00				
Pile Abrasive Cut 7 to 48 inches	\$99,440.00				
Rem. Operated Vehicle	\$1,248,000.00				
<b>Remove Jacket - Meth 1</b>		<b>780.00</b>	<b>8.01%</b>	<b>\$13,353,600.00</b>	<b>16.75%</b>
Derrick Barge 4000	\$8,190,000.00				
Dive Basic Spread Saturation	\$2,468,700.00				
Pipeline Survey	\$179,400.00				
Abrasive Cutter Spread	\$487,500.00				
CB 400 & Tug	\$780,000.00				
Rem. Operated Vehicle	\$1,248,000.00				
<b>Demob CB 400 &amp; Tug</b>		<b>17.00</b>	<b>0.17%</b>	<b>\$102,000.00</b>	<b>0.13%</b>
CB 400 & Tug	\$102,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Gail MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Pick Up DB Anchors</b>	<b>6.75</b>	<b>0.07%</b>	<b>\$108,810.00</b>	<b>0.14%</b>
Derrick Barge 4000			\$70,875.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
Rem. Operated Vehicle			\$10,800.00	
<b>Demob Dive Spread</b>	<b>7.50</b>	<b>0.08%</b>	<b>\$33,900.00</b>	<b>0.04%</b>
Work Boat			\$3,750.00	
Dive Basic Spread Saturation			\$23,737.50	
Abrasive Cutter Spread			\$4,687.50	
Pipeline Survey			\$1,725.00	
<b>Demob DB 4000</b>	<b>480.00</b>	<b>4.93%</b>	<b>\$4,536,000.00</b>	<b>5.69%</b>
Derrick Barge 4000			\$4,536,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>0.74%</b>	<b>\$1,282,000.00</b>	<b>1.61%</b>
Manual Calculation			\$1,282,000.00	
<b>Offload CB 300</b>	<b>1296.00</b>	<b>13.31%</b>	<b>\$345,680.00</b>	<b>0.43%</b>
Cargo Barge 300			\$265,680.00	
CB Damage Deduct			\$80,000.00	
<b>Offload CB 400</b>	<b>4992.00</b>	<b>51.26%</b>	<b>\$1,417,920.00</b>	<b>1.78%</b>
Cargo Barge 400			\$1,297,920.00	
CB Damage Deduct			\$120,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Gail MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$8,391.00</b>	<b>0.01%</b>
Manual Calculation			\$1,100.00	
Manual Calculation			\$422.00	
Manual Calculation			\$4,800.00	
Manual Calculation			\$2,069.00	
	<b>Total</b>	<b>9258.00 95.06%</b>	<b>\$57,378,018.00 71.97%</b>	



## MMS

### Pipeline Information

#### Gail MMS POCS 29056 (Ver1) Segment#:5110205

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### General Data

Water Depth: 739'  
Origin / Terminus: Origin  
Opposite End Name: Grace  
Opposite End Water Depth: 320'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 8.625"	Wall Thickness:	Length: 33264'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to the Grace Platform.  
It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Gail MMS POCS 29056 (Ver1) Segment#:5220205

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#### General Data

Water Depth: 739'  
Origin / Terminus: Origin  
Opposite End Name: Grace  
Opposite End Water Depth: 320'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter: 8.625"	Wall Thickness:	Length: 33400'
Depth of Burial:	# Crossings:	Product: GAS
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to the Grace Platform.  
It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Gail MMS POCS 29056 (Ver1) Segment#:5300205

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### General Data

Water Depth: 739'  
Origin / Terminus: Origin  
Opposite End Name: Grace  
Opposite End Water Depth: 320'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 8.625"	Wall Thickness:	Length:	31680'
Depth of Burial:	# Crossings:	Product:	SPRE
Installation Date:	Weight Coating: No	J Tube:	No
Riser?: No	Riser Guard?: No		

### Comments

This segment runs to the Grace Platform.  
It is estimated as abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**Gail MMS POCS 29056 (Ver 1) Segment#:5110205**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Dive Boat		<input type="checkbox"/>	80.00	25.06%	\$264,000.00	16.25%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.94%	\$30,422.50	1.87%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.57%	\$34,037.50	2.10%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	22.00	6.89%	\$149,765.00	9.22%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.63%	\$13,615.00	0.84%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.62%	\$78,626.63	4.84%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.62%	\$78,626.63	4.84%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.41%	\$52,417.75	3.23%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.41%	\$52,417.75	3.23%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.41%	\$52,417.75	3.23%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.94%	\$20,422.50	1.26%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.62%	\$78,626.63	4.84%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.62%	\$78,626.63	4.84%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.41%	\$52,417.75	3.23%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.41%	\$52,417.75	3.23%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.41%	\$52,417.75	3.23%
Demob Dive Boat		<input type="checkbox"/>	80.00	25.06%	\$264,000.00	16.25%
<b>Task Total</b>			287.40	90.02%	\$1,405,275.52	86.50%
<b>Misc. Work Provision (15.00%)</b>			19.11	5.99%	\$131,591.33	8.10%
<b>Other Contingency (10.00%)</b>			12.74	3.99%	\$87,727.55	5.40%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			319.25	100.00%	\$1,624,594.41	100.00%



**MMS**

**Pipeline Decommission Task Information**

**Gail MMS POCS 29056 (Ver 1) Segment#:5220205**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Dive Boat		<input type="checkbox"/>	80.00	25.26%	\$264,000.00	16.42%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.95%	\$30,422.50	1.89%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.58%	\$34,037.50	2.12%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	20.00	6.31%	\$136,150.00	8.47%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.63%	\$13,615.00	0.85%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.65%	\$78,626.63	4.89%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.65%	\$78,626.63	4.89%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.43%	\$52,417.75	3.26%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.43%	\$52,417.75	3.26%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.43%	\$52,417.75	3.26%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.95%	\$20,422.50	1.27%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.65%	\$78,626.63	4.89%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.65%	\$78,626.63	4.89%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.43%	\$52,417.75	3.26%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.43%	\$52,417.75	3.26%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.43%	\$52,417.75	3.26%
Demob Dive Boat		<input type="checkbox"/>	80.00	25.26%	\$264,000.00	16.42%
<b>Task Total</b>			285.40	90.10%	\$1,391,660.52	86.57%
<b>Misc. Work Provision (15.00%)</b>			18.81	5.94%	\$129,549.08	8.06%
<b>Other Contingency (10.00%)</b>			12.54	3.96%	\$86,366.05	5.37%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			316.75	100.00%	\$1,607,575.66	100.00%



**MMS**

**Pipeline Decommission Task Information**

**Gail MMS POCS 29056 (Ver 1) Segment#:5300205**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Dive Boat		<input type="checkbox"/>	80.00	25.46%	\$264,000.00	16.60%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.95%	\$30,422.50	1.91%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.59%	\$34,037.50	2.14%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	18.00	5.73%	\$122,535.00	7.70%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.64%	\$13,615.00	0.86%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.68%	\$78,626.63	4.94%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.68%	\$78,626.63	4.94%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.45%	\$52,417.75	3.30%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.45%	\$52,417.75	3.30%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.45%	\$52,417.75	3.30%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.95%	\$20,422.50	1.28%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.68%	\$78,626.63	4.94%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.68%	\$78,626.63	4.94%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.45%	\$52,417.75	3.30%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.45%	\$52,417.75	3.30%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.45%	\$52,417.75	3.30%
Demob Dive Boat		<input type="checkbox"/>	80.00	25.46%	\$264,000.00	16.60%
<b>Task Total</b>			283.40	90.18%	\$1,378,045.52	86.64%
<b>Misc. Work Provision (15.00%)</b>			18.51	5.89%	\$127,506.83	8.02%
<b>Other Contingency (10.00%)</b>			12.34	3.93%	\$85,004.55	5.34%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			314.25	100.00%	\$1,590,556.91	100.00%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Gail MMS POCS 29056 (Ver 1) Segment#:5110205**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$14,332.52	0.88%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$403,221.00	24.82%
DP Dive Boat	\$3,300.00	per Hour	\$948,420.00	58.38%
Manual Calculation	\$0.00	Independently Calculated	\$10,000.00	0.62%
Pipeline Surveying	\$230.00	per Hour	\$29,302.00	1.80%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Gail MMS POCS 29056 (Ver 1) Segment#:5220205**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$14,107.52	0.88%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$396,891.00	24.69%
DP Dive Boat	\$3,300.00	per Hour	\$941,820.00	58.59%
Manual Calculation	\$0.00	Independently Calculated	\$10,000.00	0.62%
Pipeline Surveying	\$230.00	per Hour	\$28,842.00	1.79%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Gail MMS POCS 29056 (Ver 1) Segment#:5300205**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$13,882.52	0.87%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$390,561.00	24.55%
DP Dive Boat	\$3,300.00	per Hour	\$935,220.00	58.80%
Manual Calculation	\$0.00	Independently Calculated	\$10,000.00	0.63%
Pipeline Surveying	\$230.00	per Hour	\$28,382.00	1.78%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Gail MMS POCS 29056 (Ver 1) Segment#:5110205**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>80.00 25.06%</b>	<b>\$264,000.00 16.25%</b>
DP Dive Boat		\$264,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.94%</b>	<b>\$30,422.50 1.87%</b>
DP Dive Boat		\$9,900.00
Dive Basic Spread Saturation		\$9,495.00
Decommissioning Crew		\$337.50
Pipeline Surveying		\$690.00
Manual Calculation		\$10,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.57%</b>	<b>\$34,037.50 2.10%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
<b>Pig &amp; Flush Pipeline</b>	<b>22.00 6.89%</b>	<b>\$149,765.00 9.22%</b>
DP Dive Boat		\$72,600.00
Dive Basic Spread Saturation		\$69,630.00
Decommissioning Crew		\$2,475.00
Pipeline Surveying		\$5,060.00
<b>Derig Decomm Equipment</b>	<b>2.00 0.63%</b>	<b>\$13,615.00 0.84%</b>
DP Dive Boat		\$6,600.00
Dive Basic Spread Saturation		\$6,330.00
Decommissioning Crew		\$225.00
Pipeline Surveying		\$460.00
<b>Expose Pipeline</b>	<b>11.55 3.62%</b>	<b>\$78,626.63 4.84%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.62%</b>	<b>\$78,626.63</b>	<b>4.84%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.41%</b>	<b>\$52,417.75</b>	<b>3.23%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.41%</b>	<b>\$52,417.75</b>	<b>3.23%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.41%</b>	<b>\$52,417.75</b>	<b>3.23%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.94%</b>	<b>\$20,422.50</b>	<b>1.26%</b>
DP Dive Boat	\$9,900.00				
Dive Basic Spread Saturation	\$9,495.00				
Decommissioning Crew	\$337.50				
Pipeline Surveying	\$690.00				
<b>Expose Pipeline</b>		<b>11.55</b>	<b>3.62%</b>	<b>\$78,626.63</b>	<b>4.84%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.62%</b>	<b>\$78,626.63</b>	<b>4.84%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.41%</b>	<b>\$52,417.75</b>	<b>3.23%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.41%</b>	<b>\$52,417.75</b>	<b>3.23%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.41%</b>	<b>\$52,417.75</b>	<b>3.23%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Demob Dive Boat</b>		<b>80.00</b>	<b>25.06%</b>	<b>\$264,000.00</b>	<b>16.25%</b>
DP Dive Boat	\$264,000.00				
		<b>Total</b>	<b>287.40 90.02%</b>	<b>\$1,405,275.52</b>	<b>86.50%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Gail MMS POCS 29056 (Ver 1) Segment#:5220205**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>80.00 25.26%</b>	<b>\$264,000.00 16.42%</b>
DP Dive Boat		\$264,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.95%</b>	<b>\$30,422.50 1.89%</b>
DP Dive Boat		\$9,900.00
Dive Basic Spread Saturation		\$9,495.00
Decommissioning Crew		\$337.50
Pipeline Surveying		\$690.00
Manual Calculation		\$10,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.58%</b>	<b>\$34,037.50 2.12%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
<b>Pig &amp; Flush Pipeline</b>	<b>20.00 6.31%</b>	<b>\$136,150.00 8.47%</b>
DP Dive Boat		\$66,000.00
Dive Basic Spread Saturation		\$63,300.00
Decommissioning Crew		\$2,250.00
Pipeline Surveying		\$4,600.00
<b>Derig Decomm Equipment</b>	<b>2.00 0.63%</b>	<b>\$13,615.00 0.85%</b>
DP Dive Boat		\$6,600.00
Dive Basic Spread Saturation		\$6,330.00
Decommissioning Crew		\$225.00
Pipeline Surveying		\$460.00
<b>Expose Pipeline</b>	<b>11.55 3.65%</b>	<b>\$78,626.63 4.89%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.65%</b>	<b>\$78,626.63</b>	<b>4.89%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.43%</b>	<b>\$52,417.75</b>	<b>3.26%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.43%</b>	<b>\$52,417.75</b>	<b>3.26%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.43%</b>	<b>\$52,417.75</b>	<b>3.26%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.95%</b>	<b>\$20,422.50</b>	<b>1.27%</b>
DP Dive Boat	\$9,900.00				
Dive Basic Spread Saturation	\$9,495.00				
Decommissioning Crew	\$337.50				
Pipeline Surveying	\$690.00				
<b>Expose Pipeline</b>		<b>11.55</b>	<b>3.65%</b>	<b>\$78,626.63</b>	<b>4.89%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.65%</b>	<b>\$78,626.63</b>	<b>4.89%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.43%</b>	<b>\$52,417.75</b>	<b>3.26%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.43%</b>	<b>\$52,417.75</b>	<b>3.26%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.43%</b>	<b>\$52,417.75</b>	<b>3.26%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Demob Dive Boat</b>		<b>80.00</b>	<b>25.26%</b>	<b>\$264,000.00</b>	<b>16.42%</b>
DP Dive Boat	\$264,000.00				
		<b>Total</b>	<b>285.40 90.10%</b>	<b>\$1,391,660.52</b>	<b>86.57%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Gail MMS POCS 29056 (Ver 1) Segment#:5300205**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>80.00 25.46%</b>	<b>\$264,000.00 16.60%</b>
DP Dive Boat		\$264,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.95%</b>	<b>\$30,422.50 1.91%</b>
DP Dive Boat		\$9,900.00
Dive Basic Spread Saturation		\$9,495.00
Decommissioning Crew		\$337.50
Pipeline Surveying		\$690.00
Manual Calculation		\$10,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.59%</b>	<b>\$34,037.50 2.14%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
<b>Pig &amp; Flush Pipeline</b>	<b>18.00 5.73%</b>	<b>\$122,535.00 7.70%</b>
DP Dive Boat		\$59,400.00
Dive Basic Spread Saturation		\$56,970.00
Decommissioning Crew		\$2,025.00
Pipeline Surveying		\$4,140.00
<b>Derig Decomm Equipment</b>	<b>2.00 0.64%</b>	<b>\$13,615.00 0.86%</b>
DP Dive Boat		\$6,600.00
Dive Basic Spread Saturation		\$6,330.00
Decommissioning Crew		\$225.00
Pipeline Surveying		\$460.00
<b>Expose Pipeline</b>	<b>11.55 3.68%</b>	<b>\$78,626.63 4.94%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.68%</b>	<b>\$78,626.63</b>	<b>4.94%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<hr/>					
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.45%</b>	<b>\$52,417.75</b>	<b>3.30%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<hr/>					
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.45%</b>	<b>\$52,417.75</b>	<b>3.30%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<hr/>					
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.45%</b>	<b>\$52,417.75</b>	<b>3.30%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<hr/>					
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.95%</b>	<b>\$20,422.50</b>	<b>1.28%</b>
DP Dive Boat	\$9,900.00				
Dive Basic Spread Saturation	\$9,495.00				
Decommissioning Crew	\$337.50				
Pipeline Surveying	\$690.00				
<hr/>					
<b>Expose Pipeline</b>		<b>11.55</b>	<b>3.68%</b>	<b>\$78,626.63</b>	<b>4.94%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.68%</b>	<b>\$78,626.63</b>	<b>4.94%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.45%</b>	<b>\$52,417.75</b>	<b>3.30%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.45%</b>	<b>\$52,417.75</b>	<b>3.30%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.45%</b>	<b>\$52,417.75</b>	<b>3.30%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Demob Dive Boat</b>		<b>80.00</b>	<b>25.46%</b>	<b>\$264,000.00</b>	<b>16.60%</b>
DP Dive Boat	\$264,000.00				
		<b>Total</b>	<b>283.40 90.18%</b>	<b>\$1,378,045.52</b>	<b>86.64%</b>



## **MMS**

### **Well Information**

#### **Gail MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:   15.00%

Weather Contingency %:       10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Venoco, Inc.	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**Gail MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$3,436,768.00 80.00%
		<b>Task Total</b>	0.00	\$3,436,768.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$515,515.22 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$343,676.81 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$4,295,960.03 100.00%



**MMS**

**Well Decommission Resources Breakdown**

**Gail MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$3,436,768.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**Gail MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$3,436,768.00</b>	<b>80.00%</b>	
Manual Calculation			\$3,436,768.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$3,436,768.00</b>	<b>80.00%</b>

**Gilda MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Gilda MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Gilda will be removed along with Platforms Irene and Habitat.
- Platform Gilda is a 12-pile platform installed in 1981 in 205' of water.
- The estimated removal weight is the deck weight is 3,792 tons and the jacket weight is 3,220 tons.
- The platform has a total of 63 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 64 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and three 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 5 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The two pipelines (oil, gas) on the OCS will be totally removed to the state water



## MMS

### Platform Salvage Option

#### Gilda MMS POCS 29056 (Ver 1)

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boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed



## MMS

### Platform Salvage Option

#### Gilda MMS POCS 29056 (Ver 1)

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with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$42,788,807

Estimated Decommissioning Net Cost = \$42,788,807



## MMS

### Basic Information

### Gilda MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Gilda MMS POCS 29056  
Function: DRILL/PROD  
Type: Steel  
Water Depth: 205'  
Pre 461H?: Yes  
Year Installed: 1981  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0216  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 63  
# Pipelines to Abandon: 2  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Dos Cuadras Offshore LLC	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$30,410,920	\$30,410,920
Well Plugging & Abandonment:	\$9,850,055	\$9,850,055
Pipeline Abandonment:	\$2,527,832	\$2,527,832
Total Decommissioning Cost:	\$42,788,807	\$42,788,807



## MMS

### Platform Information

### Gilda MMS POCS 29056 (Ver 1)

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#### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	12	48"	2"	Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

#### Deck Dimensions

	Dimensions	Elevation
Upper:	155 x 132	75
Middle:	155 x 132	48
Lower:		

#### Conductors

Number of Slots:	96
Number Installed:	64
Outside Diameter:	20"
Wall Thickness:	0.5"
Number Slanted:	0

#### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	3220.00		
Jacket Installation Date:	1/6/81		
Jacket Contractor:	Unknown		

#### Deck Data

Deck Lift Weight with Equipment:	3792 Tons
Number of Padeyes Required:	12
Deck Installation Date:	1/6/81
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

#### **Gilda MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>		
CB 300 x 100	Deck 100-500T	Equipment	Equipment
CB 300 x 100	Deck > 500T	Deck > 500T	
CB 400 x 100	Deck > 500T	Deck > 500T	Equipment
CB 400 x 100	Deck 100-500T	Jkt > 700T	
CB 400 x 100	Jkt > 700T	Jkt > 700T	

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$3,850,765.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Gilda MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$1,942,794.00	6.39%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.02%	\$851,667.00	2.80%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.02%	\$13,984.00	0.05%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.02%	\$5,063,282.00	16.65%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.02%	\$1,839,564.00	6.05%
Mobilize DB 2000	Mob from Asia, 50 days divided by 3 platforms	<input type="checkbox"/>	400.00	9.71%	\$3,060,000.00	10.06%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	17.60	0.43%	\$62,496.00	0.21%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 3)	<input type="checkbox"/>	17.60	0.43%	\$94,800.00	0.31%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	7.80	0.19%	\$35,256.00	0.12%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.16%	\$84,510.00	0.28%
Cut Deck/Equip/Misc	Seperate 6 Modules, per MMS	<input checked="" type="checkbox"/>	12.00	0.29%	\$162,000.00	0.53%
Remove Equipment		<input checked="" type="checkbox"/>	12.00	0.29%	\$162,000.00	0.53%
Remove 8 Pile Deck	Remove 12 Pile Deck, 6 modules	<input checked="" type="checkbox"/>	48.00	1.17%	\$648,000.00	2.13%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	17.60	0.43%	\$34,496.00	0.11%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	46.00	1.12%	\$621,920.00	2.05%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	69.22	1.68%	\$995,518.40	3.27%
Cut Jacket	20 Hours per section, times 3 section(s), per MMS	<input checked="" type="checkbox"/>	60.00	1.46%	\$870,864.00	2.86%
Remove Jacket - Meth 1	20 Hours per section, times 3 section(s), per MMS	<input checked="" type="checkbox"/>	60.00	1.46%	\$811,200.00	2.67%
Demob CB 400 & Tug	Demob to Port of LA (Qty 3)	<input type="checkbox"/>	17.60	0.43%	\$52,800.00	0.17%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.16%	\$84,510.00	0.28%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	7.80	0.19%	\$35,256.00	0.12%
Demob DB 2000	Demob to Asia, 50 days divided by 3 platforms	<input type="checkbox"/>	400.00	9.71%	\$3,060,000.00	10.06%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	1.75%	\$709,000.00	2.33%
Offload CB 300		<input type="checkbox"/>	912.00	22.14%	\$226,960.00	0.75%
Offload CB 400		<input type="checkbox"/>	1824.00	44.29%	\$534,240.00	1.76%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.02%	\$13,984.00	0.05%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$1,180,766.00	3.88%
<b>Task Total</b>			4019.72	97.60%	\$23,251,867.40	76.46%
<b>Misc. Work Provision (15.00%)</b>			59.21	1.44%	\$1,984,970.00	6.53%
<b>Weather Contingency (10.00%)</b>			39.47	0.96%	\$1,323,314.00	4.35%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$3,850,765.00	12.66%



**MMS**

**Platform Decommission Task Information**

**Gilda MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		<b>Structure &amp; Equipment Disposal</b>		\$0.00	0.00%
		<b>Offloading</b>		\$0.00	0.00%
		<b>Storage / Scrapping</b>		\$0.00	0.00%
		<b>Reef Donation</b>		\$0.00	0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00	0.00%
			<b>Total:</b>	4118.40	100.00%
				30,410,916.40	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Gilda MMS POCS 29056 (Ver 1)

Resource Used	Unit Cost	Cost
Abrasive Cutter Spread	\$625.00 per Hour	\$210,200.00 0.69%
Cargo Barge 300	\$4,920.00 per Day per Barge	\$186,960.00 0.61%
Cargo Barge 400	\$6,240.00 per Day per Barge	\$474,240.00 1.56%
CB 300 & Tug	\$980.00 per Hour per Barge/Tug	\$139,552.00 0.46%
CB 400 & Tug	\$1,000.00 per Hour per Barge/Tug	\$340,820.00 1.12%
CB Damage Deduct	\$20,000.00 per Cargo Barge	\$100,000.00 0.33%
Derrick Barge 2000	\$8,500.00 per Hour per barge	\$8,846,120.00 29.09%
Dive Basic Spread Saturation	\$3,165.00 Per Hour	\$1,064,452.80 3.50%
Manual Calculation	\$0.00 Independently Calculated	11,615,041.00 38.19%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00 per Cut	\$119,328.00 0.39%
Pipeline Survey	\$230.00 per Hour	\$77,353.60 0.25%
Rig Up CB 300	\$14,000.00 per Barge	\$28,000.00 0.09%
Rig Up CB 400	\$14,000.00 per Barge	\$42,000.00 0.14%
Work Boat	\$500.00 per Hour	\$7,800.00 0.03%



**MMS**

**Platform Decommission Cost Breakdown**

**Gilda MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,942,794.00</b>	<b>6.39%</b>
Manual Calculation			\$1,942,794.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$851,667.00</b>	<b>2.80%</b>
Manual Calculation			\$851,667.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$13,984.00</b>	<b>0.05%</b>
Manual Calculation			\$1,833.00	
Manual Calculation			\$703.00	
Manual Calculation			\$8,000.00	
Manual Calculation			\$3,448.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$5,063,282.00</b>	<b>16.65%</b>
Manual Calculation			\$5,063,282.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$1,839,564.00</b>	<b>6.05%</b>
Manual Calculation			\$1,839,564.00	
<b>Mobilize DB 2000</b>	<b>400.00</b>	<b>9.71%</b>	<b>\$3,060,000.00</b>	<b>10.06%</b>
Derrick Barge 2000			\$3,060,000.00	
<b>Mobilize CB 300 &amp; Tug</b>	<b>17.60</b>	<b>0.43%</b>	<b>\$62,496.00</b>	<b>0.21%</b>
CB 300 & Tug			\$34,496.00	
Rig Up CB 300			\$28,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Gilda MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>17.60</b>	<b>0.43%</b>	<b>\$94,800.00</b>	<b>0.31%</b>
Rig Up CB 400			\$42,000.00	
CB 400 & Tug			\$52,800.00	
<b>Mobilize Dive Spread</b>	<b>7.80</b>	<b>0.19%</b>	<b>\$35,256.00</b>	<b>0.12%</b>
Work Boat			\$3,900.00	
Dive Basic Spread Saturation			\$24,687.00	
Abrasive Cutter Spread			\$4,875.00	
Pipeline Survey			\$1,794.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.16%</b>	<b>\$84,510.00</b>	<b>0.28%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
<b>Cut Deck/Equip/Misc</b>	<b>12.00</b>	<b>0.29%</b>	<b>\$162,000.00</b>	<b>0.53%</b>
Derrick Barge 2000			\$102,000.00	
Dive Basic Spread Saturation			\$37,980.00	
Pipeline Survey			\$2,760.00	
Abrasive Cutter Spread			\$7,500.00	
CB 300 & Tug			\$11,760.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Gilda MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>	<b>12.00</b>	<b>0.29%</b>	<b>\$162,000.00</b>	<b>0.53%</b>
Derrick Barge 2000			\$102,000.00	
Dive Basic Spread Saturation			\$37,980.00	
Pipeline Survey			\$2,760.00	
Abrasive Cutter Spread			\$7,500.00	
CB 300 & Tug			\$11,760.00	
<b>Remove 8 Pile Deck</b>	<b>48.00</b>	<b>1.17%</b>	<b>\$648,000.00</b>	<b>2.13%</b>
Derrick Barge 2000			\$408,000.00	
Dive Basic Spread Saturation			\$151,920.00	
Pipeline Survey			\$11,040.00	
Abrasive Cutter Spread			\$30,000.00	
CB 300 & Tug			\$47,040.00	
<b>Demob CB 300 &amp; Tug</b>	<b>17.60</b>	<b>0.43%</b>	<b>\$34,496.00</b>	<b>0.11%</b>
CB 300 & Tug			\$34,496.00	
<b>Jet/Airlift Pile Mud Plug</b>	<b>46.00</b>	<b>1.12%</b>	<b>\$621,920.00</b>	<b>2.05%</b>
Derrick Barge 2000			\$391,000.00	
Dive Basic Spread Saturation			\$145,590.00	
Pipeline Survey			\$10,580.00	
Abrasive Cutter Spread			\$28,750.00	
CB 400 & Tug			\$46,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Gilda MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>	<b>69.22</b>	<b>1.68%</b>	<b>\$995,518.40</b>	<b>3.27%</b>
Derrick Barge 2000			\$588,370.00	
Dive Basic Spread Saturation			\$219,081.30	
Pipeline Survey			\$15,920.60	
Abrasive Cutter Spread			\$43,262.50	
CB 400 & Tug			\$69,220.00	
Pile Abrasive Cut 7 to 48 inches			\$59,664.00	
<b>Cut Jacket</b>	<b>60.00</b>	<b>1.46%</b>	<b>\$870,864.00</b>	<b>2.86%</b>
Derrick Barge 2000			\$510,000.00	
Dive Basic Spread Saturation			\$189,900.00	
Pipeline Survey			\$13,800.00	
Abrasive Cutter Spread			\$37,500.00	
CB 400 & Tug			\$60,000.00	
Pile Abrasive Cut 7 to 48 inches			\$59,664.00	
<b>Remove Jacket - Meth 1</b>	<b>60.00</b>	<b>1.46%</b>	<b>\$811,200.00</b>	<b>2.67%</b>
Derrick Barge 2000			\$510,000.00	
Dive Basic Spread Saturation			\$189,900.00	
Pipeline Survey			\$13,800.00	
Abrasive Cutter Spread			\$37,500.00	
CB 400 & Tug			\$60,000.00	
<b>Demob CB 400 &amp; Tug</b>	<b>17.60</b>	<b>0.43%</b>	<b>\$52,800.00</b>	<b>0.17%</b>
CB 400 & Tug			\$52,800.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Gilda MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.16%</b>	<b>\$84,510.00</b>	<b>0.28%</b>
Derrick Barge 2000	\$57,375.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
<b>Demob Dive Spread</b>		<b>7.80</b>	<b>0.19%</b>	<b>\$35,256.00</b>	<b>0.12%</b>
Work Boat	\$3,900.00				
Dive Basic Spread Saturation	\$24,687.00				
Abrasive Cutter Spread	\$4,875.00				
Pipeline Survey	\$1,794.00				
<b>Demob DB 2000</b>		<b>400.00</b>	<b>9.71%</b>	<b>\$3,060,000.00</b>	<b>10.06%</b>
Derrick Barge 2000	\$3,060,000.00				
<b>Site Clearance - with Divers</b>		<b>72.00</b>	<b>1.75%</b>	<b>\$709,000.00</b>	<b>2.33%</b>
Manual Calculation	\$709,000.00				
<b>Offload CB 300</b>		<b>912.00</b>	<b>22.14%</b>	<b>\$226,960.00</b>	<b>0.75%</b>
Cargo Barge 300	\$186,960.00				
CB Damage Deduct	\$40,000.00				
<b>Offload CB 400</b>		<b>1824.00</b>	<b>44.29%</b>	<b>\$534,240.00</b>	<b>1.76%</b>
Cargo Barge 400	\$474,240.00				
CB Damage Deduct	\$60,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Gilda MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$13,984.00</b>	<b>0.05%</b>
Manual Calculation			\$1,833.00	
Manual Calculation			\$703.00	
Manual Calculation			\$8,000.00	
Manual Calculation			\$3,448.00	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,180,766.00</b>	<b>3.88%</b>
Manual Calculation			\$1,180,766.00	
<b>Total</b>	<b>4019.72</b>	<b>97.60%</b>	<b>\$23,251,867.40</b>	<b>76.46%</b>



## MMS

### Pipeline Information

#### Gilda MMS POCS 29056 (Ver1) Segment#:3210216-

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### General Data

Water Depth: 205'  
Origin / Terminus: Origin  
Opposite End Name: Mandalay  
Opposite End Water Depth: 62'  
Pipeline Operator: Spirit 76  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter:	12"	Wall Thickness:	0.668"	Length:	32928'
Depth of Burial:	3'	# Crossings:		Product:	Oil
Installation Date:		Weight Coating:	No	J Tube:	No
Riser?:	Yes	Riser Guard?:	No		

### Comments

This segment runs to the Mandalay Onshore facility.  
Estimate reflects removing to state waters.  
Total estimated length removed is ~32928'



## MMS

### Pipeline Information

#### Gilda MMS POCS 29056 (Ver1) Segment#:3320216-

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### General Data

Water Depth: 205'  
Origin / Terminus: Origin  
Opposite End Name: Mandalay  
Opposite End Water Depth: 62'  
Pipeline Operator: Spirit 76  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter:	10"	Wall Thickness:	0.365"	Length:	32928'
Depth of Burial:	3'	# Crossings:		Product:	Gas
Installation Date:		Weight Coating:	No	J Tube:	No
Riser?:	Yes	Riser Guard?:	No		

### Comments

This segment runs to the Mandalay Onshore facility.  
Estimate reflects removing to state waters.  
Total estimated length removed is ~32928'



**MMS**

**Pipeline Decommission Task Information**

**Gilda MMS POCS 29056 (Ver 1) Segment#:3210216-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	7.80	1.25%	\$5,424.90	0.42%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.80%	\$3,477.50	0.27%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	58.00	9.28%	\$40,339.00	3.15%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.32%	\$1,391.00	0.11%
Demob Work Boat		<input type="checkbox"/>	7.80	1.25%	\$5,424.90	0.42%
Mob P/L Removal Spread		<input type="checkbox"/>	7.80	1.25%	\$73,938.20	5.78%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.64	1.06%	\$21,125.16	1.65%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.43	0.71%	\$14,094.04	1.10%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.43	0.71%	\$14,094.04	1.10%
Mobilize Vessel		<input checked="" type="checkbox"/>	7.80	1.25%	\$24,580.00	1.92%
Expose Pipeline		<input checked="" type="checkbox"/>	6.64	1.06%	\$24,030.16	1.88%
Remove Pipeline		<input checked="" type="checkbox"/>	200.00	31.99%	\$723,800.00	56.60%
Bury Pipeline		<input checked="" type="checkbox"/>	4.43	0.71%	\$16,032.17	1.25%
Demob Vessel		<input checked="" type="checkbox"/>	7.80	1.25%	\$8,580.00	0.67%
Demob P/L Removal Spread		<input type="checkbox"/>	7.80	1.25%	\$28,228.20	2.21%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	26.87%	\$41,000.00	3.21%
<b>Task Total</b>			506.37	81.00%	\$1,045,559.27	81.77%
<b>Misc. Work Provision (15.00%)</b>			71.28	11.40%	\$139,881.47	10.94%
<b>Other Contingency (10.00%)</b>			47.52	7.60%	\$93,254.31	7.29%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			625.16	100.00%	\$1,278,695.04	100.00%



**MMS**

**Pipeline Decommission Task Information**

**Gilda MMS POCS 29056 (Ver 1) Segment#:3320216-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	7.80	1.34%	\$5,424.90	0.43%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.86%	\$3,477.50	0.28%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	24.00	4.12%	\$16,692.00	1.34%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.34%	\$1,391.00	0.11%
Demob Work Boat		<input type="checkbox"/>	7.80	1.34%	\$5,424.90	0.43%
Mob P/L Removal Spread		<input type="checkbox"/>	7.80	1.34%	\$73,938.20	5.92%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.64	1.14%	\$21,125.16	1.69%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.43	0.76%	\$14,094.04	1.13%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.43	0.76%	\$14,094.04	1.13%
Mobilize Vessel		<input checked="" type="checkbox"/>	7.80	1.34%	\$24,580.00	1.97%
Expose Pipeline		<input checked="" type="checkbox"/>	6.64	1.14%	\$24,030.16	1.92%
Remove Pipeline		<input checked="" type="checkbox"/>	200.00	34.33%	\$723,800.00	57.94%
Bury Pipeline		<input checked="" type="checkbox"/>	4.43	0.76%	\$16,032.17	1.28%
Demob Vessel		<input checked="" type="checkbox"/>	7.80	1.34%	\$8,580.00	0.69%
Demob P/L Removal Spread		<input type="checkbox"/>	7.80	1.34%	\$28,228.20	2.26%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	28.83%	\$41,000.00	3.28%
<b>Task Total</b>			<b>472.37</b>	<b>81.07%</b>	<b>\$1,021,912.27</b>	<b>81.81%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>66.18</b>	<b>11.36%</b>	<b>\$136,334.42</b>	<b>10.91%</b>
<b>Other Contingency (10.00%)</b>			<b>44.12</b>	<b>7.57%</b>	<b>\$90,889.61</b>	<b>7.28%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>582.66</b>	<b>100.00%</b>	<b>\$1,249,136.29</b>	<b>100.00%</b>



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Gilda MMS POCS 29056 (Ver 1) Segment#:321021**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	1.64%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$137,538.50	10.76%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	1.56%
Decommissioning Crew	\$0.00	Calculated from tables	\$10,811.24	0.85%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$214,320.45	16.76%
Manual Calculation	\$0.00	Independently Calculated	\$50,000.00	3.91%
Pipelay Barge	\$1,954.00	per Hour	\$473,200.18	37.01%
Pipeline Surveying	\$230.00	per Hour	\$55,699.10	4.36%
Rig Up CB 180	\$8,000.00	per Barge	\$16,000.00	1.25%
Work Boat	\$583.00	per Hour	\$46,989.80	3.67%



TWACHTMAN SNYDER & BYRD, INC.

## MMS

### Pipeline Decommission Resources Breakdown

#### Gilda MMS POCS 29056 (Ver 1) Segment#:332021

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	1.68%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$137,538.50	11.01%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	1.60%
Decommissioning Crew	\$0.00	Calculated from tables	\$6,986.24	0.56%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$214,320.45	17.16%
Manual Calculation	\$0.00	Independently Calculated	\$50,000.00	4.00%
Pipelay Barge	\$1,954.00	per Hour	\$473,200.18	37.88%
Pipeline Surveying	\$230.00	per Hour	\$55,699.10	4.46%
Rig Up CB 180	\$8,000.00	per Barge	\$16,000.00	1.28%
Work Boat	\$583.00	per Hour	\$27,167.80	2.17%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Gilda MMS POCS 29056 (Ver 1) Segment#:3210216**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>7.80 1.25%</b>	<b>\$5,424.90 0.42%</b>
Work Boat	\$4,547.40	
Decommissioning Crew	\$877.50	
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.80%</b>	<b>\$3,477.50 0.27%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Pig &amp; Flush Pipeline</b>	<b>58.00 9.28%</b>	<b>\$40,339.00 3.15%</b>
Work Boat	\$33,814.00	
Decommissioning Crew	\$6,525.00	
<b>Derig Decomm Equipment</b>	<b>2.00 0.32%</b>	<b>\$1,391.00 0.11%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Demob Work Boat</b>	<b>7.80 1.25%</b>	<b>\$5,424.90 0.42%</b>
Work Boat	\$4,547.40	
Decommissioning Crew	\$877.50	
<b>Mob P/L Removal Spread</b>	<b>7.80 1.25%</b>	<b>\$73,938.20 5.78%</b>
Dive Basic Spread- Mixed Gas	\$6,903.00	
Pipeline Surveying	\$1,794.00	
Pipelay Barge	\$15,241.20	
Manual Calculation	\$50,000.00	
<b>Cut &amp; Plug Pipeline</b>	<b>6.64 1.06%</b>	<b>\$21,125.16 1.65%</b>
Dive Basic Spread- Mixed Gas	\$5,876.40	
Pipeline Surveying	\$1,527.20	
Pipelay Barge	\$12,974.56	
Decommissioning Crew	\$747.00	
<b>Cut Pipeline Riser</b>	<b>4.43 0.71%</b>	<b>\$14,094.04 1.10%</b>
Dive Basic Spread- Mixed Gas	\$3,920.55	
Pipeline Surveying	\$1,018.90	
Pipelay Barge	\$8,656.22	
Decommissioning Crew	\$498.37	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Remove Tube Turn</b>		<b>4.43</b>	<b>0.71%</b>	<b>\$14,094.04</b>	<b>1.10%</b>
Dive Basic Spread- Mixed Gas	\$3,920.55				
Pipeline Surveying	\$1,018.90				
Pipelay Barge	\$8,656.22				
Decommissioning Crew	\$498.37				
<b>Mobilize Vessel</b>		<b>7.80</b>	<b>1.25%</b>	<b>\$24,580.00</b>	<b>1.92%</b>
CB 180 & Tug	\$8,580.00				
Rig Up CB 180	\$16,000.00				
<b>Expose Pipeline</b>		<b>6.64</b>	<b>1.06%</b>	<b>\$24,030.16</b>	<b>1.88%</b>
Pipeline Surveying	\$1,527.20				
Dive Basic Spread- Mixed Gas	\$5,876.40				
Pipelay Barge	\$12,974.56				
CB 180 & Tug	\$3,652.00				
<b>Remove Pipeline</b>		<b>200.00</b>	<b>31.99%</b>	<b>\$723,800.00</b>	<b>56.60%</b>
Pipeline Surveying	\$46,000.00				
Dive Basic Spread- Mixed Gas	\$177,000.00				
Pipelay Barge	\$390,800.00				
CB 180 & Tug	\$110,000.00				
<b>Bury Pipeline</b>		<b>4.43</b>	<b>0.71%</b>	<b>\$16,032.17</b>	<b>1.25%</b>
Pipeline Surveying	\$1,018.90				
Dive Basic Spread- Mixed Gas	\$3,920.55				
Pipelay Barge	\$8,656.22				
CB 180 & Tug	\$2,436.50				
<b>Demob Vessel</b>		<b>7.80</b>	<b>1.25%</b>	<b>\$8,580.00</b>	<b>0.67%</b>
CB 180 & Tug	\$8,580.00				
<b>Demob P/L Removal Spread</b>		<b>7.80</b>	<b>1.25%</b>	<b>\$28,228.20</b>	<b>2.21%</b>
Pipeline Surveying	\$1,794.00				
Dive Basic Spread- Mixed Gas	\$6,903.00				
Pipelay Barge	\$15,241.20				
CB 180 & Tug	\$4,290.00				
<b>Offload CB 180</b>		<b>168.00</b>	<b>26.87%</b>	<b>\$41,000.00</b>	<b>3.21%</b>
Cargo Barge 180	\$21,000.00				
CB Damage Deduct	\$20,000.00				
		<b>Total</b>	<b>506.37 81.00%</b>	<b>\$1,045,559.27</b>	<b>81.77%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Gilda MMS POCS 29056 (Ver 1) Segment#:3320216**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>7.80 1.34%</b>	<b>\$5,424.90 0.43%</b>
Work Boat	\$4,547.40	
Decommissioning Crew	\$877.50	
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.86%</b>	<b>\$3,477.50 0.28%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Pig &amp; Flush Pipeline</b>	<b>24.00 4.12%</b>	<b>\$16,692.00 1.34%</b>
Work Boat	\$13,992.00	
Decommissioning Crew	\$2,700.00	
<b>Derig Decomm Equipment</b>	<b>2.00 0.34%</b>	<b>\$1,391.00 0.11%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Demob Work Boat</b>	<b>7.80 1.34%</b>	<b>\$5,424.90 0.43%</b>
Work Boat	\$4,547.40	
Decommissioning Crew	\$877.50	
<b>Mob P/L Removal Spread</b>	<b>7.80 1.34%</b>	<b>\$73,938.20 5.92%</b>
Dive Basic Spread- Mixed Gas	\$6,903.00	
Pipeline Surveying	\$1,794.00	
Pipelay Barge	\$15,241.20	
Manual Calculation	\$50,000.00	
<b>Cut &amp; Plug Pipeline</b>	<b>6.64 1.14%</b>	<b>\$21,125.16 1.69%</b>
Dive Basic Spread- Mixed Gas	\$5,876.40	
Pipeline Surveying	\$1,527.20	
Pipelay Barge	\$12,974.56	
Decommissioning Crew	\$747.00	
<b>Cut Pipeline Riser</b>	<b>4.43 0.76%</b>	<b>\$14,094.04 1.13%</b>
Dive Basic Spread- Mixed Gas	\$3,920.55	
Pipeline Surveying	\$1,018.90	
Pipelay Barge	\$8,656.22	
Decommissioning Crew	\$498.37	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Remove Tube Turn</b>		<b>4.43</b>	<b>0.76%</b>	<b>\$14,094.04</b>	<b>1.13%</b>	
Dive Basic Spread- Mixed Gas	\$3,920.55					
Pipeline Surveying	\$1,018.90					
Pipelay Barge	\$8,656.22					
Decommissioning Crew	\$498.37					
<b>Mobilize Vessel</b>		<b>7.80</b>	<b>1.34%</b>	<b>\$24,580.00</b>	<b>1.97%</b>	
CB 180 & Tug	\$8,580.00					
Rig Up CB 180	\$16,000.00					
<b>Expose Pipeline</b>		<b>6.64</b>	<b>1.14%</b>	<b>\$24,030.16</b>	<b>1.92%</b>	
Pipeline Surveying	\$1,527.20					
Dive Basic Spread- Mixed Gas	\$5,876.40					
Pipelay Barge	\$12,974.56					
CB 180 & Tug	\$3,652.00					
<b>Remove Pipeline</b>		<b>200.00</b>	<b>34.33%</b>	<b>\$723,800.00</b>	<b>57.94%</b>	
Pipeline Surveying	\$46,000.00					
Dive Basic Spread- Mixed Gas	\$177,000.00					
Pipelay Barge	\$390,800.00					
CB 180 & Tug	\$110,000.00					
<b>Bury Pipeline</b>		<b>4.43</b>	<b>0.76%</b>	<b>\$16,032.17</b>	<b>1.28%</b>	
Pipeline Surveying	\$1,018.90					
Dive Basic Spread- Mixed Gas	\$3,920.55					
Pipelay Barge	\$8,656.22					
CB 180 & Tug	\$2,436.50					
<b>Demob Vessel</b>		<b>7.80</b>	<b>1.34%</b>	<b>\$8,580.00</b>	<b>0.69%</b>	
CB 180 & Tug	\$8,580.00					
<b>Demob P/L Removal Spread</b>		<b>7.80</b>	<b>1.34%</b>	<b>\$28,228.20</b>	<b>2.26%</b>	
Pipeline Surveying	\$1,794.00					
Dive Basic Spread- Mixed Gas	\$6,903.00					
Pipelay Barge	\$15,241.20					
CB 180 & Tug	\$4,290.00					
<b>Offload CB 180</b>		<b>168.00</b>	<b>28.83%</b>	<b>\$41,000.00</b>	<b>3.28%</b>	
Cargo Barge 180	\$21,000.00					
CB Damage Deduct	\$20,000.00					
		<b>Total</b>	<b>472.37</b>	<b>81.07%</b>	<b>\$1,021,912.27</b>	<b>81.81%</b>



## **MMS**

### **Well Information**

#### **Gilda MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:                      Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:              15.00%

Weather Contingency %:                      10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Dos Cuadras Offshore LLC	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>

Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**Gilda MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$7,880,044.00 80.00%
		<b>Task Total</b>	0.00	\$7,880,044.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$1,182,006.65 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$788,004.41 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$9,850,055.06 100.00%



**MMS**

**Well Decommission Resources Breakdown**

**Gilda MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$7,880,044.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**Gilda MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$7,880,044.00</b>	<b>80.00%</b>	
Manual Calculation			\$7,880,044.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$7,880,044.00</b>	<b>80.00%</b>

**Gina MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Gina MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Gina will be removed along with Platforms A, B, C, Hillhouse and Henry.
- Platform Gina is a 6-pile platform installed in 1980 in 95' of water.
- The estimated removal weight is the deck weight is 447 tons and the jacket weight is 434 tons.
- The platform has a total of 12 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 12 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- One 240' cargo barge will transport the deck modules to shore and one 180' cargo barge will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 2 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The two pipelines (gas, water) on the OCS will be totally removed to the state water



## MMS

### Platform Salvage Option

#### Gina MMS POCS 29056 (Ver 1)

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boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed



## MMS

### Platform Salvage Option

#### Gina MMS POCS 29056 (Ver 1)

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with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$12,022,676

Estimated Decommissioning Net Cost = \$12,022,676



## MMS

### Basic Information

#### Gina MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Gina MMS POCS 29056  
Function: FACILITIES  
Type: Steel  
Water Depth: 95'  
Pre 461H?: Yes  
Year Installed: 1980  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0202  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 12  
# Pipelines to Abandon: 2  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Dos Cuadras Offshore LLC	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$9,485,749	\$9,485,749
Well Plugging & Abandonment:	\$1,887,500	\$1,887,500
Pipeline Abandonment:	\$649,427	\$649,427
Total Decommissioning Cost:	\$12,022,676	\$12,022,676



## MMS

### Platform Information

### Gina MMS POCS 29056 (Ver 1)

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#### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	6	48"	2"	Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

#### Deck Dimensions

	Dimensions	Elevation
Upper:	80 x 120	63
Middle:	40 x 103	43
Lower:	40 x 40	27

#### Conductors

Number of Slots:	15
Number Installed:	12
Outside Diameter:	20"
Wall Thickness:	1.25"
Number Slanted:	0

#### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	434.00		
Jacket Installation Date:	12/11/80		
Jacket Contractor:	Unknown		

#### Deck Data

Deck Lift Weight with Equipment:	447 Tons
Number of Padeyes Required:	4
Deck Installation Date:	12/11/80
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

### **Gina MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

#### **Underwater Members**

<b>Size</b>	<b>Qty</b>
10.00	8.00
18.00	4.00
22.00	4.00

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>		
CB 240 x 72	Deck 100-500T	Deck 100-500T	Equipment
CB 180 x 54	Jkt 300-700T	Conductors	

### **Miscellaneous Data**

Derrick Barge Anchors:	4
Assist Derrick Barge Anchors:	0
Tow Distance:	
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$452,971.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Gina MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$493,780.00	5.21%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.07%	\$425,833.00	4.49%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.07%	\$739,207.00	7.79%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.07%	\$6,993.00	0.07%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.07%	\$745,891.00	7.86%
Mobilize DB 2000	Mob from Asia, 50 days divided by 6 platforms	<input type="checkbox"/>	200.00	14.66%	\$1,530,000.00	16.13%
Mobilize CB 240 & Tug	Mob From Port of LA (Qty 1)	<input type="checkbox"/>	17.60	1.29%	\$25,616.00	0.27%
Mobilize CB 180 & Tug	Mob From Port of LA (Qty 1)	<input type="checkbox"/>	17.60	1.29%	\$17,680.00	0.19%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	7.80	0.57%	\$35,256.00	0.37%
Setup Derrick Barge		<input checked="" type="checkbox"/>	3.75	0.27%	\$38,418.75	0.41%
Cut Deck/Equip/Misc	Seperate 2 Modules, per MMS	<input checked="" type="checkbox"/>	12.00	0.88%	\$130,860.00	1.38%
Remove Equipment		<input checked="" type="checkbox"/>	12.00	0.88%	\$130,860.00	1.38%
Remove 6 Pile Deck	Remove 6 Pile Deck, 2 modules	<input checked="" type="checkbox"/>	24.00	1.76%	\$261,720.00	2.76%
Demob CB 240 & Tug	Demob to Port of LA (Qty 1)	<input type="checkbox"/>	17.60	1.29%	\$11,616.00	0.12%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	16.00	1.17%	\$172,720.00	1.82%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	34.61	2.54%	\$403,446.95	4.25%
Remove Jacket - Meth 1		<input checked="" type="checkbox"/>	20.75	1.52%	\$223,996.25	2.36%
Demob CB 180 & Tug	Demob to Port of LA (Qty 1)	<input type="checkbox"/>	17.60	1.29%	\$9,680.00	0.10%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	3.75	0.27%	\$38,418.75	0.41%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	7.80	0.57%	\$35,256.00	0.37%
Demob DB 2000	Demob to Asia, 50 days divided by 6 platforms	<input type="checkbox"/>	200.00	14.66%	\$1,530,000.00	16.13%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	5.28%	\$709,000.00	7.47%
Offload CB 240		<input type="checkbox"/>	312.00	22.87%	\$66,800.00	0.70%
Offload CB 180		<input type="checkbox"/>	312.00	22.87%	\$59,000.00	0.62%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.07%	\$6,993.00	0.07%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$228,081.00	2.40%
<b>Task Total</b>			1313.86	96.32%	\$8,077,122.70	85.15%
<b>Misc. Work Provision (15.00%)</b>			30.13	2.21%	\$573,393.00	6.04%
<b>Weather Contingency (10.00%)</b>			20.09	1.47%	\$382,262.00	4.03%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$452,971.00	4.78%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%



**MMS**

**Platform Decommission Task Information**

**Gina MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		Offloading		\$0.00	0.00%
		Storage / Scrapping		\$0.00	0.00%
		Reef Donation		\$0.00	0.00%
		Cost of Engineering (0.00%)		\$0.00	0.00%
			<b>Total:</b>	1364.08 100.00%	\$9,485,748.70 100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Gina MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$89,037.50	0.94%
Cargo Barge 180	\$3,000.00	per Day per Barge	\$39,000.00	0.41%
Cargo Barge 240	\$3,600.00	per Day per Barge	\$46,800.00	0.49%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$58,608.00	0.62%
CB 240 & Tug	\$660.00	per Hour per Barge/Tug	\$54,912.00	0.58%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$40,000.00	0.42%
Derrick Barge 2000	\$8,500.00	per Hour per barge	\$4,138,310.00	43.63%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$49,374.00	0.52%
Dive Basic Spread- Mixed Gas	\$890.00	Per Hour	\$112,905.40	1.19%
Manual Calculation	\$0.00	Independently Calculated	\$3,355,778.00	35.38%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$29,832.00	0.31%
Pipeline Survey	\$230.00	per Hour	\$32,765.80	0.35%
Rig Up CB 180	\$8,000.00	per Barge	\$8,000.00	0.08%
Rig Up CB 240	\$14,000.00	per Barge	\$14,000.00	0.15%
Work Boat	\$500.00	per Hour	\$7,800.00	0.08%



**MMS**

**Platform Decommission Cost Breakdown**

**Gina MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00 0.00%</b>	<b>\$493,780.00 5.21%</b>
Manual Calculation		\$493,780.00
<b>NMFS Marine Observation</b>	<b>1.00 0.07%</b>	<b>\$425,833.00 4.49%</b>
Manual Calculation		\$425,833.00
<b>Sever Conductors- Abrasive</b>	<b>1.00 0.07%</b>	<b>\$739,207.00 7.79%</b>
Manual Calculation		\$739,207.00
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00 0.07%</b>	<b>\$6,993.00 0.07%</b>
Manual Calculation		\$917.00
Manual Calculation		\$352.00
Manual Calculation		\$4,000.00
Manual Calculation		\$1,724.00
<b>Platform Removal Preparation</b>	<b>1.00 0.07%</b>	<b>\$745,891.00 7.86%</b>
Manual Calculation		\$745,891.00
<b>Mobilize DB 2000</b>	<b>200.00 14.66%</b>	<b>\$1,530,000.00 16.13%</b>
Derrick Barge 2000		\$1,530,000.00
<b>Mobilize CB 240 &amp; Tug</b>	<b>17.60 1.29%</b>	<b>\$25,616.00 0.27%</b>
CB 240 & Tug		\$11,616.00
Rig Up CB 240		\$14,000.00



**MMS**

**Platform Decommission Cost Breakdown**

**Gina MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize CB 180 &amp; Tug</b>		<b>17.60</b>	<b>1.29%</b>	<b>\$17,680.00</b>	<b>0.19%</b>
Rig Up CB 180	\$8,000.00				
CB 180 & Tug	\$9,680.00				
<b>Mobilize Dive Spread</b>		<b>7.80</b>	<b>0.57%</b>	<b>\$35,256.00</b>	<b>0.37%</b>
Work Boat	\$3,900.00				
Dive Basic Spread Saturation	\$24,687.00				
Abrasive Cutter Spread	\$4,875.00				
Pipeline Survey	\$1,794.00				
<b>Setup Derrick Barge</b>		<b>3.75</b>	<b>0.27%</b>	<b>\$38,418.75</b>	<b>0.41%</b>
Derrick Barge 2000	\$31,875.00				
Dive Basic Spread- Mixed Gas	\$3,337.50				
Pipeline Survey	\$862.50				
Abrasive Cutter Spread	\$2,343.75				
<b>Cut Deck/Equip/Misc</b>		<b>12.00</b>	<b>0.88%</b>	<b>\$130,860.00</b>	<b>1.38%</b>
Derrick Barge 2000	\$102,000.00				
Dive Basic Spread- Mixed Gas	\$10,680.00				
Pipeline Survey	\$2,760.00				
Abrasive Cutter Spread	\$7,500.00				
CB 240 & Tug	\$7,920.00				



## MMS

### Platform Decommission Cost Breakdown

#### Gina MMS POCS 29056 (Ver 1)

Task		Task Hours		Task Cost	
<b>Remove Equipment</b>		<b>12.00</b>	<b>0.88%</b>	<b>\$130,860.00</b>	<b>1.38%</b>
Derrick Barge 2000	\$102,000.00				
Dive Basic Spread- Mixed Gas	\$10,680.00				
Pipeline Survey	\$2,760.00				
Abrasive Cutter Spread	\$7,500.00				
CB 240 & Tug	\$7,920.00				
<b>Remove 6 Pile Deck</b>		<b>24.00</b>	<b>1.76%</b>	<b>\$261,720.00</b>	<b>2.76%</b>
Derrick Barge 2000	\$204,000.00				
Dive Basic Spread- Mixed Gas	\$21,360.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 240 & Tug	\$15,840.00				
<b>Demob CB 240 &amp; Tug</b>		<b>17.60</b>	<b>1.29%</b>	<b>\$11,616.00</b>	<b>0.12%</b>
CB 240 & Tug	\$11,616.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>16.00</b>	<b>1.17%</b>	<b>\$172,720.00</b>	<b>1.82%</b>
Derrick Barge 2000	\$136,000.00				
Dive Basic Spread- Mixed Gas	\$14,240.00				
Pipeline Survey	\$3,680.00				
Abrasive Cutter Spread	\$10,000.00				
CB 180 & Tug	\$8,800.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Gina MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>		<b>34.61</b>	<b>2.54%</b>	<b>\$403,446.95</b>	<b>4.25%</b>
Derrick Barge 2000	\$294,185.00				
Dive Basic Spread- Mixed Gas	\$30,802.90				
Pipeline Survey	\$7,960.30				
Abrasive Cutter Spread	\$21,631.25				
CB 180 & Tug	\$19,035.50				
Pile Abrasive Cut 7 to 48 inches	\$29,832.00				
<b>Remove Jacket - Meth 1</b>		<b>20.75</b>	<b>1.52%</b>	<b>\$223,996.25</b>	<b>2.36%</b>
Derrick Barge 2000	\$176,375.00				
Dive Basic Spread- Mixed Gas	\$18,467.50				
Pipeline Survey	\$4,772.50				
CB 180 & Tug	\$11,412.50				
Abrasive Cutter Spread	\$12,968.75				
<b>Demob CB 180 &amp; Tug</b>		<b>17.60</b>	<b>1.29%</b>	<b>\$9,680.00</b>	<b>0.10%</b>
CB 180 & Tug	\$9,680.00				
<b>Pick Up DB Anchors</b>		<b>3.75</b>	<b>0.27%</b>	<b>\$38,418.75</b>	<b>0.41%</b>
Derrick Barge 2000	\$31,875.00				
Dive Basic Spread- Mixed Gas	\$3,337.50				
Pipeline Survey	\$862.50				
Abrasive Cutter Spread	\$2,343.75				



**MMS**

**Platform Decommission Cost Breakdown**

**Gina MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Cost	Percentage
<b>Demob Dive Spread</b>	<b>7.80</b>	<b>0.57%</b>	<b>\$35,256.00</b>	<b>0.37%</b>
Work Boat			\$3,900.00	
Dive Basic Spread Saturation			\$24,687.00	
Abrasive Cutter Spread			\$4,875.00	
Pipeline Survey			\$1,794.00	
<b>Demob DB 2000</b>	<b>200.00</b>	<b>14.66%</b>	<b>\$1,530,000.00</b>	<b>16.13%</b>
Derrick Barge 2000			\$1,530,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>5.28%</b>	<b>\$709,000.00</b>	<b>7.47%</b>
Manual Calculation			\$709,000.00	
<b>Offload CB 240</b>	<b>312.00</b>	<b>22.87%</b>	<b>\$66,800.00</b>	<b>0.70%</b>
Cargo Barge 240			\$46,800.00	
CB Damage Deduct			\$20,000.00	
<b>Offload CB 180</b>	<b>312.00</b>	<b>22.87%</b>	<b>\$59,000.00</b>	<b>0.62%</b>
Cargo Barge 180			\$39,000.00	
CB Damage Deduct			\$20,000.00	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.07%</b>	<b>\$6,993.00</b>	<b>0.07%</b>
Manual Calculation			\$917.00	
Manual Calculation			\$352.00	
Manual Calculation			\$4,000.00	
Manual Calculation			\$1,724.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Gina MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$228,081.00</b>	<b>2.40%</b>
Manual Calculation			\$228,081.00	
<b>Total</b>	<b>1313.86</b>	<b>96.32%</b>	<b>\$8,077,122.70</b>	<b>85.15%</b>



## MMS

### Pipeline Information

#### Gina MMS POCS 29056 (Ver1) Segment#:3010202-

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### General Data

Water Depth: 95'  
Origin / Terminus: Origin  
Opposite End Name: Shore Mandalay  
Opposite End Water Depth: 10'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter:	10"	Wall Thickness:	0.365"	Length:	1587'
Depth of Burial:	3'	# Crossings:		Product:	Water
Installation Date:		Weight Coating:	No	J Tube:	No
Riser?:	Yes	Riser Guard?:	No		

### Comments

This pipeline runs to the Mandalay Onshore facility.  
Pipeline is removed to state waters.  
Estimated ~1587' removed



## MMS

### Pipeline Information

#### Gina MMS POCS 29056 (Ver1) Segment#:3130202-

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### General Data

Water Depth: 95'  
Origin / Terminus: Origin  
Opposite End Name: Shore Mandalay  
Opposite End Water Depth: 10'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 6"	Wall Thickness: 0.432"	Length: 1587'
Depth of Burial: 3'	# Crossings:	Product: Gas
Installation Date:	Weight Coating: No	J Tube: No
Riser?: Yes	Riser Guard?: No	

### Comments

This pipeline runs to the Mandalay Onshore facility.  
Pipeline is removed to state waters.  
Estimated ~1587' removed



**MMS**

**Pipeline Decommission Task Information**

**Gina MMS POCS 29056 (Ver 1) Segment#:3010202-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	7.80	2.38%	\$5,424.90	1.63%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.52%	\$3,477.50	1.05%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	24.00	7.32%	\$16,692.00	5.03%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.61%	\$1,391.00	0.42%
Demob Work Boat		<input type="checkbox"/>	7.80	2.38%	\$5,424.90	1.63%
Mob P/L Removal Spread		<input type="checkbox"/>	7.80	2.38%	\$73,938.20	22.26%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	3.22	0.98%	\$10,244.43	3.08%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	2.15	0.66%	\$6,840.23	2.06%
Remove Tube Turn		<input checked="" type="checkbox"/>	2.15	0.66%	\$6,840.23	2.06%
Mobilize Vessel		<input checked="" type="checkbox"/>	7.80	2.38%	\$24,580.00	7.40%
Expose Pipeline		<input checked="" type="checkbox"/>	3.22	0.98%	\$11,653.18	3.51%
Remove Pipeline		<input checked="" type="checkbox"/>	10.00	3.05%	\$36,190.00	10.90%
Bury Pipeline		<input checked="" type="checkbox"/>	2.15	0.66%	\$7,780.85	2.34%
Demob Vessel		<input checked="" type="checkbox"/>	7.80	2.38%	\$8,580.00	2.58%
Demob P/L Removal Spread		<input type="checkbox"/>	7.80	2.38%	\$28,228.20	8.50%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	51.21%	\$41,000.00	12.35%
<b>Task Total</b>			268.69	81.90%	\$288,285.62	86.81%
<b>Misc. Work Provision (15.00%)</b>			35.62	10.86%	\$26,290.41	7.92%
<b>Other Contingency (10.00%)</b>			23.75	7.24%	\$17,526.94	5.28%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			328.06	100.00%	\$332,102.98	100.00%



**MMS**

**Pipeline Decommission Task Information**

**Gina MMS POCS 29056 (Ver 1) Segment#:3130202-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	7.80	2.54%	\$5,424.90	1.71%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.63%	\$3,477.50	1.10%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	7.00	2.28%	\$4,868.50	1.53%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.65%	\$1,391.00	0.44%
Demob Work Boat		<input type="checkbox"/>	7.80	2.54%	\$5,424.90	1.71%
Mob P/L Removal Spread		<input type="checkbox"/>	7.80	2.54%	\$73,938.20	23.30%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	3.22	1.05%	\$10,244.43	3.23%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	2.15	0.70%	\$6,840.23	2.16%
Remove Tube Turn		<input checked="" type="checkbox"/>	2.15	0.70%	\$6,840.23	2.16%
Mobilize Vessel		<input checked="" type="checkbox"/>	7.80	2.54%	\$24,580.00	7.75%
Expose Pipeline		<input checked="" type="checkbox"/>	3.22	1.05%	\$11,653.18	3.67%
Remove Pipeline		<input checked="" type="checkbox"/>	10.00	3.26%	\$36,190.00	11.40%
Bury Pipeline		<input checked="" type="checkbox"/>	2.15	0.70%	\$7,780.85	2.45%
Demob Vessel		<input checked="" type="checkbox"/>	7.80	2.54%	\$8,580.00	2.70%
Demob P/L Removal Spread		<input type="checkbox"/>	7.80	2.54%	\$28,228.20	8.90%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	54.76%	\$41,000.00	12.92%
<b>Task Total</b>			251.69	82.03%	\$276,462.12	87.12%
<b>Misc. Work Provision (15.00%)</b>			33.07	10.78%	\$24,516.89	7.73%
<b>Other Contingency (10.00%)</b>			22.05	7.19%	\$16,344.59	5.15%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			306.81	100.00%	\$317,323.60	100.00%



TWACHTMAN SNYDER & BYRD, INC.

## MMS

### Pipeline Decommission Resources Breakdown

#### Gina MMS POCS 29056 (Ver 1) Segment#:3010202

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	6.32%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$29,903.50	9.00%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	6.02%
Decommissioning Crew	\$0.00	Calculated from tables	\$6,088.51	1.83%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$34,063.65	10.26%
Manual Calculation	\$0.00	Independently Calculated	\$50,000.00	15.06%
Pipelay Barge	\$1,954.00	per Hour	\$75,209.46	22.65%
Pipeline Surveying	\$230.00	per Hour	\$8,852.70	2.67%
Rig Up CB 180	\$8,000.00	per Barge	\$16,000.00	4.82%
Work Boat	\$583.00	per Hour	\$27,167.80	8.18%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Gina MMS POCS 29056 (Ver 1) Segment#:3130202**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	6.62%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$29,903.50	9.42%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	6.30%
Decommissioning Crew	\$0.00	Calculated from tables	\$4,176.01	1.32%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$34,063.65	10.73%
Manual Calculation	\$0.00	Independently Calculated	\$50,000.00	15.76%
Pipelay Barge	\$1,954.00	per Hour	\$75,209.46	23.70%
Pipeline Surveying	\$230.00	per Hour	\$8,852.70	2.79%
Rig Up CB 180	\$8,000.00	per Barge	\$16,000.00	5.04%
Work Boat	\$583.00	per Hour	\$17,256.80	5.44%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Gina MMS POCS 29056 (Ver 1) Segment#:3010202-**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>7.80 2.38%</b>	<b>\$5,424.90 1.63%</b>
Work Boat	\$4,547.40	
Decommissioning Crew	\$877.50	
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.52%</b>	<b>\$3,477.50 1.05%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Pig &amp; Flush Pipeline</b>	<b>24.00 7.32%</b>	<b>\$16,692.00 5.03%</b>
Work Boat	\$13,992.00	
Decommissioning Crew	\$2,700.00	
<b>Derig Decomm Equipment</b>	<b>2.00 0.61%</b>	<b>\$1,391.00 0.42%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Demob Work Boat</b>	<b>7.80 2.38%</b>	<b>\$5,424.90 1.63%</b>
Work Boat	\$4,547.40	
Decommissioning Crew	\$877.50	
<b>Mob P/L Removal Spread</b>	<b>7.80 2.38%</b>	<b>\$73,938.20 22.26%</b>
Dive Basic Spread- Mixed Gas	\$6,903.00	
Pipeline Surveying	\$1,794.00	
Pipelay Barge	\$15,241.20	
Manual Calculation	\$50,000.00	
<b>Cut &amp; Plug Pipeline</b>	<b>3.22 0.98%</b>	<b>\$10,244.43 3.08%</b>
Dive Basic Spread- Mixed Gas	\$2,849.70	
Pipeline Surveying	\$740.60	
Pipelay Barge	\$6,291.88	
Decommissioning Crew	\$362.25	
<b>Cut Pipeline Riser</b>	<b>2.15 0.66%</b>	<b>\$6,840.23 2.06%</b>
Dive Basic Spread- Mixed Gas	\$1,902.75	
Pipeline Surveying	\$494.50	
Pipelay Barge	\$4,201.10	
Decommissioning Crew	\$241.88	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Remove Tube Turn</b>		<b>2.15</b>	<b>0.66%</b>	<b>\$6,840.23</b>	<b>2.06%</b>
Dive Basic Spread- Mixed Gas	\$1,902.75				
Pipeline Surveying	\$494.50				
Pipelay Barge	\$4,201.10				
Decommissioning Crew	\$241.88				
<b>Mobilize Vessel</b>		<b>7.80</b>	<b>2.38%</b>	<b>\$24,580.00</b>	<b>7.40%</b>
CB 180 & Tug	\$8,580.00				
Rig Up CB 180	\$16,000.00				
<b>Expose Pipeline</b>		<b>3.22</b>	<b>0.98%</b>	<b>\$11,653.18</b>	<b>3.51%</b>
Pipeline Surveying	\$740.60				
Dive Basic Spread- Mixed Gas	\$2,849.70				
Pipelay Barge	\$6,291.88				
CB 180 & Tug	\$1,771.00				
<b>Remove Pipeline</b>		<b>10.00</b>	<b>3.05%</b>	<b>\$36,190.00</b>	<b>10.90%</b>
Pipeline Surveying	\$2,300.00				
Dive Basic Spread- Mixed Gas	\$8,850.00				
Pipelay Barge	\$19,540.00				
CB 180 & Tug	\$5,500.00				
<b>Bury Pipeline</b>		<b>2.15</b>	<b>0.66%</b>	<b>\$7,780.85</b>	<b>2.34%</b>
Pipeline Surveying	\$494.50				
Dive Basic Spread- Mixed Gas	\$1,902.75				
Pipelay Barge	\$4,201.10				
CB 180 & Tug	\$1,182.50				
<b>Demob Vessel</b>		<b>7.80</b>	<b>2.38%</b>	<b>\$8,580.00</b>	<b>2.58%</b>
CB 180 & Tug	\$8,580.00				
<b>Demob P/L Removal Spread</b>		<b>7.80</b>	<b>2.38%</b>	<b>\$28,228.20</b>	<b>8.50%</b>
Pipeline Surveying	\$1,794.00				
Dive Basic Spread- Mixed Gas	\$6,903.00				
Pipelay Barge	\$15,241.20				
CB 180 & Tug	\$4,290.00				
<b>Offload CB 180</b>		<b>168.00</b>	<b>51.21%</b>	<b>\$41,000.00</b>	<b>12.35%</b>
Cargo Barge 180	\$21,000.00				
CB Damage Deduct	\$20,000.00				
		<b>Total</b>	<b>268.69 81.90%</b>	<b>\$288,285.62</b>	<b>86.81%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Gina MMS POCS 29056 (Ver 1) Segment#:3130202-**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>7.80 2.54%</b>	<b>\$5,424.90 1.71%</b>
Work Boat	\$4,547.40	
Decommissioning Crew	\$877.50	
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.63%</b>	<b>\$3,477.50 1.10%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Pig &amp; Flush Pipeline</b>	<b>7.00 2.28%</b>	<b>\$4,868.50 1.53%</b>
Work Boat	\$4,081.00	
Decommissioning Crew	\$787.50	
<b>Derig Decomm Equipment</b>	<b>2.00 0.65%</b>	<b>\$1,391.00 0.44%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Demob Work Boat</b>	<b>7.80 2.54%</b>	<b>\$5,424.90 1.71%</b>
Work Boat	\$4,547.40	
Decommissioning Crew	\$877.50	
<b>Mob P/L Removal Spread</b>	<b>7.80 2.54%</b>	<b>\$73,938.20 23.30%</b>
Dive Basic Spread- Mixed Gas	\$6,903.00	
Pipeline Surveying	\$1,794.00	
Pipelay Barge	\$15,241.20	
Manual Calculation	\$50,000.00	
<b>Cut &amp; Plug Pipeline</b>	<b>3.22 1.05%</b>	<b>\$10,244.43 3.23%</b>
Dive Basic Spread- Mixed Gas	\$2,849.70	
Pipeline Surveying	\$740.60	
Pipelay Barge	\$6,291.88	
Decommissioning Crew	\$362.25	
<b>Cut Pipeline Riser</b>	<b>2.15 0.70%</b>	<b>\$6,840.23 2.16%</b>
Dive Basic Spread- Mixed Gas	\$1,902.75	
Pipeline Surveying	\$494.50	
Pipelay Barge	\$4,201.10	
Decommissioning Crew	\$241.88	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Remove Tube Turn</b>		<b>2.15</b>	<b>0.70%</b>	<b>\$6,840.23</b>	<b>2.16%</b>
Dive Basic Spread- Mixed Gas	\$1,902.75				
Pipeline Surveying	\$494.50				
Pipelay Barge	\$4,201.10				
Decommissioning Crew	\$241.88				
<b>Mobilize Vessel</b>		<b>7.80</b>	<b>2.54%</b>	<b>\$24,580.00</b>	<b>7.75%</b>
CB 180 & Tug	\$8,580.00				
Rig Up CB 180	\$16,000.00				
<b>Expose Pipeline</b>		<b>3.22</b>	<b>1.05%</b>	<b>\$11,653.18</b>	<b>3.67%</b>
Pipeline Surveying	\$740.60				
Dive Basic Spread- Mixed Gas	\$2,849.70				
Pipelay Barge	\$6,291.88				
CB 180 & Tug	\$1,771.00				
<b>Remove Pipeline</b>		<b>10.00</b>	<b>3.26%</b>	<b>\$36,190.00</b>	<b>11.40%</b>
Pipeline Surveying	\$2,300.00				
Dive Basic Spread- Mixed Gas	\$8,850.00				
Pipelay Barge	\$19,540.00				
CB 180 & Tug	\$5,500.00				
<b>Bury Pipeline</b>		<b>2.15</b>	<b>0.70%</b>	<b>\$7,780.85</b>	<b>2.45%</b>
Pipeline Surveying	\$494.50				
Dive Basic Spread- Mixed Gas	\$1,902.75				
Pipelay Barge	\$4,201.10				
CB 180 & Tug	\$1,182.50				
<b>Demob Vessel</b>		<b>7.80</b>	<b>2.54%</b>	<b>\$8,580.00</b>	<b>2.70%</b>
CB 180 & Tug	\$8,580.00				
<b>Demob P/L Removal Spread</b>		<b>7.80</b>	<b>2.54%</b>	<b>\$28,228.20</b>	<b>8.90%</b>
Pipeline Surveying	\$1,794.00				
Dive Basic Spread- Mixed Gas	\$6,903.00				
Pipelay Barge	\$15,241.20				
CB 180 & Tug	\$4,290.00				
<b>Offload CB 180</b>		<b>168.00</b>	<b>54.76%</b>	<b>\$41,000.00</b>	<b>12.92%</b>
Cargo Barge 180	\$21,000.00				
CB Damage Deduct	\$20,000.00				
<b>Total</b>		<b>251.69</b>	<b>82.03%</b>	<b>\$276,462.12</b>	<b>87.12%</b>



## **MMS**

### **Well Information**

#### **Gina MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion: Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%: 15.00%

Weather Contingency %: 10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Dos Cuadras Offshore LLC	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**Gina MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$1,510,000.00 80.00%
		<b>Task Total</b>	0.00	\$1,510,000.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$226,500.01 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$151,000.00 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$1,887,500.01 100.00%



**MMS**

**Well Decommission Resources Breakdown**

**Gina MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$1,510,000.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**Gina MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,510,000.00</b>	<b>80.00%</b>	
Manual Calculation			\$1,510,000.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,510,000.00</b>	<b>80.00%</b>

**Grace MMS POCS 29056**



## MMS

### Platform Salvage Option

### Grace MMS POCS 29056 (Ver 1)

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#### COMPLETE REMOVAL

-Platform Grace will be removed along with Platforms Harvest, Hermosa, Hidalgo and Gail.

-Platform Grace is a 12-pile platform installed in 1979 in 318' of water.

-The estimated removal weight is the deck weight is 3,800 tons and the jacket weight is 3,090 tons.

-The platform has a total of 28 wells that will be plugged and abandoned.

-The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR

-Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.

-A total of 36 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.

-The platform topsides and jacket will be removed by a DB 4000 that will be mobilized from the GOM or North Sea. The total mob/demob time will be 200 days.

-The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.

-Two 300' cargo barges will transport the deck modules to shore and three 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 5 cargo barge trips will be required.

-The two pipelines (2 oil) on the OCS will be totally removed to the state water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total



## **MMS**

### **Platform Salvage Option**

#### **Grace MMS POCS 29056 (Ver 1)**

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mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Huenem Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix 1 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management,



## MMS

### Platform Salvage Option

#### Grace MMS POCS 29056 (Ver 1)

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Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$41,645,337

Estimated Decommissioning Net Cost = \$41,645,337



## **MMS**

### **Basic Information**

#### **Grace MMS POCS 29056 (Ver 1)**

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#### **General Data**

Platform: Grace MMS POCS 29056  
Function: DRILL/PROD  
Type: Steel  
Water Depth: 318'  
Pre 461H?: Yes  
Year Installed: 1979  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0217  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 28  
# Pipelines to Abandon: 2  
Estimate Complete?: Yes

#### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Venoco, Inc.	100.00%

#### **Estimated Costs**

	<b>Gross Cost</b>	<b>Net Cost</b>
Platform Removal:	\$32,514,610	\$32,514,610
Well Plugging & Abandonment:	\$5,392,555	\$5,392,555
Pipeline Abandonment:	\$3,738,172	\$3,738,172
Total Decommissioning Cost:	\$41,645,337	\$41,645,337



## MMS

### Platform Information

### Grace MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	12	42"		Yes	No	
Skirt/Braced	8	48"		No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:		
Middle:		
Lower:		

### Conductors

Number of Slots:	48
Number Installed:	36
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	3090.00		
Jacket Installation Date:	1/1/1979		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	3800 Tons
Number of Padeyes Required:	0
Deck Installation Date:	1/1/1979
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

#### **Grace MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>		
CB 300 x 100	Deck > 500T	Equipment	Equipment
CB 300 x 100	Deck > 500T	Deck > 500T	
CB 400 x 100	Deck > 500T	Deck > 500T	Equipment
CB 400 x 100	Jkt > 700T	Deck > 500T	
CB 400 x 100	Jkt > 700T	Jkt > 700T	

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	0.00
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$3,672,362.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Grace MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$1,731,671.00	5.33%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.02%	\$511,000.00	1.57%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.02%	\$8,391.00	0.03%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.02%	\$3,811,997.00	11.72%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.02%	\$1,605,564.00	4.94%
Mobilize DB 4000	Mob from GOM or North Sea, 100 days divided by 5 platforms	<input type="checkbox"/>	480.00	10.08%	\$4,536,000.00	13.95%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	17.60	0.37%	\$62,496.00	0.19%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 3)	<input type="checkbox"/>	17.60	0.37%	\$94,800.00	0.29%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	7.80	0.16%	\$35,256.00	0.11%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.14%	\$108,810.00	0.33%
Cut Deck/Equip/Misc	Seperate 6 Modules, per MMS	<input checked="" type="checkbox"/>	12.00	0.25%	\$205,200.00	0.63%
Remove Equipment		<input checked="" type="checkbox"/>	12.00	0.25%	\$205,200.00	0.63%
Remove 8 Pile Deck	Remove 12 Pile Deck, 6 modules	<input checked="" type="checkbox"/>	48.00	1.01%	\$820,800.00	2.52%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	17.60	0.37%	\$34,496.00	0.11%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	46.00	0.97%	\$787,520.00	2.42%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	109.70	2.30%	\$1,977,504.00	6.08%
Cut Jacket	20 Hours per section, times 3 section(s), per MMS	<input checked="" type="checkbox"/>	60.00	1.26%	\$1,126,640.00	3.47%
Remove Jacket - Meth 1	20 Hours per section, times 3 section(s), per MMS	<input checked="" type="checkbox"/>	60.00	1.26%	\$1,027,200.00	3.16%
Demob CB 400 & Tug	Demob to Port of LA (Qty 3)	<input type="checkbox"/>	17.60	0.37%	\$52,800.00	0.16%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.14%	\$108,810.00	0.33%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	7.80	0.16%	\$35,256.00	0.11%
Demob DB 4000	Demob to GOM or North Sea, 100 days divided by 5 platforms	<input type="checkbox"/>	480.00	10.08%	\$4,536,000.00	13.95%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	1.51%	\$1,282,000.00	3.94%
Offload CB 300		<input type="checkbox"/>	1128.00	23.69%	\$271,240.00	0.83%
Offload CB 400		<input type="checkbox"/>	2040.00	42.85%	\$590,400.00	1.82%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.02%	\$8,391.00	0.03%
<b>Task Total</b>			4652.20	97.71%	\$25,575,442.00	78.66%
<b>Misc. Work Provision (15.00%)</b>			65.28	1.37%	\$1,960,087.00	6.03%
<b>Weather Contingency (10.00%)</b>			43.52	0.91%	\$1,306,725.00	4.02%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$3,672,362.00	11.29%



**MMS**

**Platform Decommission Task Information**

**Grace MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		<b>Structure &amp; Equipment Disposal</b>		\$0.00	0.00%
		<b>Offloading</b>		\$0.00	0.00%
		<b>Storage / Scrapping</b>		\$0.00	0.00%
		<b>Reef Donation</b>		\$0.00	0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00	0.00%
			<b>Total:</b>	4761.00	100.00%
				32,514,616.00	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Grace MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$235,500.00	0.72%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$231,240.00	0.71%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$530,400.00	1.63%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$139,552.00	0.43%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$381,300.00	1.17%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$100,000.00	0.31%
Derrick Barge 4000	\$10,500.00	per Hour per barge	\$12,864,600.00	39.57%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$1,192,572.00	3.67%
Manual Calculation	\$0.00	Independently Calculated	\$8,959,014.00	27.55%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$198,880.00	0.61%
Pipeline Survey	\$230.00	per Hour	\$86,664.00	0.27%
Rem. Operated Vehicle	\$800.00	per Hour	\$577,920.00	1.78%
Rig Up CB 300	\$14,000.00	per Barge	\$28,000.00	0.09%
Rig Up CB 400	\$14,000.00	per Barge	\$42,000.00	0.13%
Work Boat	\$500.00	per Hour	\$7,800.00	0.02%



**MMS**

**Platform Decommission Cost Breakdown**

**Grace MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00 0.00%</b>	<b>\$1,731,671.00 5.33%</b>
Manual Calculation		\$1,731,671.00
<b>NMFS Marine Observation</b>	<b>1.00 0.02%</b>	<b>\$511,000.00 1.57%</b>
Manual Calculation		\$511,000.00
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00 0.02%</b>	<b>\$8,391.00 0.03%</b>
Manual Calculation		\$1,100.00
Manual Calculation		\$422.00
Manual Calculation		\$4,800.00
Manual Calculation		\$2,069.00
<b>Sever Conductors- Abrasive</b>	<b>1.00 0.02%</b>	<b>\$3,811,997.00 11.72%</b>
Manual Calculation		\$3,811,997.00
<b>Platform Removal Preparation</b>	<b>1.00 0.02%</b>	<b>\$1,605,564.00 4.94%</b>
Manual Calculation		\$1,605,564.00
<b>Mobilize DB 4000</b>	<b>480.00 10.08%</b>	<b>\$4,536,000.00 13.95%</b>
Derrick Barge 4000		\$4,536,000.00
<b>Mobilize CB 300 &amp; Tug</b>	<b>17.60 0.37%</b>	<b>\$62,496.00 0.19%</b>
CB 300 & Tug		\$34,496.00
Rig Up CB 300		\$28,000.00



**MMS**

**Platform Decommission Cost Breakdown**

**Grace MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>17.60</b>	<b>0.37%</b>	<b>\$94,800.00</b>	<b>0.29%</b>
Rig Up CB 400			\$42,000.00	
CB 400 & Tug			\$52,800.00	
<b>Mobilize Dive Spread</b>	<b>7.80</b>	<b>0.16%</b>	<b>\$35,256.00</b>	<b>0.11%</b>
Work Boat			\$3,900.00	
Dive Basic Spread Saturation			\$24,687.00	
Abrasive Cutter Spread			\$4,875.00	
Pipeline Survey			\$1,794.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.14%</b>	<b>\$108,810.00</b>	<b>0.33%</b>
Derrick Barge 4000			\$70,875.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
Rem. Operated Vehicle			\$10,800.00	
<b>Cut Deck/Equip/Misc</b>	<b>12.00</b>	<b>0.25%</b>	<b>\$205,200.00</b>	<b>0.63%</b>
Derrick Barge 4000			\$126,000.00	
Dive Basic Spread Saturation			\$37,980.00	
Pipeline Survey			\$2,760.00	
Abrasive Cutter Spread			\$7,500.00	
CB 300 & Tug			\$11,760.00	
Rem. Operated Vehicle			\$19,200.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Grace MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>12.00</b>	<b>0.25%</b>	<b>\$205,200.00</b>	<b>0.63%</b>
Derrick Barge 4000	\$126,000.00				
Dive Basic Spread Saturation	\$37,980.00				
Pipeline Survey	\$2,760.00				
Abrasive Cutter Spread	\$7,500.00				
CB 300 & Tug	\$11,760.00				
Rem. Operated Vehicle	\$19,200.00				
<b>Remove 8 Pile Deck</b>		<b>48.00</b>	<b>1.01%</b>	<b>\$820,800.00</b>	<b>2.52%</b>
Derrick Barge 4000	\$504,000.00				
Dive Basic Spread Saturation	\$151,920.00				
Pipeline Survey	\$11,040.00				
Abrasive Cutter Spread	\$30,000.00				
CB 300 & Tug	\$47,040.00				
Rem. Operated Vehicle	\$76,800.00				
<b>Demob CB 300 &amp; Tug</b>		<b>17.60</b>	<b>0.37%</b>	<b>\$34,496.00</b>	<b>0.11%</b>
CB 300 & Tug	\$34,496.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>46.00</b>	<b>0.97%</b>	<b>\$787,520.00</b>	<b>2.42%</b>
Derrick Barge 4000	\$483,000.00				
Dive Basic Spread Saturation	\$145,590.00				
Pipeline Survey	\$10,580.00				
Abrasive Cutter Spread	\$28,750.00				
CB 400 & Tug	\$46,000.00				
Rem. Operated Vehicle	\$73,600.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Grace MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>		<b>109.70</b>	<b>2.30%</b>	<b>\$1,977,504.00</b>	<b>6.08%</b>
Derrick Barge 4000	\$1,151,850.00				
Dive Basic Spread Saturation	\$347,200.50				
Pipeline Survey	\$25,231.00				
Abrasive Cutter Spread	\$68,562.50				
CB 400 & Tug	\$109,700.00				
Pile Abrasive Cut 7 to 48 inches	\$99,440.00				
Rem. Operated Vehicle	\$175,520.00				
<b>Cut Jacket</b>		<b>60.00</b>	<b>1.26%</b>	<b>\$1,126,640.00</b>	<b>3.47%</b>
Derrick Barge 4000	\$630,000.00				
Dive Basic Spread Saturation	\$189,900.00				
Pipeline Survey	\$13,800.00				
Abrasive Cutter Spread	\$37,500.00				
CB 400 & Tug	\$60,000.00				
Pile Abrasive Cut 7 to 48 inches	\$99,440.00				
Rem. Operated Vehicle	\$96,000.00				
<b>Remove Jacket - Meth 1</b>		<b>60.00</b>	<b>1.26%</b>	<b>\$1,027,200.00</b>	<b>3.16%</b>
Derrick Barge 4000	\$630,000.00				
Dive Basic Spread Saturation	\$189,900.00				
Pipeline Survey	\$13,800.00				
Abrasive Cutter Spread	\$37,500.00				
CB 400 & Tug	\$60,000.00				
Rem. Operated Vehicle	\$96,000.00				
<b>Demob CB 400 &amp; Tug</b>		<b>17.60</b>	<b>0.37%</b>	<b>\$52,800.00</b>	<b>0.16%</b>
CB 400 & Tug	\$52,800.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Grace MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.14%</b>	<b>\$108,810.00</b>	<b>0.33%</b>
Derrick Barge 4000	\$70,875.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
Rem. Operated Vehicle	\$10,800.00				
<b>Demob Dive Spread</b>		<b>7.80</b>	<b>0.16%</b>	<b>\$35,256.00</b>	<b>0.11%</b>
Work Boat	\$3,900.00				
Dive Basic Spread Saturation	\$24,687.00				
Abrasive Cutter Spread	\$4,875.00				
Pipeline Survey	\$1,794.00				
<b>Demob DB 4000</b>		<b>480.00</b>	<b>10.08%</b>	<b>\$4,536,000.00</b>	<b>13.95%</b>
Derrick Barge 4000	\$4,536,000.00				
<b>Site Clearance - with Divers</b>		<b>72.00</b>	<b>1.51%</b>	<b>\$1,282,000.00</b>	<b>3.94%</b>
Manual Calculation	\$1,282,000.00				
<b>Offload CB 300</b>		<b>1128.00</b>	<b>23.69%</b>	<b>\$271,240.00</b>	<b>0.83%</b>
Cargo Barge 300	\$231,240.00				
CB Damage Deduct	\$40,000.00				
<b>Offload CB 400</b>		<b>2040.00</b>	<b>42.85%</b>	<b>\$590,400.00</b>	<b>1.82%</b>
Cargo Barge 400	\$530,400.00				
CB Damage Deduct	\$60,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Grace MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$8,391.00</b>	<b>0.03%</b>
Manual Calculation			\$1,100.00	
Manual Calculation			\$422.00	
Manual Calculation			\$4,800.00	
Manual Calculation			\$2,069.00	
<b>Total</b>	<b>4652.20</b>	<b>97.71%</b>	<b>\$25,575,442.00</b>	<b>78.66%</b>



## MMS

### Pipeline Information

#### Grace MMS POCS 29056 (Ver1) Segment#:2120217

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#### General Data

Water Depth: 320'  
Origin / Terminus: Origin  
Opposite End Name: CARPINT  
Opposite End Water Depth: 140'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter: 10"	Wall Thickness:	Length: 61500'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to the Carpinteria Onshore facility.  
Pipeline is estimated to be removed from <200' WD and to state waters.  
Estimated Removal Length in this estimate ~12144'



## MMS

### Pipeline Information

#### Grace MMS POCS 29056 (Ver1) Segment#:2220217

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#### General Data

Water Depth: 320'  
Origin / Terminus: Origin  
Opposite End Name: CARPINT  
Opposite End Water Depth: 140'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter: 12"	Wall Thickness:	Length: 61500'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to the Carpinteria Onshore facility.  
Pipeline is estimated to be removed from <200' WD and to state waters.  
Estimated Removal Length in this estimate ~12144'



**MMS**

**Pipeline Decommission Task Information**

**Grace MMS POCS 29056 (Ver 1) Segment#:2120217**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Dive Boat	To Grace	<input type="checkbox"/>	80.00	11.65%	\$264,000.00	12.58%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.73%	\$34,037.50	1.62%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	56.00	8.15%	\$381,220.00	18.16%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	1.68%	\$78,626.63	3.75%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.40	1.08%	\$50,375.50	2.40%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.40	1.08%	\$50,375.50	2.40%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	1.12%	\$52,417.75	2.50%
Demob Dive Boat		<input checked="" type="checkbox"/>	80.00	11.65%	\$264,000.00	12.58%
Mob P/L Removal Spread	Relocate to a point along the pipeline where the water depth is 200'	<input type="checkbox"/>	7.80	1.14%	\$28,228.20	1.34%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	1.68%	\$41,799.45	1.99%
Cut & Plug Pipeline	Plug the upstream end going To Grace	<input checked="" type="checkbox"/>	11.55	1.68%	\$41,799.45	1.99%
Bury Pipeline	Bury the upstream end going To Grace	<input checked="" type="checkbox"/>	7.70	1.12%	\$27,866.30	1.33%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	1.68%	\$41,799.45	1.99%
Remove Pipeline		<input checked="" type="checkbox"/>	80.00	11.65%	\$289,520.00	13.79%
Bury Pipeline	Bury the end going to shore	<input checked="" type="checkbox"/>	7.70	1.12%	\$27,866.30	1.33%
Demob P/L Removal Spread		<input type="checkbox"/>	7.80	1.14%	\$28,228.20	1.34%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	24.46%	\$41,000.00	1.95%
<b>Task Total</b>			<b>568.70</b>	<b>82.78%</b>	<b>\$1,743,160.23</b>	<b>83.05%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>70.97</b>	<b>10.33%</b>	<b>\$213,405.58</b>	<b>10.17%</b>
<b>Other Contingency (10.00%)</b>			<b>47.31</b>	<b>6.89%</b>	<b>\$142,270.38</b>	<b>6.78%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>686.98</b>	<b>100.00%</b>	<b>\$2,098,836.20</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Grace MMS POCS 29056 (Ver 1) Segment#:2220217**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Dive Boat	To Grace	<input type="checkbox"/>	7.80	1.46%	\$25,740.00	1.57%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.93%	\$34,037.50	2.08%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	65.00	12.13%	\$442,487.50	26.99%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	2.16%	\$78,626.63	4.80%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.40	1.38%	\$50,375.50	3.07%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.40	1.38%	\$50,375.50	3.07%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	1.44%	\$52,417.75	3.20%
Demob Dive Boat		<input checked="" type="checkbox"/>	7.80	1.46%	\$25,740.00	1.57%
Mob P/L Removal Spread	Relocate to a point along the pipeline where the water depth is 200'	<input type="checkbox"/>	7.80	1.46%	\$28,228.20	1.72%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	2.16%	\$41,799.45	2.55%
Cut & Plug Pipeline	Plug the upstream end going To Grace	<input checked="" type="checkbox"/>	11.55	2.16%	\$41,799.45	2.55%
Bury Pipeline	Bury the upstream end going To Grace	<input checked="" type="checkbox"/>	7.70	1.44%	\$27,866.30	1.70%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	2.16%	\$41,799.45	2.55%
Remove Pipeline		<input checked="" type="checkbox"/>	80.00	14.93%	\$289,520.00	17.66%
Bury Pipeline	Bury the end going to shore	<input checked="" type="checkbox"/>	7.70	1.44%	\$27,866.30	1.70%
Demob P/L Removal Spread		<input type="checkbox"/>	7.80	1.46%	\$28,228.20	1.72%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	31.36%	\$41,000.00	2.50%
<b>Task Total</b>			<b>433.30</b>	<b>80.87%</b>	<b>\$1,327,907.73</b>	<b>81.00%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>61.49</b>	<b>11.48%</b>	<b>\$186,856.71</b>	<b>11.40%</b>
<b>Other Contingency (10.00%)</b>			<b>40.99</b>	<b>7.65%</b>	<b>\$124,571.13</b>	<b>7.60%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>535.78</b>	<b>100.00%</b>	<b>\$1,639,335.57</b>	<b>100.00%</b>



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Grace MMS POCS 29056 (Ver 1) Segment#:212021**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	1.00%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$80,107.50	3.82%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	0.95%
Decommissioning Crew	\$0.00	Calculated from tables	\$10,693.13	0.51%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$300,833.25	14.33%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$128,900.25	6.14%
DP Dive Boat	\$3,300.00	per Hour	\$841,665.00	40.10%
Manual Calculation	\$0.00	Independently Calculated	\$0.00	0.00%
Pipelay Barge	\$1,954.00	per Hour	\$284,600.10	13.56%
Pipeline Surveying	\$230.00	per Hour	\$55,361.00	2.64%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Grace MMS POCS 29056 (Ver 1) Segment#:222021**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	1.28%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$80,107.50	4.89%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	1.22%
Decommissioning Crew	\$0.00	Calculated from tables	\$11,705.63	0.71%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$329,318.25	20.09%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$128,900.25	7.86%
DP Dive Boat	\$3,300.00	per Hour	\$394,845.00	24.09%
Manual Calculation	\$0.00	Independently Calculated	\$0.00	0.00%
Pipelay Barge	\$1,954.00	per Hour	\$284,600.10	17.36%
Pipeline Surveying	\$230.00	per Hour	\$57,431.00	3.50%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Grace MMS POCS 29056 (Ver 1) Segment#:212021**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>80.00 11.65%</b>	<b>\$264,000.00 12.58%</b>
DP Dive Boat		\$264,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.73%</b>	<b>\$34,037.50 1.62%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
Manual Calculation		\$0.00
<b>Pig &amp; Flush Pipeline</b>	<b>56.00 8.15%</b>	<b>\$381,220.00 18.16%</b>
DP Dive Boat		\$184,800.00
Dive Basic Spread Saturation		\$177,240.00
Decommissioning Crew		\$6,300.00
Pipeline Surveying		\$12,880.00
<b>Cut &amp; Plug Pipeline</b>	<b>11.55 1.68%</b>	<b>\$78,626.63 3.75%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50
<b>Cut Pipeline Riser</b>	<b>7.40 1.08%</b>	<b>\$50,375.50 2.40%</b>
DP Dive Boat		\$24,420.00
Dive Basic Spread Saturation		\$23,421.00
Decommissioning Crew		\$832.50
Pipeline Surveying		\$1,702.00
<b>Remove Tube Turn</b>	<b>7.40 1.08%</b>	<b>\$50,375.50 2.40%</b>
DP Dive Boat		\$24,420.00
Dive Basic Spread Saturation		\$23,421.00
Decommissioning Crew		\$832.50
Pipeline Surveying		\$1,702.00



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.12%</b>	<b>\$52,417.75</b>	<b>2.50%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Demob Dive Boat</b>		<b>80.00</b>	<b>11.65%</b>	<b>\$264,000.00</b>	<b>12.58%</b>
DP Dive Boat	\$264,000.00				
<b>Mob P/L Removal Spread</b>		<b>7.80</b>	<b>1.14%</b>	<b>\$28,228.20</b>	<b>1.34%</b>
Pipeline Surveying	\$1,794.00				
Dive Basic Spread- Mixed Gas	\$6,903.00				
Pipelay Barge	\$15,241.20				
CB 180 & Tug	\$4,290.00				
<b>Expose Pipeline</b>		<b>11.55</b>	<b>1.68%</b>	<b>\$41,799.45</b>	<b>1.99%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>1.68%</b>	<b>\$41,799.45</b>	<b>1.99%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.12%</b>	<b>\$27,866.30</b>	<b>1.33%</b>
Pipeline Surveying	\$1,771.00				
Dive Basic Spread- Mixed Gas	\$6,814.50				
Pipelay Barge	\$15,045.80				
CB 180 & Tug	\$4,235.00				
<b>Expose Pipeline</b>		<b>11.55</b>	<b>1.68%</b>	<b>\$41,799.45</b>	<b>1.99%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				



## MMS

### Pipeline Decommission Cost Breakdown

<b>Remove Pipeline</b>		<b>80.00</b>	<b>11.65%</b>	<b>\$289,520.00</b>	<b>13.79%</b>	
Pipeline Surveying	\$18,400.00					
Dive Basic Spread- Mixed Gas	\$70,800.00					
Pipelay Barge	\$156,320.00					
CB 180 & Tug	\$44,000.00					
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<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.12%</b>	<b>\$27,866.30</b>	<b>1.33%</b>	
Pipeline Surveying	\$1,771.00					
Dive Basic Spread- Mixed Gas	\$6,814.50					
Pipelay Barge	\$15,045.80					
CB 180 & Tug	\$4,235.00					
<hr/>						
<b>Demob P/L Removal Spread</b>		<b>7.80</b>	<b>1.14%</b>	<b>\$28,228.20</b>	<b>1.34%</b>	
Pipeline Surveying	\$1,794.00					
Dive Basic Spread- Mixed Gas	\$6,903.00					
Pipelay Barge	\$15,241.20					
CB 180 & Tug	\$4,290.00					
<hr/>						
<b>Offload CB 180</b>		<b>168.00</b>	<b>24.46%</b>	<b>\$41,000.00</b>	<b>1.95%</b>	
Cargo Barge 180	\$21,000.00					
CB Damage Deduct	\$20,000.00					
<hr/>						
		<b>Total</b>	<b>568.70</b>	<b>82.78%</b>	<b>\$1,743,160.23</b>	<b>83.05%</b>
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**MMS**

**Pipeline Decommission Cost Breakdown**

**Grace MMS POCS 29056 (Ver 1) Segment#:222021**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>7.80 1.46%</b>	<b>\$25,740.00 1.57%</b>
DP Dive Boat		\$25,740.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.93%</b>	<b>\$34,037.50 2.08%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
Manual Calculation		\$0.00
<b>Pig &amp; Flush Pipeline</b>	<b>65.00 12.13%</b>	<b>\$442,487.50 26.99%</b>
DP Dive Boat		\$214,500.00
Dive Basic Spread Saturation		\$205,725.00
Decommissioning Crew		\$7,312.50
Pipeline Surveying		\$14,950.00
<b>Cut &amp; Plug Pipeline</b>	<b>11.55 2.16%</b>	<b>\$78,626.63 4.80%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50
<b>Cut Pipeline Riser</b>	<b>7.40 1.38%</b>	<b>\$50,375.50 3.07%</b>
DP Dive Boat		\$24,420.00
Dive Basic Spread Saturation		\$23,421.00
Decommissioning Crew		\$832.50
Pipeline Surveying		\$1,702.00
<b>Remove Tube Turn</b>	<b>7.40 1.38%</b>	<b>\$50,375.50 3.07%</b>
DP Dive Boat		\$24,420.00
Dive Basic Spread Saturation		\$23,421.00
Decommissioning Crew		\$832.50
Pipeline Surveying		\$1,702.00



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.44%</b>	<b>\$52,417.75</b>	<b>3.20%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<hr/>					
<b>Demob Dive Boat</b>		<b>7.80</b>	<b>1.46%</b>	<b>\$25,740.00</b>	<b>1.57%</b>
DP Dive Boat	\$25,740.00				
<hr/>					
<b>Mob P/L Removal Spread</b>		<b>7.80</b>	<b>1.46%</b>	<b>\$28,228.20</b>	<b>1.72%</b>
Pipeline Surveying	\$1,794.00				
Dive Basic Spread- Mixed Gas	\$6,903.00				
Pipelay Barge	\$15,241.20				
CB 180 & Tug	\$4,290.00				
<hr/>					
<b>Expose Pipeline</b>		<b>11.55</b>	<b>2.16%</b>	<b>\$41,799.45</b>	<b>2.55%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>2.16%</b>	<b>\$41,799.45</b>	<b>2.55%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
<hr/>					
<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.44%</b>	<b>\$27,866.30</b>	<b>1.70%</b>
Pipeline Surveying	\$1,771.00				
Dive Basic Spread- Mixed Gas	\$6,814.50				
Pipelay Barge	\$15,045.80				
CB 180 & Tug	\$4,235.00				
<hr/>					
<b>Expose Pipeline</b>		<b>11.55</b>	<b>2.16%</b>	<b>\$41,799.45</b>	<b>2.55%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
<hr/>					



## MMS

### Pipeline Decommission Cost Breakdown

<b>Remove Pipeline</b>		<b>80.00</b>	<b>14.93%</b>	<b>\$289,520.00</b>	<b>17.66%</b>	
Pipeline Surveying	\$18,400.00					
Dive Basic Spread- Mixed Gas	\$70,800.00					
Pipelay Barge	\$156,320.00					
CB 180 & Tug	\$44,000.00					
<hr/>						
<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.44%</b>	<b>\$27,866.30</b>	<b>1.70%</b>	
Pipeline Surveying	\$1,771.00					
Dive Basic Spread- Mixed Gas	\$6,814.50					
Pipelay Barge	\$15,045.80					
CB 180 & Tug	\$4,235.00					
<hr/>						
<b>Demob P/L Removal Spread</b>		<b>7.80</b>	<b>1.46%</b>	<b>\$28,228.20</b>	<b>1.72%</b>	
Pipeline Surveying	\$1,794.00					
Dive Basic Spread- Mixed Gas	\$6,903.00					
Pipelay Barge	\$15,241.20					
CB 180 & Tug	\$4,290.00					
<hr/>						
<b>Offload CB 180</b>		<b>168.00</b>	<b>31.36%</b>	<b>\$41,000.00</b>	<b>2.50%</b>	
Cargo Barge 180	\$21,000.00					
CB Damage Deduct	\$20,000.00					
<hr/>						
		<b>Total</b>	<b>433.30</b>	<b>80.87%</b>	<b>\$1,327,907.73</b>	<b>81.00%</b>
<hr/> <hr/>						



## **MMS**

### **Well Information**

#### **Grace MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:   15.00%

Weather Contingency %:       10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Venoco, Inc.	100.00%

### **Well Data**

	<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
Tubing:			
Production Casing:			
Liner:			
Protective Casing:			
Surface Casing:			
Drive Pipe:			
Caisson:			
Perforated Depth:			

### **Comments**



**MMS**

**Well Decommission Task Information**

**Grace MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$4,314,044.00 80.00%
		<b>Task Total</b>	0.00	\$4,314,044.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$647,106.63 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$431,404.41 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$5,392,555.03 100.00%



# MMS

## Well Decommission Resources Breakdown

### Grace MMS POCS 29056 (Ver 1) Well#:All

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$4,314,044.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**Grace MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$4,314,044.00</b>	<b>80.00%</b>	
Manual Calculation			\$4,314,044.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$4,314,044.00</b>	<b>80.00%</b>

**Habitat MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Habitat MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Habitat will be removed along with Platforms Irene and Gilda.
- Platform Habitat is an 8-pile platform installed in 1981 in 290' of water.
- The estimated removal weight is the deck weight is 3,514 tons and the jacket weight is 2,550 tons.
- The platform has a total of 20 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 20 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and three 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 5 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The one pipeline (gas) on the OCS will be totally removed to the state water boundary



## MMS

### Platform Salvage Option

#### Habitat MMS POCS 29056 (Ver 1)

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when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed



## **MMS**

### **Platform Salvage Option**

#### **Habitat MMS POCS 29056 (Ver 1)**

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with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$28,653,894

Estimated Decommissioning Net Cost = \$28,653,894



## MMS

### Basic Information

### Habitat MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Habitat MMS POCS 29056  
Function: DRILL/PROD  
Type: Steel  
Water Depth: 290'  
Pre 461H?: Yes  
Year Installed: 1981  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0234  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 20  
# Pipelines to Abandon: 0  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Dos Cuadras Offshore LLC	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$24,489,310	\$24,489,310
Well Plugging & Abandonment:	\$3,320,835	\$3,320,835
Pipeline Abandonment:	\$843,749	\$843,749
Total Decommissioning Cost:	\$28,653,894	\$28,653,894



## MMS

### Platform Information

### Habitat MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	8	54"	1.5"	Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:	75 x 165	57
Middle:		
Lower:	85 x 165	40

### Conductors

Number of Slots:	24
Number Installed:	20
Outside Diameter:	24"
Wall Thickness:	0.5"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	2550.00		
Jacket Installation Date:	10/8/81		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	3514 Tons
Number of Padeyes Required:	8
Deck Installation Date:	10/8/81
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

### **Habitat MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

#### **Members to be Cut Data**

<b>Top Members</b>		<b>Underwater Members</b>	
<b>Size</b>	<b>Qty</b>	<b>Size</b>	<b>Qty</b>
36.00	16.00	36.00	6.00
54.00	8.00	54.00	8.00

#### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>		
CB 300 x 100	Deck > 500T	Equipment	Equipment
CB 300 x 100	Deck > 500T	Equipment	
CB 400 x 100	Deck > 500T	Deck > 500T	
CB 400 x 100	Deck > 500T	Deck > 500T	
CB 400 x 100	Jkt > 700T	Jkt > 700T	

#### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

#### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$3,130,995.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Habitat MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$1,135,696.00	4.64%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.02%	\$851,667.00	3.48%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.02%	\$13,984.00	0.06%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.02%	\$2,065,538.00	8.43%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.02%	\$1,709,564.00	6.98%
Mobilize DB 2000	Mob from Asia, 50 days divided by 3 platforms	<input type="checkbox"/>	400.00	9.48%	\$3,060,000.00	12.50%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	22.00	0.52%	\$71,120.00	0.29%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 3)	<input type="checkbox"/>	22.00	0.52%	\$108,000.00	0.44%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	10.00	0.24%	\$45,200.00	0.18%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.16%	\$95,310.00	0.39%
Cut Deck/Equip/Misc	Seperate 6 Modules, per MMS	<input checked="" type="checkbox"/>	12.00	0.28%	\$181,200.00	0.74%
Remove Equipment		<input checked="" type="checkbox"/>	12.00	0.28%	\$181,200.00	0.74%
Remove 8 Pile Deck	Remove 8 Pile Deck, 6 modules	<input checked="" type="checkbox"/>	48.00	1.14%	\$724,800.00	2.96%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	22.00	0.52%	\$43,120.00	0.18%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	31.00	0.74%	\$468,720.00	1.91%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	49.91	1.18%	\$834,639.21	3.41%
Cut Jacket	30 Hours per section, times 2 section(s), per MMS	<input checked="" type="checkbox"/>	60.00	1.42%	\$946,976.00	3.87%
Remove Jacket - Meth 1	30 Hours per section, times 2 section(s), per MMS	<input checked="" type="checkbox"/>	60.00	1.42%	\$907,200.00	3.70%
Demob CB 400 & Tug	Demob to Port of LA (Qty 3)	<input type="checkbox"/>	22.00	0.52%	\$66,000.00	0.27%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.16%	\$95,310.00	0.39%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	10.00	0.24%	\$45,200.00	0.18%
Demob DB 2000	Demob to Asia, 50 days divided by 3 platforms	<input type="checkbox"/>	400.00	9.48%	\$3,060,000.00	12.50%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	1.71%	\$709,000.00	2.90%
Offload CB 300		<input type="checkbox"/>	792.00	18.78%	\$202,360.00	0.83%
Offload CB 400		<input type="checkbox"/>	2064.00	48.94%	\$596,640.00	2.44%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.02%	\$13,984.00	0.06%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$716,817.00	2.93%
<b>Task Total</b>			4127.41	97.86%	\$18,949,245.21	77.38%
<b>Misc. Work Provision (15.00%)</b>			54.06	1.28%	\$1,445,441.00	5.90%
<b>Weather Contingency (10.00%)</b>			36.04	0.85%	\$963,627.40	3.93%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$3,130,995.00	12.79%



**MMS**

**Platform Decommission Task Information**

**Habitat MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		<b>Structure &amp; Equipment Disposal</b>		\$0.00	0.00%
		<b>Offloading</b>		\$0.00	0.00%
		<b>Storage / Scrapping</b>		\$0.00	0.00%
		<b>Reef Donation</b>		\$0.00	0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00	0.00%
			<b>Total:</b>	4217.51	100.00%
				100.00%	24,489,308.61
				100.00%	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Habitat MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Abrasive Cutter Spread	\$625.00 per Hour	\$191,506.25 0.78%
Cargo Barge 300	\$4,920.00 per Day per Barge	\$162,360.00 0.66%
Cargo Barge 400	\$6,240.00 per Day per Barge	\$536,640.00 2.19%
CB 300 & Tug	\$980.00 per Hour per Barge/Tug	\$156,800.00 0.64%
CB 400 & Tug	\$1,000.00 per Hour per Barge/Tug	\$332,910.00 1.36%
CB Damage Deduct	\$20,000.00 per Cargo Barge	\$100,000.00 0.41%
Derrick Barge 2000	\$8,500.00 per Hour per barge	\$8,554,485.00 34.93%
Dive Basic Spread Saturation	\$3,165.00 Per Hour	\$969,787.66 3.96%
Manual Calculation	\$0.00 Independently Calculated	\$7,216,250.00 29.47%
Pile Abrasive Cut 49 to 69 inches	\$5,000.00 per Cut	\$80,000.00 0.33%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00 per Cut	\$39,776.00 0.16%
Pipeline Survey	\$230.00 per Hour	\$70,474.30 0.29%
Rem. Operated Vehicle	\$800.00 per Hour	\$458,256.00 1.87%
Rig Up CB 300	\$14,000.00 per Barge	\$28,000.00 0.11%
Rig Up CB 400	\$14,000.00 per Barge	\$42,000.00 0.17%
Work Boat	\$500.00 per Hour	\$10,000.00 0.04%



**MMS**

**Platform Decommission Cost Breakdown**

**Habitat MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,135,696.00</b>	<b>4.64%</b>
Manual Calculation			\$1,135,696.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$851,667.00</b>	<b>3.48%</b>
Manual Calculation			\$851,667.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$13,984.00</b>	<b>0.06%</b>
Manual Calculation			\$1,833.00	
Manual Calculation			\$703.00	
Manual Calculation			\$8,000.00	
Manual Calculation			\$3,448.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$2,065,538.00</b>	<b>8.43%</b>
Manual Calculation			\$2,065,538.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$1,709,564.00</b>	<b>6.98%</b>
Manual Calculation			\$1,709,564.00	
<b>Mobilize DB 2000</b>	<b>400.00</b>	<b>9.48%</b>	<b>\$3,060,000.00</b>	<b>12.50%</b>
Derrick Barge 2000			\$3,060,000.00	
<b>Mobilize CB 300 &amp; Tug</b>	<b>22.00</b>	<b>0.52%</b>	<b>\$71,120.00</b>	<b>0.29%</b>
CB 300 & Tug			\$43,120.00	
Rig Up CB 300			\$28,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Habitat MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>22.00</b>	<b>0.52%</b>	<b>\$108,000.00</b>	<b>0.44%</b>
Rig Up CB 400			\$42,000.00	
CB 400 & Tug			\$66,000.00	
<b>Mobilize Dive Spread</b>	<b>10.00</b>	<b>0.24%</b>	<b>\$45,200.00</b>	<b>0.18%</b>
Work Boat			\$5,000.00	
Dive Basic Spread Saturation			\$31,650.00	
Abrasive Cutter Spread			\$6,250.00	
Pipeline Survey			\$2,300.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.16%</b>	<b>\$95,310.00</b>	<b>0.39%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
Rem. Operated Vehicle			\$10,800.00	
<b>Cut Deck/Equip/Misc</b>	<b>12.00</b>	<b>0.28%</b>	<b>\$181,200.00</b>	<b>0.74%</b>
Derrick Barge 2000			\$102,000.00	
Dive Basic Spread Saturation			\$37,980.00	
Pipeline Survey			\$2,760.00	
Abrasive Cutter Spread			\$7,500.00	
CB 300 & Tug			\$11,760.00	
Rem. Operated Vehicle			\$19,200.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Habitat MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>12.00</b>	<b>0.28%</b>	<b>\$181,200.00</b>	<b>0.74%</b>
Derrick Barge 2000	\$102,000.00				
Dive Basic Spread Saturation	\$37,980.00				
Pipeline Survey	\$2,760.00				
Abrasive Cutter Spread	\$7,500.00				
CB 300 & Tug	\$11,760.00				
Rem. Operated Vehicle	\$19,200.00				
<b>Remove 8 Pile Deck</b>		<b>48.00</b>	<b>1.14%</b>	<b>\$724,800.00</b>	<b>2.96%</b>
Derrick Barge 2000	\$408,000.00				
Dive Basic Spread Saturation	\$151,920.00				
Pipeline Survey	\$11,040.00				
Abrasive Cutter Spread	\$30,000.00				
CB 300 & Tug	\$47,040.00				
Rem. Operated Vehicle	\$76,800.00				
<b>Demob CB 300 &amp; Tug</b>		<b>22.00</b>	<b>0.52%</b>	<b>\$43,120.00</b>	<b>0.18%</b>
CB 300 & Tug	\$43,120.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>31.00</b>	<b>0.74%</b>	<b>\$468,720.00</b>	<b>1.91%</b>
Derrick Barge 2000	\$263,500.00				
Dive Basic Spread Saturation	\$98,115.00				
Pipeline Survey	\$7,130.00				
Abrasive Cutter Spread	\$19,375.00				
CB 400 & Tug	\$31,000.00				
Rem. Operated Vehicle	\$49,600.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Habitat MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>	<b>49.91</b>	<b>1.18%</b>	<b>\$834,639.21</b>	<b>3.41%</b>
Derrick Barge 2000			\$424,235.00	
Dive Basic Spread Saturation			\$157,965.16	
Pipeline Survey			\$11,479.30	
Abrasive Cutter Spread			\$31,193.75	
CB 400 & Tug			\$49,910.00	
Pile Abrasive Cut 49 to 69 inches			\$80,000.00	
Rem. Operated Vehicle			\$79,856.00	
<b>Cut Jacket</b>	<b>60.00</b>	<b>1.42%</b>	<b>\$946,976.00</b>	<b>3.87%</b>
Derrick Barge 2000			\$510,000.00	
Dive Basic Spread Saturation			\$189,900.00	
Pipeline Survey			\$13,800.00	
Abrasive Cutter Spread			\$37,500.00	
CB 400 & Tug			\$60,000.00	
Pile Abrasive Cut 7 to 48 inches			\$39,776.00	
Rem. Operated Vehicle			\$96,000.00	
<b>Remove Jacket - Meth 1</b>	<b>60.00</b>	<b>1.42%</b>	<b>\$907,200.00</b>	<b>3.70%</b>
Derrick Barge 2000			\$510,000.00	
Dive Basic Spread Saturation			\$189,900.00	
Pipeline Survey			\$13,800.00	
Abrasive Cutter Spread			\$37,500.00	
CB 400 & Tug			\$60,000.00	
Rem. Operated Vehicle			\$96,000.00	
<b>Demob CB 400 &amp; Tug</b>	<b>22.00</b>	<b>0.52%</b>	<b>\$66,000.00</b>	<b>0.27%</b>
CB 400 & Tug			\$66,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Habitat MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.16%</b>	<b>\$95,310.00</b>	<b>0.39%</b>
Derrick Barge 2000	\$57,375.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
Rem. Operated Vehicle	\$10,800.00				
<b>Demob Dive Spread</b>		<b>10.00</b>	<b>0.24%</b>	<b>\$45,200.00</b>	<b>0.18%</b>
Work Boat	\$5,000.00				
Dive Basic Spread Saturation	\$31,650.00				
Abrasive Cutter Spread	\$6,250.00				
Pipeline Survey	\$2,300.00				
<b>Demob DB 2000</b>		<b>400.00</b>	<b>9.48%</b>	<b>\$3,060,000.00</b>	<b>12.50%</b>
Derrick Barge 2000	\$3,060,000.00				
<b>Site Clearance - with Divers</b>		<b>72.00</b>	<b>1.71%</b>	<b>\$709,000.00</b>	<b>2.90%</b>
Manual Calculation	\$709,000.00				
<b>Offload CB 300</b>		<b>792.00</b>	<b>18.78%</b>	<b>\$202,360.00</b>	<b>0.83%</b>
Cargo Barge 300	\$162,360.00				
CB Damage Deduct	\$40,000.00				
<b>Offload CB 400</b>		<b>2064.00</b>	<b>48.94%</b>	<b>\$596,640.00</b>	<b>2.44%</b>
Cargo Barge 400	\$536,640.00				
CB Damage Deduct	\$60,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Habitat MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$13,984.00</b>	<b>0.06%</b>
Manual Calculation			\$1,833.00	
Manual Calculation			\$703.00	
Manual Calculation			\$8,000.00	
Manual Calculation			\$3,448.00	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$716,817.00</b>	<b>2.93%</b>
Manual Calculation			\$716,817.00	
<b>Total</b>	<b>4127.41</b>	<b>97.86%</b>	<b>\$18,949,245.21</b>	<b>77.38%</b>



## MMS

### Pipeline Information

### Habitat MMS POCS 29056 (Ver1) Segment#:382045

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#### General Data

Water Depth: 290'  
Origin / Terminus: Origin  
Opposite End Name: POPCO  
Opposite End Water Depth:  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter: 12"	Wall Thickness:	Length: 42000'
Depth of Burial:	# Crossings:	Product:
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to the La Conchita Onshore facility.  
Pipeline is estimated to be removed between <200' WD and to state waters.  
Estimated Length to be removed in this estimate ~4500'



**MMS**

**Pipeline Decommission Task Information**

**Habitat MMS POCS 29056 (Ver 1) Segment#:3820454-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat	To Habitat	<input type="checkbox"/>	10.00	2.40%	\$40,905.00	4.85%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.20%	\$20,452.50	2.42%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	20.00	4.80%	\$81,810.00	9.70%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	10.50	2.52%	\$42,950.25	5.09%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	6.77	1.62%	\$27,692.68	3.28%
Remove Tube Turn		<input checked="" type="checkbox"/>	6.77	1.62%	\$27,692.68	3.28%
Bury Pipeline		<input checked="" type="checkbox"/>	7.00	1.68%	\$28,633.50	3.39%
Demob Work Boat		<input checked="" type="checkbox"/>	10.00	2.40%	\$40,905.00	4.85%
Mob P/L Removal Spread	Relocate to a point along the pipeline where the water depth is 200'	<input type="checkbox"/>	10.00	2.40%	\$36,190.00	4.29%
Expose Pipeline		<input checked="" type="checkbox"/>	10.50	2.52%	\$37,999.50	4.50%
Cut & Plug Pipeline	Plug the upstream end going To Habitat	<input checked="" type="checkbox"/>	10.50	2.52%	\$37,999.50	4.50%
Bury Pipeline	Bury the upstream end going To Habitat	<input checked="" type="checkbox"/>	7.00	1.68%	\$25,333.00	3.00%
Expose Pipeline		<input checked="" type="checkbox"/>	10.50	2.52%	\$37,999.50	4.50%
Remove Pipeline		<input checked="" type="checkbox"/>	30.00	7.20%	\$108,570.00	12.87%
Bury Pipeline	Bury the end going to shore	<input checked="" type="checkbox"/>	7.00	1.68%	\$25,333.00	3.00%
Demob P/L Removal Spread		<input type="checkbox"/>	10.00	2.40%	\$36,190.00	4.29%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	40.30%	\$41,000.00	4.86%
<b>Task Total</b>			<b>339.54</b>	<b>81.44%</b>	<b>\$697,656.11</b>	<b>82.69%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>46.43</b>	<b>11.14%</b>	<b>\$87,655.67</b>	<b>10.39%</b>
<b>Other Contingency (10.00%)</b>			<b>30.95</b>	<b>7.42%</b>	<b>\$58,437.11</b>	<b>6.93%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>416.93</b>	<b>100.00%</b>	<b>\$843,748.89</b>	<b>100.00%</b>



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Habitat MMS POCS 29056 (Ver 1) Segment#:38204**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	2.49%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$52,525.00	6.23%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	2.37%
Decommissioning Crew	\$0.00	Calculated from tables	\$8,554.49	1.01%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$240,666.60	28.52%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$84,517.50	10.02%
Pipelay Barge	\$1,954.00	per Hour	\$186,607.00	22.12%
Pipeline Surveying	\$230.00	per Hour	\$39,454.20	4.68%
Work Boat	\$583.00	per Hour	\$44,331.32	5.25%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Habitat MMS POCS 29056 (Ver 1) Segment#:38204**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize Work Boat</b>	<b>10.00</b>	<b>2.40%</b>	<b>\$40,905.00</b>	<b>4.85%</b>
Work Boat			\$5,830.00	
Dive Basic Spread Saturation			\$31,650.00	
Decommissioning Crew			\$1,125.00	
Pipeline Surveying			\$2,300.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00</b>	<b>1.20%</b>	<b>\$20,452.50</b>	<b>2.42%</b>
Work Boat			\$2,915.00	
Decommissioning Crew			\$562.50	
Dive Basic Spread Saturation			\$15,825.00	
Pipeline Surveying			\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>20.00</b>	<b>4.80%</b>	<b>\$81,810.00</b>	<b>9.70%</b>
Work Boat			\$11,660.00	
Dive Basic Spread Saturation			\$63,300.00	
Decommissioning Crew			\$2,250.00	
Pipeline Surveying			\$4,600.00	
<b>Cut &amp; Plug Pipeline</b>	<b>10.50</b>	<b>2.52%</b>	<b>\$42,950.25</b>	<b>5.09%</b>
Work Boat			\$6,121.50	
Decommissioning Crew			\$1,181.25	
Dive Basic Spread Saturation			\$33,232.50	
Pipeline Surveying			\$2,415.00	
<b>Cut Pipeline Riser</b>	<b>6.77</b>	<b>1.62%</b>	<b>\$27,692.68</b>	<b>3.28%</b>
Work Boat			\$3,946.91	
Decommissioning Crew			\$761.62	
Dive Basic Spread Saturation			\$21,427.05	
Pipeline Surveying			\$1,557.10	
<b>Remove Tube Turn</b>	<b>6.77</b>	<b>1.62%</b>	<b>\$27,692.68</b>	<b>3.28%</b>
Work Boat			\$3,946.91	
Dive Basic Spread Saturation			\$21,427.05	
Decommissioning Crew			\$761.62	
Pipeline Surveying			\$1,557.10	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Bury Pipeline</b>		<b>7.00</b>	<b>1.68%</b>	<b>\$28,633.50</b>	<b>3.39%</b>
Work Boat	\$4,081.00				
Decommissioning Crew	\$787.50				
Dive Basic Spread Saturation	\$22,155.00				
Pipeline Surveying	\$1,610.00				
<hr/>					
<b>Demob Work Boat</b>		<b>10.00</b>	<b>2.40%</b>	<b>\$40,905.00</b>	<b>4.85%</b>
Work Boat	\$5,830.00				
Decommissioning Crew	\$1,125.00				
Dive Basic Spread Saturation	\$31,650.00				
Pipeline Surveying	\$2,300.00				
<hr/>					
<b>Mob P/L Removal Spread</b>		<b>10.00</b>	<b>2.40%</b>	<b>\$36,190.00</b>	<b>4.29%</b>
Pipeline Surveying	\$2,300.00				
Dive Basic Spread- Mixed Gas	\$8,850.00				
Pipelay Barge	\$19,540.00				
CB 180 & Tug	\$5,500.00				
<hr/>					
<b>Expose Pipeline</b>		<b>10.50</b>	<b>2.52%</b>	<b>\$37,999.50</b>	<b>4.50%</b>
Pipeline Surveying	\$2,415.00				
Dive Basic Spread- Mixed Gas	\$9,292.50				
Pipelay Barge	\$20,517.00				
CB 180 & Tug	\$5,775.00				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>10.50</b>	<b>2.52%</b>	<b>\$37,999.50</b>	<b>4.50%</b>
Pipeline Surveying	\$2,415.00				
Dive Basic Spread- Mixed Gas	\$9,292.50				
Pipelay Barge	\$20,517.00				
CB 180 & Tug	\$5,775.00				
<hr/>					
<b>Bury Pipeline</b>		<b>7.00</b>	<b>1.68%</b>	<b>\$25,333.00</b>	<b>3.00%</b>
Pipeline Surveying	\$1,610.00				
Dive Basic Spread- Mixed Gas	\$6,195.00				
Pipelay Barge	\$13,678.00				
CB 180 & Tug	\$3,850.00				
<hr/>					



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Expose Pipeline</b>		<b>10.50</b>	<b>2.52%</b>	<b>\$37,999.50</b>	<b>4.50%</b>
Pipeline Surveying	\$2,415.00				
Dive Basic Spread- Mixed Gas	\$9,292.50				
Pipelay Barge	\$20,517.00				
CB 180 & Tug	\$5,775.00				
<b>Remove Pipeline</b>		<b>30.00</b>	<b>7.20%</b>	<b>\$108,570.00</b>	<b>12.87%</b>
Pipeline Surveying	\$6,900.00				
Dive Basic Spread- Mixed Gas	\$26,550.00				
Pipelay Barge	\$58,620.00				
CB 180 & Tug	\$16,500.00				
<b>Bury Pipeline</b>		<b>7.00</b>	<b>1.68%</b>	<b>\$25,333.00</b>	<b>3.00%</b>
Pipeline Surveying	\$1,610.00				
Dive Basic Spread- Mixed Gas	\$6,195.00				
Pipelay Barge	\$13,678.00				
CB 180 & Tug	\$3,850.00				
<b>Demob P/L Removal Spread</b>		<b>10.00</b>	<b>2.40%</b>	<b>\$36,190.00</b>	<b>4.29%</b>
Pipeline Surveying	\$2,300.00				
Dive Basic Spread- Mixed Gas	\$8,850.00				
Pipelay Barge	\$19,540.00				
CB 180 & Tug	\$5,500.00				
<b>Offload CB 180</b>		<b>168.00</b>	<b>40.30%</b>	<b>\$41,000.00</b>	<b>4.86%</b>
Cargo Barge 180	\$21,000.00				
CB Damage Deduct	\$20,000.00				
		<b>Total</b>	<b>339.54 81.44%</b>	<b>\$697,656.11</b>	<b>82.69%</b>



## **MMS**

### **Well Information**

#### **Habitat MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:                      No

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:              15.00%

Weather Contingency %:                  10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Dos Cuadras Offshore LLC	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**Habitat MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$2,656,668.00 80.00%
		<b>Task Total</b>	0.00	\$2,656,668.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$398,500.22 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$265,666.80 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$3,320,835.02 100.00%



**MMS**

**Well Decommission Resources Breakdown**

**Habitat MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$2,656,668.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**Habitat MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$2,656,668.00</b>	<b>80.00%</b>
Manual Calculation			\$2,656,668.00	
<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$2,656,668.00</b>	<b>80.00%</b>

**Harmony MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Harmony MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Harmony will be removed along with Platforms Hondo and Heritage.
- Platform Harmony is an 8-pile platform installed in 1989 in 1198' of water.
- The estimated removal weight is the deck weight is 9,839 tons and the jacket weight is 42,900 tons.
- The platform has a total of 34 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 52 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 4000 that will be mobilized from the GOM or North Sea. The total mob/demob time will be 200 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Fourteen 400' cargo barges will transport the deck modules and jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 14 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The three pipelines (oil, gas, water) on the OCS will be totally removed to the state water boundary when running to shore and in less than 200 feet of water. Segments



## MMS

### Platform Salvage Option

#### Harmony MMS POCS 29056 (Ver 1)

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running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this



## MMS

### Platform Salvage Option

#### Harmony MMS POCS 29056 (Ver 1)

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estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$155,913,781

Estimated Decommissioning Net Cost = \$155,913,781



## MMS

### Basic Information

### Harmony MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Harmony MMS POCS 29056  
 Function: SELF CONTAINED  
 Type: Steel  
 Water Depth: 1198'  
 Pre 461H?: No  
 Year Installed: 1989  
 Year Estimate Developed: 2009  
 District: California  
 Lease Number: OCS-P 0190  
 Account Code: TSB - 29056  
 Amortization: 1.00  
 # Wells to P & A: 34  
 # Pipelines to Abandon: 3  
 Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Exxon Mobil Corporation	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$140,688,496	\$140,688,496
Well Plugging & Abandonment:	\$8,836,240	\$8,836,240
Pipeline Abandonment:	\$6,389,045	\$6,389,045
Total Decommissioning Cost:	\$155,913,781	\$155,913,781



## MMS

### Platform Information

### Harmony MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	8	72"		Yes	No	
Skirt/Braced	20	84"		No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:		
Middle:		
Lower:		

### Conductors

Number of Slots:	60
Number Installed:	52
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	42900.00		
Jacket Installation Date:	1/1/1989		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	9839 Tons
Number of Padeyes Required:	0
Deck Installation Date:	1/1/1989
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

### **Harmony MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 400 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck > 500T
CB 400 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck > 500T
CB 400 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck > 500T
CB 400 x 100	Deck > 500T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	0.00
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$26,735,494.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Harmony MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$6,886,459.00	4.89%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.01%	\$851,667.00	0.61%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.01%	\$13,984.00	0.01%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.01%	\$15,845,720.00	11.26%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.01%	\$4,865,911.00	3.46%
Mobilize DB 4000	Mob from GOM or North Sea, 100 days divided by 3 platforms	<input type="checkbox"/>	800.00	6.63%	\$7,560,000.00	5.37%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 14)	<input type="checkbox"/>	25.40	0.21%	\$551,600.00	0.39%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	11.70	0.10%	\$52,884.00	0.04%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.06%	\$108,810.00	0.08%
Cut Deck/Equip/Misc	Separate 13 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	0.20%	\$410,400.00	0.29%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.20%	\$410,400.00	0.29%
Remove 8 Pile Deck	Remove 8 Pile Deck, 13 modules	<input checked="" type="checkbox"/>	120.00	0.99%	\$2,052,000.00	1.46%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	0.00	0.00%	\$0.00	0.00%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	233.10	1.93%	\$4,291,672.02	3.05%
Cut Jacket	27 Hours per section, times 43 section(s), per MMS	<input checked="" type="checkbox"/>	1164.00	9.65%	\$20,066,896.00	14.26%
Remove Jacket - Meth 1	27 Hours per section, times 43 section(s), per MMS	<input checked="" type="checkbox"/>	1164.00	9.65%	\$19,927,680.00	14.16%
Demob CB 400 & Tug	Demob to Port of LA (Qty 14)	<input type="checkbox"/>	25.40	0.21%	\$355,600.00	0.25%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.06%	\$108,810.00	0.08%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	11.70	0.10%	\$52,884.00	0.04%
Demob DB 4000	Demob to GOM or North Sea, 100 days divided by 3 platforms	<input type="checkbox"/>	800.00	6.63%	\$7,560,000.00	5.37%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	0.60%	\$1,282,000.00	0.91%
Offload CB 400		<input type="checkbox"/>	6864.00	56.91%	\$2,064,640.00	1.47%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.01%	\$13,984.00	0.01%
Platform Abandonment - Manual Calculation	Removal of Power Cable Using Work Boat Method	<input checked="" type="checkbox"/>	0.00	0.00%	\$1,021,164.00	0.73%
<b>Task Total</b>			11357.80	94.16%	\$96,355,165.02	68.49%
<b>Misc. Work Provision (15.00%)</b>			422.49	3.50%	\$10,558,720.00	7.51%
<b>Weather Contingency (10.00%)</b>			281.66	2.34%	\$7,039,147.00	5.00%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$26,735,490.00	19.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%



**MMS**

**Platform Decommission Task Information**

**Harmony MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		<b>Storage / Scrapping</b>		\$0.00	0.00%
		<b>Reef Donation</b>		\$0.00	0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00	0.00%
			<b>Total:</b>	12061.95 100.00%	40,688,522.02 100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Harmony MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Abrasive Cutter Spread	\$625.00 per Hour	\$1,728,750.00 1.23%
Cargo Barge 400	\$6,240.00 per Day per Barge	\$1,784,640.00 1.27%
CB 300 & Tug	\$980.00 per Hour per Barge/Tug	\$164,640.00 0.12%
CB 400 & Tug	\$1,000.00 per Hour per Barge/Tug	\$3,272,300.02 2.33%
CB Damage Deduct	\$20,000.00 per Cargo Barge	\$280,000.00 0.20%
Derrick Barge 4000	\$10,500.00 per Hour per barge	43,917,300.00 31.22%
Dive Basic Spread Saturation	\$3,165.00 Per Hour	\$8,754,390.00 6.22%
Manual Calculation	\$0.00 Independently Calculated	30,780,889.00 21.88%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00 per Cut	\$139,216.00 0.10%
Pile Abrasive Cut 70 to 96 inches	\$5,375.00 per Cut	\$301,000.00 0.21%
Pipeline Survey	\$230.00 per Hour	\$636,180.00 0.45%
Rem. Operated Vehicle	\$800.00 per Hour	\$4,388,160.00 3.12%
Rig Up CB 400	\$14,000.00 per Barge	\$196,000.00 0.14%
Work Boat	\$500.00 per Hour	\$11,700.00 0.01%



**MMS**

**Platform Decommission Cost Breakdown**

**Harmony MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>
Manual Calculation		\$6,886,459.00 4.89%
		\$6,886,459.00
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.01%</b>
Manual Calculation		\$851,667.00 0.61%
		\$851,667.00
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>
Manual Calculation		\$1,833.00
Manual Calculation		\$703.00
Manual Calculation		\$8,000.00
Manual Calculation		\$3,448.00
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.01%</b>
Manual Calculation		\$15,845,720.00 11.26%
		\$15,845,720.00
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.01%</b>
Manual Calculation		\$4,865,911.00 3.46%
		\$4,865,911.00
<b>Mobilize DB 4000</b>	<b>800.00</b>	<b>6.63%</b>
Derrick Barge 4000		\$7,560,000.00 5.37%
		\$7,560,000.00
<b>Mobilize CB 400 &amp; Tug</b>	<b>25.40</b>	<b>0.21%</b>
Rig Up CB 400		\$196,000.00
CB 400 & Tug		\$355,600.00



**MMS**

**Platform Decommission Cost Breakdown**

**Harmony MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize Dive Spread</b>		<b>11.70</b>	<b>0.10%</b>	<b>\$52,884.00</b>	<b>0.04%</b>
Work Boat	\$5,850.00				
Dive Basic Spread Saturation	\$37,030.50				
Abrasive Cutter Spread	\$7,312.50				
Pipeline Survey	\$2,691.00				
<b>Setup Derrick Barge</b>		<b>6.75</b>	<b>0.06%</b>	<b>\$108,810.00</b>	<b>0.08%</b>
Derrick Barge 4000	\$70,875.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
Rem. Operated Vehicle	\$10,800.00				
<b>Cut Deck/Equip/Misc</b>		<b>24.00</b>	<b>0.20%</b>	<b>\$410,400.00</b>	<b>0.29%</b>
Derrick Barge 4000	\$252,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
Rem. Operated Vehicle	\$38,400.00				
<b>Remove Equipment</b>		<b>24.00</b>	<b>0.20%</b>	<b>\$410,400.00</b>	<b>0.29%</b>
Derrick Barge 4000	\$252,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
Rem. Operated Vehicle	\$38,400.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Harmony MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove 8 Pile Deck</b>		<b>120.00</b>	<b>0.99%</b>	<b>\$2,052,000.00</b>	<b>1.46%</b>
Derrick Barge 4000	\$1,260,000.00				
Dive Basic Spread Saturation	\$379,800.00				
Pipeline Survey	\$27,600.00				
Abrasive Cutter Spread	\$75,000.00				
CB 300 & Tug	\$117,600.00				
Rem. Operated Vehicle	\$192,000.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>0.00</b>	<b>0.00%</b>	<b>\$0.00</b>	<b>0.00%</b>
Derrick Barge 4000	\$0.00				
Dive Basic Spread Saturation	\$0.00				
Pipeline Survey	\$0.00				
Abrasive Cutter Spread	\$0.00				
CB 400 & Tug	\$0.00				
Rem. Operated Vehicle	\$0.00				
<b>Sever Piles- Abrasive</b>		<b>233.10</b>	<b>1.93%</b>	<b>\$4,291,672.02</b>	<b>3.05%</b>
Derrick Barge 4000	\$2,447,550.00				
Dive Basic Spread Saturation	\$737,761.50				
Pipeline Survey	\$53,613.00				
Abrasive Cutter Spread	\$145,687.50				
CB 400 & Tug	\$233,100.02				
Pile Abrasive Cut 70 to 96 inches	\$301,000.00				
Rem. Operated Vehicle	\$372,960.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Harmony MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Cut Jacket</b>		<b>1164.00</b>	<b>9.65%</b>	<b>\$20,066,896.00</b>	<b>14.26%</b>
Derrick Barge 4000	\$12,222,000.00				
Dive Basic Spread Saturation	\$3,684,060.00				
Pipeline Survey	\$267,720.00				
Abrasive Cutter Spread	\$727,500.00				
CB 400 & Tug	\$1,164,000.00				
Pile Abrasive Cut 7 to 48 inches	\$139,216.00				
Rem. Operated Vehicle	\$1,862,400.00				
<b>Remove Jacket - Meth 1</b>		<b>1164.00</b>	<b>9.65%</b>	<b>\$19,927,680.00</b>	<b>14.16%</b>
Derrick Barge 4000	\$12,222,000.00				
Dive Basic Spread Saturation	\$3,684,060.00				
Pipeline Survey	\$267,720.00				
Abrasive Cutter Spread	\$727,500.00				
CB 400 & Tug	\$1,164,000.00				
Rem. Operated Vehicle	\$1,862,400.00				
<b>Demob CB 400 &amp; Tug</b>		<b>25.40</b>	<b>0.21%</b>	<b>\$355,600.00</b>	<b>0.25%</b>
CB 400 & Tug	\$355,600.00				
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.06%</b>	<b>\$108,810.00</b>	<b>0.08%</b>
Derrick Barge 4000	\$70,875.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
Rem. Operated Vehicle	\$10,800.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Harmony MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Cost	Percentage
<b>Demob Dive Spread</b>	<b>11.70</b>	<b>0.10%</b>	<b>\$52,884.00</b>	<b>0.04%</b>
Work Boat			\$5,850.00	
Dive Basic Spread Saturation			\$37,030.50	
Abrasive Cutter Spread			\$7,312.50	
Pipeline Survey			\$2,691.00	
<b>Demob DB 4000</b>	<b>800.00</b>	<b>6.63%</b>	<b>\$7,560,000.00</b>	<b>5.37%</b>
Derrick Barge 4000			\$7,560,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>0.60%</b>	<b>\$1,282,000.00</b>	<b>0.91%</b>
Manual Calculation			\$1,282,000.00	
<b>Offload CB 400</b>	<b>6864.00</b>	<b>56.91%</b>	<b>\$2,064,640.00</b>	<b>1.47%</b>
Cargo Barge 400			\$1,784,640.00	
CB Damage Deduct			\$280,000.00	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$13,984.00</b>	<b>0.01%</b>
Manual Calculation			\$1,833.00	
Manual Calculation			\$703.00	
Manual Calculation			\$8,000.00	
Manual Calculation			\$3,448.00	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,021,164.00</b>	<b>0.73%</b>
Manual Calculation			\$1,021,164.00	
<b>Total</b>	<b>11357.80</b>	<b>94.16%</b>	<b>\$96,355,165.02</b>	<b>68.49%</b>



## MMS

### Pipeline Information

#### Harmony MMS POCS 29056 (Ver1) Segment#:5510

---

#### General Data

Water Depth: 1198'  
Origin / Terminus: Origin  
Opposite End Name: Las Flor  
Opposite End Water Depth:  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter: 20"	Wall Thickness:	Length: 24396'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This pipeline runs to the Los Flores Onshore facility.  
Pipeline is estimated to be removed from <200' WD and to state waters.  
Estimated Removal Length in this estimate ~3000'



## MMS

### Pipeline Information

#### Harmony MMS POCS 29056 (Ver1) Segment#:5630

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### General Data

Water Depth: 1198'  
Origin / Terminus: Origin  
Opposite End Name: Las Flor  
Opposite End Water Depth:  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 12"	Wall Thickness:	Length: 24678'
Depth of Burial:	# Crossings:	Product: Water
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This pipeline runs to the Los Flores Onshore facility.  
Pipeline is estimated to be removed from <200' WD and to state waters.  
Estimated Length in this estimate ~3000'



## MMS

### Pipeline Information

#### Harmony MMS POCS 29056 (Ver1) Segment#:5720

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### General Data

Water Depth: 1198'  
Origin / Terminus: Origin  
Opposite End Name: Hondo  
Opposite End Water Depth: 842'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 12"	Wall Thickness:	Length: 17327'
Depth of Burial:	# Crossings:	Product: Gas
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to the Hondo platform.  
It is estimated to be abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**Harmony MMS POCS 29056 (Ver 1) Segment#:5510190-shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Dive Boat	To Harmony	<input type="checkbox"/>	140.00	17.49%	\$462,000.00	19.74%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.62%	\$49,882.50	2.13%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	90.00	11.24%	\$447,885.00	19.13%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.85	1.48%	\$58,971.53	2.52%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.83	0.98%	\$38,965.99	1.66%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.83	0.98%	\$38,965.99	1.66%
Bury Pipeline		<input checked="" type="checkbox"/>	7.90	0.99%	\$39,314.35	1.68%
Demob Dive Boat		<input checked="" type="checkbox"/>	140.00	17.49%	\$462,000.00	19.74%
Mob P/L Removal Spread	Relocate to a point along the pipeline where the water depth is 200'	<input type="checkbox"/>	11.70	1.46%	\$42,342.30	1.81%
Expose Pipeline		<input checked="" type="checkbox"/>	11.85	1.48%	\$42,885.15	1.83%
Cut & Plug Pipeline	Plug the upstream end going To Harmony	<input checked="" type="checkbox"/>	11.85	1.48%	\$42,885.15	1.83%
Bury Pipeline	Bury the upstream end going To Harmony	<input checked="" type="checkbox"/>	7.90	0.99%	\$28,590.10	1.22%
Expose Pipeline		<input checked="" type="checkbox"/>	11.85	1.48%	\$42,885.15	1.83%
Remove Pipeline		<input checked="" type="checkbox"/>	20.00	2.50%	\$72,380.00	3.09%
Bury Pipeline	Bury the end going to shore	<input checked="" type="checkbox"/>	7.90	0.99%	\$28,590.10	1.22%
Demob P/L Removal Spread		<input type="checkbox"/>	11.70	1.46%	\$42,342.30	1.81%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	20.98%	\$41,000.00	1.75%
<b>Task Total</b>			673.16	84.08%	\$1,981,885.61	84.67%
<b>Misc. Work Provision (15.00%)</b>			76.46	9.55%	\$215,280.16	9.20%
<b>Other Contingency (10.00%)</b>			50.98	6.37%	\$143,520.10	6.13%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			800.60	100.00%	\$2,340,685.87	100.00%



**MMS**

**Pipeline Decommission Task Information**

**Harmony MMS POCS 29056 (Ver 1) Segment#:5630190-shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Dive Boat	To Harmony	<input type="checkbox"/>	140.00	17.49%	\$462,000.00	19.74%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.62%	\$49,882.50	2.13%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	90.00	11.24%	\$447,885.00	19.13%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.85	1.48%	\$58,971.53	2.52%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.83	0.98%	\$38,965.99	1.66%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.83	0.98%	\$38,965.99	1.66%
Bury Pipeline		<input checked="" type="checkbox"/>	7.90	0.99%	\$39,314.35	1.68%
Demob Dive Boat		<input checked="" type="checkbox"/>	140.00	17.49%	\$462,000.00	19.74%
Mob P/L Removal Spread	Relocate to a point along the pipeline where the water depth is 200'	<input type="checkbox"/>	11.70	1.46%	\$42,342.30	1.81%
Expose Pipeline		<input checked="" type="checkbox"/>	11.85	1.48%	\$42,885.15	1.83%
Cut & Plug Pipeline	Plug the upstream end going To Harmony	<input checked="" type="checkbox"/>	11.85	1.48%	\$42,885.15	1.83%
Bury Pipeline	Bury the upstream end going To Harmony	<input checked="" type="checkbox"/>	7.90	0.99%	\$28,590.10	1.22%
Expose Pipeline		<input checked="" type="checkbox"/>	11.85	1.48%	\$42,885.15	1.83%
Remove Pipeline		<input checked="" type="checkbox"/>	20.00	2.50%	\$72,380.00	3.09%
Bury Pipeline	Bury the end going to shore	<input checked="" type="checkbox"/>	7.90	0.99%	\$28,590.10	1.22%
Demob P/L Removal Spread		<input type="checkbox"/>	11.70	1.46%	\$42,342.30	1.81%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	20.98%	\$41,000.00	1.75%
<b>Task Total</b>			673.16	84.08%	\$1,981,885.61	84.67%
<b>Misc. Work Provision (15.00%)</b>			76.46	9.55%	\$215,280.16	9.20%
<b>Other Contingency (10.00%)</b>			50.98	6.37%	\$143,520.10	6.13%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			800.60	100.00%	\$2,340,685.87	100.00%



**MMS**

**Pipeline Decommission Task Information**

**Harmony MMS POCS 29056 (Ver 1) Segment#:5720190**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Dive Boat		<input type="checkbox"/>	140.00	31.86%	\$462,000.00	27.05%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.68%	\$39,239.50	2.30%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.14%	\$20,397.50	1.19%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	17.00	3.87%	\$80,690.50	4.73%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.46%	\$9,493.00	0.56%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.68%	\$14,239.50	0.83%
Expose Pipeline		<input checked="" type="checkbox"/>	11.85	2.70%	\$56,246.03	3.29%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.85	2.70%	\$56,246.03	3.29%
Bury Pipeline		<input checked="" type="checkbox"/>	7.90	1.80%	\$37,497.35	2.20%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.83	1.78%	\$37,165.09	2.18%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.83	1.78%	\$37,165.09	2.18%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.68%	\$14,239.50	0.83%
Expose Pipeline		<input checked="" type="checkbox"/>	11.85	2.70%	\$56,246.03	3.29%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.85	2.70%	\$56,246.03	3.29%
Bury Pipeline		<input checked="" type="checkbox"/>	7.90	1.80%	\$37,497.35	2.20%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.83	1.78%	\$37,165.09	2.18%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.83	1.78%	\$37,165.09	2.18%
Demob Dive Boat		<input type="checkbox"/>	140.00	31.86%	\$462,000.00	27.05%
<b>Task Total</b>			<b>407.52</b>	<b>92.74%</b>	<b>\$1,550,938.68</b>	<b>90.82%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>19.13</b>	<b>4.35%</b>	<b>\$94,040.81</b>	<b>5.51%</b>
<b>Other Contingency (10.00%)</b>			<b>12.75</b>	<b>2.90%</b>	<b>\$62,693.87</b>	<b>3.67%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>439.40</b>	<b>100.00%</b>	<b>\$1,707,673.35</b>	<b>100.00%</b>



TWACHTMAN SNYDER & BYRD, INC.

## MMS

### Pipeline Decommission Resources Breakdown

#### Harmony MMS POCS 29056 (Ver 1) Segment#:551

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	0.90%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$52,112.50	2.23%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	0.85%
Decommissioning Crew	\$0.00	Calculated from tables	\$14,671.12	0.63%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$83,853.75	3.58%
DP Dive Boat	\$3,300.00	per Hour	\$1,354,353.00	57.86%
Manual Calculation	\$0.00	Independently Calculated	\$25,000.00	1.07%
Pipelay Barge	\$1,954.00	per Hour	\$185,141.50	7.91%
Pipeline Surveying	\$230.00	per Hour	\$51,786.80	2.21%
Rem. Operated Vehicle	\$667.00	per Hour	\$173,966.94	7.43%



TWACHTMAN SNYDER & BYRD, INC.

## MMS

### Pipeline Decommission Resources Breakdown

#### Harmony MMS POCS 29056 (Ver 1) Segment#:563

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	0.90%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$52,112.50	2.23%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	0.85%
Decommissioning Crew	\$0.00	Calculated from tables	\$14,671.12	0.63%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$83,853.75	3.58%
DP Dive Boat	\$3,300.00	per Hour	\$1,354,353.00	57.86%
Manual Calculation	\$0.00	Independently Calculated	\$25,000.00	1.07%
Pipelay Barge	\$1,954.00	per Hour	\$185,141.50	7.91%
Pipeline Surveying	\$230.00	per Hour	\$51,786.80	2.21%
Rem. Operated Vehicle	\$667.00	per Hour	\$173,966.94	7.43%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Harmony MMS POCS 29056 (Ver 1) Segment#:572**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$14,346.00	0.84%
DP Dive Boat	\$3,300.00	per Hour	\$1,344,816.00	78.75%
Manual Calculation	\$0.00	Independently Calculated	\$25,000.00	1.46%
Rem. Operated Vehicle	\$667.00	per Hour	\$166,776.68	9.77%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Harmony MMS POCS 29056 (Ver 1) Segment#:5510**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>140.00 17.49%</b>	<b>\$462,000.00 19.74%</b>
DP Dive Boat		\$462,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.62%</b>	<b>\$49,882.50 2.13%</b>
DP Dive Boat		\$16,500.00
Rem. Operated Vehicle		\$6,670.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
Manual Calculation		\$25,000.00
<b>Pig &amp; Flush Pipeline</b>	<b>90.00 11.24%</b>	<b>\$447,885.00 19.13%</b>
DP Dive Boat		\$297,000.00
Rem. Operated Vehicle		\$120,060.00
Decommissioning Crew		\$10,125.00
Pipeline Surveying		\$20,700.00
<b>Cut &amp; Plug Pipeline</b>	<b>11.85 1.48%</b>	<b>\$58,971.53 2.52%</b>
DP Dive Boat		\$39,105.00
Rem. Operated Vehicle		\$15,807.90
Decommissioning Crew		\$1,333.13
Pipeline Surveying		\$2,725.50
<b>Cut Pipeline Riser</b>	<b>7.83 0.98%</b>	<b>\$38,965.99 1.66%</b>
DP Dive Boat		\$25,839.00
Rem. Operated Vehicle		\$10,445.22
Decommissioning Crew		\$880.87
Pipeline Surveying		\$1,800.90
<b>Remove Tube Turn</b>	<b>7.83 0.98%</b>	<b>\$38,965.99 1.66%</b>
DP Dive Boat		\$25,839.00
Rem. Operated Vehicle		\$10,445.22
Decommissioning Crew		\$880.87
Pipeline Surveying		\$1,800.90



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Bury Pipeline</b>		<b>7.90</b>	<b>0.99%</b>	<b>\$39,314.35</b>	<b>1.68%</b>
DP Dive Boat	\$26,070.00				
Rem. Operated Vehicle	\$10,538.60				
Decommissioning Crew	\$888.75				
Pipeline Surveying	\$1,817.00				
<b>Demob Dive Boat</b>		<b>140.00</b>	<b>17.49%</b>	<b>\$462,000.00</b>	<b>19.74%</b>
DP Dive Boat	\$462,000.00				
<b>Mob P/L Removal Spread</b>		<b>11.70</b>	<b>1.46%</b>	<b>\$42,342.30</b>	<b>1.81%</b>
Pipeline Surveying	\$2,691.00				
Dive Basic Spread- Mixed Gas	\$10,354.50				
Pipelay Barge	\$22,861.80				
CB 180 & Tug	\$6,435.00				
<b>Expose Pipeline</b>		<b>11.85</b>	<b>1.48%</b>	<b>\$42,885.15</b>	<b>1.83%</b>
Pipeline Surveying	\$2,725.50				
Dive Basic Spread- Mixed Gas	\$10,487.25				
Pipelay Barge	\$23,154.90				
CB 180 & Tug	\$6,517.50				
<b>Cut &amp; Plug Pipeline</b>		<b>11.85</b>	<b>1.48%</b>	<b>\$42,885.15</b>	<b>1.83%</b>
Pipeline Surveying	\$2,725.50				
Dive Basic Spread- Mixed Gas	\$10,487.25				
Pipelay Barge	\$23,154.90				
CB 180 & Tug	\$6,517.50				
<b>Bury Pipeline</b>		<b>7.90</b>	<b>0.99%</b>	<b>\$28,590.10</b>	<b>1.22%</b>
Pipeline Surveying	\$1,817.00				
Dive Basic Spread- Mixed Gas	\$6,991.50				
Pipelay Barge	\$15,436.60				
CB 180 & Tug	\$4,345.00				
<b>Expose Pipeline</b>		<b>11.85</b>	<b>1.48%</b>	<b>\$42,885.15</b>	<b>1.83%</b>
Pipeline Surveying	\$2,725.50				
Dive Basic Spread- Mixed Gas	\$10,487.25				
Pipelay Barge	\$23,154.90				
CB 180 & Tug	\$6,517.50				



## MMS

### Pipeline Decommission Cost Breakdown

<b>Remove Pipeline</b>		<b>20.00</b>	<b>2.50%</b>	<b>\$72,380.00</b>	<b>3.09%</b>
Pipeline Surveying	\$4,600.00				
Dive Basic Spread- Mixed Gas	\$17,700.00				
Pipelay Barge	\$39,080.00				
CB 180 & Tug	\$11,000.00				
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<b>Bury Pipeline</b>		<b>7.90</b>	<b>0.99%</b>	<b>\$28,590.10</b>	<b>1.22%</b>
Pipeline Surveying	\$1,817.00				
Dive Basic Spread- Mixed Gas	\$6,991.50				
Pipelay Barge	\$15,436.60				
CB 180 & Tug	\$4,345.00				
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<b>Demob P/L Removal Spread</b>		<b>11.70</b>	<b>1.46%</b>	<b>\$42,342.30</b>	<b>1.81%</b>
Pipeline Surveying	\$2,691.00				
Dive Basic Spread- Mixed Gas	\$10,354.50				
Pipelay Barge	\$22,861.80				
CB 180 & Tug	\$6,435.00				
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<b>Offload CB 180</b>		<b>168.00</b>	<b>20.98%</b>	<b>\$41,000.00</b>	<b>1.75%</b>
Cargo Barge 180	\$21,000.00				
CB Damage Deduct	\$20,000.00				
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		<b>Total</b>	<b>673.16 84.08%</b>	<b>\$1,981,885.61</b>	<b>84.67%</b>
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**MMS**

**Pipeline Decommission Cost Breakdown**

**Harmony MMS POCS 29056 (Ver 1) Segment#:5630**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>140.00 17.49%</b>	<b>\$462,000.00 19.74%</b>
DP Dive Boat		\$462,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.62%</b>	<b>\$49,882.50 2.13%</b>
DP Dive Boat		\$16,500.00
Rem. Operated Vehicle		\$6,670.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
Manual Calculation		\$25,000.00
<b>Pig &amp; Flush Pipeline</b>	<b>90.00 11.24%</b>	<b>\$447,885.00 19.13%</b>
DP Dive Boat		\$297,000.00
Rem. Operated Vehicle		\$120,060.00
Decommissioning Crew		\$10,125.00
Pipeline Surveying		\$20,700.00
<b>Cut &amp; Plug Pipeline</b>	<b>11.85 1.48%</b>	<b>\$58,971.53 2.52%</b>
DP Dive Boat		\$39,105.00
Rem. Operated Vehicle		\$15,807.90
Decommissioning Crew		\$1,333.13
Pipeline Surveying		\$2,725.50
<b>Cut Pipeline Riser</b>	<b>7.83 0.98%</b>	<b>\$38,965.99 1.66%</b>
DP Dive Boat		\$25,839.00
Rem. Operated Vehicle		\$10,445.22
Decommissioning Crew		\$880.87
Pipeline Surveying		\$1,800.90
<b>Remove Tube Turn</b>	<b>7.83 0.98%</b>	<b>\$38,965.99 1.66%</b>
DP Dive Boat		\$25,839.00
Rem. Operated Vehicle		\$10,445.22
Decommissioning Crew		\$880.87
Pipeline Surveying		\$1,800.90



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Bury Pipeline</b>		<b>7.90</b>	<b>0.99%</b>	<b>\$39,314.35</b>	<b>1.68%</b>
DP Dive Boat	\$26,070.00				
Rem. Operated Vehicle	\$10,538.60				
Decommissioning Crew	\$888.75				
Pipeline Surveying	\$1,817.00				
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<b>Demob Dive Boat</b>		<b>140.00</b>	<b>17.49%</b>	<b>\$462,000.00</b>	<b>19.74%</b>
DP Dive Boat	\$462,000.00				
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<b>Mob P/L Removal Spread</b>		<b>11.70</b>	<b>1.46%</b>	<b>\$42,342.30</b>	<b>1.81%</b>
Pipeline Surveying	\$2,691.00				
Dive Basic Spread- Mixed Gas	\$10,354.50				
Pipelay Barge	\$22,861.80				
CB 180 & Tug	\$6,435.00				
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<b>Expose Pipeline</b>		<b>11.85</b>	<b>1.48%</b>	<b>\$42,885.15</b>	<b>1.83%</b>
Pipeline Surveying	\$2,725.50				
Dive Basic Spread- Mixed Gas	\$10,487.25				
Pipelay Barge	\$23,154.90				
CB 180 & Tug	\$6,517.50				
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<b>Cut &amp; Plug Pipeline</b>		<b>11.85</b>	<b>1.48%</b>	<b>\$42,885.15</b>	<b>1.83%</b>
Pipeline Surveying	\$2,725.50				
Dive Basic Spread- Mixed Gas	\$10,487.25				
Pipelay Barge	\$23,154.90				
CB 180 & Tug	\$6,517.50				
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<b>Bury Pipeline</b>		<b>7.90</b>	<b>0.99%</b>	<b>\$28,590.10</b>	<b>1.22%</b>
Pipeline Surveying	\$1,817.00				
Dive Basic Spread- Mixed Gas	\$6,991.50				
Pipelay Barge	\$15,436.60				
CB 180 & Tug	\$4,345.00				
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<b>Expose Pipeline</b>		<b>11.85</b>	<b>1.48%</b>	<b>\$42,885.15</b>	<b>1.83%</b>
Pipeline Surveying	\$2,725.50				
Dive Basic Spread- Mixed Gas	\$10,487.25				
Pipelay Barge	\$23,154.90				
CB 180 & Tug	\$6,517.50				
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## MMS

### Pipeline Decommission Cost Breakdown

<b>Remove Pipeline</b>		<b>20.00</b>	<b>2.50%</b>	<b>\$72,380.00</b>	<b>3.09%</b>
Pipeline Surveying	\$4,600.00				
Dive Basic Spread- Mixed Gas	\$17,700.00				
Pipelay Barge	\$39,080.00				
CB 180 & Tug	\$11,000.00				
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<b>Bury Pipeline</b>		<b>7.90</b>	<b>0.99%</b>	<b>\$28,590.10</b>	<b>1.22%</b>
Pipeline Surveying	\$1,817.00				
Dive Basic Spread- Mixed Gas	\$6,991.50				
Pipelay Barge	\$15,436.60				
CB 180 & Tug	\$4,345.00				
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<b>Demob P/L Removal Spread</b>		<b>11.70</b>	<b>1.46%</b>	<b>\$42,342.30</b>	<b>1.81%</b>
Pipeline Surveying	\$2,691.00				
Dive Basic Spread- Mixed Gas	\$10,354.50				
Pipelay Barge	\$22,861.80				
CB 180 & Tug	\$6,435.00				
<hr/>					
<b>Offload CB 180</b>		<b>168.00</b>	<b>20.98%</b>	<b>\$41,000.00</b>	<b>1.75%</b>
Cargo Barge 180	\$21,000.00				
CB Damage Deduct	\$20,000.00				
<hr/>					
		<b>Total</b>	<b>673.16 84.08%</b>	<b>\$1,981,885.61</b>	<b>84.67%</b>
<hr/> <hr/>					



**MMS**

**Pipeline Decommission Cost Breakdown**

**Harmony MMS POCS 29056 (Ver 1) Segment#:5720**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>140.00 31.86%</b>	<b>\$462,000.00 27.05%</b>
DP Dive Boat		\$462,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.68%</b>	<b>\$39,239.50 2.30%</b>
DP Dive Boat		\$9,900.00
Rem. Operated Vehicle		\$4,002.00
Manual Calculation		\$25,000.00
Decommissioning Crew		\$337.50
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.14%</b>	<b>\$20,397.50 1.19%</b>
DP Dive Boat		\$16,500.00
Rem. Operated Vehicle		\$3,335.00
Decommissioning Crew		\$562.50
<b>Pig &amp; Flush Pipeline</b>	<b>17.00 3.87%</b>	<b>\$80,690.50 4.73%</b>
DP Dive Boat		\$56,100.00
Rem. Operated Vehicle		\$22,678.00
Decommissioning Crew		\$1,912.50
<b>Derig Decomm Equipment</b>	<b>2.00 0.46%</b>	<b>\$9,493.00 0.56%</b>
DP Dive Boat		\$6,600.00
Rem. Operated Vehicle		\$2,668.00
Decommissioning Crew		\$225.00
<b>Set Up Dive Boat</b>	<b>3.00 0.68%</b>	<b>\$14,239.50 0.83%</b>
DP Dive Boat		\$9,900.00
Rem. Operated Vehicle		\$4,002.00
Decommissioning Crew		\$337.50
<b>Expose Pipeline</b>	<b>11.85 2.70%</b>	<b>\$56,246.03 3.29%</b>
DP Dive Boat		\$39,105.00
Rem. Operated Vehicle		\$15,807.90
Decommissioning Crew		\$1,333.13



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.85</b>	<b>2.70%</b>	<b>\$56,246.03</b>	<b>3.29%</b>
DP Dive Boat	\$39,105.00				
Rem. Operated Vehicle	\$15,807.90				
Decommissioning Crew	\$1,333.13				
<b>Bury Pipeline</b>		<b>7.90</b>	<b>1.80%</b>	<b>\$37,497.35</b>	<b>2.20%</b>
DP Dive Boat	\$26,070.00				
Rem. Operated Vehicle	\$10,538.60				
Decommissioning Crew	\$888.75				
<b>Cut Pipeline Riser</b>		<b>7.83</b>	<b>1.78%</b>	<b>\$37,165.09</b>	<b>2.18%</b>
DP Dive Boat	\$25,839.00				
Rem. Operated Vehicle	\$10,445.22				
Decommissioning Crew	\$880.87				
<b>Remove Tube Turn</b>		<b>7.83</b>	<b>1.78%</b>	<b>\$37,165.09</b>	<b>2.18%</b>
DP Dive Boat	\$25,839.00				
Rem. Operated Vehicle	\$10,445.22				
Decommissioning Crew	\$880.87				
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.68%</b>	<b>\$14,239.50</b>	<b>0.83%</b>
DP Dive Boat	\$9,900.00				
Rem. Operated Vehicle	\$4,002.00				
Decommissioning Crew	\$337.50				
<b>Expose Pipeline</b>		<b>11.85</b>	<b>2.70%</b>	<b>\$56,246.03</b>	<b>3.29%</b>
DP Dive Boat	\$39,105.00				
Rem. Operated Vehicle	\$15,807.90				
Decommissioning Crew	\$1,333.13				
<b>Cut &amp; Plug Pipeline</b>		<b>11.85</b>	<b>2.70%</b>	<b>\$56,246.03</b>	<b>3.29%</b>
DP Dive Boat	\$39,105.00				
Rem. Operated Vehicle	\$15,807.90				
Decommissioning Crew	\$1,333.13				
<b>Bury Pipeline</b>		<b>7.90</b>	<b>1.80%</b>	<b>\$37,497.35</b>	<b>2.20%</b>
DP Dive Boat	\$26,070.00				
Rem. Operated Vehicle	\$10,538.60				
Decommissioning Crew	\$888.75				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>7.83</b>	<b>1.78%</b>	<b>\$37,165.09</b>	<b>2.18%</b>	
DP Dive Boat	\$25,839.00					
Rem. Operated Vehicle	\$10,445.22					
Decommissioning Crew	\$880.87					
<hr/>						
<b>Remove Tube Turn</b>		<b>7.83</b>	<b>1.78%</b>	<b>\$37,165.09</b>	<b>2.18%</b>	
DP Dive Boat	\$25,839.00					
Rem. Operated Vehicle	\$10,445.22					
Decommissioning Crew	\$880.87					
<hr/>						
<b>Demob Dive Boat</b>		<b>140.00</b>	<b>31.86%</b>	<b>\$462,000.00</b>	<b>27.05%</b>	
DP Dive Boat	\$462,000.00					
<hr/>						
		<b>Total</b>	<b>407.52</b>	<b>92.74%</b>	<b>\$1,550,938.68</b>	<b>90.82%</b>
<hr/> <hr/>						



## **MMS**

### **Well Information**

#### **Harmony MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:   15.00%

Weather Contingency %:       10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Exxon Mobil Corporation	100.00%

### **Well Data**

	<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
Tubing:			
Production Casing:			
Liner:			
Protective Casing:			
Surface Casing:			
Drive Pipe:			
Caisson:			
Perforated Depth:			

### **Comments**



**MMS**

**Well Decommission Task Information**

**Harmony MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$7,068,992.00 80.00%
		<b>Task Total</b>	0.00	\$7,068,992.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$1,060,348.84 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$706,899.21 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$8,836,240.05 100.00%



**MMS**

**Well Decommission Resources Breakdown**

**Harmony MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$7,068,992.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**Harmony MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$7,068,992.00</b>	<b>80.00%</b>	
Manual Calculation			\$7,068,992.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$7,068,992.00</b>	<b>80.00%</b>

**Harvest MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Harvest MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

-Platform Harvest will be removed along with Platforms Hermosa, Hidalgo, Gail and Grace.

-Platform Harvest is an 8-pile platform installed in 1985 in 675' of water.

-The estimated removal weight is the deck weight is 9,024 tons and the jacket weight is 16,633 tons.

-The platform has a total of 19 wells that will be plugged and abandoned.

-The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR

-Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.

-A total of 25 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.

-The platform topsides and jacket will be removed by a DB 4000 that will be mobilized from the GOM or North Sea. The total mob/demob time will be 200 days.

-The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.

-Four 300' cargo barges will transport the deck modules to shore and six 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 10 cargo barge trips will be required.

-The two pipelines (oil, gas) on the OCS will be totally removed to the state water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total



## MMS

### Platform Salvage Option

#### Harvest MMS POCS 29056 (Ver 1)

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mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Huenem Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 15% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix 1 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management,



## **MMS**

### **Platform Salvage Option**

#### **Harvest MMS POCS 29056 (Ver 1)**

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Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$88,278,478

Estimated Decommissioning Net Cost = \$88,278,478



## MMS

### Basic Information

### Harvest MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Harvest MMS POCS 29056  
Function: SELF CONTAINED  
Type: Steel  
Water Depth: 675'  
Pre 461H?: No  
Year Installed: 1985  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0315  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 19  
# Pipelines to Abandon: 2  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Plains Exploration & Production Company	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$80,226,520	\$80,226,520
Well Plugging & Abandonment:	\$4,847,788	\$4,847,788
Pipeline Abandonment:	\$3,204,170	\$3,204,170
Total Decommissioning Cost:	\$88,278,478	\$88,278,478



## MMS

### Platform Information

### Harvest MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	8	60"		Yes	No	
Skirt/Braced	20	72"		No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:		
Middle:		
Lower:		

### Conductors

Number of Slots:	50
Number Installed:	25
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	16663.00		
Jacket Installation Date:	1/1/1985		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	9024 Tons
Number of Padeyes Required:	0
Deck Installation Date:	1/1/1985
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

### **Harvest MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 300 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	0.00
Provision for Misc. Work%:	15.00%
Weather Contingency%:	15.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$11,616,651.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Harvest MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$3,955,828.00	4.93%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.01%	\$511,000.00	0.64%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.01%	\$8,391.00	0.01%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.01%	\$4,751,731.00	5.92%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.01%	\$3,900,383.00	4.86%
Mobilize DB 4000	Mob from GOM or North Sea, 100 days divided by 5 platforms	<input type="checkbox"/>	480.00	4.85%	\$4,536,000.00	5.65%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 4)	<input type="checkbox"/>	36.00	0.36%	\$197,120.00	0.25%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 6)	<input type="checkbox"/>	36.00	0.36%	\$300,000.00	0.37%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	17.00	0.17%	\$76,840.00	0.10%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.07%	\$108,810.00	0.14%
Cut Deck/Equip/Misc	Seperate 9 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	0.24%	\$410,400.00	0.51%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.24%	\$410,400.00	0.51%
Remove 8 Pile Deck	Remove 8 Pile Deck, 9 modules	<input checked="" type="checkbox"/>	72.00	0.73%	\$1,231,200.00	1.53%
Demob CB 300 & Tug	Demob to Port of LA (Qty 4)	<input type="checkbox"/>	36.00	0.36%	\$141,120.00	0.18%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	35.00	0.35%	\$599,200.00	0.75%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	206.72	2.09%	\$3,840,046.41	4.79%
Cut Jacket	40 Hours per section, times 17 section(s), per MMS	<input checked="" type="checkbox"/>	684.00	6.92%	\$11,849,296.00	14.77%
Remove Jacket - Meth 1	40 Hours per section, times 17 section(s), per MMS	<input checked="" type="checkbox"/>	684.00	6.92%	\$11,710,080.00	14.60%
Demob CB 400 & Tug	Demob to Port of LA (Qty 6)	<input type="checkbox"/>	36.00	0.36%	\$216,000.00	0.27%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.07%	\$108,810.00	0.14%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	17.00	0.17%	\$76,840.00	0.10%
Demob DB 4000	Demob to GOM or North Sea, 100 days divided by 5 platforms	<input type="checkbox"/>	480.00	4.85%	\$4,536,000.00	5.65%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	0.73%	\$1,282,000.00	1.60%
Offload CB 300		<input type="checkbox"/>	1392.00	14.08%	\$365,360.00	0.46%
Offload CB 400		<input type="checkbox"/>	4992.00	50.49%	\$1,417,920.00	1.77%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.01%	\$8,391.00	0.01%
<b>Task Total</b>			9342.22	94.49%	\$6,549,166.41	70.49%
<b>Misc. Work Provision (15.00%)</b>			272.58	2.76%	\$6,030,354.00	7.52%
<b>Weather Contingency (15.00%)</b>			272.58	2.76%	\$6,030,354.00	7.52%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$1,616,650.00	14.48%



**MMS**

**Platform Decommission Task Information**

**Harvest MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
		Structure & Equipment Disposal		\$0.00 0.00%
		Offloading		\$0.00 0.00%
		Storage / Scrapping		\$0.00 0.00%
		Reef Donation		\$0.00 0.00%
		Cost of Engineering (0.00%)		\$0.00 0.00%
		<b>Total:</b>	9887.38 100.00%	\$0,226,524.41 100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Harvest MMS POCS 29056 (Ver 1)

Resource Used	Unit Cost	Cost
Abrasive Cutter Spread	\$625.00 per Hour	\$1,110,762.50 1.38%
Cargo Barge 300	\$4,920.00 per Day per Barge	\$285,360.00 0.36%
Cargo Barge 400	\$6,240.00 per Day per Barge	\$1,297,920.00 1.62%
CB 300 & Tug	\$980.00 per Hour per Barge/Tug	\$399,840.00 0.50%
CB 400 & Tug	\$1,000.00 per Hour per Barge/Tug	\$2,041,720.00 2.54%
CB Damage Deduct	\$20,000.00 per Cargo Barge	\$200,000.00 0.25%
Derrick Barge 4000	\$10,500.00 per Hour per barge	27,375,810.00 34.12%
Dive Basic Spread Saturation	\$3,165.00 Per Hour	\$5,624,901.31 7.01%
Manual Calculation	\$0.00 Independently Calculated	14,417,724.00 17.97%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00 per Cut	\$139,216.00 0.17%
Pile Abrasive Cut 70 to 96 inches	\$5,375.00 per Cut	\$301,000.00 0.38%
Pipeline Survey	\$230.00 per Hour	\$408,760.60 0.51%
Rem. Operated Vehicle	\$800.00 per Hour	\$2,789,152.00 3.48%
Rig Up CB 300	\$14,000.00 per Barge	\$56,000.00 0.07%
Rig Up CB 400	\$14,000.00 per Barge	\$84,000.00 0.10%
Work Boat	\$500.00 per Hour	\$17,000.00 0.02%



**MMS**

**Platform Decommission Cost Breakdown**

**Harvest MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00 0.00%</b>	<b>\$3,955,828.00 4.93%</b>
Manual Calculation		\$3,955,828.00
<b>NMFS Marine Observation</b>	<b>1.00 0.01%</b>	<b>\$511,000.00 0.64%</b>
Manual Calculation		\$511,000.00
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00 0.01%</b>	<b>\$8,391.00 0.01%</b>
Manual Calculation		\$1,100.00
Manual Calculation		\$422.00
Manual Calculation		\$4,800.00
Manual Calculation		\$2,069.00
<b>Sever Conductors- Abrasive</b>	<b>1.00 0.01%</b>	<b>\$4,751,731.00 5.92%</b>
Manual Calculation		\$4,751,731.00
<b>Platform Removal Preparation</b>	<b>1.00 0.01%</b>	<b>\$3,900,383.00 4.86%</b>
Manual Calculation		\$3,900,383.00
<b>Mobilize DB 4000</b>	<b>480.00 4.85%</b>	<b>\$4,536,000.00 5.65%</b>
Derrick Barge 4000		\$4,536,000.00
<b>Mobilize CB 300 &amp; Tug</b>	<b>36.00 0.36%</b>	<b>\$197,120.00 0.25%</b>
CB 300 & Tug		\$141,120.00
Rig Up CB 300		\$56,000.00



**MMS**

**Platform Decommission Cost Breakdown**

**Harvest MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>36.00</b>	<b>0.36%</b>	<b>\$300,000.00</b>	<b>0.37%</b>
Rig Up CB 400			\$84,000.00	
CB 400 & Tug			\$216,000.00	
<b>Mobilize Dive Spread</b>	<b>17.00</b>	<b>0.17%</b>	<b>\$76,840.00</b>	<b>0.10%</b>
Work Boat			\$8,500.00	
Dive Basic Spread Saturation			\$53,805.00	
Abrasive Cutter Spread			\$10,625.00	
Pipeline Survey			\$3,910.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.07%</b>	<b>\$108,810.00</b>	<b>0.14%</b>
Derrick Barge 4000			\$70,875.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
Rem. Operated Vehicle			\$10,800.00	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>0.24%</b>	<b>\$410,400.00</b>	<b>0.51%</b>
Derrick Barge 4000			\$252,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	
Rem. Operated Vehicle			\$38,400.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Harvest MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>24.00</b>	<b>0.24%</b>	<b>\$410,400.00</b>	<b>0.51%</b>
Derrick Barge 4000	\$252,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
Rem. Operated Vehicle	\$38,400.00				
<b>Remove 8 Pile Deck</b>		<b>72.00</b>	<b>0.73%</b>	<b>\$1,231,200.00</b>	<b>1.53%</b>
Derrick Barge 4000	\$756,000.00				
Dive Basic Spread Saturation	\$227,880.00				
Pipeline Survey	\$16,560.00				
Abrasive Cutter Spread	\$45,000.00				
CB 300 & Tug	\$70,560.00				
Rem. Operated Vehicle	\$115,200.00				
<b>Demob CB 300 &amp; Tug</b>		<b>36.00</b>	<b>0.36%</b>	<b>\$141,120.00</b>	<b>0.18%</b>
CB 300 & Tug	\$141,120.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>35.00</b>	<b>0.35%</b>	<b>\$599,200.00</b>	<b>0.75%</b>
Derrick Barge 4000	\$367,500.00				
Dive Basic Spread Saturation	\$110,775.00				
Pipeline Survey	\$8,050.00				
Abrasive Cutter Spread	\$21,875.00				
CB 400 & Tug	\$35,000.00				
Rem. Operated Vehicle	\$56,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Harvest MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>		<b>206.72</b>	<b>2.09%</b>	<b>\$3,840,046.41</b>	<b>4.79%</b>
Derrick Barge 4000	\$2,170,560.00				
Dive Basic Spread Saturation	\$654,268.81				
Pipeline Survey	\$47,545.60				
Abrasive Cutter Spread	\$129,200.00				
CB 400 & Tug	\$206,720.00				
Pile Abrasive Cut 70 to 96 inches	\$301,000.00				
Rem. Operated Vehicle	\$330,752.00				
<b>Cut Jacket</b>		<b>684.00</b>	<b>6.92%</b>	<b>\$11,849,296.00</b>	<b>14.77%</b>
Derrick Barge 4000	\$7,182,000.00				
Dive Basic Spread Saturation	\$2,164,860.00				
Pipeline Survey	\$157,320.00				
Abrasive Cutter Spread	\$427,500.00				
CB 400 & Tug	\$684,000.00				
Pile Abrasive Cut 7 to 48 inches	\$139,216.00				
Rem. Operated Vehicle	\$1,094,400.00				
<b>Remove Jacket - Meth 1</b>		<b>684.00</b>	<b>6.92%</b>	<b>\$11,710,080.00</b>	<b>14.60%</b>
Derrick Barge 4000	\$7,182,000.00				
Dive Basic Spread Saturation	\$2,164,860.00				
Pipeline Survey	\$157,320.00				
Abrasive Cutter Spread	\$427,500.00				
CB 400 & Tug	\$684,000.00				
Rem. Operated Vehicle	\$1,094,400.00				
<b>Demob CB 400 &amp; Tug</b>		<b>36.00</b>	<b>0.36%</b>	<b>\$216,000.00</b>	<b>0.27%</b>
CB 400 & Tug	\$216,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Harvest MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Pick Up DB Anchors</b>	<b>6.75</b>	<b>0.07%</b>	<b>\$108,810.00</b>	<b>0.14%</b>
Derrick Barge 4000			\$70,875.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
Rem. Operated Vehicle			\$10,800.00	
<b>Demob Dive Spread</b>	<b>17.00</b>	<b>0.17%</b>	<b>\$76,840.00</b>	<b>0.10%</b>
Work Boat			\$8,500.00	
Dive Basic Spread Saturation			\$53,805.00	
Abrasive Cutter Spread			\$10,625.00	
Pipeline Survey			\$3,910.00	
<b>Demob DB 4000</b>	<b>480.00</b>	<b>4.85%</b>	<b>\$4,536,000.00</b>	<b>5.65%</b>
Derrick Barge 4000			\$4,536,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>0.73%</b>	<b>\$1,282,000.00</b>	<b>1.60%</b>
Manual Calculation			\$1,282,000.00	
<b>Offload CB 300</b>	<b>1392.00</b>	<b>14.08%</b>	<b>\$365,360.00</b>	<b>0.46%</b>
Cargo Barge 300			\$285,360.00	
CB Damage Deduct			\$80,000.00	
<b>Offload CB 400</b>	<b>4992.00</b>	<b>50.49%</b>	<b>\$1,417,920.00</b>	<b>1.77%</b>
Cargo Barge 400			\$1,297,920.00	
CB Damage Deduct			\$120,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Harvest MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$8,391.00</b>	<b>0.01%</b>
Manual Calculation			\$1,100.00	
Manual Calculation			\$422.00	
Manual Calculation			\$4,800.00	
Manual Calculation			\$2,069.00	
	<b>Total</b>	<b>9342.22 94.49%</b>	<b>\$56,549,166.41 70.49%</b>	



## MMS

### Pipeline Information

### Harvest MMS POCS 29056 (Ver1) Segment#:42103

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#### General Data

Water Depth: 675'  
Origin / Terminus: Origin  
Opposite End Name: Hermosa  
Opposite End Water Depth: 603'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 15.00%

#### Pipeline Data

Outside Diameter: 12.75"	Wall Thickness:	Length: 17212'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to the Hermosa platform. It is estimated as abandoned in place.



## MMS

### Pipeline Information

### Harvest MMS POCS 29056 (Ver1) Segment#:43203

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#### General Data

Water Depth: 675'  
Origin / Terminus: Origin  
Opposite End Name: Hermosa  
Opposite End Water Depth: 603'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 15.00%

#### Pipeline Data

Outside Diameter: 8.625"	Wall Thickness:	Length: 17212'
Depth of Burial:	# Crossings:	Product: GAS
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to the Hermosa platform. It is estimated as abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**Harvest MMS POCS 29056 (Ver 1) Segment#:4210315**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Dive Boat		<input type="checkbox"/>	80.00	24.77%	\$264,000.00	15.99%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.93%	\$30,422.50	1.84%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.55%	\$34,037.50	2.06%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	20.00	6.19%	\$136,150.00	8.25%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.62%	\$13,615.00	0.82%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.58%	\$78,626.63	4.76%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.58%	\$78,626.63	4.76%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.38%	\$52,417.75	3.18%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.38%	\$52,417.75	3.18%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.38%	\$52,417.75	3.18%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.93%	\$20,422.50	1.24%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.58%	\$78,626.63	4.76%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.58%	\$78,626.63	4.76%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.38%	\$52,417.75	3.18%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.38%	\$52,417.75	3.18%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.38%	\$52,417.75	3.18%
Demob Dive Boat		<input type="checkbox"/>	80.00	24.77%	\$264,000.00	15.99%
<b>Task Total</b>			285.40	88.35%	\$1,391,660.52	84.30%
<b>Misc. Work Provision (15.00%)</b>			18.81	5.82%	\$129,549.08	7.85%
<b>Other Contingency (15.00%)</b>			18.81	5.82%	\$129,549.08	7.85%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			323.02	100.00%	\$1,650,758.69	100.00%



**MMS**

**Pipeline Decommission Task Information**

**Harvest MMS POCS 29056 (Ver 1) Segment#:4320315**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Dive Boat		<input type="checkbox"/>	80.00	25.91%	\$264,000.00	16.99%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.97%	\$30,422.50	1.96%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.62%	\$34,037.50	2.19%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	9.00	2.92%	\$61,267.50	3.94%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.65%	\$13,615.00	0.88%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.74%	\$78,626.63	5.06%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.74%	\$78,626.63	5.06%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.49%	\$52,417.75	3.37%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.49%	\$52,417.75	3.37%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.49%	\$52,417.75	3.37%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.97%	\$20,422.50	1.31%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.74%	\$78,626.63	5.06%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.74%	\$78,626.63	5.06%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.49%	\$52,417.75	3.37%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.49%	\$52,417.75	3.37%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.49%	\$52,417.75	3.37%
Demob Dive Boat		<input type="checkbox"/>	80.00	25.91%	\$264,000.00	16.99%
<b>Task Total</b>			274.40	88.88%	\$1,316,778.02	84.77%
<b>Misc. Work Provision (15.00%)</b>			17.16	5.56%	\$118,316.71	7.62%
<b>Other Contingency (15.00%)</b>			17.16	5.56%	\$118,316.71	7.62%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			308.72	100.00%	\$1,553,411.44	100.00%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Harvest MMS POCS 29056 (Ver 1) Segment#:4210**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$14,107.52	0.85%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$396,891.00	24.04%
DP Dive Boat	\$3,300.00	per Hour	\$941,820.00	57.05%
Manual Calculation	\$0.00	Independently Calculated	\$10,000.00	0.61%
Pipeline Surveying	\$230.00	per Hour	\$28,842.00	1.75%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Harvest MMS POCS 29056 (Ver 1) Segment#:4320**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$12,870.02	0.83%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$362,076.00	23.31%
DP Dive Boat	\$3,300.00	per Hour	\$905,520.00	58.29%
Manual Calculation	\$0.00	Independently Calculated	\$10,000.00	0.64%
Pipeline Surveying	\$230.00	per Hour	\$26,312.00	1.69%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Harvest MMS POCS 29056 (Ver 1) Segment#:42103**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>80.00 24.77%</b>	<b>\$264,000.00 15.99%</b>
DP Dive Boat		\$264,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.93%</b>	<b>\$30,422.50 1.84%</b>
DP Dive Boat		\$9,900.00
Dive Basic Spread Saturation		\$9,495.00
Decommissioning Crew		\$337.50
Pipeline Surveying		\$690.00
Manual Calculation		\$10,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.55%</b>	<b>\$34,037.50 2.06%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
<b>Pig &amp; Flush Pipeline</b>	<b>20.00 6.19%</b>	<b>\$136,150.00 8.25%</b>
DP Dive Boat		\$66,000.00
Dive Basic Spread Saturation		\$63,300.00
Decommissioning Crew		\$2,250.00
Pipeline Surveying		\$4,600.00
<b>Derig Decomm Equipment</b>	<b>2.00 0.62%</b>	<b>\$13,615.00 0.82%</b>
DP Dive Boat		\$6,600.00
Dive Basic Spread Saturation		\$6,330.00
Decommissioning Crew		\$225.00
Pipeline Surveying		\$460.00
<b>Expose Pipeline</b>	<b>11.55 3.58%</b>	<b>\$78,626.63 4.76%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50



## MMS

### Pipeline Decommission Cost Breakdown

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.58%</b>	<b>\$78,626.63</b>	<b>4.76%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<hr/>					
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.38%</b>	<b>\$52,417.75</b>	<b>3.18%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<hr/>					
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.38%</b>	<b>\$52,417.75</b>	<b>3.18%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<hr/>					
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.38%</b>	<b>\$52,417.75</b>	<b>3.18%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<hr/>					
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.93%</b>	<b>\$20,422.50</b>	<b>1.24%</b>
DP Dive Boat	\$9,900.00				
Dive Basic Spread Saturation	\$9,495.00				
Decommissioning Crew	\$337.50				
Pipeline Surveying	\$690.00				
<hr/>					
<b>Expose Pipeline</b>		<b>11.55</b>	<b>3.58%</b>	<b>\$78,626.63</b>	<b>4.76%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.58%</b>	<b>\$78,626.63</b>	<b>4.76%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.38%</b>	<b>\$52,417.75</b>	<b>3.18%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.38%</b>	<b>\$52,417.75</b>	<b>3.18%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.38%</b>	<b>\$52,417.75</b>	<b>3.18%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Demob Dive Boat</b>		<b>80.00</b>	<b>24.77%</b>	<b>\$264,000.00</b>	<b>15.99%</b>
DP Dive Boat	\$264,000.00				
		<b>Total</b>	<b>285.40 88.35%</b>	<b>\$1,391,660.52</b>	<b>84.30%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Harvest MMS POCS 29056 (Ver 1) Segment#:43203**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>80.00 25.91%</b>	<b>\$264,000.00 16.99%</b>
DP Dive Boat		\$264,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.97%</b>	<b>\$30,422.50 1.96%</b>
DP Dive Boat		\$9,900.00
Dive Basic Spread Saturation		\$9,495.00
Decommissioning Crew		\$337.50
Pipeline Surveying		\$690.00
Manual Calculation		\$10,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.62%</b>	<b>\$34,037.50 2.19%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
<b>Pig &amp; Flush Pipeline</b>	<b>9.00 2.92%</b>	<b>\$61,267.50 3.94%</b>
DP Dive Boat		\$29,700.00
Dive Basic Spread Saturation		\$28,485.00
Decommissioning Crew		\$1,012.50
Pipeline Surveying		\$2,070.00
<b>Derig Decomm Equipment</b>	<b>2.00 0.65%</b>	<b>\$13,615.00 0.88%</b>
DP Dive Boat		\$6,600.00
Dive Basic Spread Saturation		\$6,330.00
Decommissioning Crew		\$225.00
Pipeline Surveying		\$460.00
<b>Expose Pipeline</b>	<b>11.55 3.74%</b>	<b>\$78,626.63 5.06%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.74%</b>	<b>\$78,626.63</b>	<b>5.06%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.49%</b>	<b>\$52,417.75</b>	<b>3.37%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.49%</b>	<b>\$52,417.75</b>	<b>3.37%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.49%</b>	<b>\$52,417.75</b>	<b>3.37%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.97%</b>	<b>\$20,422.50</b>	<b>1.31%</b>
DP Dive Boat	\$9,900.00				
Dive Basic Spread Saturation	\$9,495.00				
Decommissioning Crew	\$337.50				
Pipeline Surveying	\$690.00				
<b>Expose Pipeline</b>		<b>11.55</b>	<b>3.74%</b>	<b>\$78,626.63</b>	<b>5.06%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.74%</b>	<b>\$78,626.63</b>	<b>5.06%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.49%</b>	<b>\$52,417.75</b>	<b>3.37%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.49%</b>	<b>\$52,417.75</b>	<b>3.37%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.49%</b>	<b>\$52,417.75</b>	<b>3.37%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Demob Dive Boat</b>		<b>80.00</b>	<b>25.91%</b>	<b>\$264,000.00</b>	<b>16.99%</b>
DP Dive Boat	\$264,000.00				
		<b>Total</b>	<b>274.40 88.88%</b>	<b>\$1,316,778.02</b>	<b>84.77%</b>



## **MMS**

### **Well Information**

### **Harvest MMS POCS 29056 (Ver 1) Well#:All**

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#### **General Data**

Status:

Number of Completions:

Subsea Completion:                      No

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:              15.00%

Weather Contingency %:                      15.00%

#### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Plains Exploration & Production Company	100.00%

#### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

#### **Comments**



**MMS**

**Well Decommission Task Information**

**Harvest MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$3,729,068.00 76.92%
		<b>Task Total</b>	0.00	\$3,729,068.00 76.92%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$559,360.22 11.54%
		<b>ather Contingency (15.00%)</b>	0.00	\$559,360.22 11.54%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$4,847,788.44 100.00%



# MMS

## Well Decommission Resources Breakdown

### Harvest MMS POCS 29056 (Ver 1) Well#:All

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$3,729,068.00 76.92%



**MMS**

**Well Decommission Cost Breakdown**

**Harvest MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$3,729,068.00</b>	<b>76.92%</b>	
Manual Calculation			\$3,729,068.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$3,729,068.00</b>	<b>76.92%</b>

**Henry MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Henry MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Henry will be removed along with Platforms A, B, C, Hillhouse and Gina.
- Platform Henry is an 8-pile platform installed in 1979 in 173' of water.
- The estimated removal weight is the deck weight is 1,371 tons and the jacket weight is 1,311 tons.
- The platform has a total of 23 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 24 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and one 400' cargo barge will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 2 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The three pipelines (oil, gas, water) on the OCS will be totally removed to the state



## MMS

### Platform Salvage Option

#### Henry MMS POCS 29056 (Ver 1)

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water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed



## **MMS**

### **Platform Salvage Option**

#### **Henry MMS POCS 29056 (Ver 1)**

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with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost =           \$18,621,652

Estimated Decommissioning Net Cost =           \$18,621,652



## MMS

### Basic Information

#### Henry MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Henry MMS POCS 29056  
Function: FACILITIES  
Type: Steel  
Water Depth: 173'  
Pre 461H?: Yes  
Year Installed: 1979  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0240  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 23  
# Pipelines to Abandon: 3  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Dos Cuadras Offshore LLC	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$15,032,080	\$15,032,080
Well Plugging & Abandonment:	\$3,087,090	\$3,087,090
Pipeline Abandonment:	\$502,482	\$502,482
Total Decommissioning Cost:	\$18,621,652	\$18,621,652



## **MMS**

### **Platform Information**

### **Henry MMS POCS 29056 (Ver 1)**

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### **Pile/Tendon Data**

	<b>Number</b>	<b>Outside Diameter</b>	<b>Wall Thickness</b>	<b>Grout Annulus</b>	<b>Grout Internal</b>	<b>Depth Below Mudline</b>
Main:	8	42"	0.5"	Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

### **Deck Dimensions**

	<b>Dimensions</b>	<b>Elevation</b>
Upper:		
Middle:		
Lower:		

### **Conductors**

Number of Slots:	24
Number Installed:	24
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

### **Jacket Data**

	<b>Weight (Tons)</b>	<b>With Piles</b>	<b>With Piles &amp; Grout</b>
Submerged:			
Dry:	1311.00		
Jacket Installation Date:	8/31/79		
Jacket Contractor:	Unknown		

### **Deck Data**

Deck Lift Weight with Equipment:	1371 Tons
Number of Padeyes Required:	12
Deck Installation Date:	8/31/79
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

#### **Henry MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 300 x 100	Equipment	Equipment	Deck 100-500T	Deck 100-500T
CB 300 x 100	Equipment	Equipment	Deck 100-500T	Deck 100-500T
CB 400 x 100	Jkt > 700T	Conductors		

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$1,254,670.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Henry MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$845,846.00	5.63%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.05%	\$425,833.00	2.83%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.05%	\$1,803,662.00	12.00%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.05%	\$6,993.00	0.05%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.05%	\$1,269,710.00	8.45%
Mobilize DB 2000	Mob from Asia, 50 days divided by 6 platforms	<input type="checkbox"/>	200.00	10.57%	\$1,530,000.00	10.18%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	22.60	1.19%	\$72,296.00	0.48%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 1)	<input type="checkbox"/>	22.60	1.19%	\$36,600.00	0.24%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	10.30	0.54%	\$46,556.00	0.31%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.36%	\$84,510.00	0.56%
Cut Deck/Equip/Misc	Seperate 4 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	1.27%	\$324,000.00	2.16%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	1.27%	\$324,000.00	2.16%
Remove 8 Pile Deck	Remove 12 Pile Deck, 4 modules	<input checked="" type="checkbox"/>	48.00	2.54%	\$648,000.00	4.31%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	22.60	1.19%	\$44,296.00	0.29%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	31.00	1.64%	\$419,120.00	2.79%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	42.38	2.24%	\$612,753.60	4.08%
Remove Jacket - Meth 1		<input checked="" type="checkbox"/>	20.75	1.10%	\$280,540.00	1.87%
Demob CB 400 & Tug	Demob to Port of LA (Qty 1)	<input type="checkbox"/>	22.60	1.19%	\$22,600.00	0.15%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.36%	\$84,510.00	0.56%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	10.30	0.54%	\$46,556.00	0.31%
Demob DB 2000	Demob to Asia, 50 days divided by 6 platforms	<input type="checkbox"/>	200.00	10.57%	\$1,530,000.00	10.18%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	3.80%	\$709,000.00	4.72%
Offload CB 300		<input type="checkbox"/>	672.00	35.50%	\$177,760.00	1.18%
Offload CB 400		<input type="checkbox"/>	360.00	19.02%	\$113,600.00	0.76%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.05%	\$6,993.00	0.05%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$537,380.00	3.57%
<b>Task Total</b>			<b>1823.63</b>	<b>96.33%</b>	<b>\$12,003,114.60</b>	<b>79.85%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>41.64</b>	<b>2.20%</b>	<b>\$1,064,578.00</b>	<b>7.08%</b>
<b>Weather Contingency (10.00%)</b>			<b>27.76</b>	<b>1.47%</b>	<b>\$709,718.60</b>	<b>4.72%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$1,254,670.00</b>	<b>8.35%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>



**MMS**

**Platform Decommission Task Information**

**Henry MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		Offloading		\$0.00	0.00%
		Storage / Scrapping		\$0.00	0.00%
		Reef Donation		\$0.00	0.00%
		Cost of Engineering (0.00%)		\$0.00	0.00%
			<b>Total:</b>	1893.03	100.00%
				15,032,081.20	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Henry MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$140,143.75	0.93%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$137,760.00	0.92%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$93,600.00	0.62%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$182,672.00	1.22%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$139,330.00	0.93%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$60,000.00	0.40%
Derrick Barge 2000	\$8,500.00	per Hour per barge	\$4,790,855.00	31.87%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$709,687.95	4.72%
Manual Calculation	\$0.00	Independently Calculated	\$5,605,417.00	37.29%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$39,776.00	0.26%
Pipeline Survey	\$230.00	per Hour	\$51,572.90	0.34%
Rig Up CB 300	\$14,000.00	per Barge	\$28,000.00	0.19%
Rig Up CB 400	\$14,000.00	per Barge	\$14,000.00	0.09%
Work Boat	\$500.00	per Hour	\$10,300.00	0.07%



**MMS**

**Platform Decommission Cost Breakdown**

**Henry MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$845,846.00</b>	<b>5.63%</b>
Manual Calculation			\$845,846.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$425,833.00</b>	<b>2.83%</b>
Manual Calculation			\$425,833.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$1,803,662.00</b>	<b>12.00%</b>
Manual Calculation			\$1,803,662.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$6,993.00</b>	<b>0.05%</b>
Manual Calculation			\$917.00	
Manual Calculation			\$352.00	
Manual Calculation			\$4,000.00	
Manual Calculation			\$1,724.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$1,269,710.00</b>	<b>8.45%</b>
Manual Calculation			\$1,269,710.00	
<b>Mobilize DB 2000</b>	<b>200.00</b>	<b>10.57%</b>	<b>\$1,530,000.00</b>	<b>10.18%</b>
Derrick Barge 2000			\$1,530,000.00	
<b>Mobilize CB 300 &amp; Tug</b>	<b>22.60</b>	<b>1.19%</b>	<b>\$72,296.00</b>	<b>0.48%</b>
CB 300 & Tug			\$44,296.00	
Rig Up CB 300			\$28,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Henry MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>22.60</b>	<b>1.19%</b>	<b>\$36,600.00</b>	<b>0.24%</b>
Rig Up CB 400			\$14,000.00	
CB 400 & Tug			\$22,600.00	
<b>Mobilize Dive Spread</b>	<b>10.30</b>	<b>0.54%</b>	<b>\$46,556.00</b>	<b>0.31%</b>
Work Boat			\$5,150.00	
Dive Basic Spread Saturation			\$32,599.50	
Abrasive Cutter Spread			\$6,437.50	
Pipeline Survey			\$2,369.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.36%</b>	<b>\$84,510.00</b>	<b>0.56%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>1.27%</b>	<b>\$324,000.00</b>	<b>2.16%</b>
Derrick Barge 2000			\$204,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	



## MMS

### Platform Decommission Cost Breakdown

#### Henry MMS POCS 29056 (Ver 1)

Task		Task Hours		Task Cost	
<b>Remove Equipment</b>		<b>24.00</b>	<b>1.27%</b>	<b>\$324,000.00</b>	<b>2.16%</b>
Derrick Barge 2000	\$204,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
<b>Remove 8 Pile Deck</b>		<b>48.00</b>	<b>2.54%</b>	<b>\$648,000.00</b>	<b>4.31%</b>
Derrick Barge 2000	\$408,000.00				
Dive Basic Spread Saturation	\$151,920.00				
Pipeline Survey	\$11,040.00				
Abrasive Cutter Spread	\$30,000.00				
CB 300 & Tug	\$47,040.00				
<b>Demob CB 300 &amp; Tug</b>		<b>22.60</b>	<b>1.19%</b>	<b>\$44,296.00</b>	<b>0.29%</b>
CB 300 & Tug	\$44,296.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>31.00</b>	<b>1.64%</b>	<b>\$419,120.00</b>	<b>2.79%</b>
Derrick Barge 2000	\$263,500.00				
Dive Basic Spread Saturation	\$98,115.00				
Pipeline Survey	\$7,130.00				
Abrasive Cutter Spread	\$19,375.00				
CB 400 & Tug	\$31,000.00				



# MMS

## Platform Decommission Cost Breakdown

### Henry MMS POCS 29056 (Ver 1)

Task	Task Hours		Task Cost	
	Hours	Percentage	Cost	Percentage
<b>Sever Piles- Abrasive</b>	<b>42.38</b>	<b>2.24%</b>	<b>\$612,753.60</b>	<b>4.08%</b>
Derrick Barge 2000			\$360,230.00	
Dive Basic Spread Saturation			\$134,132.70	
Pipeline Survey			\$9,747.40	
Abrasive Cutter Spread			\$26,487.50	
CB 400 & Tug			\$42,380.00	
Pile Abrasive Cut 7 to 48 inches			\$39,776.00	
<b>Remove Jacket - Meth 1</b>	<b>20.75</b>	<b>1.10%</b>	<b>\$280,540.00</b>	<b>1.87%</b>
Derrick Barge 2000			\$176,375.00	
Dive Basic Spread Saturation			\$65,673.75	
Pipeline Survey			\$4,772.50	
Abrasive Cutter Spread			\$12,968.75	
CB 400 & Tug			\$20,750.00	
<b>Demob CB 400 &amp; Tug</b>	<b>22.60</b>	<b>1.19%</b>	<b>\$22,600.00</b>	<b>0.15%</b>
CB 400 & Tug			\$22,600.00	
<b>Pick Up DB Anchors</b>	<b>6.75</b>	<b>0.36%</b>	<b>\$84,510.00</b>	<b>0.56%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	



**MMS**

**Platform Decommission Cost Breakdown**

**Henry MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Demob Dive Spread</b>	<b>10.30</b>	<b>0.54%</b>	<b>\$46,556.00</b>	<b>0.31%</b>
Work Boat			\$5,150.00	
Dive Basic Spread Saturation			\$32,599.50	
Abrasive Cutter Spread			\$6,437.50	
Pipeline Survey			\$2,369.00	
<b>Demob DB 2000</b>	<b>200.00</b>	<b>10.57%</b>	<b>\$1,530,000.00</b>	<b>10.18%</b>
Derrick Barge 2000			\$1,530,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>3.80%</b>	<b>\$709,000.00</b>	<b>4.72%</b>
Manual Calculation			\$709,000.00	
<b>Offload CB 300</b>	<b>672.00</b>	<b>35.50%</b>	<b>\$177,760.00</b>	<b>1.18%</b>
Cargo Barge 300			\$137,760.00	
CB Damage Deduct			\$40,000.00	
<b>Offload CB 400</b>	<b>360.00</b>	<b>19.02%</b>	<b>\$113,600.00</b>	<b>0.76%</b>
Cargo Barge 400			\$93,600.00	
CB Damage Deduct			\$20,000.00	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$6,993.00</b>	<b>0.05%</b>
Manual Calculation			\$917.00	
Manual Calculation			\$352.00	
Manual Calculation			\$4,000.00	
Manual Calculation			\$1,724.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Henry MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$537,380.00</b>	<b>3.57%</b>	
Manual Calculation			\$537,380.00		
<b>Total</b>		<b>1823.63</b>	<b>96.33%</b>	<b>\$12,003,114.60</b>	<b>79.85%</b>



## MMS

### Pipeline Information

#### Henry MMS POCS 29056 (Ver1) Segment#:2320240

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### General Data

Water Depth: 173'  
Origin / Terminus: Origin  
Opposite End Name: Hillhouse  
Opposite End Water Depth: 190'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 6"	Wall Thickness: 0.432"	Length: 13148'
Depth of Burial: 3'	# Crossings:	Product: Gas
Installation Date:	Weight Coating: No	J Tube: No
Riser?: Yes	Riser Guard?: No	

### Comments

This segment runs to the Hillhouse Platform. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Henry MMS POCS 29056 (Ver1) Segment#:2410240

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### General Data

Water Depth: 173'  
Origin / Terminus: Origin  
Opposite End Name: Hillhouse  
Opposite End Water Depth: 190'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 8"	Wall Thickness: 0.5"	Length: 13148'
Depth of Burial: 3'	# Crossings:	Product: Oil
Installation Date:	Weight Coating: No	J Tube: No
Riser?: Yes	Riser Guard?: No	

### Comments

This segment runs to the Hillhouse Platform. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Henry MMS POCS 29056 (Ver1) Segment#:2530240

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### General Data

Water Depth: 173'  
Origin / Terminus: Origin  
Opposite End Name: Hillhouse  
Opposite End Water Depth: 190'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 6"	Wall Thickness: 0.432"	Length: 13148'
Depth of Burial: 3'	# Crossings:	Product: Water
Installation Date:	Weight Coating: No	J Tube: No
Riser?: Yes	Riser Guard?: No	

### Comments

This segment runs to the Hillhouse Platform. It is estimated as abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**Henry MMS POCS 29056 (Ver 1) Segment#:2320240**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	10.30	11.29%	\$18,648.15	11.29%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.48%	\$9,052.50	5.48%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	3.00	3.29%	\$5,431.50	3.29%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.19%	\$3,621.00	2.19%
Expose Pipeline		<input checked="" type="checkbox"/>	5.59	6.13%	\$10,120.70	6.13%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.59	6.13%	\$10,120.70	6.13%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.72	4.08%	\$6,735.06	4.08%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.72	4.08%	\$6,735.06	4.08%
Bury Pipeline		<input checked="" type="checkbox"/>	3.72	4.08%	\$6,735.06	4.08%
Reposition Workboat		<input checked="" type="checkbox"/>	3.25	3.56%	\$5,884.13	3.56%
Expose Pipeline		<input checked="" type="checkbox"/>	5.59	6.13%	\$10,120.70	6.13%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.59	6.13%	\$10,120.70	6.13%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.72	4.08%	\$6,735.06	4.08%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.72	4.08%	\$6,735.06	4.08%
Bury Pipeline		<input checked="" type="checkbox"/>	3.72	4.08%	\$6,735.06	4.08%
Demob Work Boat		<input type="checkbox"/>	10.30	11.29%	\$18,648.15	11.29%
<b>Task Total</b>			<b>78.53</b>	<b>86.05%</b>	<b>\$142,178.59</b>	<b>86.05%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>7.64</b>	<b>8.37%</b>	<b>\$13,831.32</b>	<b>8.37%</b>
<b>Other Contingency (10.00%)</b>			<b>5.09</b>	<b>5.58%</b>	<b>\$9,220.88</b>	<b>5.58%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>91.26</b>	<b>100.00%</b>	<b>\$165,230.79</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Henry MMS POCS 29056 (Ver 1) Segment#:2410240**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	10.30	10.84%	\$18,648.15	10.84%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.26%	\$9,052.50	5.26%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	6.00	6.31%	\$10,863.00	6.31%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.10%	\$3,621.00	2.10%
Expose Pipeline		<input checked="" type="checkbox"/>	5.59	5.88%	\$10,120.70	5.88%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.59	5.88%	\$10,120.70	5.88%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.72	3.92%	\$6,735.06	3.92%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.72	3.92%	\$6,735.06	3.92%
Bury Pipeline		<input checked="" type="checkbox"/>	3.72	3.92%	\$6,735.06	3.92%
Reposition Workboat		<input checked="" type="checkbox"/>	3.25	3.42%	\$5,884.13	3.42%
Expose Pipeline		<input checked="" type="checkbox"/>	5.59	5.88%	\$10,120.70	5.88%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.59	5.88%	\$10,120.70	5.88%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.72	3.92%	\$6,735.06	3.92%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.72	3.92%	\$6,735.06	3.92%
Bury Pipeline		<input checked="" type="checkbox"/>	3.72	3.92%	\$6,735.06	3.92%
Demob Work Boat		<input type="checkbox"/>	10.30	10.84%	\$18,648.15	10.84%
<b>Task Total</b>			<b>81.53</b>	<b>85.81%</b>	<b>\$147,610.09</b>	<b>85.81%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>8.09</b>	<b>8.51%</b>	<b>\$14,646.04</b>	<b>8.51%</b>
<b>Other Contingency (10.00%)</b>			<b>5.39</b>	<b>5.68%</b>	<b>\$9,764.03</b>	<b>5.68%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>95.01</b>	<b>100.00%</b>	<b>\$172,020.16</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Henry MMS POCS 29056 (Ver 1) Segment#:2530240**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	10.30	11.29%	\$18,648.15	11.29%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.48%	\$9,052.50	5.48%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	3.00	3.29%	\$5,431.50	3.29%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.19%	\$3,621.00	2.19%
Expose Pipeline		<input checked="" type="checkbox"/>	5.59	6.13%	\$10,120.70	6.13%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.59	6.13%	\$10,120.70	6.13%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.72	4.08%	\$6,735.06	4.08%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.72	4.08%	\$6,735.06	4.08%
Bury Pipeline		<input checked="" type="checkbox"/>	3.72	4.08%	\$6,735.06	4.08%
Reposition Workboat		<input checked="" type="checkbox"/>	3.25	3.56%	\$5,884.13	3.56%
Expose Pipeline		<input checked="" type="checkbox"/>	5.59	6.13%	\$10,120.70	6.13%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.59	6.13%	\$10,120.70	6.13%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.72	4.08%	\$6,735.06	4.08%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.72	4.08%	\$6,735.06	4.08%
Bury Pipeline		<input checked="" type="checkbox"/>	3.72	4.08%	\$6,735.06	4.08%
Demob Work Boat		<input type="checkbox"/>	10.30	11.29%	\$18,648.15	11.29%
<b>Task Total</b>			<b>78.53</b>	<b>86.05%</b>	<b>\$142,178.59</b>	<b>86.05%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>7.64</b>	<b>8.37%</b>	<b>\$13,831.32</b>	<b>8.37%</b>
<b>Other Contingency (10.00%)</b>			<b>5.09</b>	<b>5.58%</b>	<b>\$9,220.88</b>	<b>5.58%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>91.26</b>	<b>100.00%</b>	<b>\$165,230.79</b>	<b>100.00%</b>



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Henry MMS POCS 29056 (Ver 1) Segment#:232024**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$8,834.65	5.35%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$69,499.05	42.06%
Pipeline Surveying	\$230.00	per Hour	\$18,061.90	10.93%
Work Boat	\$583.00	per Hour	\$45,782.99	27.71%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Henry MMS POCS 29056 (Ver 1) Segment#:241024**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$9,172.15	5.33%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$72,154.05	41.95%
Pipeline Surveying	\$230.00	per Hour	\$18,751.90	10.90%
Work Boat	\$583.00	per Hour	\$47,531.99	27.63%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Henry MMS POCS 29056 (Ver 1) Segment#:253024**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$8,834.65	5.35%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$69,499.05	42.06%
Pipeline Surveying	\$230.00	per Hour	\$18,061.90	10.93%
Work Boat	\$583.00	per Hour	\$45,782.99	27.71%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Henry MMS POCS 29056 (Ver 1) Segment#:232024**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>10.30 11.29%</b>	<b>\$18,648.15 11.29%</b>
Work Boat	\$6,004.90	
Dive Basic Spread- Mixed Gas	\$9,115.50	
Decommissioning Crew	\$1,158.75	
Pipeline Surveying	\$2,369.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 5.48%</b>	<b>\$9,052.50 5.48%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>3.00 3.29%</b>	<b>\$5,431.50 3.29%</b>
Work Boat	\$1,749.00	
Dive Basic Spread- Mixed Gas	\$2,655.00	
Decommissioning Crew	\$337.50	
Pipeline Surveying	\$690.00	
<b>Derig Decomm Equipment</b>	<b>2.00 2.19%</b>	<b>\$3,621.00 2.19%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Expose Pipeline</b>	<b>5.59 6.13%</b>	<b>\$10,120.70 6.13%</b>
Work Boat	\$3,258.97	
Dive Basic Spread- Mixed Gas	\$4,947.15	
Decommissioning Crew	\$628.88	
Pipeline Surveying	\$1,285.70	
<b>Cut &amp; Plug Pipeline</b>	<b>5.59 6.13%</b>	<b>\$10,120.70 6.13%</b>
Work Boat	\$3,258.97	
Dive Basic Spread- Mixed Gas	\$4,947.15	
Decommissioning Crew	\$628.88	
Pipeline Surveying	\$1,285.70	



## MMS

### Pipeline Decommission Cost Breakdown

<b>Cut Pipeline Riser</b>		<b>3.72</b>	<b>4.08%</b>	<b>\$6,735.06</b>	<b>4.08%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<hr/>					
<b>Remove Tube Turn</b>		<b>3.72</b>	<b>4.08%</b>	<b>\$6,735.06</b>	<b>4.08%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<hr/>					
<b>Bury Pipeline</b>		<b>3.72</b>	<b>4.08%</b>	<b>\$6,735.06</b>	<b>4.08%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<hr/>					
<b>Reposition Workboat</b>		<b>3.25</b>	<b>3.56%</b>	<b>\$5,884.13</b>	<b>3.56%</b>
Work Boat	\$1,894.75				
Dive Basic Spread- Mixed Gas	\$2,876.25				
Decommissioning Crew	\$365.63				
Pipeline Surveying	\$747.50				
<hr/>					
<b>Expose Pipeline</b>		<b>5.59</b>	<b>6.13%</b>	<b>\$10,120.70</b>	<b>6.13%</b>
Work Boat	\$3,258.97				
Dive Basic Spread- Mixed Gas	\$4,947.15				
Decommissioning Crew	\$628.88				
Pipeline Surveying	\$1,285.70				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>5.59</b>	<b>6.13%</b>	<b>\$10,120.70</b>	<b>6.13%</b>
Work Boat	\$3,258.97				
Dive Basic Spread- Mixed Gas	\$4,947.15				
Decommissioning Crew	\$628.88				
Pipeline Surveying	\$1,285.70				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>3.72</b>	<b>4.08%</b>	<b>\$6,735.06</b>	<b>4.08%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<b>Remove Tube Turn</b>		<b>3.72</b>	<b>4.08%</b>	<b>\$6,735.06</b>	<b>4.08%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<b>Bury Pipeline</b>		<b>3.72</b>	<b>4.08%</b>	<b>\$6,735.06</b>	<b>4.08%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<b>Demob Work Boat</b>		<b>10.30</b>	<b>11.29%</b>	<b>\$18,648.15</b>	<b>11.29%</b>
Work Boat	\$6,004.90				
Dive Basic Spread- Mixed Gas	\$9,115.50				
Decommissioning Crew	\$1,158.75				
Pipeline Surveying	\$2,369.00				
		<b>Total</b>	<b>78.53 86.05%</b>	<b>\$142,178.59</b>	<b>86.05%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Henry MMS POCS 29056 (Ver 1) Segment#:241024**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>10.30 10.84%</b>	<b>\$18,648.15 10.84%</b>
Work Boat	\$6,004.90	
Dive Basic Spread- Mixed Gas	\$9,115.50	
Decommissioning Crew	\$1,158.75	
Pipeline Surveying	\$2,369.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 5.26%</b>	<b>\$9,052.50 5.26%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>6.00 6.31%</b>	<b>\$10,863.00 6.31%</b>
Work Boat	\$3,498.00	
Dive Basic Spread- Mixed Gas	\$5,310.00	
Decommissioning Crew	\$675.00	
Pipeline Surveying	\$1,380.00	
<b>Derig Decomm Equipment</b>	<b>2.00 2.10%</b>	<b>\$3,621.00 2.10%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Expose Pipeline</b>	<b>5.59 5.88%</b>	<b>\$10,120.70 5.88%</b>
Work Boat	\$3,258.97	
Dive Basic Spread- Mixed Gas	\$4,947.15	
Decommissioning Crew	\$628.88	
Pipeline Surveying	\$1,285.70	
<b>Cut &amp; Plug Pipeline</b>	<b>5.59 5.88%</b>	<b>\$10,120.70 5.88%</b>
Work Boat	\$3,258.97	
Dive Basic Spread- Mixed Gas	\$4,947.15	
Decommissioning Crew	\$628.88	
Pipeline Surveying	\$1,285.70	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>3.72</b>	<b>3.92%</b>	<b>\$6,735.06</b>	<b>3.92%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<b>Remove Tube Turn</b>		<b>3.72</b>	<b>3.92%</b>	<b>\$6,735.06</b>	<b>3.92%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<b>Bury Pipeline</b>		<b>3.72</b>	<b>3.92%</b>	<b>\$6,735.06</b>	<b>3.92%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<b>Reposition Workboat</b>		<b>3.25</b>	<b>3.42%</b>	<b>\$5,884.13</b>	<b>3.42%</b>
Work Boat	\$1,894.75				
Dive Basic Spread- Mixed Gas	\$2,876.25				
Decommissioning Crew	\$365.63				
Pipeline Surveying	\$747.50				
<b>Expose Pipeline</b>		<b>5.59</b>	<b>5.88%</b>	<b>\$10,120.70</b>	<b>5.88%</b>
Work Boat	\$3,258.97				
Dive Basic Spread- Mixed Gas	\$4,947.15				
Decommissioning Crew	\$628.88				
Pipeline Surveying	\$1,285.70				
<b>Cut &amp; Plug Pipeline</b>		<b>5.59</b>	<b>5.88%</b>	<b>\$10,120.70</b>	<b>5.88%</b>
Work Boat	\$3,258.97				
Dive Basic Spread- Mixed Gas	\$4,947.15				
Decommissioning Crew	\$628.88				
Pipeline Surveying	\$1,285.70				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>3.72</b>	<b>3.92%</b>	<b>\$6,735.06</b>	<b>3.92%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<b>Remove Tube Turn</b>		<b>3.72</b>	<b>3.92%</b>	<b>\$6,735.06</b>	<b>3.92%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<b>Bury Pipeline</b>		<b>3.72</b>	<b>3.92%</b>	<b>\$6,735.06</b>	<b>3.92%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<b>Demob Work Boat</b>		<b>10.30</b>	<b>10.84%</b>	<b>\$18,648.15</b>	<b>10.84%</b>
Work Boat	\$6,004.90				
Dive Basic Spread- Mixed Gas	\$9,115.50				
Decommissioning Crew	\$1,158.75				
Pipeline Surveying	\$2,369.00				
		<b>Total</b>	<b>81.53 85.81%</b>	<b>\$147,610.09</b>	<b>85.81%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Henry MMS POCS 29056 (Ver 1) Segment#:253024**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>10.30 11.29%</b>	<b>\$18,648.15 11.29%</b>
Work Boat	\$6,004.90	
Dive Basic Spread- Mixed Gas	\$9,115.50	
Decommissioning Crew	\$1,158.75	
Pipeline Surveying	\$2,369.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 5.48%</b>	<b>\$9,052.50 5.48%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>3.00 3.29%</b>	<b>\$5,431.50 3.29%</b>
Work Boat	\$1,749.00	
Dive Basic Spread- Mixed Gas	\$2,655.00	
Decommissioning Crew	\$337.50	
Pipeline Surveying	\$690.00	
<b>Derig Decomm Equipment</b>	<b>2.00 2.19%</b>	<b>\$3,621.00 2.19%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Expose Pipeline</b>	<b>5.59 6.13%</b>	<b>\$10,120.70 6.13%</b>
Work Boat	\$3,258.97	
Dive Basic Spread- Mixed Gas	\$4,947.15	
Decommissioning Crew	\$628.88	
Pipeline Surveying	\$1,285.70	
<b>Cut &amp; Plug Pipeline</b>	<b>5.59 6.13%</b>	<b>\$10,120.70 6.13%</b>
Work Boat	\$3,258.97	
Dive Basic Spread- Mixed Gas	\$4,947.15	
Decommissioning Crew	\$628.88	
Pipeline Surveying	\$1,285.70	



## MMS

### Pipeline Decommission Cost Breakdown

<b>Cut Pipeline Riser</b>		<b>3.72</b>	<b>4.08%</b>	<b>\$6,735.06</b>	<b>4.08%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<hr/>					
<b>Remove Tube Turn</b>		<b>3.72</b>	<b>4.08%</b>	<b>\$6,735.06</b>	<b>4.08%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<hr/>					
<b>Bury Pipeline</b>		<b>3.72</b>	<b>4.08%</b>	<b>\$6,735.06</b>	<b>4.08%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<hr/>					
<b>Reposition Workboat</b>		<b>3.25</b>	<b>3.56%</b>	<b>\$5,884.13</b>	<b>3.56%</b>
Work Boat	\$1,894.75				
Dive Basic Spread- Mixed Gas	\$2,876.25				
Decommissioning Crew	\$365.63				
Pipeline Surveying	\$747.50				
<hr/>					
<b>Expose Pipeline</b>		<b>5.59</b>	<b>6.13%</b>	<b>\$10,120.70</b>	<b>6.13%</b>
Work Boat	\$3,258.97				
Dive Basic Spread- Mixed Gas	\$4,947.15				
Decommissioning Crew	\$628.88				
Pipeline Surveying	\$1,285.70				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>5.59</b>	<b>6.13%</b>	<b>\$10,120.70</b>	<b>6.13%</b>
Work Boat	\$3,258.97				
Dive Basic Spread- Mixed Gas	\$4,947.15				
Decommissioning Crew	\$628.88				
Pipeline Surveying	\$1,285.70				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>3.72</b>	<b>4.08%</b>	<b>\$6,735.06</b>	<b>4.08%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<b>Remove Tube Turn</b>		<b>3.72</b>	<b>4.08%</b>	<b>\$6,735.06</b>	<b>4.08%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<b>Bury Pipeline</b>		<b>3.72</b>	<b>4.08%</b>	<b>\$6,735.06</b>	<b>4.08%</b>
Work Boat	\$2,168.76				
Dive Basic Spread- Mixed Gas	\$3,292.20				
Decommissioning Crew	\$418.50				
Pipeline Surveying	\$855.60				
<b>Demob Work Boat</b>		<b>10.30</b>	<b>11.29%</b>	<b>\$18,648.15</b>	<b>11.29%</b>
Work Boat	\$6,004.90				
Dive Basic Spread- Mixed Gas	\$9,115.50				
Decommissioning Crew	\$1,158.75				
Pipeline Surveying	\$2,369.00				
		<b>Total</b>	<b>78.53 86.05%</b>	<b>\$142,178.59</b>	<b>86.05%</b>



## **MMS**

### **Well Information**

#### **Henry MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:   15.00%

Weather Contingency %:       10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Dos Cuadras Offshore LLC	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**Henry MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$2,469,672.00 80.00%
		<b>Task Total</b>	0.00	\$2,469,672.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$370,450.81 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$246,967.20 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$3,087,090.02 100.00%



**MMS**

**Well Decommission Resources Breakdown**

**Henry MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$2,469,672.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**Henry MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$2,469,672.00</b>	<b>80.00%</b>
Manual Calculation			\$2,469,672.00	
<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$2,469,672.00</b>	<b>80.00%</b>

**Heritage MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

### **Heritage MMS POCS 29056 (Ver 1)**

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#### COMPLETE REMOVAL

- Platform Heritage will be removed along with Platforms Hondo and Harmony.
- Platform Heritage is an 8-pile platform installed in 1989 in 1075' of water.
- The estimated removal weight is the deck weight is 9,826 tons and the jacket weight is 32,420 tons.
- The platform has a total of 48 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 49 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 4000 that will be mobilized from the GOM or North Sea. The total mob/demob time will be 200 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Fourteen 400' cargo barges will transport the deck modules and jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 14 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The two pipelines (oil, gas) on the OCS will be totally removed to the state water boundary when running to shore and in less than 200 feet of water. Segments running



## MMS

### Platform Salvage Option

#### Heritage MMS POCS 29056 (Ver 1)

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from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this



## MMS

### Platform Salvage Option

#### Heritage MMS POCS 29056 (Ver 1)

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estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$149,600,073

Estimated Decommissioning Net Cost = \$149,600,073



## MMS

### Basic Information

### Heritage MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Heritage MMS POCS 29056  
Function: SELF CONTAINED  
Type: Steel  
Water Depth: 1075'  
Pre 461H?: No  
Year Installed: 1989  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0182  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 48  
# Pipelines to Abandon: 2  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Exxon Mobil Corporation	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$133,002,496	\$133,002,496
Well Plugging & Abandonment:	\$12,801,695	\$12,801,695
Pipeline Abandonment:	\$3,795,882	\$3,795,882
Total Decommissioning Cost:	\$149,600,073	\$149,600,073



## MMS

### Platform Information

### Heritage MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	8	72"		Yes	No	
Skirt/Braced	26	84"		No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:		
Middle:		
Lower:		

### Conductors

Number of Slots:	60
Number Installed:	49
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	32420.00		
Jacket Installation Date:	1/1/1989		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	9826 Tons
Number of Padeyes Required:	0
Deck Installation Date:	1/1/1989
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

### **Heritage MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 400 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck > 500T
CB 400 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck > 500T
CB 400 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck > 500T
CB 400 x 100	Deck > 500T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	0.00
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$23,123,496.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Heritage MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$6,724,543.00	5.06%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.01%	\$851,667.00	0.64%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.01%	\$13,984.00	0.01%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.01%	\$13,578,128.00	10.21%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.01%	\$4,306,129.00	3.24%
Mobilize DB 4000	Mob from GOM or North Sea, 100 days divided by 3 platforms	<input type="checkbox"/>	800.00	6.78%	\$7,560,000.00	5.68%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 14)	<input type="checkbox"/>	25.60	0.22%	\$554,400.00	0.42%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	11.80	0.10%	\$53,336.00	0.04%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.06%	\$108,810.00	0.08%
Cut Deck/Equip/Misc	Seperate 13 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	0.20%	\$410,400.00	0.31%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.20%	\$410,400.00	0.31%
Remove 8 Pile Deck	Remove 8 Pile Deck, 13 modules	<input checked="" type="checkbox"/>	120.00	1.02%	\$2,052,000.00	1.54%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	0.00	0.00%	\$0.00	0.00%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	284.66	2.41%	\$5,238,879.24	3.94%
Cut Jacket	31 Hours per section, times 33 section(s), per MMS	<input checked="" type="checkbox"/>	1032.00	8.75%	\$17,836,888.00	13.41%
Remove Jacket - Meth 1	31 Hours per section, times 33 section(s), per MMS	<input checked="" type="checkbox"/>	1032.00	8.75%	\$17,667,840.00	13.28%
Demob CB 400 & Tug	Demob to Port of LA (Qty 14)	<input type="checkbox"/>	25.60	0.22%	\$358,400.00	0.27%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.06%	\$108,810.00	0.08%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	11.80	0.10%	\$53,336.00	0.04%
Demob DB 4000	Demob to GOM or North Sea, 100 days divided by 3 platforms	<input type="checkbox"/>	800.00	6.78%	\$7,560,000.00	5.68%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	0.61%	\$1,282,000.00	0.96%
Offload CB 400		<input type="checkbox"/>	6864.00	58.18%	\$2,064,640.00	1.55%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.01%	\$13,984.00	0.01%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$4,256,258.00	3.20%
<b>Task Total</b>			11145.96	94.48%	\$93,064,832.24	69.97%
<b>Misc. Work Provision (15.00%)</b>			390.62	3.31%	\$10,088,480.00	7.59%
<b>Weather Contingency (10.00%)</b>			260.42	2.21%	\$6,725,655.00	5.06%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$23,123,500.00	17.39%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%



**MMS**

**Platform Decommission Task Information**

**Heritage MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		<b>Storage / Scrapping</b>		\$0.00	0.00%
		<b>Reef Donation</b>		\$0.00	0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00	0.00%
			<b>Total:</b>	11797.00	100.00%
				33,002,467.24	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Heritage MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$1,596,100.00	1.20%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$1,784,640.00	1.34%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$164,640.00	0.12%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$3,065,460.00	2.30%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$280,000.00	0.21%
Derrick Barge 4000	\$10,500.00	per Hour per barge	41,686,680.00	31.34%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$8,082,650.44	6.08%
Manual Calculation	\$0.00	Independently Calculated	31,026,693.00	23.33%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$169,048.00	0.13%
Pile Abrasive Cut 70 to 96 inches	\$5,375.00	per Cut	\$365,500.00	0.27%
Pipeline Survey	\$230.00	per Hour	\$587,364.80	0.44%
Rem. Operated Vehicle	\$800.00	per Hour	\$4,048,256.00	3.04%
Rig Up CB 400	\$14,000.00	per Barge	\$196,000.00	0.15%
Work Boat	\$500.00	per Hour	\$11,800.00	0.01%



**MMS**

**Platform Decommission Cost Breakdown**

**Heritage MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$6,724,543.00</b>	<b>5.06%</b>
Manual Calculation			\$6,724,543.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$851,667.00</b>	<b>0.64%</b>
Manual Calculation			\$851,667.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$13,984.00</b>	<b>0.01%</b>
Manual Calculation			\$1,833.00	
Manual Calculation			\$703.00	
Manual Calculation			\$8,000.00	
Manual Calculation			\$3,448.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$13,578,128.00</b>	<b>10.21%</b>
Manual Calculation			\$13,578,128.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$4,306,129.00</b>	<b>3.24%</b>
Manual Calculation			\$4,306,129.00	
<b>Mobilize DB 4000</b>	<b>800.00</b>	<b>6.78%</b>	<b>\$7,560,000.00</b>	<b>5.68%</b>
Derrick Barge 4000			\$7,560,000.00	
<b>Mobilize CB 400 &amp; Tug</b>	<b>25.60</b>	<b>0.22%</b>	<b>\$554,400.00</b>	<b>0.42%</b>
Rig Up CB 400			\$196,000.00	
CB 400 & Tug			\$358,400.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Heritage MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize Dive Spread</b>		<b>11.80</b>	<b>0.10%</b>	<b>\$53,336.00</b>	<b>0.04%</b>
Work Boat	\$5,900.00				
Dive Basic Spread Saturation	\$37,347.00				
Abrasive Cutter Spread	\$7,375.00				
Pipeline Survey	\$2,714.00				
<b>Setup Derrick Barge</b>		<b>6.75</b>	<b>0.06%</b>	<b>\$108,810.00</b>	<b>0.08%</b>
Derrick Barge 4000	\$70,875.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
Rem. Operated Vehicle	\$10,800.00				
<b>Cut Deck/Equip/Misc</b>		<b>24.00</b>	<b>0.20%</b>	<b>\$410,400.00</b>	<b>0.31%</b>
Derrick Barge 4000	\$252,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
Rem. Operated Vehicle	\$38,400.00				
<b>Remove Equipment</b>		<b>24.00</b>	<b>0.20%</b>	<b>\$410,400.00</b>	<b>0.31%</b>
Derrick Barge 4000	\$252,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
Rem. Operated Vehicle	\$38,400.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Heritage MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove 8 Pile Deck</b>		<b>120.00</b>	<b>1.02%</b>	<b>\$2,052,000.00</b>	<b>1.54%</b>
Derrick Barge 4000	\$1,260,000.00				
Dive Basic Spread Saturation	\$379,800.00				
Pipeline Survey	\$27,600.00				
Abrasive Cutter Spread	\$75,000.00				
CB 300 & Tug	\$117,600.00				
Rem. Operated Vehicle	\$192,000.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>0.00</b>	<b>0.00%</b>	<b>\$0.00</b>	<b>0.00%</b>
Derrick Barge 4000	\$0.00				
Dive Basic Spread Saturation	\$0.00				
Pipeline Survey	\$0.00				
Abrasive Cutter Spread	\$0.00				
CB 400 & Tug	\$0.00				
Rem. Operated Vehicle	\$0.00				
<b>Sever Piles- Abrasive</b>		<b>284.66</b>	<b>2.41%</b>	<b>\$5,238,879.24</b>	<b>3.94%</b>
Derrick Barge 4000	\$2,988,930.00				
Dive Basic Spread Saturation	\$900,948.94				
Pipeline Survey	\$65,471.80				
Abrasive Cutter Spread	\$177,912.50				
CB 400 & Tug	\$284,660.00				
Pile Abrasive Cut 70 to 96 inches	\$365,500.00				
Rem. Operated Vehicle	\$455,456.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Heritage MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Cut Jacket</b>		<b>1032.00</b>	<b>8.75%</b>	<b>\$17,836,888.00</b>	<b>13.41%</b>
Derrick Barge 4000	\$10,836,000.00				
Dive Basic Spread Saturation	\$3,266,280.00				
Pipeline Survey	\$237,360.00				
Abrasive Cutter Spread	\$645,000.00				
CB 400 & Tug	\$1,032,000.00				
Pile Abrasive Cut 7 to 48 inches	\$169,048.00				
Rem. Operated Vehicle	\$1,651,200.00				
<b>Remove Jacket - Meth 1</b>		<b>1032.00</b>	<b>8.75%</b>	<b>\$17,667,840.00</b>	<b>13.28%</b>
Derrick Barge 4000	\$10,836,000.00				
Dive Basic Spread Saturation	\$3,266,280.00				
Pipeline Survey	\$237,360.00				
Abrasive Cutter Spread	\$645,000.00				
CB 400 & Tug	\$1,032,000.00				
Rem. Operated Vehicle	\$1,651,200.00				
<b>Demob CB 400 &amp; Tug</b>		<b>25.60</b>	<b>0.22%</b>	<b>\$358,400.00</b>	<b>0.27%</b>
CB 400 & Tug	\$358,400.00				
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.06%</b>	<b>\$108,810.00</b>	<b>0.08%</b>
Derrick Barge 4000	\$70,875.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
Rem. Operated Vehicle	\$10,800.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Heritage MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Demob Dive Spread</b>	<b>11.80</b>	<b>0.10%</b>	<b>\$53,336.00</b>	<b>0.04%</b>
Work Boat			\$5,900.00	
Dive Basic Spread Saturation			\$37,347.00	
Abrasive Cutter Spread			\$7,375.00	
Pipeline Survey			\$2,714.00	
<b>Demob DB 4000</b>	<b>800.00</b>	<b>6.78%</b>	<b>\$7,560,000.00</b>	<b>5.68%</b>
Derrick Barge 4000			\$7,560,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>0.61%</b>	<b>\$1,282,000.00</b>	<b>0.96%</b>
Manual Calculation			\$1,282,000.00	
<b>Offload CB 400</b>	<b>6864.00</b>	<b>58.18%</b>	<b>\$2,064,640.00</b>	<b>1.55%</b>
Cargo Barge 400			\$1,784,640.00	
CB Damage Deduct			\$280,000.00	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$13,984.00</b>	<b>0.01%</b>
Manual Calculation			\$1,833.00	
Manual Calculation			\$703.00	
Manual Calculation			\$8,000.00	
Manual Calculation			\$3,448.00	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$4,256,258.00</b>	<b>3.20%</b>
Manual Calculation			\$4,256,258.00	
<b>Total</b>	<b>11145.96</b>	<b>94.48%</b>	<b>\$93,064,832.24</b>	<b>69.97%</b>



## MMS

### Pipeline Information

#### Heritage MMS POCS 29056 (Ver1) Segment#:58101

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### General Data

Water Depth: 1075'  
Origin / Terminus: Origin  
Opposite End Name: Harmony  
Opposite End Water Depth: 1198'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 20"	Wall Thickness:	Length: 38223'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to the Harmony Platform.  
It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Heritage MMS POCS 29056 (Ver1) Segment#:59201

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### General Data

Water Depth: 1075'  
Origin / Terminus: Origin  
Opposite End Name: Harmony  
Opposite End Water Depth: 1198'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 12"	Wall Thickness:	Length: 36496'
Depth of Burial:	# Crossings:	Product: GAS
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to the Harmony Platform.  
It is estimated as abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**Heritage MMS POCS 29056 (Ver 1) Segment#:5810182**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Dive Boat		<input type="checkbox"/>	140.00	28.69%	\$462,000.00	23.79%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.61%	\$39,239.50	2.02%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.02%	\$23,732.50	1.22%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	75.00	15.37%	\$355,987.50	18.33%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.41%	\$9,493.00	0.49%
Expose Pipeline		<input checked="" type="checkbox"/>	11.75	2.41%	\$55,771.38	2.87%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.75	2.41%	\$55,771.38	2.87%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.83	1.60%	\$37,165.09	1.91%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.83	1.60%	\$37,165.09	1.91%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.61%	\$14,239.50	0.73%
Expose Pipeline		<input checked="" type="checkbox"/>	11.75	2.41%	\$55,771.38	2.87%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.75	2.41%	\$55,771.38	2.87%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.83	1.60%	\$37,165.09	1.91%
Bury Pipeline		<input checked="" type="checkbox"/>	7.83	1.60%	\$37,165.09	1.91%
Demob Dive Boat		<input type="checkbox"/>	140.00	28.69%	\$462,000.00	23.79%
<b>Task Total</b>			<b>446.32</b>	<b>91.48%</b>	<b>\$1,738,437.88</b>	<b>89.52%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>24.95</b>	<b>5.11%</b>	<b>\$122,165.69</b>	<b>6.29%</b>
<b>Other Contingency (10.00%)</b>			<b>16.63</b>	<b>3.41%</b>	<b>\$81,443.79</b>	<b>4.19%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>487.90</b>	<b>100.00%</b>	<b>\$1,942,047.35</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Heritage MMS POCS 29056 (Ver 1) Segment#:5920182**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Dive Boat		<input type="checkbox"/>	140.00	32.81%	\$462,000.00	24.92%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.70%	\$39,239.50	2.12%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.17%	\$23,732.50	1.28%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	26.00	6.09%	\$123,409.00	6.66%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.47%	\$9,493.00	0.51%
Expose Pipeline		<input checked="" type="checkbox"/>	11.75	2.75%	\$55,771.38	3.01%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.75	2.75%	\$55,771.38	3.01%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.83	1.84%	\$37,165.09	2.00%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.83	1.84%	\$37,165.09	2.00%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.70%	\$14,239.50	0.77%
Expose Pipeline		<input checked="" type="checkbox"/>	11.75	2.75%	\$55,771.38	3.01%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.75	2.75%	\$55,771.38	3.01%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.83	1.84%	\$37,165.09	2.00%
Bury Pipeline		<input checked="" type="checkbox"/>	7.83	1.84%	\$37,165.09	2.00%
Demob Dive Boat		<input type="checkbox"/>	140.00	32.81%	\$664,510.00	35.85%
<b>Task Total</b>			<b>397.32</b>	<b>93.13%</b>	<b>\$1,708,369.38</b>	<b>92.15%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>17.60</b>	<b>4.12%</b>	<b>\$87,278.91</b>	<b>4.71%</b>
<b>Other Contingency (10.00%)</b>			<b>11.73</b>	<b>2.75%</b>	<b>\$58,185.94</b>	<b>3.14%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>426.65</b>	<b>100.00%</b>	<b>\$1,853,834.23</b>	<b>100.00%</b>



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Heritage MMS POCS 29056 (Ver 1) Segment#:5810**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$18,711.00	0.96%
DP Dive Boat	\$3,300.00	per Hour	\$1,472,856.00	75.84%
Manual Calculation	\$0.00	Independently Calculated	\$25,000.00	1.29%
Rem. Operated Vehicle	\$667.00	per Hour	\$221,870.88	11.42%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Heritage MMS POCS 29056 (Ver 1) Segment#:5920**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$28,948.50	1.56%
DP Dive Boat	\$3,300.00	per Hour	\$1,311,156.00	70.73%
Manual Calculation	\$0.00	Independently Calculated	\$25,000.00	1.35%
Rem. Operated Vehicle	\$667.00	per Hour	\$343,264.88	18.52%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Heritage MMS POCS 29056 (Ver 1) Segment#:5810**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>140.00 28.69%</b>	<b>\$462,000.00 23.79%</b>
DP Dive Boat		\$462,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.61%</b>	<b>\$39,239.50 2.02%</b>
DP Dive Boat		\$9,900.00
Decommissioning Crew		\$337.50
Rem. Operated Vehicle		\$4,002.00
Manual Calculation		\$25,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.02%</b>	<b>\$23,732.50 1.22%</b>
DP Dive Boat		\$16,500.00
Decommissioning Crew		\$562.50
Rem. Operated Vehicle		\$6,670.00
<b>Pig &amp; Flush Pipeline</b>	<b>75.00 15.37%</b>	<b>\$355,987.50 18.33%</b>
DP Dive Boat		\$247,500.00
Decommissioning Crew		\$8,437.50
Rem. Operated Vehicle		\$100,050.00
<b>Derig Decomm Equipment</b>	<b>2.00 0.41%</b>	<b>\$9,493.00 0.49%</b>
DP Dive Boat		\$6,600.00
Decommissioning Crew		\$225.00
Rem. Operated Vehicle		\$2,668.00
<b>Expose Pipeline</b>	<b>11.75 2.41%</b>	<b>\$55,771.38 2.87%</b>
DP Dive Boat		\$38,775.00
Decommissioning Crew		\$1,321.88
Rem. Operated Vehicle		\$15,674.50
<b>Cut &amp; Plug Pipeline</b>	<b>11.75 2.41%</b>	<b>\$55,771.38 2.87%</b>
DP Dive Boat		\$38,775.00
Decommissioning Crew		\$1,321.88
Rem. Operated Vehicle		\$15,674.50



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>7.83</b>	<b>1.60%</b>	<b>\$37,165.09</b>	<b>1.91%</b>
DP Dive Boat	\$25,839.00				
Decommissioning Crew	\$880.87				
Rem. Operated Vehicle	\$10,445.22				
<b>Remove Tube Turn</b>		<b>7.83</b>	<b>1.60%</b>	<b>\$37,165.09</b>	<b>1.91%</b>
DP Dive Boat	\$25,839.00				
Decommissioning Crew	\$880.87				
Rem. Operated Vehicle	\$10,445.22				
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.61%</b>	<b>\$14,239.50</b>	<b>0.73%</b>
DP Dive Boat	\$9,900.00				
Decommissioning Crew	\$337.50				
Rem. Operated Vehicle	\$4,002.00				
<b>Expose Pipeline</b>		<b>11.75</b>	<b>2.41%</b>	<b>\$55,771.38</b>	<b>2.87%</b>
DP Dive Boat	\$38,775.00				
Decommissioning Crew	\$1,321.88				
Rem. Operated Vehicle	\$15,674.50				
<b>Cut &amp; Plug Pipeline</b>		<b>11.75</b>	<b>2.41%</b>	<b>\$55,771.38</b>	<b>2.87%</b>
DP Dive Boat	\$38,775.00				
Decommissioning Crew	\$1,321.88				
Rem. Operated Vehicle	\$15,674.50				
<b>Remove Tube Turn</b>		<b>7.83</b>	<b>1.60%</b>	<b>\$37,165.09</b>	<b>1.91%</b>
DP Dive Boat	\$25,839.00				
Decommissioning Crew	\$880.87				
Rem. Operated Vehicle	\$10,445.22				
<b>Bury Pipeline</b>		<b>7.83</b>	<b>1.60%</b>	<b>\$37,165.09</b>	<b>1.91%</b>
DP Dive Boat	\$25,839.00				
Decommissioning Crew	\$880.87				
Rem. Operated Vehicle	\$10,445.22				
<b>Demob Dive Boat</b>		<b>140.00</b>	<b>28.69%</b>	<b>\$462,000.00</b>	<b>23.79%</b>
DP Dive Boat	\$462,000.00				
		<b>Total</b>	<b>446.32 91.48%</b>	<b>\$1,738,437.88</b>	<b>89.52%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Heritage MMS POCS 29056 (Ver 1) Segment#:5920**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>140.00 32.81%</b>	<b>\$462,000.00 24.92%</b>
DP Dive Boat		\$462,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.70%</b>	<b>\$39,239.50 2.12%</b>
DP Dive Boat		\$9,900.00
Decommissioning Crew		\$337.50
Rem. Operated Vehicle		\$4,002.00
Manual Calculation		\$25,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.17%</b>	<b>\$23,732.50 1.28%</b>
DP Dive Boat		\$16,500.00
Decommissioning Crew		\$562.50
Rem. Operated Vehicle		\$6,670.00
<b>Pig &amp; Flush Pipeline</b>	<b>26.00 6.09%</b>	<b>\$123,409.00 6.66%</b>
DP Dive Boat		\$85,800.00
Decommissioning Crew		\$2,925.00
Rem. Operated Vehicle		\$34,684.00
<b>Derig Decomm Equipment</b>	<b>2.00 0.47%</b>	<b>\$9,493.00 0.51%</b>
DP Dive Boat		\$6,600.00
Decommissioning Crew		\$225.00
Rem. Operated Vehicle		\$2,668.00
<b>Expose Pipeline</b>	<b>11.75 2.75%</b>	<b>\$55,771.38 3.01%</b>
DP Dive Boat		\$38,775.00
Decommissioning Crew		\$1,321.88
Rem. Operated Vehicle		\$15,674.50
<b>Cut &amp; Plug Pipeline</b>	<b>11.75 2.75%</b>	<b>\$55,771.38 3.01%</b>
DP Dive Boat		\$38,775.00
Decommissioning Crew		\$1,321.88
Rem. Operated Vehicle		\$15,674.50



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>7.83</b>	<b>1.84%</b>	<b>\$37,165.09</b>	<b>2.00%</b>
DP Dive Boat	\$25,839.00				
Decommissioning Crew	\$880.87				
Rem. Operated Vehicle	\$10,445.22				
<b>Remove Tube Turn</b>		<b>7.83</b>	<b>1.84%</b>	<b>\$37,165.09</b>	<b>2.00%</b>
DP Dive Boat	\$25,839.00				
Decommissioning Crew	\$880.87				
Rem. Operated Vehicle	\$10,445.22				
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.70%</b>	<b>\$14,239.50</b>	<b>0.77%</b>
DP Dive Boat	\$9,900.00				
Decommissioning Crew	\$337.50				
Rem. Operated Vehicle	\$4,002.00				
<b>Expose Pipeline</b>		<b>11.75</b>	<b>2.75%</b>	<b>\$55,771.38</b>	<b>3.01%</b>
DP Dive Boat	\$38,775.00				
Decommissioning Crew	\$1,321.88				
Rem. Operated Vehicle	\$15,674.50				
<b>Cut &amp; Plug Pipeline</b>		<b>11.75</b>	<b>2.75%</b>	<b>\$55,771.38</b>	<b>3.01%</b>
DP Dive Boat	\$38,775.00				
Decommissioning Crew	\$1,321.88				
Rem. Operated Vehicle	\$15,674.50				
<b>Remove Tube Turn</b>		<b>7.83</b>	<b>1.84%</b>	<b>\$37,165.09</b>	<b>2.00%</b>
DP Dive Boat	\$25,839.00				
Decommissioning Crew	\$880.87				
Rem. Operated Vehicle	\$10,445.22				
<b>Bury Pipeline</b>		<b>7.83</b>	<b>1.84%</b>	<b>\$37,165.09</b>	<b>2.00%</b>
DP Dive Boat	\$25,839.00				
Decommissioning Crew	\$880.87				
Rem. Operated Vehicle	\$10,445.22				
<b>Demob Dive Boat</b>		<b>140.00</b>	<b>32.81%</b>	<b>\$664,510.00</b>	<b>35.85%</b>
DP Dive Boat	\$462,000.00				
Decommissioning Crew	\$15,750.00				
Rem. Operated Vehicle	\$186,760.00				
<b>Total</b>		<b>397.32</b>	<b>93.13%</b>	<b>\$1,708,369.38</b>	<b>92.15%</b>



## **MMS**

### **Well Information**

#### **Heritage MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:                      Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:              15.00%

Weather Contingency %:                      10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Exxon Mobil Corporation	100.00%

### **Well Data**

	<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
Tubing:			
Production Casing:			
Liner:			
Protective Casing:			
Surface Casing:			
Drive Pipe:			
Caisson:			
Perforated Depth:			

### **Comments**



**MMS**

**Well Decommission Task Information**

**Heritage MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	10,241,356.00 80.00%
		<b>Task Total</b>	0.00	10,241,356.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$1,536,203.46 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$1,024,135.62 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	12,801,695.08 100.00%



# **MMS**

## **Well Decommission Resources Breakdown**

### **Heritage MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$10,241,356.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**Heritage MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$10,241,356.00</b>	<b>80.00%</b>	
Manual Calculation			\$10,241,356.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$10,241,356.00</b>	<b>80.00%</b>

**Hermosa MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Hermosa MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

-Platform Hermosa will be removed along with Platforms Harvest, Hidalgo, Gail and Grace.

-Platform Hermosa is an 8-pile platform installed in 1985 in 603' of water.

-The estimated removal weight is the deck weight is 7,830 tons and the jacket weight is 17,000 tons.

-The platform has a total of 13 wells that will be plugged and abandoned.

-The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR

-Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.

-A total of 16 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.

-The platform topsides and jacket will be removed by a DB 4000 that will be mobilized from the GOM or North Sea. The total mob/demob time will be 200 days.

-The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.

-Four 300' cargo barges will transport the deck modules to shore and six 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 10 cargo barge trips will be required.

-The two pipelines (oil, gas) on the OCS will be totally removed to the state water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total



## **MMS**

### **Platform Salvage Option**

#### **Hermosa MMS POCS 29056 (Ver 1)**

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mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Huenem Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 15% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix 1 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management,



## **MMS**

### **Platform Salvage Option**

#### **Hermosa MMS POCS 29056 (Ver 1)**

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Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$80,351,470

Estimated Decommissioning Net Cost = \$80,351,470



## **MMS**

### **Basic Information**

#### **Hermosa MMS POCS 29056 (Ver 1)**

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#### **General Data**

Platform: Hermosa MMS POCS 29056  
 Function: SELF CONTAINED  
 Type: Steel  
 Water Depth: 603'  
 Pre 461H?: No  
 Year Installed: 1985  
 Year Estimate Developed: 2009  
 District: California  
 Lease Number: OCS-P 0316  
 Account Code: TSB - 29056  
 Amortization: 1.00  
 # Wells to P & A: 13  
 # Pipelines to Abandon: 2  
 Estimate Complete?: Yes

#### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Plains Exploration & Production Company	100.00%

#### **Estimated Costs**

	<b>Gross Cost</b>	<b>Net Cost</b>
Platform Removal:	\$72,606,072	\$72,606,072
Well Plugging & Abandonment:	\$3,302,047	\$3,302,047
Pipeline Abandonment:	\$4,443,351	\$4,443,351
Total Decommissioning Cost:	\$80,351,470	\$80,351,470



## MMS

### Platform Information

### Hermosa MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	8	60"		Yes	No	
Skirt/Braced	8	72"		No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:		
Middle:		
Lower:		

### Conductors

Number of Slots:	48
Number Installed:	16
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	17000.00		
Jacket Installation Date:	1/1/1985		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	7830 Tons
Number of Padeyes Required:	0
Deck Installation Date:	1/1/1985
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

#### **Hermosa MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 300 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	0.00
Provision for Misc. Work%:	15.00%
Weather Contingency%:	15.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$10,788,108.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Hermosa MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$3,539,419.00	4.87%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.01%	\$511,000.00	0.70%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.01%	\$8,391.00	0.01%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.01%	\$2,840,279.00	3.91%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.01%	\$3,900,383.00	5.37%
Mobilize DB 4000	Mob from GOM or North Sea, 100 days divided by 5 platforms	<input type="checkbox"/>	480.00	4.96%	\$4,536,000.00	6.25%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 4)	<input type="checkbox"/>	36.00	0.37%	\$197,120.00	0.27%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 6)	<input type="checkbox"/>	36.00	0.37%	\$300,000.00	0.41%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	17.00	0.18%	\$76,840.00	0.11%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.07%	\$108,810.00	0.15%
Cut Deck/Equip/Misc	Seperate 8 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	0.25%	\$410,400.00	0.57%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.25%	\$410,400.00	0.57%
Remove 8 Pile Deck	Remove 8 Pile Deck, 8 modules	<input checked="" type="checkbox"/>	48.00	0.50%	\$820,800.00	1.13%
Demob CB 300 & Tug	Demob to Port of LA (Qty 4)	<input type="checkbox"/>	36.00	0.37%	\$141,120.00	0.19%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	35.00	0.36%	\$599,200.00	0.83%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	114.90	1.19%	\$2,139,088.00	2.95%
Cut Jacket	39 Hours per section, times 17 section(s), per MMS	<input checked="" type="checkbox"/>	660.00	6.82%	\$11,378,752.00	15.67%
Remove Jacket - Meth 1	39 Hours per section, times 17 section(s), per MMS	<input checked="" type="checkbox"/>	660.00	6.82%	\$11,299,200.00	15.56%
Demob CB 400 & Tug	Demob to Port of LA (Qty 6)	<input type="checkbox"/>	36.00	0.37%	\$216,000.00	0.30%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.07%	\$108,810.00	0.15%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	17.00	0.18%	\$76,840.00	0.11%
Demob DB 4000	Demob to GOM or North Sea, 100 days divided by 5 platforms	<input type="checkbox"/>	480.00	4.96%	\$4,536,000.00	6.25%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	0.74%	\$1,282,000.00	1.77%
Offload CB 300		<input type="checkbox"/>	1392.00	14.39%	\$365,360.00	0.50%
Offload CB 400		<input type="checkbox"/>	4992.00	51.60%	\$1,417,920.00	1.95%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.01%	\$8,391.00	0.01%
<b>Task Total</b>			9178.40	94.87%	\$1,228,523.00	70.56%
<b>Misc. Work Provision (15.00%)</b>			248.01	2.56%	\$5,294,719.00	7.29%
<b>Weather Contingency (15.00%)</b>			248.01	2.56%	\$5,294,719.00	7.29%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$10,788,110.00	14.86%



**MMS**

**Platform Decommission Task Information**

**Hermosa MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		<b>Structure &amp; Equipment Disposal</b>		\$0.00	0.00%
		<b>Offloading</b>		\$0.00	0.00%
		<b>Storage / Scrapping</b>		\$0.00	0.00%
		<b>Reef Donation</b>		\$0.00	0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00	0.00%
			<b>Total:</b>	9674.42	100.00%
				172,606,071.00	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Hermosa MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$1,008,375.00	1.39%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$285,360.00	0.39%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$1,297,920.00	1.79%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$376,320.00	0.52%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$1,901,900.00	2.62%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$200,000.00	0.28%
Derrick Barge 4000	\$10,500.00	per Hour per barge	25,655,700.00	35.34%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$5,106,411.00	7.03%
Manual Calculation	\$0.00	Independently Calculated	12,089,863.00	16.65%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$79,552.00	0.11%
Pile Abrasive Cut 70 to 96 inches	\$5,375.00	per Cut	\$172,000.00	0.24%
Pipeline Survey	\$230.00	per Hour	\$371,082.00	0.51%
Rem. Operated Vehicle	\$800.00	per Hour	\$2,527,040.00	3.48%
Rig Up CB 300	\$14,000.00	per Barge	\$56,000.00	0.08%
Rig Up CB 400	\$14,000.00	per Barge	\$84,000.00	0.12%
Work Boat	\$500.00	per Hour	\$17,000.00	0.02%



**MMS**

**Platform Decommission Cost Breakdown**

**Hermosa MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00 0.00%</b>	<b>\$3,539,419.00 4.87%</b>
Manual Calculation		\$3,539,419.00
<b>NMFS Marine Observation</b>	<b>1.00 0.01%</b>	<b>\$511,000.00 0.70%</b>
Manual Calculation		\$511,000.00
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00 0.01%</b>	<b>\$8,391.00 0.01%</b>
Manual Calculation		\$1,100.00
Manual Calculation		\$422.00
Manual Calculation		\$4,800.00
Manual Calculation		\$2,069.00
<b>Sever Conductors- Abrasive</b>	<b>1.00 0.01%</b>	<b>\$2,840,279.00 3.91%</b>
Manual Calculation		\$2,840,279.00
<b>Platform Removal Preparation</b>	<b>1.00 0.01%</b>	<b>\$3,900,383.00 5.37%</b>
Manual Calculation		\$3,900,383.00
<b>Mobilize DB 4000</b>	<b>480.00 4.96%</b>	<b>\$4,536,000.00 6.25%</b>
Derrick Barge 4000		\$4,536,000.00
<b>Mobilize CB 300 &amp; Tug</b>	<b>36.00 0.37%</b>	<b>\$197,120.00 0.27%</b>
CB 300 & Tug		\$141,120.00
Rig Up CB 300		\$56,000.00



**MMS**

**Platform Decommission Cost Breakdown**

**Hermosa MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize CB 400 &amp; Tug</b>	<b>36.00</b>	<b>0.37%</b>	<b>\$300,000.00</b>	<b>0.41%</b>
Rig Up CB 400			\$84,000.00	
CB 400 & Tug			\$216,000.00	
<b>Mobilize Dive Spread</b>	<b>17.00</b>	<b>0.18%</b>	<b>\$76,840.00</b>	<b>0.11%</b>
Work Boat			\$8,500.00	
Dive Basic Spread Saturation			\$53,805.00	
Abrasive Cutter Spread			\$10,625.00	
Pipeline Survey			\$3,910.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.07%</b>	<b>\$108,810.00</b>	<b>0.15%</b>
Derrick Barge 4000			\$70,875.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
Rem. Operated Vehicle			\$10,800.00	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>0.25%</b>	<b>\$410,400.00</b>	<b>0.57%</b>
Derrick Barge 4000			\$252,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	
Rem. Operated Vehicle			\$38,400.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Hermosa MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>24.00</b>	<b>0.25%</b>	<b>\$410,400.00</b>	<b>0.57%</b>
Derrick Barge 4000	\$252,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
Rem. Operated Vehicle	\$38,400.00				
<b>Remove 8 Pile Deck</b>		<b>48.00</b>	<b>0.50%</b>	<b>\$820,800.00</b>	<b>1.13%</b>
Derrick Barge 4000	\$504,000.00				
Dive Basic Spread Saturation	\$151,920.00				
Pipeline Survey	\$11,040.00				
Abrasive Cutter Spread	\$30,000.00				
CB 300 & Tug	\$47,040.00				
Rem. Operated Vehicle	\$76,800.00				
<b>Demob CB 300 &amp; Tug</b>		<b>36.00</b>	<b>0.37%</b>	<b>\$141,120.00</b>	<b>0.19%</b>
CB 300 & Tug	\$141,120.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>35.00</b>	<b>0.36%</b>	<b>\$599,200.00</b>	<b>0.83%</b>
Derrick Barge 4000	\$367,500.00				
Dive Basic Spread Saturation	\$110,775.00				
Pipeline Survey	\$8,050.00				
Abrasive Cutter Spread	\$21,875.00				
CB 400 & Tug	\$35,000.00				
Rem. Operated Vehicle	\$56,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Hermosa MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>		<b>114.90</b>	<b>1.19%</b>	<b>\$2,139,088.00</b>	<b>2.95%</b>
Derrick Barge 4000	\$1,206,450.00				
Dive Basic Spread Saturation	\$363,658.50				
Pipeline Survey	\$26,427.00				
Abrasive Cutter Spread	\$71,812.50				
CB 400 & Tug	\$114,900.00				
Pile Abrasive Cut 70 to 96 inches	\$172,000.00				
Rem. Operated Vehicle	\$183,840.00				
<b>Cut Jacket</b>		<b>660.00</b>	<b>6.82%</b>	<b>\$11,378,752.00</b>	<b>15.67%</b>
Derrick Barge 4000	\$6,930,000.00				
Dive Basic Spread Saturation	\$2,088,900.00				
Pipeline Survey	\$151,800.00				
Abrasive Cutter Spread	\$412,500.00				
CB 400 & Tug	\$660,000.00				
Pile Abrasive Cut 7 to 48 inches	\$79,552.00				
Rem. Operated Vehicle	\$1,056,000.00				
<b>Remove Jacket - Meth 1</b>		<b>660.00</b>	<b>6.82%</b>	<b>\$11,299,200.00</b>	<b>15.56%</b>
Derrick Barge 4000	\$6,930,000.00				
Dive Basic Spread Saturation	\$2,088,900.00				
Pipeline Survey	\$151,800.00				
Abrasive Cutter Spread	\$412,500.00				
CB 400 & Tug	\$660,000.00				
Rem. Operated Vehicle	\$1,056,000.00				
<b>Demob CB 400 &amp; Tug</b>		<b>36.00</b>	<b>0.37%</b>	<b>\$216,000.00</b>	<b>0.30%</b>
CB 400 & Tug	\$216,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Hermosa MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.07%</b>	<b>\$108,810.00</b>	<b>0.15%</b>
Derrick Barge 4000	\$70,875.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
Rem. Operated Vehicle	\$10,800.00				
<b>Demob Dive Spread</b>		<b>17.00</b>	<b>0.18%</b>	<b>\$76,840.00</b>	<b>0.11%</b>
Work Boat	\$8,500.00				
Dive Basic Spread Saturation	\$53,805.00				
Abrasive Cutter Spread	\$10,625.00				
Pipeline Survey	\$3,910.00				
<b>Demob DB 4000</b>		<b>480.00</b>	<b>4.96%</b>	<b>\$4,536,000.00</b>	<b>6.25%</b>
Derrick Barge 4000	\$4,536,000.00				
<b>Site Clearance - with Divers</b>		<b>72.00</b>	<b>0.74%</b>	<b>\$1,282,000.00</b>	<b>1.77%</b>
Manual Calculation	\$1,282,000.00				
<b>Offload CB 300</b>		<b>1392.00</b>	<b>14.39%</b>	<b>\$365,360.00</b>	<b>0.50%</b>
Cargo Barge 300	\$285,360.00				
CB Damage Deduct	\$80,000.00				
<b>Offload CB 400</b>		<b>4992.00</b>	<b>51.60%</b>	<b>\$1,417,920.00</b>	<b>1.95%</b>
Cargo Barge 400	\$1,297,920.00				
CB Damage Deduct	\$120,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Hermosa MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$8,391.00</b>	<b>0.01%</b>
Manual Calculation			\$1,100.00	
Manual Calculation			\$422.00	
Manual Calculation			\$4,800.00	
Manual Calculation			\$2,069.00	
	<b>Total</b>	<b>9178.40 94.87%</b>	<b>\$51,228,523.00 70.56%</b>	



## MMS

### Pipeline Information

#### Hermosa MMS POCS 29056 (Ver1) Segment#:4410

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#### General Data

Water Depth: 603'  
Origin / Terminus: Origin  
Opposite End Name: Gaviota  
Opposite End Water Depth:  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 15.00%

#### Pipeline Data

Outside Diameter: 24"	Wall Thickness:	Length: 31700'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to the Gaviota Onshore facility.  
Pipeline is estimated to be removed between <200' WD and to state waters.  
Estimated Length in this estimate ~3000'



## MMS

### Pipeline Information

#### Hermosa MMS POCS 29056 (Ver1) Segment#:4520

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### General Data

Water Depth: 603'  
Origin / Terminus: Origin  
Opposite End Name: Gaviota  
Opposite End Water Depth:  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 15.00%

### Pipeline Data

Outside Diameter: 20"	Wall Thickness:	Length: 31700'
Depth of Burial:	# Crossings:	Product: GAS
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to the Gaviota Onshore facility.  
Pipeline is estimated to be removed from <200' WD and to state waters.  
Estimated Length in this estimate ~3000'



**MMS**

**Pipeline Decommission Task Information**

**Hermosa MMS POCS 29056 (Ver 1) Segment#:4410316-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Dive Boat	To Hermosa	<input type="checkbox"/>	80.00	11.49%	\$264,000.00	11.61%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.72%	\$44,037.50	1.94%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	90.00	12.93%	\$612,675.00	26.95%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	1.66%	\$78,626.63	3.46%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	1.11%	\$52,417.75	2.31%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	1.11%	\$52,417.75	2.31%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	1.11%	\$52,417.75	2.31%
Demob Dive Boat		<input checked="" type="checkbox"/>	80.00	11.49%	\$264,000.00	11.61%
Mob P/L Removal Spread	Relocate to a point along the pipeline where the water depth is 200'	<input type="checkbox"/>	17.00	2.44%	\$61,523.00	2.71%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	1.66%	\$41,799.45	1.84%
Cut & Plug Pipeline	Plug the upstream end going To Hermosa	<input checked="" type="checkbox"/>	11.55	1.66%	\$41,799.45	1.84%
Bury Pipeline	Bury the upstream end going To Hermosa	<input checked="" type="checkbox"/>	7.70	1.11%	\$27,866.30	1.23%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	1.66%	\$41,799.45	1.84%
Remove Pipeline		<input checked="" type="checkbox"/>	20.00	2.87%	\$72,380.00	3.18%
Bury Pipeline	Bury the end going to shore	<input checked="" type="checkbox"/>	7.70	1.11%	\$27,866.30	1.23%
Demob P/L Removal Spread		<input type="checkbox"/>	17.00	2.44%	\$61,523.00	2.71%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	24.14%	\$41,000.00	1.80%
<b>Task Total</b>			561.70	80.70%	\$1,838,149.33	80.85%
<b>Misc. Work Provision (15.00%)</b>			67.16	9.65%	\$217,665.51	9.57%
<b>Other Contingency (15.00%)</b>			67.16	9.65%	\$217,665.51	9.57%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			696.01	100.00%	\$2,273,480.34	100.00%



**MMS**

**Pipeline Decommission Task Information**

**Hermosa MMS POCS 29056 (Ver 1) Segment#:4520316-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Dive Boat	To Hermosa	<input type="checkbox"/>	80.00	14.23%	\$264,000.00	12.17%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.89%	\$44,037.50	2.03%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	80.00	14.23%	\$544,600.00	25.10%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	2.05%	\$78,626.63	3.62%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	1.37%	\$52,417.75	2.42%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	1.37%	\$52,417.75	2.42%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	1.37%	\$52,417.75	2.42%
Demob Dive Boat		<input checked="" type="checkbox"/>	80.00	14.23%	\$264,000.00	12.17%
Mob P/L Removal Spread	Relocate to a point along the pipeline where the water depth is 200'	<input type="checkbox"/>	17.00	3.02%	\$61,523.00	2.84%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	2.05%	\$41,799.45	1.93%
Cut & Plug Pipeline	Plug the upstream end going To Hermosa	<input checked="" type="checkbox"/>	11.55	2.05%	\$41,799.45	1.93%
Bury Pipeline	Bury the upstream end going To Hermosa	<input checked="" type="checkbox"/>	7.70	1.37%	\$27,866.30	1.28%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	2.05%	\$41,799.45	1.93%
Remove Pipeline		<input checked="" type="checkbox"/>	20.00	3.56%	\$72,380.00	3.34%
Bury Pipeline	Bury the end going to shore	<input checked="" type="checkbox"/>	7.70	1.37%	\$27,866.30	1.28%
Demob P/L Removal Spread		<input type="checkbox"/>	17.00	3.02%	\$61,523.00	2.84%
Offload CB 180		<input checked="" type="checkbox"/>	75.00	13.34%	\$29,375.00	1.35%
<b>Task Total</b>			458.70	81.60%	\$1,758,449.33	81.04%
<b>Misc. Work Provision (15.00%)</b>			51.71	9.20%	\$205,710.51	9.48%
<b>Other Contingency (15.00%)</b>			51.71	9.20%	\$205,710.51	9.48%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			562.11	100.00%	\$2,169,870.34	100.00%



TWACHTMAN SNYDER & BYRD, INC.

## MMS

### Pipeline Decommission Resources Breakdown

#### Hermosa MMS POCS 29056 (Ver 1) Segment#:441

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	0.92%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$57,227.50	2.52%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	0.88%
Decommissioning Crew	\$0.00	Calculated from tables	\$14,585.63	0.64%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$410,342.25	18.05%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$92,084.25	4.05%
DP Dive Boat	\$3,300.00	per Hour	\$955,845.00	42.04%
Manual Calculation	\$0.00	Independently Calculated	\$10,000.00	0.44%
Pipelay Barge	\$1,954.00	per Hour	\$203,313.70	8.94%
Pipeline Surveying	\$230.00	per Hour	\$53,751.00	2.36%



TWACHTMAN SNYDER & BYRD, INC.

## MMS

### Pipeline Decommission Resources Breakdown

#### Hermosa MMS POCS 29056 (Ver 1) Segment#:452

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$9,375.00	0.43%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$57,227.50	2.64%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	0.92%
Decommissioning Crew	\$0.00	Calculated from tables	\$13,460.63	0.62%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$378,692.25	17.45%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$92,084.25	4.24%
DP Dive Boat	\$3,300.00	per Hour	\$922,845.00	42.53%
Manual Calculation	\$0.00	Independently Calculated	\$10,000.00	0.46%
Pipelay Barge	\$1,954.00	per Hour	\$203,313.70	9.37%
Pipeline Surveying	\$230.00	per Hour	\$51,451.00	2.37%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hermosa MMS POCS 29056 (Ver 1) Segment#:4410**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>80.00 11.49%</b>	<b>\$264,000.00 11.61%</b>
DP Dive Boat		\$264,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.72%</b>	<b>\$44,037.50 1.94%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
Manual Calculation		\$10,000.00
<b>Pig &amp; Flush Pipeline</b>	<b>90.00 12.93%</b>	<b>\$612,675.00 26.95%</b>
DP Dive Boat		\$297,000.00
Dive Basic Spread Saturation		\$284,850.00
Decommissioning Crew		\$10,125.00
Pipeline Surveying		\$20,700.00
<b>Cut &amp; Plug Pipeline</b>	<b>11.55 1.66%</b>	<b>\$78,626.63 3.46%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50
<b>Cut Pipeline Riser</b>	<b>7.70 1.11%</b>	<b>\$52,417.75 2.31%</b>
DP Dive Boat		\$25,410.00
Dive Basic Spread Saturation		\$24,370.50
Decommissioning Crew		\$866.25
Pipeline Surveying		\$1,771.00
<b>Remove Tube Turn</b>	<b>7.70 1.11%</b>	<b>\$52,417.75 2.31%</b>
DP Dive Boat		\$25,410.00
Dive Basic Spread Saturation		\$24,370.50
Decommissioning Crew		\$866.25
Pipeline Surveying		\$1,771.00



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.11%</b>	<b>\$52,417.75</b>	<b>2.31%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<hr/>					
<b>Demob Dive Boat</b>		<b>80.00</b>	<b>11.49%</b>	<b>\$264,000.00</b>	<b>11.61%</b>
DP Dive Boat	\$264,000.00				
<hr/>					
<b>Mob P/L Removal Spread</b>		<b>17.00</b>	<b>2.44%</b>	<b>\$61,523.00</b>	<b>2.71%</b>
Pipeline Surveying	\$3,910.00				
Dive Basic Spread- Mixed Gas	\$15,045.00				
Pipelay Barge	\$33,218.00				
CB 180 & Tug	\$9,350.00				
<hr/>					
<b>Expose Pipeline</b>		<b>11.55</b>	<b>1.66%</b>	<b>\$41,799.45</b>	<b>1.84%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>1.66%</b>	<b>\$41,799.45</b>	<b>1.84%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
<hr/>					
<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.11%</b>	<b>\$27,866.30</b>	<b>1.23%</b>
Pipeline Surveying	\$1,771.00				
Dive Basic Spread- Mixed Gas	\$6,814.50				
Pipelay Barge	\$15,045.80				
CB 180 & Tug	\$4,235.00				
<hr/>					
<b>Expose Pipeline</b>		<b>11.55</b>	<b>1.66%</b>	<b>\$41,799.45</b>	<b>1.84%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
<hr/>					



## MMS

### Pipeline Decommission Cost Breakdown

<b>Remove Pipeline</b>		<b>20.00</b>	<b>2.87%</b>	<b>\$72,380.00</b>	<b>3.18%</b>	
Pipeline Surveying	\$4,600.00					
Dive Basic Spread- Mixed Gas	\$17,700.00					
Pipelay Barge	\$39,080.00					
CB 180 & Tug	\$11,000.00					
<hr/>						
<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.11%</b>	<b>\$27,866.30</b>	<b>1.23%</b>	
Pipeline Surveying	\$1,771.00					
Dive Basic Spread- Mixed Gas	\$6,814.50					
Pipelay Barge	\$15,045.80					
CB 180 & Tug	\$4,235.00					
<hr/>						
<b>Demob P/L Removal Spread</b>		<b>17.00</b>	<b>2.44%</b>	<b>\$61,523.00</b>	<b>2.71%</b>	
Pipeline Surveying	\$3,910.00					
Dive Basic Spread- Mixed Gas	\$15,045.00					
Pipelay Barge	\$33,218.00					
CB 180 & Tug	\$9,350.00					
<hr/>						
<b>Offload CB 180</b>		<b>168.00</b>	<b>24.14%</b>	<b>\$41,000.00</b>	<b>1.80%</b>	
Cargo Barge 180	\$21,000.00					
CB Damage Deduct	\$20,000.00					
<hr/>						
		<b>Total</b>	<b>561.70</b>	<b>80.70%</b>	<b>\$1,838,149.33</b>	<b>80.85%</b>
<hr/> <hr/>						



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hermosa MMS POCS 29056 (Ver 1) Segment#:4520**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>80.00 14.23%</b>	<b>\$264,000.00 12.17%</b>
DP Dive Boat		\$264,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.89%</b>	<b>\$44,037.50 2.03%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
Manual Calculation		\$10,000.00
<b>Pig &amp; Flush Pipeline</b>	<b>80.00 14.23%</b>	<b>\$544,600.00 25.10%</b>
DP Dive Boat		\$264,000.00
Dive Basic Spread Saturation		\$253,200.00
Decommissioning Crew		\$9,000.00
Pipeline Surveying		\$18,400.00
<b>Cut &amp; Plug Pipeline</b>	<b>11.55 2.05%</b>	<b>\$78,626.63 3.62%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50
<b>Cut Pipeline Riser</b>	<b>7.70 1.37%</b>	<b>\$52,417.75 2.42%</b>
DP Dive Boat		\$25,410.00
Dive Basic Spread Saturation		\$24,370.50
Decommissioning Crew		\$866.25
Pipeline Surveying		\$1,771.00
<b>Remove Tube Turn</b>	<b>7.70 1.37%</b>	<b>\$52,417.75 2.42%</b>
DP Dive Boat		\$25,410.00
Dive Basic Spread Saturation		\$24,370.50
Decommissioning Crew		\$866.25
Pipeline Surveying		\$1,771.00



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.37%</b>	<b>\$52,417.75</b>	<b>2.42%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<hr/>					
<b>Demob Dive Boat</b>		<b>80.00</b>	<b>14.23%</b>	<b>\$264,000.00</b>	<b>12.17%</b>
DP Dive Boat	\$264,000.00				
<hr/>					
<b>Mob P/L Removal Spread</b>		<b>17.00</b>	<b>3.02%</b>	<b>\$61,523.00</b>	<b>2.84%</b>
Pipeline Surveying	\$3,910.00				
Dive Basic Spread- Mixed Gas	\$15,045.00				
Pipelay Barge	\$33,218.00				
CB 180 & Tug	\$9,350.00				
<hr/>					
<b>Expose Pipeline</b>		<b>11.55</b>	<b>2.05%</b>	<b>\$41,799.45</b>	<b>1.93%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>2.05%</b>	<b>\$41,799.45</b>	<b>1.93%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
<hr/>					
<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.37%</b>	<b>\$27,866.30</b>	<b>1.28%</b>
Pipeline Surveying	\$1,771.00				
Dive Basic Spread- Mixed Gas	\$6,814.50				
Pipelay Barge	\$15,045.80				
CB 180 & Tug	\$4,235.00				
<hr/>					
<b>Expose Pipeline</b>		<b>11.55</b>	<b>2.05%</b>	<b>\$41,799.45</b>	<b>1.93%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
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## MMS

### Pipeline Decommission Cost Breakdown

<b>Remove Pipeline</b>		<b>20.00</b>	<b>3.56%</b>	<b>\$72,380.00</b>	<b>3.34%</b>	
Pipeline Surveying	\$4,600.00					
Dive Basic Spread- Mixed Gas	\$17,700.00					
Pipelay Barge	\$39,080.00					
CB 180 & Tug	\$11,000.00					
<hr/>						
<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.37%</b>	<b>\$27,866.30</b>	<b>1.28%</b>	
Pipeline Surveying	\$1,771.00					
Dive Basic Spread- Mixed Gas	\$6,814.50					
Pipelay Barge	\$15,045.80					
CB 180 & Tug	\$4,235.00					
<hr/>						
<b>Demob P/L Removal Spread</b>		<b>17.00</b>	<b>3.02%</b>	<b>\$61,523.00</b>	<b>2.84%</b>	
Pipeline Surveying	\$3,910.00					
Dive Basic Spread- Mixed Gas	\$15,045.00					
Pipelay Barge	\$33,218.00					
CB 180 & Tug	\$9,350.00					
<hr/>						
<b>Offload CB 180</b>		<b>75.00</b>	<b>13.34%</b>	<b>\$29,375.00</b>	<b>1.35%</b>	
Cargo Barge 180	\$9,375.00					
CB Damage Deduct	\$20,000.00					
<hr/>						
		<b>Total</b>	<b>458.70</b>	<b>81.60%</b>	<b>\$1,758,449.33</b>	<b>81.04%</b>
<hr/> <hr/>						



## **MMS**

### **Well Information**

#### **Hermosa MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           No

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:   15.00%

Weather Contingency %:       15.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Plains Exploration & Production Company	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**Hermosa MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$2,540,036.00 76.92%
		<b>Task Total</b>	0.00	\$2,540,036.00 76.92%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$381,005.42 11.54%
		<b>Other Contingency (15.00%)</b>	0.00	\$381,005.42 11.54%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$3,302,046.83 100.00%



# **MMS**

## **Well Decommission Resources Breakdown**

### **Hermosa MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$2,540,036.00 76.92%



**MMS**

**Well Decommission Cost Breakdown**

**Hermosa MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$2,540,036.00</b>	<b>76.92%</b>	
Manual Calculation			\$2,540,036.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$2,540,036.00</b>	<b>76.92%</b>

**Hidalgo MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Hidalgo MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

-Platform Hidalgo will be removed along with Platforms Harvest, Hermosa, Gail and Grace.

-Platform Hidalgo is an 8-pile platform installed in 1986 in 430' of water.

-The estimated removal weight is the deck weight is 8,100 tons and the jacket weight is 10,950 tons.

-The platform has a total of 14 wells that will be plugged and abandoned.

-The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR

-Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.

-A total of 14 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.

-The platform topsides and jacket will be removed by a DB 4000 that will be mobilized from the GOM or North Sea. The total mob/demob time will be 200 days.

-The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.

-Three 300' cargo barges will transport the deck modules to shore and six 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 9 cargo barge trips will be required.

-The two pipelines (oil, gas) on the OCS will be totally removed to the state water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total



## **MMS**

### **Platform Salvage Option**

#### **Hidalgo MMS POCS 29056 (Ver 1)**

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mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Huenem Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 15% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix 1 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management,



## **MMS**

### **Platform Salvage Option**

#### **Hidalgo MMS POCS 29056 (Ver 1)**

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Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$67,918,548

Estimated Decommissioning Net Cost = \$67,918,548



## **MMS**

### **Basic Information**

#### **Hidalgo MMS POCS 29056 (Ver 1)**

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#### **General Data**

Platform: Hidalgo MMS POCS 29056  
 Function: SELF CONTAINED  
 Type: Steel  
 Water Depth: 430'  
 Pre 461H?: No  
 Year Installed: 1986  
 Year Estimate Developed: 2009  
 District: California  
 Lease Number: OCS-P 0450  
 Account Code: TSB - 29056  
 Amortization: 1.00  
 # Wells to P & A: 14  
 # Pipelines to Abandon: 2  
 Estimate Complete?: Yes

#### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Plains Exploration & Production Company	100.00%

#### **Estimated Costs**

	<b>Gross Cost</b>	<b>Net Cost</b>
Platform Removal:	\$60,517,752	\$60,517,752
Well Plugging & Abandonment:	\$3,878,035	\$3,878,035
Pipeline Abandonment:	\$3,522,761	\$3,522,761
Total Decommissioning Cost:	\$67,918,548	\$67,918,548



## MMS

### Platform Information

### Hidalgo MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	8	60"		Yes	No	
Skirt/Braced	8	72"		No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:		
Middle:		
Lower:		

### Conductors

Number of Slots:	56
Number Installed:	14
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	10950.00		
Jacket Installation Date:	1/1/1986		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	8100 Tons
Number of Padeyes Required:	0
Deck Installation Date:	1/1/1986
Deck Contractor:	Unknown



## MMS

### Platform Information

### Hidalgo MMS POCS 29056 (Ver 1)

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### Equipment Lift Weights

### Members to be Cut Data

### Cargo Descriptions

Cargo Barge Size	Cargo Description			
CB 300 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck > 500T
CB 400 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck > 500T
CB 400 x 100	Equipment	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T

### Miscellaneous Data

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	0.00
Provision for Misc. Work%:	15.00%
Weather Contingency%:	15.00%
Engineering%:	0.00%

### Miscellaneous Cost

Consumables:	\$0.00
Waste Disposal:	\$8,259,209.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Hidalgo MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$2,968,095.00	4.90%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.01%	\$511,000.00	0.84%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.01%	\$8,391.00	0.01%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.01%	\$1,958,236.00	3.24%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.01%	\$3,302,492.00	5.46%
Mobilize DB 4000	Mob from GOM or North Sea, 100 days divided by 5 platforms	<input type="checkbox"/>	480.00	5.21%	\$4,536,000.00	7.50%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 3)	<input type="checkbox"/>	36.00	0.39%	\$147,840.00	0.24%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 6)	<input type="checkbox"/>	36.00	0.39%	\$300,000.00	0.50%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	17.00	0.18%	\$76,840.00	0.13%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.07%	\$108,810.00	0.18%
Cut Deck/Equip/Misc	Seperate 8 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	0.26%	\$410,400.00	0.68%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.26%	\$410,400.00	0.68%
Remove 8 Pile Deck	Remove 8 Pile Deck, 8 modules	<input checked="" type="checkbox"/>	72.00	0.78%	\$1,231,200.00	2.03%
Demob CB 300 & Tug	Demob to Port of LA (Qty 3)	<input type="checkbox"/>	36.00	0.39%	\$105,840.00	0.17%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	35.00	0.38%	\$599,200.00	0.99%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	114.90	1.25%	\$2,139,088.00	3.53%
Cut Jacket	45 Hours per section, times 11 section(s), per MMS	<input checked="" type="checkbox"/>	492.00	5.34%	\$8,502,592.00	14.05%
Remove Jacket - Meth 1	45 Hours per section, times 11 section(s), per MMS	<input checked="" type="checkbox"/>	492.00	5.34%	\$8,423,040.00	13.92%
Demob CB 400 & Tug	Demob to Port of LA (Qty 6)	<input type="checkbox"/>	36.00	0.39%	\$216,000.00	0.36%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.07%	\$108,810.00	0.18%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	17.00	0.18%	\$76,840.00	0.13%
Demob DB 4000	Demob to GOM or North Sea, 100 days divided by 5 platforms	<input type="checkbox"/>	480.00	5.21%	\$4,536,000.00	7.50%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	0.78%	\$1,282,000.00	2.12%
Offload CB 300		<input type="checkbox"/>	1440.00	15.62%	\$355,200.00	0.59%
Offload CB 400		<input type="checkbox"/>	4896.00	53.10%	\$1,392,960.00	2.30%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.01%	\$8,391.00	0.01%
<b>Task Total</b>			8818.40	95.64%	\$43,715,665.00	72.24%
<b>Misc. Work Provision (15.00%)</b>			201.21	2.18%	\$4,271,441.00	7.06%
<b>Weather Contingency (15.00%)</b>			201.21	2.18%	\$4,271,441.00	7.06%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$8,259,209.00	13.65%



**MMS**

**Platform Decommission Task Information**

**Hidalgo MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		<b>Structure &amp; Equipment Disposal</b>		\$0.00	0.00%
		<b>Offloading</b>		\$0.00	0.00%
		<b>Storage / Scrapping</b>		\$0.00	0.00%
		<b>Reef Donation</b>		\$0.00	0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00	0.00%
			<b>Total:</b>	9220.82	100.00%
				100.00%	60,517,756.00
				100.00%	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Hidalgo MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$813,375.00	1.34%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$295,200.00	0.49%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$1,272,960.00	2.10%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$329,280.00	0.54%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$1,565,900.00	2.59%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$180,000.00	0.30%
Derrick Barge 4000	\$10,500.00	per Hour per barge	22,379,700.00	36.98%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$4,118,931.00	6.81%
Manual Calculation	\$0.00	Independently Calculated	10,038,605.00	16.59%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$79,552.00	0.13%
Pile Abrasive Cut 70 to 96 inches	\$5,375.00	per Cut	\$172,000.00	0.28%
Pipeline Survey	\$230.00	per Hour	\$299,322.00	0.49%
Rem. Operated Vehicle	\$800.00	per Hour	\$2,027,840.00	3.35%
Rig Up CB 300	\$14,000.00	per Barge	\$42,000.00	0.07%
Rig Up CB 400	\$14,000.00	per Barge	\$84,000.00	0.14%
Work Boat	\$500.00	per Hour	\$17,000.00	0.03%



**MMS**

**Platform Decommission Cost Breakdown**

**Hidalgo MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$2,968,095.00</b>	<b>4.90%</b>
Manual Calculation			\$2,968,095.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$511,000.00</b>	<b>0.84%</b>
Manual Calculation			\$511,000.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$8,391.00</b>	<b>0.01%</b>
Manual Calculation			\$1,100.00	
Manual Calculation			\$422.00	
Manual Calculation			\$4,800.00	
Manual Calculation			\$2,069.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$1,958,236.00</b>	<b>3.24%</b>
Manual Calculation			\$1,958,236.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$3,302,492.00</b>	<b>5.46%</b>
Manual Calculation			\$3,302,492.00	
<b>Mobilize DB 4000</b>	<b>480.00</b>	<b>5.21%</b>	<b>\$4,536,000.00</b>	<b>7.50%</b>
Derrick Barge 4000			\$4,536,000.00	
<b>Mobilize CB 300 &amp; Tug</b>	<b>36.00</b>	<b>0.39%</b>	<b>\$147,840.00</b>	<b>0.24%</b>
CB 300 & Tug			\$105,840.00	
Rig Up CB 300			\$42,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Hidalgo MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>36.00</b>	<b>0.39%</b>	<b>\$300,000.00</b>	<b>0.50%</b>
Rig Up CB 400			\$84,000.00	
CB 400 & Tug			\$216,000.00	
<b>Mobilize Dive Spread</b>	<b>17.00</b>	<b>0.18%</b>	<b>\$76,840.00</b>	<b>0.13%</b>
Work Boat			\$8,500.00	
Dive Basic Spread Saturation			\$53,805.00	
Abrasive Cutter Spread			\$10,625.00	
Pipeline Survey			\$3,910.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.07%</b>	<b>\$108,810.00</b>	<b>0.18%</b>
Derrick Barge 4000			\$70,875.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
Rem. Operated Vehicle			\$10,800.00	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>0.26%</b>	<b>\$410,400.00</b>	<b>0.68%</b>
Derrick Barge 4000			\$252,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	
Rem. Operated Vehicle			\$38,400.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Hidalgo MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>	<b>24.00</b>	<b>0.26%</b>	<b>\$410,400.00</b>	<b>0.68%</b>
Derrick Barge 4000			\$252,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	
Rem. Operated Vehicle			\$38,400.00	
<b>Remove 8 Pile Deck</b>	<b>72.00</b>	<b>0.78%</b>	<b>\$1,231,200.00</b>	<b>2.03%</b>
Derrick Barge 4000			\$756,000.00	
Dive Basic Spread Saturation			\$227,880.00	
Pipeline Survey			\$16,560.00	
Abrasive Cutter Spread			\$45,000.00	
CB 300 & Tug			\$70,560.00	
Rem. Operated Vehicle			\$115,200.00	
<b>Demob CB 300 &amp; Tug</b>	<b>36.00</b>	<b>0.39%</b>	<b>\$105,840.00</b>	<b>0.17%</b>
CB 300 & Tug			\$105,840.00	
<b>Jet/Airlift Pile Mud Plug</b>	<b>35.00</b>	<b>0.38%</b>	<b>\$599,200.00</b>	<b>0.99%</b>
Derrick Barge 4000			\$367,500.00	
Dive Basic Spread Saturation			\$110,775.00	
Pipeline Survey			\$8,050.00	
Abrasive Cutter Spread			\$21,875.00	
CB 400 & Tug			\$35,000.00	
Rem. Operated Vehicle			\$56,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Hidalgo MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>		<b>114.90</b>	<b>1.25%</b>	<b>\$2,139,088.00</b>	<b>3.53%</b>
Derrick Barge 4000	\$1,206,450.00				
Dive Basic Spread Saturation	\$363,658.50				
Pipeline Survey	\$26,427.00				
Abrasive Cutter Spread	\$71,812.50				
CB 400 & Tug	\$114,900.00				
Pile Abrasive Cut 70 to 96 inches	\$172,000.00				
Rem. Operated Vehicle	\$183,840.00				
<b>Cut Jacket</b>		<b>492.00</b>	<b>5.34%</b>	<b>\$8,502,592.00</b>	<b>14.05%</b>
Derrick Barge 4000	\$5,166,000.00				
Dive Basic Spread Saturation	\$1,557,180.00				
Pipeline Survey	\$113,160.00				
Abrasive Cutter Spread	\$307,500.00				
CB 400 & Tug	\$492,000.00				
Pile Abrasive Cut 7 to 48 inches	\$79,552.00				
Rem. Operated Vehicle	\$787,200.00				
<b>Remove Jacket - Meth 1</b>		<b>492.00</b>	<b>5.34%</b>	<b>\$8,423,040.00</b>	<b>13.92%</b>
Derrick Barge 4000	\$5,166,000.00				
Dive Basic Spread Saturation	\$1,557,180.00				
Pipeline Survey	\$113,160.00				
Abrasive Cutter Spread	\$307,500.00				
CB 400 & Tug	\$492,000.00				
Rem. Operated Vehicle	\$787,200.00				
<b>Demob CB 400 &amp; Tug</b>		<b>36.00</b>	<b>0.39%</b>	<b>\$216,000.00</b>	<b>0.36%</b>
CB 400 & Tug	\$216,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Hidalgo MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.07%</b>	<b>\$108,810.00</b>	<b>0.18%</b>
Derrick Barge 4000	\$70,875.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
Rem. Operated Vehicle	\$10,800.00				
<b>Demob Dive Spread</b>		<b>17.00</b>	<b>0.18%</b>	<b>\$76,840.00</b>	<b>0.13%</b>
Work Boat	\$8,500.00				
Dive Basic Spread Saturation	\$53,805.00				
Abrasive Cutter Spread	\$10,625.00				
Pipeline Survey	\$3,910.00				
<b>Demob DB 4000</b>		<b>480.00</b>	<b>5.21%</b>	<b>\$4,536,000.00</b>	<b>7.50%</b>
Derrick Barge 4000	\$4,536,000.00				
<b>Site Clearance - with Divers</b>		<b>72.00</b>	<b>0.78%</b>	<b>\$1,282,000.00</b>	<b>2.12%</b>
Manual Calculation	\$1,282,000.00				
<b>Offload CB 300</b>		<b>1440.00</b>	<b>15.62%</b>	<b>\$355,200.00</b>	<b>0.59%</b>
Cargo Barge 300	\$295,200.00				
CB Damage Deduct	\$60,000.00				
<b>Offload CB 400</b>		<b>4896.00</b>	<b>53.10%</b>	<b>\$1,392,960.00</b>	<b>2.30%</b>
Cargo Barge 400	\$1,272,960.00				
CB Damage Deduct	\$120,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Hidalgo MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$8,391.00</b>	<b>0.01%</b>
Manual Calculation			\$1,100.00	
Manual Calculation			\$422.00	
Manual Calculation			\$4,800.00	
Manual Calculation			\$2,069.00	
	<b>Total</b>	<b>8818.40 95.64%</b>	<b>\$43,715,665.00 72.24%</b>	



## MMS

### Pipeline Information

#### Hidalgo MMS POCS 29056 (Ver1) Segment#:492045

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#### General Data

Water Depth: 430'  
Origin / Terminus: Origin  
Opposite End Name: Hermosa  
Opposite End Water Depth: 604'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 15.00%

#### Pipeline Data

Outside Diameter: 10"	Wall Thickness:	Length: 28500'
Depth of Burial:	# Crossings:	Product: GAS
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to the Hermosa platform. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Hidalgo MMS POCS 29056 (Ver1) Segment#:501045

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#### General Data

Water Depth: 430'  
Origin / Terminus: Origin  
Opposite End Name: Hermosa  
Opposite End Water Depth: 604'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 15.00%

#### Pipeline Data

Outside Diameter: 16"	Wall Thickness:	Length: 25872'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to the Hermosa platform. It is estimated as abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**Hidalgo MMS POCS 29056 (Ver 1) Segment#:4920450**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Dive Boat		<input type="checkbox"/>	80.00	24.77%	\$264,000.00	15.99%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.93%	\$30,422.50	1.84%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.55%	\$34,037.50	2.06%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	20.00	6.19%	\$136,150.00	8.25%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.62%	\$13,615.00	0.82%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.58%	\$78,626.63	4.76%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.58%	\$78,626.63	4.76%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.38%	\$52,417.75	3.18%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.38%	\$52,417.75	3.18%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.38%	\$52,417.75	3.18%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.93%	\$20,422.50	1.24%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.58%	\$78,626.63	4.76%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.58%	\$78,626.63	4.76%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.38%	\$52,417.75	3.18%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.38%	\$52,417.75	3.18%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.38%	\$52,417.75	3.18%
Demob Dive Boat		<input type="checkbox"/>	80.00	24.77%	\$264,000.00	15.99%
<b>Task Total</b>			285.40	88.35%	\$1,391,660.52	84.30%
<b>Misc. Work Provision (15.00%)</b>			18.81	5.82%	\$129,549.08	7.85%
<b>Other Contingency (15.00%)</b>			18.81	5.82%	\$129,549.08	7.85%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			323.02	100.00%	\$1,650,758.69	100.00%



**MMS**

**Pipeline Decommission Task Information**

**Hidalgo MMS POCS 29056 (Ver 1) Segment#:5010450**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Dive Boat		<input type="checkbox"/>	80.00	22.50%	\$264,000.00	14.10%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.84%	\$30,422.50	1.63%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.41%	\$34,037.50	1.82%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	45.00	12.66%	\$306,337.50	16.36%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.56%	\$13,615.00	0.73%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.25%	\$78,626.63	4.20%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.25%	\$78,626.63	4.20%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.17%	\$52,417.75	2.80%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.17%	\$52,417.75	2.80%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.17%	\$52,417.75	2.80%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.84%	\$20,422.50	1.09%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	3.25%	\$78,626.63	4.20%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	3.25%	\$78,626.63	4.20%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	2.17%	\$52,417.75	2.80%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	2.17%	\$52,417.75	2.80%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	2.17%	\$52,417.75	2.80%
Demob Dive Boat		<input type="checkbox"/>	80.00	22.50%	\$264,000.00	14.10%
<b>Task Total</b>			310.40	87.31%	\$1,561,848.02	83.43%
<b>Misc. Work Provision (15.00%)</b>			22.56	6.35%	\$155,077.21	8.28%
<b>Other Contingency (15.00%)</b>			22.56	6.35%	\$155,077.21	8.28%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			355.52	100.00%	\$1,872,002.44	100.00%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Hidalgo MMS POCS 29056 (Ver 1) Segment#:4920**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$14,107.52	0.85%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$396,891.00	24.04%
DP Dive Boat	\$3,300.00	per Hour	\$941,820.00	57.05%
Manual Calculation	\$0.00	Independently Calculated	\$10,000.00	0.61%
Pipeline Surveying	\$230.00	per Hour	\$28,842.00	1.75%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Hidalgo MMS POCS 29056 (Ver 1) Segment#:5010**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$16,920.02	0.90%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$476,016.00	25.43%
DP Dive Boat	\$3,300.00	per Hour	\$1,024,320.00	54.72%
Manual Calculation	\$0.00	Independently Calculated	\$10,000.00	0.53%
Pipeline Surveying	\$230.00	per Hour	\$34,592.00	1.85%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hidalgo MMS POCS 29056 (Ver 1) Segment#:49204**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>80.00 24.77%</b>	<b>\$264,000.00 15.99%</b>
DP Dive Boat		\$264,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.93%</b>	<b>\$30,422.50 1.84%</b>
DP Dive Boat		\$9,900.00
Dive Basic Spread Saturation		\$9,495.00
Decommissioning Crew		\$337.50
Pipeline Surveying		\$690.00
Manual Calculation		\$10,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.55%</b>	<b>\$34,037.50 2.06%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
<b>Pig &amp; Flush Pipeline</b>	<b>20.00 6.19%</b>	<b>\$136,150.00 8.25%</b>
DP Dive Boat		\$66,000.00
Dive Basic Spread Saturation		\$63,300.00
Decommissioning Crew		\$2,250.00
Pipeline Surveying		\$4,600.00
<b>Derig Decomm Equipment</b>	<b>2.00 0.62%</b>	<b>\$13,615.00 0.82%</b>
DP Dive Boat		\$6,600.00
Dive Basic Spread Saturation		\$6,330.00
Decommissioning Crew		\$225.00
Pipeline Surveying		\$460.00
<b>Expose Pipeline</b>	<b>11.55 3.58%</b>	<b>\$78,626.63 4.76%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.58%</b>	<b>\$78,626.63</b>	<b>4.76%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.38%</b>	<b>\$52,417.75</b>	<b>3.18%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.38%</b>	<b>\$52,417.75</b>	<b>3.18%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.38%</b>	<b>\$52,417.75</b>	<b>3.18%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.93%</b>	<b>\$20,422.50</b>	<b>1.24%</b>
DP Dive Boat	\$9,900.00				
Dive Basic Spread Saturation	\$9,495.00				
Decommissioning Crew	\$337.50				
Pipeline Surveying	\$690.00				
<b>Expose Pipeline</b>		<b>11.55</b>	<b>3.58%</b>	<b>\$78,626.63</b>	<b>4.76%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.58%</b>	<b>\$78,626.63</b>	<b>4.76%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.38%</b>	<b>\$52,417.75</b>	<b>3.18%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.38%</b>	<b>\$52,417.75</b>	<b>3.18%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.38%</b>	<b>\$52,417.75</b>	<b>3.18%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Demob Dive Boat</b>		<b>80.00</b>	<b>24.77%</b>	<b>\$264,000.00</b>	<b>15.99%</b>
DP Dive Boat	\$264,000.00				
		<b>Total</b>	<b>285.40 88.35%</b>	<b>\$1,391,660.52</b>	<b>84.30%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hidalgo MMS POCS 29056 (Ver 1) Segment#:50104**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>80.00 22.50%</b>	<b>\$264,000.00 14.10%</b>
DP Dive Boat		\$264,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.84%</b>	<b>\$30,422.50 1.63%</b>
DP Dive Boat		\$9,900.00
Dive Basic Spread Saturation		\$9,495.00
Decommissioning Crew		\$337.50
Pipeline Surveying		\$690.00
Manual Calculation		\$10,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.41%</b>	<b>\$34,037.50 1.82%</b>
DP Dive Boat		\$16,500.00
Dive Basic Spread Saturation		\$15,825.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
<b>Pig &amp; Flush Pipeline</b>	<b>45.00 12.66%</b>	<b>\$306,337.50 16.36%</b>
DP Dive Boat		\$148,500.00
Dive Basic Spread Saturation		\$142,425.00
Decommissioning Crew		\$5,062.50
Pipeline Surveying		\$10,350.00
<b>Derig Decomm Equipment</b>	<b>2.00 0.56%</b>	<b>\$13,615.00 0.73%</b>
DP Dive Boat		\$6,600.00
Dive Basic Spread Saturation		\$6,330.00
Decommissioning Crew		\$225.00
Pipeline Surveying		\$460.00
<b>Expose Pipeline</b>	<b>11.55 3.25%</b>	<b>\$78,626.63 4.20%</b>
DP Dive Boat		\$38,115.00
Dive Basic Spread Saturation		\$36,555.75
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.25%</b>	<b>\$78,626.63</b>	<b>4.20%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.17%</b>	<b>\$52,417.75</b>	<b>2.80%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.17%</b>	<b>\$52,417.75</b>	<b>2.80%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.17%</b>	<b>\$52,417.75</b>	<b>2.80%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.84%</b>	<b>\$20,422.50</b>	<b>1.09%</b>
DP Dive Boat	\$9,900.00				
Dive Basic Spread Saturation	\$9,495.00				
Decommissioning Crew	\$337.50				
Pipeline Surveying	\$690.00				
<b>Expose Pipeline</b>		<b>11.55</b>	<b>3.25%</b>	<b>\$78,626.63</b>	<b>4.20%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>3.25%</b>	<b>\$78,626.63</b>	<b>4.20%</b>
DP Dive Boat	\$38,115.00				
Dive Basic Spread Saturation	\$36,555.75				
Decommissioning Crew	\$1,299.38				
Pipeline Surveying	\$2,656.50				
<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>2.17%</b>	<b>\$52,417.75</b>	<b>2.80%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>2.17%</b>	<b>\$52,417.75</b>	<b>2.80%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>2.17%</b>	<b>\$52,417.75</b>	<b>2.80%</b>
DP Dive Boat	\$25,410.00				
Dive Basic Spread Saturation	\$24,370.50				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Demob Dive Boat</b>		<b>80.00</b>	<b>22.50%</b>	<b>\$264,000.00</b>	<b>14.10%</b>
DP Dive Boat	\$264,000.00				
		<b>Total</b>	<b>310.40 87.31%</b>	<b>\$1,561,848.02</b>	<b>83.43%</b>



## **MMS**

### **Well Information**

#### **Hidalgo MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           No

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:   15.00%

Weather Contingency %:       15.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Plains Exploration & Production Company	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**Hidalgo MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$2,983,104.00 76.92%
		<b>Task Total</b>	0.00	\$2,983,104.00 76.92%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$447,465.62 11.54%
		<b>Other Contingency (15.00%)</b>	0.00	\$447,465.62 11.54%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$3,878,035.24 100.00%



**MMS**

**Well Decommission Resources Breakdown**

**Hidalgo MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$2,983,104.00 76.92%



**MMS**

**Well Decommission Cost Breakdown**

**Hidalgo MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$2,983,104.00</b>	<b>76.92%</b>	
Manual Calculation			\$2,983,104.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$2,983,104.00</b>	<b>76.92%</b>

**Hillhouse MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Hillhouse MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Hillhouse will be removed along with Platforms A, B, C, Gina and Henry.
- Platform Hillhouse is an 8-pile platform installed in 1969 in 190' of water.
- The estimated removal weight is the deck weight is 1,200 tons and the jacket weight is 1,500 tons.
- The platform has a total of 47 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 52 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and one 400' cargo barge will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 3 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The three pipelines (1 oil, 2 gas) on the OCS will be totally removed to the state water boundary when running to shore and in less than 200 feet of water. Segments running



## MMS

### Platform Salvage Option

#### Hillhouse MMS POCS 29056 (Ver 1)

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from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this



## MMS

### Platform Salvage Option

#### Hillhouse MMS POCS 29056 (Ver 1)

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estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$26,025,229

Estimated Decommissioning Net Cost = \$26,025,229



## MMS

### Basic Information

#### Hillhouse MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Hillhouse MMS POCS 29056  
Function: DRILL/PROD  
Type: Steel  
Water Depth: 192'  
Pre 461H?: Yes  
Year Installed: 1969  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0240  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 47  
# Pipelines to Abandon: 3  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Dos Cuadras Offshore LLC	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$19,518,010	\$19,518,010
Well Plugging & Abandonment:	\$5,974,230	\$5,974,230
Pipeline Abandonment:	\$532,989	\$532,989
Total Decommissioning Cost:	\$26,025,229	\$26,025,229



## MMS

### Platform Information

### Hillhouse MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	8	39"	0.5"	Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:		
Middle:		
Lower:		

### Conductors

Number of Slots:	60
Number Installed:	52
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	1500.00		
Jacket Installation Date:	11/26/69		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	1200 Tons
Number of Padeyes Required:	12
Deck Installation Date:	11/26/69
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

#### **Hillhouse MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 300 x 100	Equipment	Equipment	Deck 100-500T	Deck 100-500T
CB 300 x 100	Equipment	Equipment	Deck 100-500T	Deck 100-500T
CB 400 x 100	Jkt > 700T	Conductors	Conductors	

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$1,562,866.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Hillhouse MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$1,272,823.00	6.52%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.05%	\$425,833.00	2.18%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.05%	\$6,993.00	0.04%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.05%	\$3,984,545.00	20.41%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.05%	\$1,295,710.00	6.64%
Mobilize DB 2000	Mob from Asia, 50 days divided by 6 platforms	<input type="checkbox"/>	200.00	9.99%	\$1,530,000.00	7.84%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	22.60	1.13%	\$72,296.00	0.37%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 1)	<input type="checkbox"/>	22.60	1.13%	\$36,600.00	0.19%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	10.30	0.51%	\$46,556.00	0.24%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.34%	\$84,510.00	0.43%
Cut Deck/Equip/Misc	Seperate 4 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	1.20%	\$324,000.00	1.66%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	1.20%	\$324,000.00	1.66%
Remove 8 Pile Deck	Remove 8 Pile Deck, 4 modules	<input checked="" type="checkbox"/>	48.00	2.40%	\$648,000.00	3.32%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	22.60	1.13%	\$44,296.00	0.23%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	46.00	2.30%	\$621,920.00	3.19%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	60.74	3.03%	\$860,980.81	4.41%
Remove Jacket - Meth 1		<input checked="" type="checkbox"/>	36.00	1.80%	\$486,720.00	2.49%
Demob CB 400 & Tug	Demob to Port of LA (Qty 1)	<input type="checkbox"/>	22.60	1.13%	\$22,600.00	0.12%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.34%	\$84,510.00	0.43%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	10.30	0.51%	\$46,556.00	0.24%
Demob DB 2000	Demob to Asia, 50 days divided by 6 platforms	<input type="checkbox"/>	200.00	9.99%	\$1,530,000.00	7.84%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	3.60%	\$709,000.00	3.63%
Offload CB 300		<input type="checkbox"/>	672.00	33.57%	\$177,760.00	0.91%
Offload CB 400		<input type="checkbox"/>	408.00	20.38%	\$126,080.00	0.65%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.05%	\$6,993.00	0.04%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$663,911.00	3.40%
<b>Task Total</b>			1920.24	95.93%	\$15,433,192.81	79.07%
<b>Misc. Work Provision (15.00%)</b>			48.94	2.44%	\$1,513,171.00	7.75%
<b>Weather Contingency (10.00%)</b>			32.62	1.63%	\$1,008,781.00	5.17%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$1,562,866.00	8.01%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%



**MMS**

**Platform Decommission Task Information**

**Hillhouse MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		Offloading		\$0.00	0.00%
		Storage / Scrapping		\$0.00	0.00%
		Reef Donation		\$0.00	0.00%
		Cost of Engineering (0.00%)		\$0.00	0.00%
			<b>Total:</b>	2001.80	100.00%
				19,518,010.81	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Hillhouse MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$170,525.00	0.87%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$137,760.00	0.71%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$106,080.00	0.54%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$182,672.00	0.94%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$187,940.00	0.96%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$60,000.00	0.31%
Derrick Barge 2000	\$8,500.00	per Hour per barge	\$5,204,040.00	26.66%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$863,538.61	4.42%
Manual Calculation	\$0.00	Independently Calculated	\$8,365,808.00	42.86%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$39,776.00	0.20%
Pipeline Survey	\$230.00	per Hour	\$62,753.20	0.32%
Rig Up CB 300	\$14,000.00	per Barge	\$28,000.00	0.14%
Rig Up CB 400	\$14,000.00	per Barge	\$14,000.00	0.07%
Work Boat	\$500.00	per Hour	\$10,300.00	0.05%



**MMS**

**Platform Decommission Cost Breakdown**

**Hillhouse MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00 0.00%</b>	<b>\$1,272,823.00 6.52%</b>
Manual Calculation		\$1,272,823.00
<b>NMFS Marine Observation</b>	<b>1.00 0.05%</b>	<b>\$425,833.00 2.18%</b>
Manual Calculation		\$425,833.00
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00 0.05%</b>	<b>\$6,993.00 0.04%</b>
Manual Calculation		\$917.00
Manual Calculation		\$352.00
Manual Calculation		\$4,000.00
Manual Calculation		\$1,724.00
<b>Sever Conductors- Abrasive</b>	<b>1.00 0.05%</b>	<b>\$3,984,545.00 20.41%</b>
Manual Calculation		\$3,984,545.00
<b>Platform Removal Preparation</b>	<b>1.00 0.05%</b>	<b>\$1,295,710.00 6.64%</b>
Manual Calculation		\$1,295,710.00
<b>Mobilize DB 2000</b>	<b>200.00 9.99%</b>	<b>\$1,530,000.00 7.84%</b>
Derrick Barge 2000		\$1,530,000.00
<b>Mobilize CB 300 &amp; Tug</b>	<b>22.60 1.13%</b>	<b>\$72,296.00 0.37%</b>
CB 300 & Tug		\$44,296.00
Rig Up CB 300		\$28,000.00



**MMS**

**Platform Decommission Cost Breakdown**

**Hillhouse MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize CB 400 &amp; Tug</b>	<b>22.60</b>	<b>1.13%</b>	<b>\$36,600.00</b>	<b>0.19%</b>
Rig Up CB 400			\$14,000.00	
CB 400 & Tug			\$22,600.00	
<b>Mobilize Dive Spread</b>	<b>10.30</b>	<b>0.51%</b>	<b>\$46,556.00</b>	<b>0.24%</b>
Work Boat			\$5,150.00	
Dive Basic Spread Saturation			\$32,599.50	
Abrasive Cutter Spread			\$6,437.50	
Pipeline Survey			\$2,369.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.34%</b>	<b>\$84,510.00</b>	<b>0.43%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>1.20%</b>	<b>\$324,000.00</b>	<b>1.66%</b>
Derrick Barge 2000			\$204,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Hillhouse MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>24.00</b>	<b>1.20%</b>	<b>\$324,000.00</b>	<b>1.66%</b>
Derrick Barge 2000	\$204,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
<b>Remove 8 Pile Deck</b>		<b>48.00</b>	<b>2.40%</b>	<b>\$648,000.00</b>	<b>3.32%</b>
Derrick Barge 2000	\$408,000.00				
Dive Basic Spread Saturation	\$151,920.00				
Pipeline Survey	\$11,040.00				
Abrasive Cutter Spread	\$30,000.00				
CB 300 & Tug	\$47,040.00				
<b>Demob CB 300 &amp; Tug</b>		<b>22.60</b>	<b>1.13%</b>	<b>\$44,296.00</b>	<b>0.23%</b>
CB 300 & Tug	\$44,296.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>46.00</b>	<b>2.30%</b>	<b>\$621,920.00</b>	<b>3.19%</b>
Derrick Barge 2000	\$391,000.00				
Dive Basic Spread Saturation	\$145,590.00				
Pipeline Survey	\$10,580.00				
Abrasive Cutter Spread	\$28,750.00				
CB 400 & Tug	\$46,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Hillhouse MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>		<b>60.74</b>	<b>3.03%</b>	<b>\$860,980.81</b>	<b>4.41%</b>
Derrick Barge 2000	\$516,290.00				
Dive Basic Spread Saturation	\$192,242.11				
Pipeline Survey	\$13,970.20				
Abrasive Cutter Spread	\$37,962.50				
CB 400 & Tug	\$60,740.00				
Pile Abrasive Cut 7 to 48 inches	\$39,776.00				
<b>Remove Jacket - Meth 1</b>		<b>36.00</b>	<b>1.80%</b>	<b>\$486,720.00</b>	<b>2.49%</b>
Derrick Barge 2000	\$306,000.00				
Dive Basic Spread Saturation	\$113,940.00				
Pipeline Survey	\$8,280.00				
Abrasive Cutter Spread	\$22,500.00				
CB 400 & Tug	\$36,000.00				
<b>Demob CB 400 &amp; Tug</b>		<b>22.60</b>	<b>1.13%</b>	<b>\$22,600.00</b>	<b>0.12%</b>
CB 400 & Tug	\$22,600.00				
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.34%</b>	<b>\$84,510.00</b>	<b>0.43%</b>
Derrick Barge 2000	\$57,375.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				



**MMS**

**Platform Decommission Cost Breakdown**

**Hillhouse MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Demob Dive Spread</b>	<b>10.30</b>	<b>0.51%</b>	<b>\$46,556.00</b>	<b>0.24%</b>
Work Boat			\$5,150.00	
Dive Basic Spread Saturation			\$32,599.50	
Abrasive Cutter Spread			\$6,437.50	
Pipeline Survey			\$2,369.00	
<b>Demob DB 2000</b>	<b>200.00</b>	<b>9.99%</b>	<b>\$1,530,000.00</b>	<b>7.84%</b>
Derrick Barge 2000			\$1,530,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>3.60%</b>	<b>\$709,000.00</b>	<b>3.63%</b>
Manual Calculation			\$709,000.00	
<b>Offload CB 300</b>	<b>672.00</b>	<b>33.57%</b>	<b>\$177,760.00</b>	<b>0.91%</b>
Cargo Barge 300			\$137,760.00	
CB Damage Deduct			\$40,000.00	
<b>Offload CB 400</b>	<b>408.00</b>	<b>20.38%</b>	<b>\$126,080.00</b>	<b>0.65%</b>
Cargo Barge 400			\$106,080.00	
CB Damage Deduct			\$20,000.00	
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.05%</b>	<b>\$6,993.00</b>	<b>0.04%</b>
Manual Calculation			\$917.00	
Manual Calculation			\$352.00	
Manual Calculation			\$4,000.00	
Manual Calculation			\$1,724.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Hillhouse MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$663,911.00</b>	<b>3.40%</b>
Manual Calculation			\$663,911.00	
<b>Total</b>	<b>1920.24</b>	<b>95.93%</b>	<b>\$15,433,192.81</b>	<b>79.07%</b>



## MMS

### Pipeline Information

#### Hillhouse MMS POCS 29056 (Ver1) Segment#:1810

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#### General Data

Water Depth: 190'  
Origin / Terminus: Origin  
Opposite End Name: A  
Opposite End Water Depth: 188'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter:	8.625"	Wall Thickness:	0.5"	Length:	2811'
Depth of Burial:	3'	# Crossings:		Product:	Oil
Installation Date:		Weight Coating:	No	J Tube:	No
Riser?:	Yes	Riser Guard?:	No		

#### Comments

This segment runs to the A Platform. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Hillhouse MMS POCS 29056 (Ver1) Segment#:1920

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#### General Data

Water Depth: 190'  
Origin / Terminus: Origin  
Opposite End Name: A  
Opposite End Water Depth: 190'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter: 8.625"	Wall Thickness:	Length: 2811'
Depth of Burial:	# Crossings:	Product: GAS
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to the A Platform. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Hillhouse MMS POCS 29056 (Ver1) Segment#:2030

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#### General Data

Water Depth: 190'  
Origin / Terminus: Origin  
Opposite End Name: A  
Opposite End Water Depth: 188'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter: 6"	Wall Thickness: 0.432"	Length: 2811'
Depth of Burial: 3'	# Crossings:	Product: Gas
Installation Date:	Weight Coating: No	J Tube: No
Riser?: Yes	Riser Guard?: No	

#### Comments

This segment runs to the A Platform. It is estimated as abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**Hillhouse MMS POCS 29056 (Ver 1) Segment#:1810240**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	10.30	10.43%	\$18,648.15	10.43%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.06%	\$9,052.50	5.06%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	2.84	2.88%	\$5,141.82	2.88%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.03%	\$3,621.00	2.03%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	6.46%	\$11,550.99	6.46%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	6.46%	\$11,550.99	6.46%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.25	4.30%	\$7,694.63	4.30%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.25	4.30%	\$7,694.63	4.30%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.30%	\$7,694.63	4.30%
Reposition Workboat		<input checked="" type="checkbox"/>	3.05	3.09%	\$5,522.02	3.09%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	6.46%	\$11,550.99	6.46%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	6.46%	\$11,550.99	6.46%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.25	4.30%	\$7,694.63	4.30%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.25	4.30%	\$7,694.63	4.30%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.30%	\$7,694.63	4.30%
Demob Work Boat		<input type="checkbox"/>	10.30	10.43%	\$18,648.15	10.43%
<b>Task Total</b>			<b>84.51</b>	<b>85.59%</b>	<b>\$153,005.38</b>	<b>85.59%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>8.54</b>	<b>8.65%</b>	<b>\$15,455.34</b>	<b>8.65%</b>
<b>Other Contingency (10.00%)</b>			<b>5.69</b>	<b>5.76%</b>	<b>\$10,303.56</b>	<b>5.76%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>98.74</b>	<b>100.00%</b>	<b>\$178,764.27</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Hillhouse MMS POCS 29056 (Ver 1) Segment#:1920240**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	10.30	10.43%	\$18,648.15	10.43%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.06%	\$9,052.50	5.06%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	2.84	2.88%	\$5,141.82	2.88%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.03%	\$3,621.00	2.03%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	6.46%	\$11,550.99	6.46%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	6.46%	\$11,550.99	6.46%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.25	4.30%	\$7,694.63	4.30%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.25	4.30%	\$7,694.63	4.30%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.30%	\$7,694.63	4.30%
Reposition Workboat		<input checked="" type="checkbox"/>	3.05	3.09%	\$5,522.02	3.09%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	6.46%	\$11,550.99	6.46%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	6.46%	\$11,550.99	6.46%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.25	4.30%	\$7,694.63	4.30%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.25	4.30%	\$7,694.63	4.30%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.30%	\$7,694.63	4.30%
Demob Work Boat		<input type="checkbox"/>	10.30	10.43%	\$18,648.15	10.43%
<b>Task Total</b>			<b>84.51</b>	<b>85.59%</b>	<b>\$153,005.38</b>	<b>85.59%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>8.54</b>	<b>8.65%</b>	<b>\$15,455.34</b>	<b>8.65%</b>
<b>Other Contingency (10.00%)</b>			<b>5.69</b>	<b>5.76%</b>	<b>\$10,303.56</b>	<b>5.76%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>98.74</b>	<b>100.00%</b>	<b>\$178,764.27</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Hillhouse MMS POCS 29056 (Ver 1) Segment#:2030240**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	10.30	10.63%	\$18,648.15	10.63%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	5.16%	\$9,052.50	5.16%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	1.38	1.42%	\$2,498.49	1.42%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.06%	\$3,621.00	2.06%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	6.58%	\$11,550.99	6.58%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	6.58%	\$11,550.99	6.58%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.25	4.39%	\$7,694.63	4.39%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.25	4.39%	\$7,694.63	4.39%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.39%	\$7,694.63	4.39%
Reposition Workboat		<input checked="" type="checkbox"/>	3.05	3.15%	\$5,522.02	3.15%
Expose Pipeline		<input checked="" type="checkbox"/>	6.38	6.58%	\$11,550.99	6.58%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	6.38	6.58%	\$11,550.99	6.58%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	4.25	4.39%	\$7,694.63	4.39%
Remove Tube Turn		<input checked="" type="checkbox"/>	4.25	4.39%	\$7,694.63	4.39%
Bury Pipeline		<input checked="" type="checkbox"/>	4.25	4.39%	\$7,694.63	4.39%
Demob Work Boat		<input type="checkbox"/>	10.30	10.63%	\$18,648.15	10.63%
<b>Task Total</b>			<b>83.05</b>	<b>85.70%</b>	<b>\$150,362.05</b>	<b>85.70%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>8.32</b>	<b>8.58%</b>	<b>\$15,058.84</b>	<b>8.58%</b>
<b>Other Contingency (10.00%)</b>			<b>5.55</b>	<b>5.72%</b>	<b>\$10,039.23</b>	<b>5.72%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>96.91</b>	<b>100.00%</b>	<b>\$175,460.11</b>	<b>100.00%</b>



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Hillhouse MMS POCS 29056 (Ver 1) Segment#:181**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$9,507.40	5.32%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$74,791.35	41.84%
Pipeline Surveying	\$230.00	per Hour	\$19,437.30	10.87%
Work Boat	\$583.00	per Hour	\$49,269.33	27.56%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Hillhouse MMS POCS 29056 (Ver 1) Segment#:192**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$9,507.40	5.32%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$74,791.35	41.84%
Pipeline Surveying	\$230.00	per Hour	\$19,437.30	10.87%
Work Boat	\$583.00	per Hour	\$49,269.33	27.56%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Hillhouse MMS POCS 29056 (Ver 1) Segment#:203**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$9,343.15	5.32%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$73,499.25	41.89%
Pipeline Surveying	\$230.00	per Hour	\$19,101.50	10.89%
Work Boat	\$583.00	per Hour	\$48,418.15	27.59%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hillhouse MMS POCS 29056 (Ver 1) Segment#:1810**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>10.30 10.43%</b>	<b>\$18,648.15 10.43%</b>
Work Boat	\$6,004.90	
Dive Basic Spread- Mixed Gas	\$9,115.50	
Decommissioning Crew	\$1,158.75	
Pipeline Surveying	\$2,369.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 5.06%</b>	<b>\$9,052.50 5.06%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>2.84 2.88%</b>	<b>\$5,141.82 2.88%</b>
Work Boat	\$1,655.72	
Dive Basic Spread- Mixed Gas	\$2,513.40	
Decommissioning Crew	\$319.50	
Pipeline Surveying	\$653.20	
<b>Derig Decomm Equipment</b>	<b>2.00 2.03%</b>	<b>\$3,621.00 2.03%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Expose Pipeline</b>	<b>6.38 6.46%</b>	<b>\$11,550.99 6.46%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	
<b>Cut &amp; Plug Pipeline</b>	<b>6.38 6.46%</b>	<b>\$11,550.99 6.46%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	



## **MMS**

### **Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.25</b>	<b>4.30%</b>	<b>\$7,694.63</b>	<b>4.30%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<hr/>					
<b>Remove Tube Turn</b>		<b>4.25</b>	<b>4.30%</b>	<b>\$7,694.63</b>	<b>4.30%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<hr/>					
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.30%</b>	<b>\$7,694.63</b>	<b>4.30%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<hr/>					
<b>Reposition Workboat</b>		<b>3.05</b>	<b>3.09%</b>	<b>\$5,522.02</b>	<b>3.09%</b>
Work Boat	\$1,778.15				
Dive Basic Spread- Mixed Gas	\$2,699.25				
Decommissioning Crew	\$343.12				
Pipeline Surveying	\$701.50				
<hr/>					
<b>Expose Pipeline</b>		<b>6.38</b>	<b>6.46%</b>	<b>\$11,550.99</b>	<b>6.46%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>6.38</b>	<b>6.46%</b>	<b>\$11,550.99</b>	<b>6.46%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				



## MMS

### Pipeline Decommission Cost Breakdown

<b>Cut Pipeline Riser</b>		<b>4.25</b>	<b>4.30%</b>	<b>\$7,694.63</b>	<b>4.30%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<hr/>					
<b>Remove Tube Turn</b>		<b>4.25</b>	<b>4.30%</b>	<b>\$7,694.63</b>	<b>4.30%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<hr/>					
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.30%</b>	<b>\$7,694.63</b>	<b>4.30%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<hr/>					
<b>Demob Work Boat</b>		<b>10.30</b>	<b>10.43%</b>	<b>\$18,648.15</b>	<b>10.43%</b>
Work Boat	\$6,004.90				
Dive Basic Spread- Mixed Gas	\$9,115.50				
Decommissioning Crew	\$1,158.75				
Pipeline Surveying	\$2,369.00				
<hr/>					
		<b>Total</b>	<b>84.51 85.59%</b>	<b>\$153,005.38</b>	<b>85.59%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hillhouse MMS POCS 29056 (Ver 1) Segment#:1920**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>10.30 10.43%</b>	<b>\$18,648.15 10.43%</b>
Work Boat		\$6,004.90
Dive Basic Spread- Mixed Gas		\$9,115.50
Decommissioning Crew		\$1,158.75
Pipeline Surveying		\$2,369.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 5.06%</b>	<b>\$9,052.50 5.06%</b>
Work Boat		\$2,915.00
Dive Basic Spread- Mixed Gas		\$4,425.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
<b>Pig &amp; Flush Pipeline</b>	<b>2.84 2.88%</b>	<b>\$5,141.82 2.88%</b>
Work Boat		\$1,655.72
Dive Basic Spread- Mixed Gas		\$2,513.40
Decommissioning Crew		\$319.50
Pipeline Surveying		\$653.20
<b>Derig Decomm Equipment</b>	<b>2.00 2.03%</b>	<b>\$3,621.00 2.03%</b>
Work Boat		\$1,166.00
Dive Basic Spread- Mixed Gas		\$1,770.00
Decommissioning Crew		\$225.00
Pipeline Surveying		\$460.00
<b>Expose Pipeline</b>	<b>6.38 6.46%</b>	<b>\$11,550.99 6.46%</b>
Work Boat		\$3,719.54
Dive Basic Spread- Mixed Gas		\$5,646.30
Decommissioning Crew		\$717.75
Pipeline Surveying		\$1,467.40
<b>Cut &amp; Plug Pipeline</b>	<b>6.38 6.46%</b>	<b>\$11,550.99 6.46%</b>
Work Boat		\$3,719.54
Dive Basic Spread- Mixed Gas		\$5,646.30
Decommissioning Crew		\$717.75
Pipeline Surveying		\$1,467.40



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.25</b>	<b>4.30%</b>	<b>\$7,694.63</b>	<b>4.30%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Remove Tube Turn</b>		<b>4.25</b>	<b>4.30%</b>	<b>\$7,694.63</b>	<b>4.30%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.30%</b>	<b>\$7,694.63</b>	<b>4.30%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Reposition Workboat</b>		<b>3.05</b>	<b>3.09%</b>	<b>\$5,522.02</b>	<b>3.09%</b>
Work Boat	\$1,778.15				
Dive Basic Spread- Mixed Gas	\$2,699.25				
Decommissioning Crew	\$343.12				
Pipeline Surveying	\$701.50				
<b>Expose Pipeline</b>		<b>6.38</b>	<b>6.46%</b>	<b>\$11,550.99</b>	<b>6.46%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				
<b>Cut &amp; Plug Pipeline</b>		<b>6.38</b>	<b>6.46%</b>	<b>\$11,550.99</b>	<b>6.46%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.25</b>	<b>4.30%</b>	<b>\$7,694.63</b>	<b>4.30%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Remove Tube Turn</b>		<b>4.25</b>	<b>4.30%</b>	<b>\$7,694.63</b>	<b>4.30%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.30%</b>	<b>\$7,694.63</b>	<b>4.30%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Demob Work Boat</b>		<b>10.30</b>	<b>10.43%</b>	<b>\$18,648.15</b>	<b>10.43%</b>
Work Boat	\$6,004.90				
Dive Basic Spread- Mixed Gas	\$9,115.50				
Decommissioning Crew	\$1,158.75				
Pipeline Surveying	\$2,369.00				
		<b>Total</b>	<b>84.51 85.59%</b>	<b>\$153,005.38</b>	<b>85.59%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hillhouse MMS POCS 29056 (Ver 1) Segment#:2030**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>10.30 10.63%</b>	<b>\$18,648.15 10.63%</b>
Work Boat	\$6,004.90	
Dive Basic Spread- Mixed Gas	\$9,115.50	
Decommissioning Crew	\$1,158.75	
Pipeline Surveying	\$2,369.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 5.16%</b>	<b>\$9,052.50 5.16%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>1.38 1.42%</b>	<b>\$2,498.49 1.42%</b>
Work Boat	\$804.54	
Dive Basic Spread- Mixed Gas	\$1,221.30	
Decommissioning Crew	\$155.25	
Pipeline Surveying	\$317.40	
<b>Derig Decomm Equipment</b>	<b>2.00 2.06%</b>	<b>\$3,621.00 2.06%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Expose Pipeline</b>	<b>6.38 6.58%</b>	<b>\$11,550.99 6.58%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	
<b>Cut &amp; Plug Pipeline</b>	<b>6.38 6.58%</b>	<b>\$11,550.99 6.58%</b>
Work Boat	\$3,719.54	
Dive Basic Spread- Mixed Gas	\$5,646.30	
Decommissioning Crew	\$717.75	
Pipeline Surveying	\$1,467.40	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.25</b>	<b>4.39%</b>	<b>\$7,694.63</b>	<b>4.39%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Remove Tube Turn</b>		<b>4.25</b>	<b>4.39%</b>	<b>\$7,694.63</b>	<b>4.39%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.39%</b>	<b>\$7,694.63</b>	<b>4.39%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Reposition Workboat</b>		<b>3.05</b>	<b>3.15%</b>	<b>\$5,522.02</b>	<b>3.15%</b>
Work Boat	\$1,778.15				
Dive Basic Spread- Mixed Gas	\$2,699.25				
Decommissioning Crew	\$343.12				
Pipeline Surveying	\$701.50				
<b>Expose Pipeline</b>		<b>6.38</b>	<b>6.58%</b>	<b>\$11,550.99</b>	<b>6.58%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				
<b>Cut &amp; Plug Pipeline</b>		<b>6.38</b>	<b>6.58%</b>	<b>\$11,550.99</b>	<b>6.58%</b>
Work Boat	\$3,719.54				
Dive Basic Spread- Mixed Gas	\$5,646.30				
Decommissioning Crew	\$717.75				
Pipeline Surveying	\$1,467.40				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>4.25</b>	<b>4.39%</b>	<b>\$7,694.63</b>	<b>4.39%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Remove Tube Turn</b>		<b>4.25</b>	<b>4.39%</b>	<b>\$7,694.63</b>	<b>4.39%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Bury Pipeline</b>		<b>4.25</b>	<b>4.39%</b>	<b>\$7,694.63</b>	<b>4.39%</b>
Work Boat	\$2,477.75				
Dive Basic Spread- Mixed Gas	\$3,761.25				
Decommissioning Crew	\$478.13				
Pipeline Surveying	\$977.50				
<b>Demob Work Boat</b>		<b>10.30</b>	<b>10.63%</b>	<b>\$18,648.15</b>	<b>10.63%</b>
Work Boat	\$6,004.90				
Dive Basic Spread- Mixed Gas	\$9,115.50				
Decommissioning Crew	\$1,158.75				
Pipeline Surveying	\$2,369.00				
		<b>Total</b>	<b>83.05 85.70%</b>	<b>\$150,362.05</b>	<b>85.70%</b>



## **MMS**

### **Well Information**

#### **Hillhouse MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           **No**

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:    **15.00%**

Weather Contingency %:       **10.00%**

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Dos Cuadras Offshore LLC	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**Hillhouse MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$4,779,384.00 80.00%
		<b>Task Total</b>	0.00	\$4,779,384.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$716,907.63 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$477,938.41 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$5,974,230.04 100.00%



# **MMS**

## **Well Decommission Resources Breakdown**

### **Hillhouse MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$4,779,384.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**Hillhouse MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$4,779,384.00</b>	<b>80.00%</b>
Manual Calculation			\$4,779,384.00	
<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$4,779,384.00</b>	<b>80.00%</b>

**Hogan MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Hogan MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Hogan will be removed along with Platform Houchin.
- Platform Hogan is a 12-pile platform installed in 1967 in 154' of water.
- The estimated removal weight is the deck weight is 2,259 tons and the jacket weight is 1,263 tons.
- The platform has a total of 39 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 39 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 500 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and three 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 5 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.



## **MMS**

### **Platform Salvage Option**

#### **Hogan MMS POCS 29056 (Ver 1)**

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-The four pipelines (oil, gas, gas lift, water return) on the OCS will be totally removed to the state water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipelines to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.



## MMS

### Platform Salvage Option

#### Hogan MMS POCS 29056 (Ver 1)

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--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Platform Removal; Site Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Material Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$34,453,019

Estimated Decommissioning Net Cost = \$34,453,019



## MMS

### Basic Information

### Hogan MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Hogan MMS POCS 29056  
Function: FACILITIES  
Type: Steel  
Water Depth: 154'  
Pre 461H?: Yes  
Year Installed: 1967  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0166  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 39  
# Pipelines to Abandon: 4  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Pacific Operators Offshore, Inc.	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$27,183,200	\$27,183,200
Well Plugging & Abandonment:	\$6,385,880	\$6,385,880
Pipeline Abandonment:	\$883,939	\$883,939
Total Decommissioning Cost:	\$34,453,019	\$34,453,019



## MMS

### Platform Information

### Hogan MMS POCS 29056 (Ver 1)

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#### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	12	36"		Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

#### Deck Dimensions

	Dimensions	Elevation
Upper:	86x170	
Middle:	86x170	
Lower:	87x170	

#### Conductors

Number of Slots:	60
Number Installed:	39
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

#### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	1263.00		
Jacket Installation Date:	1/1/1967		
Jacket Contractor:	Unknown		

#### Deck Data

Deck Lift Weight with Equipment:	2259 Tons
Number of Padeyes Required:	0
Deck Installation Date:	1/1/1967
Deck Contractor:	Unknown



## MMS

### Platform Information

### Hogan MMS POCS 29056 (Ver 1)

---

### Equipment Lift Weights

### Members to be Cut Data

### Cargo Descriptions

Cargo Barge Size	Cargo Description			
CB 300 x 100	Equipment	Equipment	Deck 100-500T	Deck 100-500T
CB 300 x 100	Deck 100-500T	Deck 100-500T	Deck 100-500T	Deck 100-500T
CB 400 x 100	Deck 100-500T	Deck 100-500T	Jkt < 300T	
CB 400 x 100	Jkt 300-700T	Jkt 300-700T		
CB 400 x 100	Jkt 300-700T	Jkt 300-700T		

### Miscellaneous Data

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	0.00
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### Miscellaneous Cost

Consumables:	\$0.00
Waste Disposal:	\$1,654,215.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Hogan MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$1,493,591.00	5.49%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.02%	\$1,277,500.00	4.70%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.02%	\$20,977.00	0.08%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.02%	\$2,711,575.00	9.98%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.02%	\$957,710.00	3.52%
Mobilize DB 500	Mob from Asia, 50 days divided by 2 platforms	<input type="checkbox"/>	600.00	13.11%	\$3,510,000.00	12.91%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	22.20	0.49%	\$71,512.00	0.26%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 3)	<input type="checkbox"/>	22.20	0.49%	\$108,600.00	0.40%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	10.10	0.22%	\$45,652.00	0.17%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.15%	\$71,010.00	0.26%
Cut Deck/Equip/Misc	Seperate 8 Modules	<input checked="" type="checkbox"/>	24.00	0.52%	\$276,000.00	1.02%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.52%	\$276,000.00	1.02%
Remove 8 Pile Deck	Remove 12 Pile Deck Modules (Qty 8)	<input checked="" type="checkbox"/>	192.00	4.20%	\$2,208,000.00	8.12%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	22.20	0.49%	\$43,512.00	0.16%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	46.00	1.01%	\$529,920.00	1.95%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	57.91	1.27%	\$726,787.21	2.67%
Cut Jacket	24 Hours per section, times 5 sections, per MMS	<input checked="" type="checkbox"/>	120.00	2.62%	\$1,442,064.00	5.30%
Remove Jacket - Meth 1	24 Hours per section, times 5 sections, per MMS	<input checked="" type="checkbox"/>	120.00	2.62%	\$1,382,400.00	5.09%
Demob CB 400 & Tug	Demob to Port of LA (Qty 3)	<input type="checkbox"/>	22.20	0.49%	\$66,600.00	0.25%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.15%	\$71,010.00	0.26%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	10.10	0.22%	\$45,652.00	0.17%
Demob DB 500	Demob to Asia, 50 days divided by 2 platforms	<input type="checkbox"/>	600.00	13.11%	\$3,510,000.00	12.91%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	1.57%	\$709,000.00	2.61%
Offload CB 300		<input type="checkbox"/>	912.00	19.93%	\$226,960.00	0.83%
Offload CB 400		<input type="checkbox"/>	1512.00	33.05%	\$453,120.00	1.67%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.02%	\$20,977.00	0.08%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$345,992.00	1.27%
<b>Task Total</b>			<b>4407.41</b>	<b>96.33%</b>	<b>\$22,602,121.21</b>	<b>83.15%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>100.71</b>	<b>2.20%</b>	<b>\$1,756,120.00</b>	<b>6.46%</b>
<b>Weather Contingency (10.00%)</b>			<b>67.14</b>	<b>1.47%</b>	<b>\$1,170,747.00</b>	<b>4.31%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$1,654,215.00</b>	<b>6.09%</b>



**MMS**

**Platform Decommission Task Information**

**Hogan MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		<b>Structure &amp; Equipment Disposal</b>		\$0.00	0.00%
		<b>Offloading</b>		\$0.00	0.00%
		<b>Storage / Scrapping</b>		\$0.00	0.00%
		<b>Reef Donation</b>		\$0.00	0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00	0.00%
			<b>Total:</b>	4575.26	100.00%
				127,183,203.21	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Hogan MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$386,006.25	1.42%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$186,960.00	0.69%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$393,120.00	1.45%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$322,224.00	1.19%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$477,110.00	1.76%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$100,000.00	0.37%
Derrick Barge 500	\$6,500.00	per Hour	10,903,165.00	40.11%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$1,954,735.66	7.19%
Manual Calculation	\$0.00	Independently Calculated	\$7,537,322.00	27.73%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$119,328.00	0.44%
Pipeline Survey	\$230.00	per Hour	\$142,050.30	0.52%
Rig Up CB 300	\$14,000.00	per Barge	\$28,000.00	0.10%
Rig Up CB 400	\$14,000.00	per Barge	\$42,000.00	0.15%
Work Boat	\$500.00	per Hour	\$10,100.00	0.04%



**MMS**

**Platform Decommission Cost Breakdown**

**Hogan MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00 0.00%</b>	<b>\$1,493,591.00 5.49%</b>
Manual Calculation		\$1,493,591.00
<b>NMFS Marine Observation</b>	<b>1.00 0.02%</b>	<b>\$1,277,500.00 4.70%</b>
Manual Calculation		\$1,277,500.00
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00 0.02%</b>	<b>\$20,977.00 0.08%</b>
Manual Calculation		\$2,750.00
Manual Calculation		\$1,055.00
Manual Calculation		\$12,000.00
Manual Calculation		\$5,172.00
<b>Sever Conductors- Abrasive</b>	<b>1.00 0.02%</b>	<b>\$2,711,575.00 9.98%</b>
Manual Calculation		\$2,711,575.00
<b>Platform Removal Preparation</b>	<b>1.00 0.02%</b>	<b>\$957,710.00 3.52%</b>
Manual Calculation		\$957,710.00
<b>Mobilize DB 500</b>	<b>600.00 13.11%</b>	<b>\$3,510,000.00 12.91%</b>
Derrick Barge 500		\$3,510,000.00
<b>Mobilize CB 300 &amp; Tug</b>	<b>22.20 0.49%</b>	<b>\$71,512.00 0.26%</b>
CB 300 & Tug		\$43,512.00
Rig Up CB 300		\$28,000.00



## MMS

### Platform Decommission Cost Breakdown

#### Hogan MMS POCS 29056 (Ver 1)

Task	Task Hours	Task Cost		
<b>Mobilize CB 400 &amp; Tug</b>	<b>22.20</b>	<b>0.49%</b>	<b>\$108,600.00</b>	<b>0.40%</b>
Rig Up CB 400		\$42,000.00		
CB 400 & Tug		\$66,600.00		
<b>Mobilize Dive Spread</b>	<b>10.10</b>	<b>0.22%</b>	<b>\$45,652.00</b>	<b>0.17%</b>
Work Boat		\$5,050.00		
Dive Basic Spread Saturation		\$31,966.50		
Abrasive Cutter Spread		\$6,312.50		
Pipeline Survey		\$2,323.00		
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.15%</b>	<b>\$71,010.00</b>	<b>0.26%</b>
Derrick Barge 500		\$43,875.00		
Dive Basic Spread Saturation		\$21,363.75		
Pipeline Survey		\$1,552.50		
Abrasive Cutter Spread		\$4,218.75		
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>0.52%</b>	<b>\$276,000.00</b>	<b>1.02%</b>
Derrick Barge 500		\$156,000.00		
Dive Basic Spread Saturation		\$75,960.00		
Pipeline Survey		\$5,520.00		
Abrasive Cutter Spread		\$15,000.00		
CB 300 & Tug		\$23,520.00		



**MMS**

**Platform Decommission Cost Breakdown**

**Hogan MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>24.00</b>	<b>0.52%</b>	<b>\$276,000.00</b>	<b>1.02%</b>
Derrick Barge 500	\$156,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
<b>Remove 8 Pile Deck</b>		<b>192.00</b>	<b>4.20%</b>	<b>\$2,208,000.00</b>	<b>8.12%</b>
Derrick Barge 500	\$1,248,000.00				
Dive Basic Spread Saturation	\$607,680.00				
Pipeline Survey	\$44,160.00				
Abrasive Cutter Spread	\$120,000.00				
CB 300 & Tug	\$188,160.00				
<b>Demob CB 300 &amp; Tug</b>		<b>22.20</b>	<b>0.49%</b>	<b>\$43,512.00</b>	<b>0.16%</b>
CB 300 & Tug	\$43,512.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>46.00</b>	<b>1.01%</b>	<b>\$529,920.00</b>	<b>1.95%</b>
Derrick Barge 500	\$299,000.00				
Dive Basic Spread Saturation	\$145,590.00				
Pipeline Survey	\$10,580.00				
Abrasive Cutter Spread	\$28,750.00				
CB 400 & Tug	\$46,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Hogan MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>		<b>57.91</b>	<b>1.27%</b>	<b>\$726,787.21</b>	<b>2.67%</b>
Derrick Barge 500	\$376,415.00				
Dive Basic Spread Saturation	\$183,285.16				
Pipeline Survey	\$13,319.30				
Abrasive Cutter Spread	\$36,193.75				
CB 400 & Tug	\$57,910.00				
Pile Abrasive Cut 7 to 48 inches	\$59,664.00				
<b>Cut Jacket</b>		<b>120.00</b>	<b>2.62%</b>	<b>\$1,442,064.00</b>	<b>5.30%</b>
Derrick Barge 500	\$780,000.00				
Dive Basic Spread Saturation	\$379,800.00				
Pipeline Survey	\$27,600.00				
Abrasive Cutter Spread	\$75,000.00				
CB 400 & Tug	\$120,000.00				
Pile Abrasive Cut 7 to 48 inches	\$59,664.00				
<b>Remove Jacket - Meth 1</b>		<b>120.00</b>	<b>2.62%</b>	<b>\$1,382,400.00</b>	<b>5.09%</b>
Derrick Barge 500	\$780,000.00				
Dive Basic Spread Saturation	\$379,800.00				
Pipeline Survey	\$27,600.00				
CB 400 & Tug	\$120,000.00				
Abrasive Cutter Spread	\$75,000.00				
<b>Demob CB 400 &amp; Tug</b>		<b>22.20</b>	<b>0.49%</b>	<b>\$66,600.00</b>	<b>0.25%</b>
CB 400 & Tug	\$66,600.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Hogan MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.15%</b>	<b>\$71,010.00</b>	<b>0.26%</b>
Derrick Barge 500	\$43,875.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
<b>Demob Dive Spread</b>		<b>10.10</b>	<b>0.22%</b>	<b>\$45,652.00</b>	<b>0.17%</b>
Work Boat	\$5,050.00				
Dive Basic Spread Saturation	\$31,966.50				
Abrasive Cutter Spread	\$6,312.50				
Pipeline Survey	\$2,323.00				
<b>Demob DB 500</b>		<b>600.00</b>	<b>13.11%</b>	<b>\$3,510,000.00</b>	<b>12.91%</b>
Derrick Barge 500	\$3,510,000.00				
<b>Site Clearance - with Divers</b>		<b>72.00</b>	<b>1.57%</b>	<b>\$709,000.00</b>	<b>2.61%</b>
Manual Calculation	\$709,000.00				
<b>Offload CB 300</b>		<b>912.00</b>	<b>19.93%</b>	<b>\$226,960.00</b>	<b>0.83%</b>
Cargo Barge 300	\$186,960.00				
CB Damage Deduct	\$40,000.00				
<b>Offload CB 400</b>		<b>1512.00</b>	<b>33.05%</b>	<b>\$453,120.00</b>	<b>1.67%</b>
Cargo Barge 400	\$393,120.00				
CB Damage Deduct	\$60,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Hogan MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$20,977.00</b>	<b>0.08%</b>
Manual Calculation			\$2,750.00	
Manual Calculation			\$1,055.00	
Manual Calculation			\$12,000.00	
Manual Calculation			\$5,172.00	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$345,992.00</b>	<b>1.27%</b>
Manual Calculation			\$345,992.00	
<b>Total</b>	<b>4407.41</b>	<b>96.33%</b>	<b>\$22,602,121.21</b>	<b>83.15%</b>



## MMS

### Pipeline Information

#### Hogan MMS POCS 29056 (Ver1) Segment#:110166-

---

### General Data

Water Depth: 154'  
Origin / Terminus: Origin  
Opposite End Name: La Conch  
Opposite End Water Depth: 154'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 10.75"	Wall Thickness:	Length: 17522.4'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to the La Conchita Onshore facility.  
Pipeline removed to state waters.  
Estimated ~1600' Removed



## MMS

### Pipeline Information

#### Hogan MMS POCS 29056 (Ver1) Segment#:163016

---

### General Data

Water Depth: 154'  
Origin / Terminus: Origin  
Opposite End Name: Houchin  
Opposite End Water Depth: 163'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 4.5"	Wall Thickness:	Length: 3355'
Depth of Burial:	# Crossings:	Product: H20
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to Houchin. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Hogan MMS POCS 29056 (Ver1) Segment#:172016

---

### General Data

Water Depth: 154'  
Origin / Terminus: Origin  
Opposite End Name: Houchin  
Opposite End Water Depth: 163'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 10.75"	Wall Thickness:	Length: 3355'
Depth of Burial:	# Crossings:	Product: Lift
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to Houchin. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Hogan MMS POCS 29056 (Ver1) Segment#:220166-

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### General Data

Water Depth: 154'  
Origin / Terminus: Origin  
Opposite End Name: La Conch  
Opposite End Water Depth: 154'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 12.75"	Wall Thickness:	Length: 17522.4'
Depth of Burial:	# Crossings:	Product: GAS
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to the La Conchita Onshore facility.  
Pipeline removed to state waters.  
Estimated ~1600' Removed



**MMS**

**Pipeline Decommission Task Information**

**Hogan MMS POCS 29056 (Ver 1) Segment#:110166-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	1.68	0.55%	\$1,168.44	0.37%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.65%	\$3,477.50	1.09%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	18.00	5.93%	\$12,519.00	3.94%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.66%	\$1,391.00	0.44%
Demob Work Boat		<input type="checkbox"/>	1.68	0.55%	\$1,168.44	0.37%
Mob P/L Removal Spread	Shared between 2 pipelines.	<input type="checkbox"/>	5.00	1.65%	\$65,345.00	20.56%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	4.76	1.57%	\$15,143.94	4.77%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.17	1.04%	\$10,085.36	3.17%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.17	1.04%	\$10,085.36	3.17%
Mobilize Vessel		<input checked="" type="checkbox"/>	5.00	1.65%	\$21,500.00	6.77%
Expose Pipeline		<input checked="" type="checkbox"/>	4.76	1.57%	\$17,226.44	5.42%
Remove Pipeline		<input checked="" type="checkbox"/>	10.00	3.30%	\$36,190.00	11.39%
Bury Pipeline		<input checked="" type="checkbox"/>	3.17	1.04%	\$11,472.23	3.61%
Demob Vessel		<input checked="" type="checkbox"/>	5.00	1.65%	\$5,500.00	1.73%
Demob P/L Removal Spread		<input type="checkbox"/>	5.00	1.65%	\$18,095.00	5.69%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	55.37%	\$41,000.00	12.90%
<b>Task Total</b>			245.39	80.88%	\$271,367.71	85.40%
<b>Misc. Work Provision (15.00%)</b>			34.80	11.47%	\$27,838.63	8.76%
<b>Other Contingency (10.00%)</b>			23.20	7.65%	\$18,559.08	5.84%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			303.40	100.00%	\$317,765.42	100.00%



**MMS**

**Pipeline Decommission Task Information**

**Hogan MMS POCS 29056 (Ver 1) Segment#:1630166**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	2.50	3.79%	\$4,526.25	3.79%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	7.59%	\$9,052.50	7.59%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	2.00	3.03%	\$3,621.00	3.03%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	3.03%	\$3,621.00	3.03%
Expose Pipeline		<input checked="" type="checkbox"/>	4.76	7.22%	\$8,617.98	7.22%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	4.76	7.22%	\$8,617.98	7.22%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.17	4.81%	\$5,739.29	4.81%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.17	4.81%	\$5,739.29	4.81%
Bury Pipeline		<input checked="" type="checkbox"/>	3.17	4.81%	\$5,739.29	4.81%
Reposition Workboat		<input checked="" type="checkbox"/>	3.06	4.64%	\$5,540.13	4.64%
Expose Pipeline		<input checked="" type="checkbox"/>	4.76	7.22%	\$8,617.98	7.22%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	4.76	7.22%	\$8,617.98	7.22%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.17	4.81%	\$5,739.29	4.81%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.17	4.81%	\$5,739.29	4.81%
Bury Pipeline		<input checked="" type="checkbox"/>	3.17	4.81%	\$5,739.29	4.81%
Demob Work Boat		<input type="checkbox"/>	2.50	3.79%	\$4,526.25	3.79%
<b>Task Total</b>			<b>55.12</b>	<b>83.64%</b>	<b>\$99,794.79</b>	<b>83.64%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>6.47</b>	<b>9.81%</b>	<b>\$11,710.32</b>	<b>9.81%</b>
<b>Other Contingency (10.00%)</b>			<b>4.31</b>	<b>6.54%</b>	<b>\$7,806.88</b>	<b>6.54%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>65.90</b>	<b>100.00%</b>	<b>\$119,311.99</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Hogan MMS POCS 29056 (Ver 1) Segment#:1720166**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	2.50	3.87%	\$4,526.25	3.87%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	7.75%	\$9,052.50	7.75%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	0.92	1.43%	\$1,665.66	1.43%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	3.10%	\$3,621.00	3.10%
Expose Pipeline		<input checked="" type="checkbox"/>	4.76	7.37%	\$8,617.98	7.37%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	4.76	7.37%	\$8,617.98	7.37%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.17	4.91%	\$5,739.29	4.91%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.17	4.91%	\$5,739.29	4.91%
Bury Pipeline		<input checked="" type="checkbox"/>	3.17	4.91%	\$5,739.29	4.91%
Reposition Workboat		<input checked="" type="checkbox"/>	3.06	4.74%	\$5,540.13	4.74%
Expose Pipeline		<input checked="" type="checkbox"/>	4.76	7.37%	\$8,617.98	7.37%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	4.76	7.37%	\$8,617.98	7.37%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.17	4.91%	\$5,739.29	4.91%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.17	4.91%	\$5,739.29	4.91%
Bury Pipeline		<input checked="" type="checkbox"/>	3.17	4.91%	\$5,739.29	4.91%
Demob Work Boat		<input type="checkbox"/>	2.50	3.87%	\$4,526.25	3.87%
<b>Task Total</b>			<b>54.04</b>	<b>83.72%</b>	<b>\$97,839.45</b>	<b>83.72%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>6.31</b>	<b>9.77%</b>	<b>\$11,417.02</b>	<b>9.77%</b>
<b>Other Contingency (10.00%)</b>			<b>4.20</b>	<b>6.51%</b>	<b>\$7,611.35</b>	<b>6.51%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>64.55</b>	<b>100.00%</b>	<b>\$116,867.81</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Hogan MMS POCS 29056 (Ver 1) Segment#:220166-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	1.68	0.53%	\$1,168.44	0.35%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.58%	\$3,477.50	1.05%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	24.00	7.56%	\$16,692.00	5.06%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.63%	\$1,391.00	0.42%
Demob Work Boat		<input type="checkbox"/>	1.68	0.53%	\$1,168.44	0.35%
Mob P/L Removal Spread	Shared between 2 pipelines.	<input type="checkbox"/>	5.00	1.58%	\$65,345.00	19.80%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	4.76	1.50%	\$15,143.94	4.59%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.17	1.00%	\$10,085.36	3.06%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.17	1.00%	\$10,085.36	3.06%
Mobilize Vessel		<input checked="" type="checkbox"/>	10.10	3.18%	\$27,110.00	8.22%
Expose Pipeline		<input checked="" type="checkbox"/>	4.76	1.50%	\$17,226.44	5.22%
Remove Pipeline		<input checked="" type="checkbox"/>	10.00	3.15%	\$36,190.00	10.97%
Bury Pipeline		<input checked="" type="checkbox"/>	3.17	1.00%	\$11,472.23	3.48%
Demob Vessel		<input checked="" type="checkbox"/>	5.00	1.58%	\$5,500.00	1.67%
Demob P/L Removal Spread		<input type="checkbox"/>	5.00	1.58%	\$18,095.00	5.48%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	52.95%	\$41,000.00	12.42%
<b>Task Total</b>			<b>256.49</b>	<b>80.84%</b>	<b>\$281,150.71</b>	<b>85.20%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>36.47</b>	<b>11.49%</b>	<b>\$29,306.08</b>	<b>8.88%</b>
<b>ather Contingency (10.00%)</b>			<b>24.31</b>	<b>7.66%</b>	<b>\$19,537.38</b>	<b>5.92%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>317.27</b>	<b>100.00%</b>	<b>\$329,994.17</b>	<b>100.00%</b>



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Hogan MMS POCS 29056 (Ver 1) Segment#:11016**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	6.61%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$23,611.50	7.43%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	6.29%
Decommissioning Crew	\$0.00	Calculated from tables	\$4,439.26	1.40%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$34,541.55	10.87%
Manual Calculation	\$0.00	Independently Calculated	\$50,000.00	15.73%
Pipelay Barge	\$1,954.00	per Hour	\$76,264.62	24.00%
Pipeline Surveying	\$230.00	per Hour	\$8,976.90	2.83%
Rig Up CB 180	\$8,000.00	per Barge	\$16,000.00	5.04%
Work Boat	\$583.00	per Hour	\$16,533.88	5.20%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Hogan MMS POCS 29056 (Ver 1) Segment#:16301**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$6,201.03	5.20%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$48,781.20	40.89%
Pipeline Surveying	\$230.00	per Hour	\$12,677.60	10.63%
Work Boat	\$583.00	per Hour	\$32,134.96	26.93%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Hogan MMS POCS 29056 (Ver 1) Segment#:17201**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$6,079.53	5.20%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$47,825.40	40.92%
Pipeline Surveying	\$230.00	per Hour	\$12,429.20	10.64%
Work Boat	\$583.00	per Hour	\$31,505.32	26.96%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Hogan MMS POCS 29056 (Ver 1) Segment#:22016**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	6.36%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$29,221.50	8.86%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	6.06%
Decommissioning Crew	\$0.00	Calculated from tables	\$5,114.26	1.55%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$34,541.55	10.47%
Manual Calculation	\$0.00	Independently Calculated	\$50,000.00	15.15%
Pipelay Barge	\$1,954.00	per Hour	\$76,264.62	23.11%
Pipeline Surveying	\$230.00	per Hour	\$8,976.90	2.72%
Rig Up CB 180	\$8,000.00	per Barge	\$16,000.00	4.85%
Work Boat	\$583.00	per Hour	\$20,031.88	6.07%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hogan MMS POCS 29056 (Ver 1) Segment#:110166**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>1.68 0.55%</b>	<b>\$1,168.44 0.37%</b>
Work Boat	\$979.44	
Decommissioning Crew	\$189.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.65%</b>	<b>\$3,477.50 1.09%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Pig &amp; Flush Pipeline</b>	<b>18.00 5.93%</b>	<b>\$12,519.00 3.94%</b>
Work Boat	\$10,494.00	
Decommissioning Crew	\$2,025.00	
<b>Derig Decomm Equipment</b>	<b>2.00 0.66%</b>	<b>\$1,391.00 0.44%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Demob Work Boat</b>	<b>1.68 0.55%</b>	<b>\$1,168.44 0.37%</b>
Work Boat	\$979.44	
Decommissioning Crew	\$189.00	
<b>Mob P/L Removal Spread</b>	<b>5.00 1.65%</b>	<b>\$65,345.00 20.56%</b>
Dive Basic Spread- Mixed Gas	\$4,425.00	
Pipeline Surveying	\$1,150.00	
Pipelay Barge	\$9,770.00	
Manual Calculation	\$50,000.00	
<b>Cut &amp; Plug Pipeline</b>	<b>4.76 1.57%</b>	<b>\$15,143.94 4.77%</b>
Dive Basic Spread- Mixed Gas	\$4,212.60	
Pipeline Surveying	\$1,094.80	
Pipelay Barge	\$9,301.04	
Decommissioning Crew	\$535.50	
<b>Cut Pipeline Riser</b>	<b>3.17 1.04%</b>	<b>\$10,085.36 3.17%</b>
Dive Basic Spread- Mixed Gas	\$2,805.45	
Pipeline Surveying	\$729.10	
Pipelay Barge	\$6,194.18	
Decommissioning Crew	\$356.63	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Remove Tube Turn</b>		<b>3.17</b>	<b>1.04%</b>	<b>\$10,085.36</b>	<b>3.17%</b>
Dive Basic Spread- Mixed Gas	\$2,805.45				
Pipeline Surveying	\$729.10				
Pipelay Barge	\$6,194.18				
Decommissioning Crew	\$356.63				
<b>Mobilize Vessel</b>		<b>5.00</b>	<b>1.65%</b>	<b>\$21,500.00</b>	<b>6.77%</b>
CB 180 & Tug	\$5,500.00				
Rig Up CB 180	\$16,000.00				
<b>Expose Pipeline</b>		<b>4.76</b>	<b>1.57%</b>	<b>\$17,226.44</b>	<b>5.42%</b>
Pipeline Surveying	\$1,094.80				
Dive Basic Spread- Mixed Gas	\$4,212.60				
Pipelay Barge	\$9,301.04				
CB 180 & Tug	\$2,618.00				
<b>Remove Pipeline</b>		<b>10.00</b>	<b>3.30%</b>	<b>\$36,190.00</b>	<b>11.39%</b>
Pipeline Surveying	\$2,300.00				
Dive Basic Spread- Mixed Gas	\$8,850.00				
Pipelay Barge	\$19,540.00				
CB 180 & Tug	\$5,500.00				
<b>Bury Pipeline</b>		<b>3.17</b>	<b>1.04%</b>	<b>\$11,472.23</b>	<b>3.61%</b>
Pipeline Surveying	\$729.10				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Pipelay Barge	\$6,194.18				
CB 180 & Tug	\$1,743.50				
<b>Demob Vessel</b>		<b>5.00</b>	<b>1.65%</b>	<b>\$5,500.00</b>	<b>1.73%</b>
CB 180 & Tug	\$5,500.00				
<b>Demob P/L Removal Spread</b>		<b>5.00</b>	<b>1.65%</b>	<b>\$18,095.00</b>	<b>5.69%</b>
Pipeline Surveying	\$1,150.00				
Dive Basic Spread- Mixed Gas	\$4,425.00				
Pipelay Barge	\$9,770.00				
CB 180 & Tug	\$2,750.00				
<b>Offload CB 180</b>		<b>168.00</b>	<b>55.37%</b>	<b>\$41,000.00</b>	<b>12.90%</b>
Cargo Barge 180	\$21,000.00				
CB Damage Deduct	\$20,000.00				
		<b>Total</b>	<b>245.39 80.88%</b>	<b>\$271,367.71</b>	<b>85.40%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hogan MMS POCS 29056 (Ver 1) Segment#:163016**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>2.50 3.79%</b>	<b>\$4,526.25 3.79%</b>
Work Boat	\$1,457.50	
Dive Basic Spread- Mixed Gas	\$2,212.50	
Decommissioning Crew	\$281.25	
Pipeline Surveying	\$575.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 7.59%</b>	<b>\$9,052.50 7.59%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>2.00 3.03%</b>	<b>\$3,621.00 3.03%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Derig Decomm Equipment</b>	<b>2.00 3.03%</b>	<b>\$3,621.00 3.03%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Expose Pipeline</b>	<b>4.76 7.22%</b>	<b>\$8,617.98 7.22%</b>
Work Boat	\$2,775.08	
Dive Basic Spread- Mixed Gas	\$4,212.60	
Decommissioning Crew	\$535.50	
Pipeline Surveying	\$1,094.80	
<b>Cut &amp; Plug Pipeline</b>	<b>4.76 7.22%</b>	<b>\$8,617.98 7.22%</b>
Work Boat	\$2,775.08	
Dive Basic Spread- Mixed Gas	\$4,212.60	
Decommissioning Crew	\$535.50	
Pipeline Surveying	\$1,094.80	



## MMS

### Pipeline Decommission Cost Breakdown

<b>Cut Pipeline Riser</b>		<b>3.17</b>	<b>4.81%</b>	<b>\$5,739.29</b>	<b>4.81%</b>
Work Boat	\$1,848.11				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Decommissioning Crew	\$356.63				
Pipeline Surveying	\$729.10				
<hr/>					
<b>Remove Tube Turn</b>		<b>3.17</b>	<b>4.81%</b>	<b>\$5,739.29</b>	<b>4.81%</b>
Work Boat	\$1,848.11				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Decommissioning Crew	\$356.63				
Pipeline Surveying	\$729.10				
<hr/>					
<b>Bury Pipeline</b>		<b>3.17</b>	<b>4.81%</b>	<b>\$5,739.29</b>	<b>4.81%</b>
Work Boat	\$1,848.11				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Decommissioning Crew	\$356.63				
Pipeline Surveying	\$729.10				
<hr/>					
<b>Reposition Workboat</b>		<b>3.06</b>	<b>4.64%</b>	<b>\$5,540.13</b>	<b>4.64%</b>
Work Boat	\$1,783.98				
Dive Basic Spread- Mixed Gas	\$2,708.10				
Decommissioning Crew	\$344.25				
Pipeline Surveying	\$703.80				
<hr/>					
<b>Expose Pipeline</b>		<b>4.76</b>	<b>7.22%</b>	<b>\$8,617.98</b>	<b>7.22%</b>
Work Boat	\$2,775.08				
Dive Basic Spread- Mixed Gas	\$4,212.60				
Decommissioning Crew	\$535.50				
Pipeline Surveying	\$1,094.80				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>4.76</b>	<b>7.22%</b>	<b>\$8,617.98</b>	<b>7.22%</b>
Work Boat	\$2,775.08				
Dive Basic Spread- Mixed Gas	\$4,212.60				
Decommissioning Crew	\$535.50				
Pipeline Surveying	\$1,094.80				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>3.17</b>	<b>4.81%</b>	<b>\$5,739.29</b>	<b>4.81%</b>
Work Boat	\$1,848.11				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Decommissioning Crew	\$356.63				
Pipeline Surveying	\$729.10				
<b>Remove Tube Turn</b>		<b>3.17</b>	<b>4.81%</b>	<b>\$5,739.29</b>	<b>4.81%</b>
Work Boat	\$1,848.11				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Decommissioning Crew	\$356.63				
Pipeline Surveying	\$729.10				
<b>Bury Pipeline</b>		<b>3.17</b>	<b>4.81%</b>	<b>\$5,739.29</b>	<b>4.81%</b>
Work Boat	\$1,848.11				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Decommissioning Crew	\$356.63				
Pipeline Surveying	\$729.10				
<b>Demob Work Boat</b>		<b>2.50</b>	<b>3.79%</b>	<b>\$4,526.25</b>	<b>3.79%</b>
Work Boat	\$1,457.50				
Dive Basic Spread- Mixed Gas	\$2,212.50				
Decommissioning Crew	\$281.25				
Pipeline Surveying	\$575.00				
		<b>Total</b>	<b>55.12 83.64%</b>	<b>\$99,794.79</b>	<b>83.64%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hogan MMS POCS 29056 (Ver 1) Segment#:172016**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>2.50 3.87%</b>	<b>\$4,526.25 3.87%</b>
Work Boat	\$1,457.50	
Dive Basic Spread- Mixed Gas	\$2,212.50	
Decommissioning Crew	\$281.25	
Pipeline Surveying	\$575.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 7.75%</b>	<b>\$9,052.50 7.75%</b>
Work Boat	\$2,915.00	
Dive Basic Spread- Mixed Gas	\$4,425.00	
Decommissioning Crew	\$562.50	
Pipeline Surveying	\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>0.92 1.43%</b>	<b>\$1,665.66 1.43%</b>
Work Boat	\$536.36	
Dive Basic Spread- Mixed Gas	\$814.20	
Decommissioning Crew	\$103.50	
Pipeline Surveying	\$211.60	
<b>Derig Decomm Equipment</b>	<b>2.00 3.10%</b>	<b>\$3,621.00 3.10%</b>
Work Boat	\$1,166.00	
Dive Basic Spread- Mixed Gas	\$1,770.00	
Decommissioning Crew	\$225.00	
Pipeline Surveying	\$460.00	
<b>Expose Pipeline</b>	<b>4.76 7.37%</b>	<b>\$8,617.98 7.37%</b>
Work Boat	\$2,775.08	
Dive Basic Spread- Mixed Gas	\$4,212.60	
Decommissioning Crew	\$535.50	
Pipeline Surveying	\$1,094.80	
<b>Cut &amp; Plug Pipeline</b>	<b>4.76 7.37%</b>	<b>\$8,617.98 7.37%</b>
Work Boat	\$2,775.08	
Dive Basic Spread- Mixed Gas	\$4,212.60	
Decommissioning Crew	\$535.50	
Pipeline Surveying	\$1,094.80	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>3.17</b>	<b>4.91%</b>	<b>\$5,739.29</b>	<b>4.91%</b>
Work Boat	\$1,848.11				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Decommissioning Crew	\$356.63				
Pipeline Surveying	\$729.10				
<b>Remove Tube Turn</b>		<b>3.17</b>	<b>4.91%</b>	<b>\$5,739.29</b>	<b>4.91%</b>
Work Boat	\$1,848.11				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Decommissioning Crew	\$356.63				
Pipeline Surveying	\$729.10				
<b>Bury Pipeline</b>		<b>3.17</b>	<b>4.91%</b>	<b>\$5,739.29</b>	<b>4.91%</b>
Work Boat	\$1,848.11				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Decommissioning Crew	\$356.63				
Pipeline Surveying	\$729.10				
<b>Reposition Workboat</b>		<b>3.06</b>	<b>4.74%</b>	<b>\$5,540.13</b>	<b>4.74%</b>
Work Boat	\$1,783.98				
Dive Basic Spread- Mixed Gas	\$2,708.10				
Decommissioning Crew	\$344.25				
Pipeline Surveying	\$703.80				
<b>Expose Pipeline</b>		<b>4.76</b>	<b>7.37%</b>	<b>\$8,617.98</b>	<b>7.37%</b>
Work Boat	\$2,775.08				
Dive Basic Spread- Mixed Gas	\$4,212.60				
Decommissioning Crew	\$535.50				
Pipeline Surveying	\$1,094.80				
<b>Cut &amp; Plug Pipeline</b>		<b>4.76</b>	<b>7.37%</b>	<b>\$8,617.98</b>	<b>7.37%</b>
Work Boat	\$2,775.08				
Dive Basic Spread- Mixed Gas	\$4,212.60				
Decommissioning Crew	\$535.50				
Pipeline Surveying	\$1,094.80				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>3.17</b>	<b>4.91%</b>	<b>\$5,739.29</b>	<b>4.91%</b>
Work Boat	\$1,848.11				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Decommissioning Crew	\$356.63				
Pipeline Surveying	\$729.10				
<b>Remove Tube Turn</b>		<b>3.17</b>	<b>4.91%</b>	<b>\$5,739.29</b>	<b>4.91%</b>
Work Boat	\$1,848.11				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Decommissioning Crew	\$356.63				
Pipeline Surveying	\$729.10				
<b>Bury Pipeline</b>		<b>3.17</b>	<b>4.91%</b>	<b>\$5,739.29</b>	<b>4.91%</b>
Work Boat	\$1,848.11				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Decommissioning Crew	\$356.63				
Pipeline Surveying	\$729.10				
<b>Demob Work Boat</b>		<b>2.50</b>	<b>3.87%</b>	<b>\$4,526.25</b>	<b>3.87%</b>
Work Boat	\$1,457.50				
Dive Basic Spread- Mixed Gas	\$2,212.50				
Decommissioning Crew	\$281.25				
Pipeline Surveying	\$575.00				
		<b>Total</b>	<b>54.04 83.72%</b>	<b>\$97,839.45</b>	<b>83.72%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hogan MMS POCS 29056 (Ver 1) Segment#:220166**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>1.68 0.53%</b>	<b>\$1,168.44 0.35%</b>
Work Boat	\$979.44	
Decommissioning Crew	\$189.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.58%</b>	<b>\$3,477.50 1.05%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Pig &amp; Flush Pipeline</b>	<b>24.00 7.56%</b>	<b>\$16,692.00 5.06%</b>
Work Boat	\$13,992.00	
Decommissioning Crew	\$2,700.00	
<b>Derig Decomm Equipment</b>	<b>2.00 0.63%</b>	<b>\$1,391.00 0.42%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Demob Work Boat</b>	<b>1.68 0.53%</b>	<b>\$1,168.44 0.35%</b>
Work Boat	\$979.44	
Decommissioning Crew	\$189.00	
<b>Mob P/L Removal Spread</b>	<b>5.00 1.58%</b>	<b>\$65,345.00 19.80%</b>
Dive Basic Spread- Mixed Gas	\$4,425.00	
Pipeline Surveying	\$1,150.00	
Pipelay Barge	\$9,770.00	
Manual Calculation	\$50,000.00	
<b>Cut &amp; Plug Pipeline</b>	<b>4.76 1.50%</b>	<b>\$15,143.94 4.59%</b>
Dive Basic Spread- Mixed Gas	\$4,212.60	
Pipeline Surveying	\$1,094.80	
Pipelay Barge	\$9,301.04	
Decommissioning Crew	\$535.50	
<b>Cut Pipeline Riser</b>	<b>3.17 1.00%</b>	<b>\$10,085.36 3.06%</b>
Dive Basic Spread- Mixed Gas	\$2,805.45	
Pipeline Surveying	\$729.10	
Pipelay Barge	\$6,194.18	
Decommissioning Crew	\$356.63	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Remove Tube Turn</b>		<b>3.17</b>	<b>1.00%</b>	<b>\$10,085.36</b>	<b>3.06%</b>
Dive Basic Spread- Mixed Gas	\$2,805.45				
Pipeline Surveying	\$729.10				
Pipelay Barge	\$6,194.18				
Decommissioning Crew	\$356.63				
<b>Mobilize Vessel</b>		<b>10.10</b>	<b>3.18%</b>	<b>\$27,110.00</b>	<b>8.22%</b>
CB 180 & Tug	\$11,110.00				
Rig Up CB 180	\$16,000.00				
<b>Expose Pipeline</b>		<b>4.76</b>	<b>1.50%</b>	<b>\$17,226.44</b>	<b>5.22%</b>
Pipeline Surveying	\$1,094.80				
Dive Basic Spread- Mixed Gas	\$4,212.60				
Pipelay Barge	\$9,301.04				
CB 180 & Tug	\$2,618.00				
<b>Remove Pipeline</b>		<b>10.00</b>	<b>3.15%</b>	<b>\$36,190.00</b>	<b>10.97%</b>
Pipeline Surveying	\$2,300.00				
Dive Basic Spread- Mixed Gas	\$8,850.00				
Pipelay Barge	\$19,540.00				
CB 180 & Tug	\$5,500.00				
<b>Bury Pipeline</b>		<b>3.17</b>	<b>1.00%</b>	<b>\$11,472.23</b>	<b>3.48%</b>
Pipeline Surveying	\$729.10				
Dive Basic Spread- Mixed Gas	\$2,805.45				
Pipelay Barge	\$6,194.18				
CB 180 & Tug	\$1,743.50				
<b>Demob Vessel</b>		<b>5.00</b>	<b>1.58%</b>	<b>\$5,500.00</b>	<b>1.67%</b>
CB 180 & Tug	\$5,500.00				
<b>Demob P/L Removal Spread</b>		<b>5.00</b>	<b>1.58%</b>	<b>\$18,095.00</b>	<b>5.48%</b>
Pipeline Surveying	\$1,150.00				
Dive Basic Spread- Mixed Gas	\$4,425.00				
Pipelay Barge	\$9,770.00				
CB 180 & Tug	\$2,750.00				
<b>Offload CB 180</b>		<b>168.00</b>	<b>52.95%</b>	<b>\$41,000.00</b>	<b>12.42%</b>
Cargo Barge 180	\$21,000.00				
CB Damage Deduct	\$20,000.00				
		<b>Total</b>	<b>256.49 80.84%</b>	<b>\$281,150.71</b>	<b>85.20%</b>



## **MMS**

### **Well Information**

#### **Hogan MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           **No**

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:    **15.00%**

Weather Contingency %:       **10.00%**

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Pacific Operators Offshore, Inc.	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>

Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



### MMS

### Well Decommission Task Information

### Hogan MMS POCS 29056 (Ver 1) Well#:All

Task	Note	Contingency	Task Hours	Task Cost
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$5,108,704.00 80.00%
		<b>Task Total</b>	0.00	\$5,108,704.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$766,305.63 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$510,870.41 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$6,385,880.04 100.00%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Well Decommission Resources Breakdown**

#### **Hogan MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$5,108,704.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**Hogan MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$5,108,704.00</b>	<b>80.00%</b>	
Manual Calculation			\$5,108,704.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$5,108,704.00</b>	<b>80.00%</b>

**Hondo MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Hondo MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Hondo will be removed along with Platforms Heritage and Harmony.
- Platform Hondo is an 8-pile platform installed in 1976 in 842' of water.
- The estimated removal weight is the deck weight is 8,450 tons and the jacket weight is 12,200 tons.
- The platform has a total of 28 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 28 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 4000 that will be mobilized from the GOM or North Sea. The total mob/demob time will be 200 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Four 300' cargo barges will transport the deck modules to shore and six 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 10 cargo barge trips will be required.
- The two pipelines (oil, gas) on the OCS will be totally removed to the state water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater that 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.
- A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The



## **MMS**

### **Platform Salvage Option**

#### **Hondo MMS POCS 29056 (Ver 1)**

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total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Huenem Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix 1 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management,



## **MMS**

### **Platform Salvage Option**

#### **Hondo MMS POCS 29056 (Ver 1)**

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Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$91,690,516

Estimated Decommissioning Net Cost = \$91,690,516



## MMS

### Basic Information

### Hondo MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Hondo MMS POCS 29056  
Function: SELF CONTAINED  
Type: Steel  
Water Depth: 842'  
Pre 461H?: Yes  
Year Installed: 1976  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0188  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 28  
# Pipelines to Abandon: 2  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Exxon Mobil Corporation	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$81,789,088	\$81,789,088
Well Plugging & Abandonment:	\$6,431,590	\$6,431,590
Pipeline Abandonment:	\$3,469,838	\$3,469,838
Total Decommissioning Cost:	\$91,690,516	\$91,690,516



## MMS

### Platform Information

### Hondo MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	8	48"		Yes	No	
Skirt/Braced	12	54"		No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:		
Middle:		
Lower:		

### Conductors

Number of Slots:	28
Number Installed:	28
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	12220.00		
Jacket Installation Date:	1/1/1976		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	8450 Tons
Number of Padeyes Required:	0
Deck Installation Date:	1/1/1976
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

### **Hondo MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 300 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Deck > 500T
CB 400 x 100	Deck > 500T	Deck > 500T	Deck > 500T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T
CB 400 x 100	Jkt > 700T	Jkt > 700T	Jkt > 700T	Jkt > 700T

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	0.00
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$9,754,894.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Hondo MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$4,029,009.00	4.93%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.01%	\$851,667.00	1.04%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.01%	\$13,984.00	0.02%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.01%	\$6,340,742.00	7.75%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.01%	\$3,635,383.00	4.44%
Mobilize DB 4000	Mob from GOM or North Sea, 100 days divided by 3 platforms	<input type="checkbox"/>	800.00	7.71%	\$7,560,000.00	9.24%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 4)	<input type="checkbox"/>	25.20	0.24%	\$154,784.00	0.19%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 6)	<input type="checkbox"/>	25.20	0.24%	\$235,200.00	0.29%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	11.60	0.11%	\$52,432.00	0.06%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.07%	\$108,810.00	0.13%
Cut Deck/Equip/Misc	Seperate 13 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	0.23%	\$410,400.00	0.50%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.23%	\$410,400.00	0.50%
Remove 8 Pile Deck	Remove 8 Pile Deck, 13 modules	<input checked="" type="checkbox"/>	120.00	1.16%	\$2,052,000.00	2.51%
Demob CB 300 & Tug	Demob to Port of LA (Qty 4)	<input type="checkbox"/>	25.20	0.24%	\$98,784.00	0.12%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	35.00	0.34%	\$599,200.00	0.73%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	121.01	1.17%	\$2,271,691.21	2.78%
Cut Jacket	48 Hours per section, times 13 section(s), per MMS	<input checked="" type="checkbox"/>	624.00	6.01%	\$10,782,320.00	13.18%
Remove Jacket - Meth 1	48 Hours per section, times 13 section(s), per MMS	<input checked="" type="checkbox"/>	624.00	6.01%	\$10,682,880.00	13.06%
Demob CB 400 & Tug	Demob to Port of LA (Qty 6)	<input type="checkbox"/>	25.20	0.24%	\$151,200.00	0.18%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.07%	\$108,810.00	0.13%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	11.60	0.11%	\$52,432.00	0.06%
Demob DB 4000	Demob to GOM or North Sea, 100 days divided by 3 platforms	<input type="checkbox"/>	800.00	7.71%	\$7,560,000.00	9.24%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	0.69%	\$1,282,000.00	1.57%
Offload CB 300		<input type="checkbox"/>	1440.00	13.88%	\$375,200.00	0.46%
Offload CB 400		<input type="checkbox"/>	5136.00	49.49%	\$1,455,360.00	1.78%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.01%	\$13,984.00	0.02%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$859,484.00	1.05%
<b>Task Total</b>			<b>9962.51</b>	<b>96.00%</b>	<b>\$62,148,156.21</b>	<b>75.99%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>248.93</b>	<b>2.40%</b>	<b>\$5,931,619.00</b>	<b>7.25%</b>
<b>Weather Contingency (10.00%)</b>			<b>165.95</b>	<b>1.60%</b>	<b>\$3,954,412.00</b>	<b>4.83%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>



**MMS**

**Platform Decommission Task Information**

**Hondo MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
		Waste Disposal		\$9,754,894.00 11.93%
		Structure & Equipment Disposal		\$0.00 0.00%
		Offloading		\$0.00 0.00%
		Storage / Scrapping		\$0.00 0.00%
		Reef Donation		\$0.00 0.00%
		Cost of Engineering (0.00%)		\$0.00 0.00%
<b>Total:</b>				10377.39 100.00% ;81,789,081.21 100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Hondo MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$1,005,443.75	1.23%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$295,200.00	0.36%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$1,335,360.00	1.63%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$362,208.00	0.44%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$1,706,410.00	2.09%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$200,000.00	0.24%
Derrick Barge 4000	\$10,500.00	per Hour per barge	\$31,767,855.00	38.84%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$5,091,567.16	6.23%
Manual Calculation	\$0.00	Independently Calculated	\$17,026,253.00	20.82%
Pile Abrasive Cut 49 to 69 inches	\$5,000.00	per Cut	\$200,000.00	0.24%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$99,440.00	0.12%
Pipeline Survey	\$230.00	per Hour	\$370,003.30	0.45%
Rem. Operated Vehicle	\$800.00	per Hour	\$2,536,816.00	3.10%
Rig Up CB 300	\$14,000.00	per Barge	\$56,000.00	0.07%
Rig Up CB 400	\$14,000.00	per Barge	\$84,000.00	0.10%
Work Boat	\$500.00	per Hour	\$11,600.00	0.01%



**MMS**

**Platform Decommission Cost Breakdown**

**Hondo MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00 0.00%</b>	<b>\$4,029,009.00 4.93%</b>
Manual Calculation		\$4,029,009.00
<b>NMFS Marine Observation</b>	<b>1.00 0.01%</b>	<b>\$851,667.00 1.04%</b>
Manual Calculation		\$851,667.00
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00 0.01%</b>	<b>\$13,984.00 0.02%</b>
Manual Calculation		\$1,833.00
Manual Calculation		\$703.00
Manual Calculation		\$8,000.00
Manual Calculation		\$3,448.00
<b>Sever Conductors- Abrasive</b>	<b>1.00 0.01%</b>	<b>\$6,340,742.00 7.75%</b>
Manual Calculation		\$6,340,742.00
<b>Platform Removal Preparation</b>	<b>1.00 0.01%</b>	<b>\$3,635,383.00 4.44%</b>
Manual Calculation		\$3,635,383.00
<b>Mobilize DB 4000</b>	<b>800.00 7.71%</b>	<b>\$7,560,000.00 9.24%</b>
Derrick Barge 4000		\$7,560,000.00
<b>Mobilize CB 300 &amp; Tug</b>	<b>25.20 0.24%</b>	<b>\$154,784.00 0.19%</b>
CB 300 & Tug		\$98,784.00
Rig Up CB 300		\$56,000.00



**MMS**

**Platform Decommission Cost Breakdown**

**Hondo MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>25.20</b>	<b>0.24%</b>	<b>\$235,200.00</b>	<b>0.29%</b>
Rig Up CB 400			\$84,000.00	
CB 400 & Tug			\$151,200.00	
<b>Mobilize Dive Spread</b>	<b>11.60</b>	<b>0.11%</b>	<b>\$52,432.00</b>	<b>0.06%</b>
Work Boat			\$5,800.00	
Dive Basic Spread Saturation			\$36,714.00	
Abrasive Cutter Spread			\$7,250.00	
Pipeline Survey			\$2,668.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.07%</b>	<b>\$108,810.00</b>	<b>0.13%</b>
Derrick Barge 4000			\$70,875.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
Rem. Operated Vehicle			\$10,800.00	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>0.23%</b>	<b>\$410,400.00</b>	<b>0.50%</b>
Derrick Barge 4000			\$252,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	
Rem. Operated Vehicle			\$38,400.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Hondo MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>24.00</b>	<b>0.23%</b>	<b>\$410,400.00</b>	<b>0.50%</b>
Derrick Barge 4000	\$252,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
Rem. Operated Vehicle	\$38,400.00				
<b>Remove 8 Pile Deck</b>		<b>120.00</b>	<b>1.16%</b>	<b>\$2,052,000.00</b>	<b>2.51%</b>
Derrick Barge 4000	\$1,260,000.00				
Dive Basic Spread Saturation	\$379,800.00				
Pipeline Survey	\$27,600.00				
Abrasive Cutter Spread	\$75,000.00				
CB 300 & Tug	\$117,600.00				
Rem. Operated Vehicle	\$192,000.00				
<b>Demob CB 300 &amp; Tug</b>		<b>25.20</b>	<b>0.24%</b>	<b>\$98,784.00</b>	<b>0.12%</b>
CB 300 & Tug	\$98,784.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>35.00</b>	<b>0.34%</b>	<b>\$599,200.00</b>	<b>0.73%</b>
Derrick Barge 4000	\$367,500.00				
Dive Basic Spread Saturation	\$110,775.00				
Pipeline Survey	\$8,050.00				
Abrasive Cutter Spread	\$21,875.00				
CB 400 & Tug	\$35,000.00				
Rem. Operated Vehicle	\$56,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Hondo MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>		<b>121.01</b>	<b>1.17%</b>	<b>\$2,271,691.21</b>	<b>2.78%</b>
Derrick Barge 4000	\$1,270,605.00				
Dive Basic Spread Saturation	\$382,996.66				
Pipeline Survey	\$27,832.30				
Abrasive Cutter Spread	\$75,631.25				
CB 400 & Tug	\$121,010.00				
Pile Abrasive Cut 49 to 69 inches	\$200,000.00				
Rem. Operated Vehicle	\$193,616.00				
<b>Cut Jacket</b>		<b>624.00</b>	<b>6.01%</b>	<b>\$10,782,320.00</b>	<b>13.18%</b>
Derrick Barge 4000	\$6,552,000.00				
Dive Basic Spread Saturation	\$1,974,960.00				
Pipeline Survey	\$143,520.00				
Abrasive Cutter Spread	\$390,000.00				
CB 400 & Tug	\$624,000.00				
Pile Abrasive Cut 7 to 48 inches	\$99,440.00				
Rem. Operated Vehicle	\$998,400.00				
<b>Remove Jacket - Meth 1</b>		<b>624.00</b>	<b>6.01%</b>	<b>\$10,682,880.00</b>	<b>13.06%</b>
Derrick Barge 4000	\$6,552,000.00				
Dive Basic Spread Saturation	\$1,974,960.00				
Pipeline Survey	\$143,520.00				
Abrasive Cutter Spread	\$390,000.00				
CB 400 & Tug	\$624,000.00				
Rem. Operated Vehicle	\$998,400.00				
<b>Demob CB 400 &amp; Tug</b>		<b>25.20</b>	<b>0.24%</b>	<b>\$151,200.00</b>	<b>0.18%</b>
CB 400 & Tug	\$151,200.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Hondo MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.07%</b>	<b>\$108,810.00</b>	<b>0.13%</b>
Derrick Barge 4000	\$70,875.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
Rem. Operated Vehicle	\$10,800.00				
<b>Demob Dive Spread</b>		<b>11.60</b>	<b>0.11%</b>	<b>\$52,432.00</b>	<b>0.06%</b>
Work Boat	\$5,800.00				
Dive Basic Spread Saturation	\$36,714.00				
Abrasive Cutter Spread	\$7,250.00				
Pipeline Survey	\$2,668.00				
<b>Demob DB 4000</b>		<b>800.00</b>	<b>7.71%</b>	<b>\$7,560,000.00</b>	<b>9.24%</b>
Derrick Barge 4000	\$7,560,000.00				
<b>Site Clearance - with Divers</b>		<b>72.00</b>	<b>0.69%</b>	<b>\$1,282,000.00</b>	<b>1.57%</b>
Manual Calculation	\$1,282,000.00				
<b>Offload CB 300</b>		<b>1440.00</b>	<b>13.88%</b>	<b>\$375,200.00</b>	<b>0.46%</b>
Cargo Barge 300	\$295,200.00				
CB Damage Deduct	\$80,000.00				
<b>Offload CB 400</b>		<b>5136.00</b>	<b>49.49%</b>	<b>\$1,455,360.00</b>	<b>1.78%</b>
Cargo Barge 400	\$1,335,360.00				
CB Damage Deduct	\$120,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Hondo MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Cost	Percentage
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.01%</b>	<b>\$13,984.00</b>	<b>0.02%</b>
Manual Calculation			\$1,833.00	
Manual Calculation			\$703.00	
Manual Calculation			\$8,000.00	
Manual Calculation			\$3,448.00	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$859,484.00</b>	<b>1.05%</b>
Manual Calculation			\$859,484.00	
<b>Total</b>	<b>9962.51</b>	<b>96.00%</b>	<b>\$62,148,156.21</b>	<b>75.99%</b>



## MMS

### Pipeline Information

#### Hondo MMS POCS 29056 (Ver1) Segment#:271018

---

#### General Data

Water Depth: 842'  
Origin / Terminus: Origin  
Opposite End Name: SALM  
Opposite End Water Depth:  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter:	Wall Thickness:	Length:	8300'
Depth of Burial:	# Crossings:	Product:	
Installation Date:	Weight Coating: No	J Tube:	No
Riser?: No	Riser Guard?: No		

#### Comments

Abandoned



## MMS

### Pipeline Information

#### Hondo MMS POCS 29056 (Ver1) Segment#:283018

---

#### General Data

Water Depth: 842'  
Origin / Terminus: Origin  
Opposite End Name: SALM  
Opposite End Water Depth:  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter:	Wall Thickness:	Length:	8300'
Depth of Burial:	# Crossings:	Product:	
Installation Date:	Weight Coating: No	J Tube:	No
Riser?: No	Riser Guard?: No		

#### Comments

Abandoned



## MMS

### Pipeline Information

#### Hondo MMS POCS 29056 (Ver1) Segment#:294018

---

#### General Data

Water Depth: 842'  
Origin / Terminus: Origin  
Opposite End Name: SALM  
Opposite End Water Depth:  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter:	Wall Thickness:	Length:	8300'
Depth of Burial:	# Crossings:	Product:	
Installation Date:	Weight Coating: No	J Tube:	No
Riser?: No	Riser Guard?: No		

#### Comments

Abandoned



## MMS

### Pipeline Information

#### Hondo MMS POCS 29056 (Ver1) Segment#:352018

---

#### General Data

Water Depth: 842'  
Origin / Terminus: Origin  
Opposite End Name: LAS FLOR  
Opposite End Water Depth: 200'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter: 12.75"	Wall Thickness:	Length:	10980'
Depth of Burial:	# Crossings:	Product:	GAS
Installation Date:	Weight Coating: No	J Tube:	No
Riser?: No	Riser Guard?: No		

#### Comments

This segment runs to the Los Flores Onshore Facility.  
Pipeline is estimated to be removed between <200' WD and to state waters.  
Estimated Removal Length in this estimate ~3000'



## MMS

### Pipeline Information

#### Hondo MMS POCS 29056 (Ver1) Segment#:541018

---

#### General Data

Water Depth: 842'  
Origin / Terminus: Origin  
Opposite End Name: Harmony  
Opposite End Water Depth: 1198'  
Pipeline Operator:  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter: 14"	Wall Thickness:	Length: 17332'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to the Harmony platform. It is estimated to be abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**Hondo MMS POCS 29056 (Ver 1) Segment#:3520188-shore**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Dive Boat	To Hondo	<input type="checkbox"/>	140.00	19.99%	\$462,000.00	25.05%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.71%	\$49,882.50	2.70%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	12.00	1.71%	\$59,718.00	3.24%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	1.65%	\$57,478.58	3.12%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	1.10%	\$38,319.05	2.08%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	1.10%	\$38,319.05	2.08%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	1.10%	\$38,319.05	2.08%
Demob Dive Boat		<input checked="" type="checkbox"/>	140.00	19.99%	\$462,000.00	25.05%
Mob P/L Removal Spread	Relocate to a point along the pipeline where the water depth is 200'	<input type="checkbox"/>	11.60	1.66%	\$41,980.40	2.28%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	1.65%	\$41,799.45	2.27%
Cut & Plug Pipeline	Plug the upstream end going To Hondo	<input checked="" type="checkbox"/>	11.55	1.65%	\$41,799.45	2.27%
Bury Pipeline	Bury the upstream end going To Hondo	<input checked="" type="checkbox"/>	7.70	1.10%	\$27,866.30	1.51%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	1.65%	\$41,799.45	2.27%
Remove Pipeline		<input checked="" type="checkbox"/>	20.00	2.86%	\$72,380.00	3.92%
Bury Pipeline	Bury the end going to shore	<input checked="" type="checkbox"/>	7.70	1.10%	\$27,866.30	1.51%
Demob P/L Removal Spread		<input type="checkbox"/>	11.60	1.66%	\$41,980.40	2.28%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	23.99%	\$41,000.00	2.22%
<b>Task Total</b>			<b>592.90</b>	<b>84.66%</b>	<b>\$1,584,507.98</b>	<b>85.92%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>64.46</b>	<b>9.20%</b>	<b>\$155,782.08</b>	<b>8.45%</b>
<b>Other Contingency (10.00%)</b>			<b>42.97</b>	<b>6.14%</b>	<b>\$103,854.72</b>	<b>5.63%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>700.33</b>	<b>100.00%</b>	<b>\$1,844,144.78</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Hondo MMS POCS 29056 (Ver 1) Segment#:5410188**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Dive Boat		<input type="checkbox"/>	140.00	33.23%	\$462,000.00	28.42%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.71%	\$39,239.50	2.41%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	1.19%	\$23,732.50	1.46%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	23.00	5.46%	\$109,169.50	6.72%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.47%	\$9,493.00	0.58%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	2.74%	\$54,822.08	3.37%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	2.74%	\$54,822.08	3.37%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	7.70	1.83%	\$36,548.05	2.25%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	1.83%	\$36,548.05	2.25%
Set Up Dive Boat		<input checked="" type="checkbox"/>	3.00	0.71%	\$14,239.50	0.88%
Expose Pipeline		<input checked="" type="checkbox"/>	11.55	2.74%	\$54,822.08	3.37%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	11.55	2.74%	\$54,822.08	3.37%
Remove Tube Turn		<input checked="" type="checkbox"/>	7.70	1.83%	\$36,548.05	2.25%
Bury Pipeline		<input checked="" type="checkbox"/>	7.70	1.83%	\$36,548.05	2.25%
Demob Dive Boat		<input type="checkbox"/>	140.00	33.23%	\$462,000.00	28.42%
<b>Task Total</b>			393.00	93.29%	\$1,485,354.52	91.37%
<b>Misc. Work Provision (15.00%)</b>			16.95	4.02%	\$84,203.18	5.18%
<b>Other Contingency (10.00%)</b>			11.30	2.68%	\$56,135.45	3.45%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$0.00	0.00%
<b>Structure &amp; Equipment Disposal</b>					\$0.00	0.00%
<b>Offloading</b>					\$0.00	0.00%
<b>Storage / Scrapping</b>					\$0.00	0.00%
<b>Reef Donation</b>					\$0.00	0.00%
<b>Cost of Engineering (0.00%)</b>					\$0.00	0.00%
<b>Total:</b>			421.25	100.00%	\$1,625,693.15	100.00%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Hondo MMS POCS 29056 (Ver 1) Segment#:35201**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	1.14%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$51,287.50	2.78%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	1.08%
Decommissioning Crew	\$0.00	Calculated from tables	\$5,810.63	0.32%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$82,526.25	4.48%
DP Dive Boat	\$3,300.00	per Hour	\$1,094,445.00	59.35%
Manual Calculation	\$0.00	Independently Calculated	\$25,000.00	1.36%
Pipelay Barge	\$1,954.00	per Hour	\$182,210.50	9.88%
Pipeline Surveying	\$230.00	per Hour	\$33,327.00	1.81%
Rem. Operated Vehicle	\$667.00	per Hour	\$68,901.10	3.74%



TWACHTMAN SNYDER & BYRD, INC.

## MMS

### Pipeline Decommission Resources Breakdown

#### Hondo MMS POCS 29056 (Ver 1) Segment#:54101

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$12,712.52	0.78%
DP Dive Boat	\$3,300.00	per Hour	\$1,296,900.00	79.78%
Manual Calculation	\$0.00	Independently Calculated	\$25,000.00	1.54%
Rem. Operated Vehicle	\$667.00	per Hour	\$150,742.00	9.27%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hondo MMS POCS 29056 (Ver 1) Segment#:352018**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>140.00 19.99%</b>	<b>\$462,000.00 25.05%</b>
DP Dive Boat		\$462,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.71%</b>	<b>\$49,882.50 2.70%</b>
DP Dive Boat		\$16,500.00
Rem. Operated Vehicle		\$6,670.00
Decommissioning Crew		\$562.50
Pipeline Surveying		\$1,150.00
Manual Calculation		\$25,000.00
<b>Pig &amp; Flush Pipeline</b>	<b>12.00 1.71%</b>	<b>\$59,718.00 3.24%</b>
DP Dive Boat		\$39,600.00
Rem. Operated Vehicle		\$16,008.00
Decommissioning Crew		\$1,350.00
Pipeline Surveying		\$2,760.00
<b>Cut &amp; Plug Pipeline</b>	<b>11.55 1.65%</b>	<b>\$57,478.58 3.12%</b>
DP Dive Boat		\$38,115.00
Rem. Operated Vehicle		\$15,407.70
Decommissioning Crew		\$1,299.38
Pipeline Surveying		\$2,656.50
<b>Cut Pipeline Riser</b>	<b>7.70 1.10%</b>	<b>\$38,319.05 2.08%</b>
DP Dive Boat		\$25,410.00
Rem. Operated Vehicle		\$10,271.80
Decommissioning Crew		\$866.25
Pipeline Surveying		\$1,771.00
<b>Remove Tube Turn</b>	<b>7.70 1.10%</b>	<b>\$38,319.05 2.08%</b>
DP Dive Boat		\$25,410.00
Rem. Operated Vehicle		\$10,271.80
Decommissioning Crew		\$866.25
Pipeline Surveying		\$1,771.00



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.10%</b>	<b>\$38,319.05</b>	<b>2.08%</b>
DP Dive Boat	\$25,410.00				
Rem. Operated Vehicle	\$10,271.80				
Decommissioning Crew	\$866.25				
Pipeline Surveying	\$1,771.00				
<b>Demob Dive Boat</b>		<b>140.00</b>	<b>19.99%</b>	<b>\$462,000.00</b>	<b>25.05%</b>
DP Dive Boat	\$462,000.00				
<b>Mob P/L Removal Spread</b>		<b>11.60</b>	<b>1.66%</b>	<b>\$41,980.40</b>	<b>2.28%</b>
Pipeline Surveying	\$2,668.00				
Dive Basic Spread- Mixed Gas	\$10,266.00				
Pipelay Barge	\$22,666.40				
CB 180 & Tug	\$6,380.00				
<b>Expose Pipeline</b>		<b>11.55</b>	<b>1.65%</b>	<b>\$41,799.45</b>	<b>2.27%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>1.65%</b>	<b>\$41,799.45</b>	<b>2.27%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				
<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.10%</b>	<b>\$27,866.30</b>	<b>1.51%</b>
Pipeline Surveying	\$1,771.00				
Dive Basic Spread- Mixed Gas	\$6,814.50				
Pipelay Barge	\$15,045.80				
CB 180 & Tug	\$4,235.00				
<b>Expose Pipeline</b>		<b>11.55</b>	<b>1.65%</b>	<b>\$41,799.45</b>	<b>2.27%</b>
Pipeline Surveying	\$2,656.50				
Dive Basic Spread- Mixed Gas	\$10,221.75				
Pipelay Barge	\$22,568.70				
CB 180 & Tug	\$6,352.50				



## MMS

### Pipeline Decommission Cost Breakdown

<b>Remove Pipeline</b>		<b>20.00</b>	<b>2.86%</b>	<b>\$72,380.00</b>	<b>3.92%</b>	
Pipeline Surveying	\$4,600.00					
Dive Basic Spread- Mixed Gas	\$17,700.00					
Pipelay Barge	\$39,080.00					
CB 180 & Tug	\$11,000.00					
<hr/>						
<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.10%</b>	<b>\$27,866.30</b>	<b>1.51%</b>	
Pipeline Surveying	\$1,771.00					
Dive Basic Spread- Mixed Gas	\$6,814.50					
Pipelay Barge	\$15,045.80					
CB 180 & Tug	\$4,235.00					
<hr/>						
<b>Demob P/L Removal Spread</b>		<b>11.60</b>	<b>1.66%</b>	<b>\$41,980.40</b>	<b>2.28%</b>	
Pipeline Surveying	\$2,668.00					
Dive Basic Spread- Mixed Gas	\$10,266.00					
Pipelay Barge	\$22,666.40					
CB 180 & Tug	\$6,380.00					
<hr/>						
<b>Offload CB 180</b>		<b>168.00</b>	<b>23.99%</b>	<b>\$41,000.00</b>	<b>2.22%</b>	
Cargo Barge 180	\$21,000.00					
CB Damage Deduct	\$20,000.00					
<hr/>						
		<b>Total</b>	<b>592.90</b>	<b>84.66%</b>	<b>\$1,584,507.98</b>	<b>85.92%</b>
<hr/> <hr/>						



**MMS**

**Pipeline Decommission Cost Breakdown**

**Hondo MMS POCS 29056 (Ver 1) Segment#:541018**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Dive Boat</b>	<b>140.00 33.23%</b>	<b>\$462,000.00 28.42%</b>
DP Dive Boat		\$462,000.00
<b>Set Up Dive Boat</b>	<b>3.00 0.71%</b>	<b>\$39,239.50 2.41%</b>
DP Dive Boat		\$9,900.00
Decommissioning Crew		\$337.50
Rem. Operated Vehicle		\$4,002.00
Manual Calculation		\$25,000.00
<b>Rig Up Decomm Equipment</b>	<b>5.00 1.19%</b>	<b>\$23,732.50 1.46%</b>
DP Dive Boat		\$16,500.00
Decommissioning Crew		\$562.50
Rem. Operated Vehicle		\$6,670.00
<b>Pig &amp; Flush Pipeline</b>	<b>23.00 5.46%</b>	<b>\$109,169.50 6.72%</b>
DP Dive Boat		\$75,900.00
Decommissioning Crew		\$2,587.50
Rem. Operated Vehicle		\$30,682.00
<b>Derig Decomm Equipment</b>	<b>2.00 0.47%</b>	<b>\$9,493.00 0.58%</b>
DP Dive Boat		\$6,600.00
Decommissioning Crew		\$225.00
Rem. Operated Vehicle		\$2,668.00
<b>Expose Pipeline</b>	<b>11.55 2.74%</b>	<b>\$54,822.08 3.37%</b>
DP Dive Boat		\$38,115.00
Decommissioning Crew		\$1,299.38
Rem. Operated Vehicle		\$15,407.70
<b>Cut &amp; Plug Pipeline</b>	<b>11.55 2.74%</b>	<b>\$54,822.08 3.37%</b>
DP Dive Boat		\$38,115.00
Decommissioning Crew		\$1,299.38
Rem. Operated Vehicle		\$15,407.70



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>7.70</b>	<b>1.83%</b>	<b>\$36,548.05</b>	<b>2.25%</b>	
DP Dive Boat	\$25,410.00					
Decommissioning Crew	\$866.25					
Rem. Operated Vehicle	\$10,271.80					
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>1.83%</b>	<b>\$36,548.05</b>	<b>2.25%</b>	
DP Dive Boat	\$25,410.00					
Decommissioning Crew	\$866.25					
Rem. Operated Vehicle	\$10,271.80					
<b>Set Up Dive Boat</b>		<b>3.00</b>	<b>0.71%</b>	<b>\$14,239.50</b>	<b>0.88%</b>	
DP Dive Boat	\$9,900.00					
Decommissioning Crew	\$337.50					
Rem. Operated Vehicle	\$4,002.00					
<b>Expose Pipeline</b>		<b>11.55</b>	<b>2.74%</b>	<b>\$54,822.08</b>	<b>3.37%</b>	
DP Dive Boat	\$38,115.00					
Decommissioning Crew	\$1,299.38					
Rem. Operated Vehicle	\$15,407.70					
<b>Cut &amp; Plug Pipeline</b>		<b>11.55</b>	<b>2.74%</b>	<b>\$54,822.08</b>	<b>3.37%</b>	
DP Dive Boat	\$38,115.00					
Decommissioning Crew	\$1,299.38					
Rem. Operated Vehicle	\$15,407.70					
<b>Remove Tube Turn</b>		<b>7.70</b>	<b>1.83%</b>	<b>\$36,548.05</b>	<b>2.25%</b>	
DP Dive Boat	\$25,410.00					
Decommissioning Crew	\$866.25					
Rem. Operated Vehicle	\$10,271.80					
<b>Bury Pipeline</b>		<b>7.70</b>	<b>1.83%</b>	<b>\$36,548.05</b>	<b>2.25%</b>	
DP Dive Boat	\$25,410.00					
Decommissioning Crew	\$866.25					
Rem. Operated Vehicle	\$10,271.80					
<b>Demob Dive Boat</b>		<b>140.00</b>	<b>33.23%</b>	<b>\$462,000.00</b>	<b>28.42%</b>	
DP Dive Boat	\$462,000.00					
		<b>Total</b>	<b>393.00</b>	<b>93.29%</b>	<b>\$1,485,354.52</b>	<b>91.37%</b>



## **MMS**

### **Well Information**

#### **Hondo MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:   15.00%

Weather Contingency %:       10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Exxon Mobil Corporation	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**Hondo MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$5,145,272.00 80.00%
		<b>Task Total</b>	0.00	\$5,145,272.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$771,790.83 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$514,527.21 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$6,431,590.04 100.00%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Well Decommission Resources Breakdown**

#### **Hondo MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$5,145,272.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**Hondo MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$5,145,272.00</b>	<b>80.00%</b>	
Manual Calculation			\$5,145,272.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$5,145,272.00</b>	<b>80.00%</b>

**Houchin MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Houchin MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Houchin will be removed along with Platform Hogan.
- Platform Houchin is an 8-pile platform installed in 1968 in 163' of water.
- The estimated removal weight is the deck weight is 2,591 tons and the jacket weight is 1,486 tons.
- The platform has a total of 36 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 36 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 500 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and three 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 5 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.



## MMS

### Platform Salvage Option

#### Houchin MMS POCS 29056 (Ver 1)

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-The two pipelines (oil, gas) on the OCS will be totally removed to the state water boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipelines to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 10% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.



## MMS

### Platform Salvage Option

#### Houchin MMS POCS 29056 (Ver 1)

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--Misc. Work Provision costs were calculated by taking 15% of every task cost listed with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost = \$33,027,035

Estimated Decommissioning Net Cost = \$33,027,035



## MMS

### Basic Information

### Houchin MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Houchin MMS POCS 29056  
Function: FACILITIES  
Type: Steel  
Water Depth: 163'  
Pre 461H?: Yes  
Year Installed: 1968  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0166  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 36  
# Pipelines to Abandon: 2  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Pacific Operators Offshore, Inc.	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$26,775,860	\$26,775,860
Well Plugging & Abandonment:	\$5,976,590	\$5,976,590
Pipeline Abandonment:	\$274,585	\$274,585
Total Decommissioning Cost:	\$33,027,035	\$33,027,035



## MMS

### Platform Information

### Houchin MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	8	48"		Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:		
Middle:		
Lower:		

### Conductors

Number of Slots:	60
Number Installed:	36
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	1486.00		
Jacket Installation Date:	1/1/1968		
Jacket Contractor:			

### Deck Data

Deck Lift Weight with Equipment:	2591 Tons
Number of Padeyes Required:	0
Deck Installation Date:	1/1/1968
Deck Contractor:	



## **MMS**

### **Platform Information**

### **Houchin MMS POCS 29056 (Ver 1)**

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### **Equipment Lift Weights**

### **Members to be Cut Data**

#### **Underwater Members**

<b>Size</b>	<b>Qty</b>
24.00	17.00
36.00	12.00

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>			
CB 300 x 100	Deck 100-500T	Deck 100-500T	Deck 100-500T	Equipment
CB 300 x 100	Deck 100-500T	Deck 100-500T	Deck 100-500T	Equipment
CB 400 x 100	Deck 100-500T	Deck 100-500T	Deck 100-500T	
CB 400 x 100	Jkt < 300T	Jkt 300-700T	Jkt 300-700T	
CB 400 x 100	Jkt 300-700T	Jkt 300-700T		

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	0.00
Provision for Misc. Work%:	15.00%
Weather Contingency%:	10.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$1,843,716.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Houchin MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$1,394,402.00	5.21%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.02%	\$1,277,500.00	4.77%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.02%	\$20,977.00	0.08%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.02%	\$2,588,012.00	9.67%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.02%	\$957,710.00	3.58%
Mobilize DB 500	Mob from Asia, 50 days divided by 2 platforms	<input type="checkbox"/>	600.00	12.78%	\$3,510,000.00	13.11%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	22.20	0.47%	\$71,512.00	0.27%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 3)	<input type="checkbox"/>	22.20	0.47%	\$108,600.00	0.41%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	10.10	0.22%	\$45,652.00	0.17%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.14%	\$71,010.00	0.27%
Cut Deck/Equip/Misc	Seperate 9 Modules	<input checked="" type="checkbox"/>	24.00	0.51%	\$276,000.00	1.03%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.51%	\$276,000.00	1.03%
Remove 8 Pile Deck	Remove 8 Pile Deck Modules (Qty 9)	<input checked="" type="checkbox"/>	198.00	4.22%	\$2,277,000.00	8.50%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	22.20	0.47%	\$43,512.00	0.16%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	31.00	0.66%	\$357,120.00	1.33%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	46.14	0.98%	\$571,308.79	2.13%
Cut Jacket	24 Hours per section, times 5 sections, per MMS	<input checked="" type="checkbox"/>	120.00	2.56%	\$1,422,176.00	5.31%
Remove Jacket - Meth 1	24 Hours per section, times 5 sections, per MMS	<input checked="" type="checkbox"/>	120.00	2.56%	\$1,382,400.00	5.16%
Demob CB 400 & Tug	Demob to Port of LA (Qty 3)	<input type="checkbox"/>	22.20	0.47%	\$66,600.00	0.25%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.14%	\$71,010.00	0.27%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	10.10	0.22%	\$45,652.00	0.17%
Demob DB 500	Demob to Asia, 50 days divided by 2 platforms	<input type="checkbox"/>	600.00	12.78%	\$3,510,000.00	13.11%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	1.53%	\$709,000.00	2.65%
Offload CB 300		<input type="checkbox"/>	912.00	19.43%	\$226,960.00	0.85%
Offload CB 400		<input type="checkbox"/>	1656.00	35.28%	\$490,560.00	1.83%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.02%	\$20,977.00	0.08%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$320,644.00	1.20%
<b>Task Total</b>			<b>4530.64</b>	<b>96.53%</b>	<b>\$22,112,294.79</b>	<b>82.58%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>97.6</b>	<b>2.08%</b>	<b>\$1,691,909.00</b>	<b>6.32%</b>
<b>Weather Contingency (10.00%)</b>			<b>65.06</b>	<b>1.39%</b>	<b>\$1,127,939.00</b>	<b>4.21%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$1,843,716.00</b>	<b>6.89%</b>



**MMS**

**Platform Decommission Task Information**

**Houchin MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		<b>Structure &amp; Equipment Disposal</b>		\$0.00	0.00%
		<b>Offloading</b>		\$0.00	0.00%
		<b>Storage / Scrapping</b>		\$0.00	0.00%
		<b>Reef Donation</b>		\$0.00	0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00	0.00%
			<b>Total:</b>	4693.30	100.00%
				26,775,858.79	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Houchin MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$373,025.00	1.39%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$186,960.00	0.70%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$430,560.00	1.61%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$328,104.00	1.23%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$450,340.00	1.68%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$100,000.00	0.37%
Derrick Barge 500	\$6,500.00	per Hour	10,768,160.00	40.22%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$1,888,998.59	7.05%
Manual Calculation	\$0.00	Independently Calculated	\$7,289,222.00	27.22%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$79,552.00	0.30%
Pipeline Survey	\$230.00	per Hour	\$137,273.20	0.51%
Rig Up CB 300	\$14,000.00	per Barge	\$28,000.00	0.10%
Rig Up CB 400	\$14,000.00	per Barge	\$42,000.00	0.16%
Work Boat	\$500.00	per Hour	\$10,100.00	0.04%



**MMS**

**Platform Decommission Cost Breakdown**

**Houchin MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$1,394,402.00</b>	<b>5.21%</b>
Manual Calculation			\$1,394,402.00	
<b>NMFS Marine Observation</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$1,277,500.00</b>	<b>4.77%</b>
Manual Calculation			\$1,277,500.00	
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$20,977.00</b>	<b>0.08%</b>
Manual Calculation			\$2,750.00	
Manual Calculation			\$1,055.00	
Manual Calculation			\$12,000.00	
Manual Calculation			\$5,172.00	
<b>Sever Conductors- Abrasive</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$2,588,012.00</b>	<b>9.67%</b>
Manual Calculation			\$2,588,012.00	
<b>Platform Removal Preparation</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$957,710.00</b>	<b>3.58%</b>
Manual Calculation			\$957,710.00	
<b>Mobilize DB 500</b>	<b>600.00</b>	<b>12.78%</b>	<b>\$3,510,000.00</b>	<b>13.11%</b>
Derrick Barge 500			\$3,510,000.00	
<b>Mobilize CB 300 &amp; Tug</b>	<b>22.20</b>	<b>0.47%</b>	<b>\$71,512.00</b>	<b>0.27%</b>
CB 300 & Tug			\$43,512.00	
Rig Up CB 300			\$28,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Houchin MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Mobilize CB 400 &amp; Tug</b>	<b>22.20</b>	<b>0.47%</b>	<b>\$108,600.00</b>	<b>0.41%</b>
Rig Up CB 400			\$42,000.00	
CB 400 & Tug			\$66,600.00	
<b>Mobilize Dive Spread</b>	<b>10.10</b>	<b>0.22%</b>	<b>\$45,652.00</b>	<b>0.17%</b>
Work Boat			\$5,050.00	
Dive Basic Spread Saturation			\$31,966.50	
Abrasive Cutter Spread			\$6,312.50	
Pipeline Survey			\$2,323.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.14%</b>	<b>\$71,010.00</b>	<b>0.27%</b>
Derrick Barge 500			\$43,875.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>0.51%</b>	<b>\$276,000.00</b>	<b>1.03%</b>
Derrick Barge 500			\$156,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Houchin MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>24.00</b>	<b>0.51%</b>	<b>\$276,000.00</b>	<b>1.03%</b>
Derrick Barge 500	\$156,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
<b>Remove 8 Pile Deck</b>		<b>198.00</b>	<b>4.22%</b>	<b>\$2,277,000.00</b>	<b>8.50%</b>
Derrick Barge 500	\$1,287,000.00				
Dive Basic Spread Saturation	\$626,670.00				
Pipeline Survey	\$45,540.00				
Abrasive Cutter Spread	\$123,750.00				
CB 300 & Tug	\$194,040.00				
<b>Demob CB 300 &amp; Tug</b>		<b>22.20</b>	<b>0.47%</b>	<b>\$43,512.00</b>	<b>0.16%</b>
CB 300 & Tug	\$43,512.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>31.00</b>	<b>0.66%</b>	<b>\$357,120.00</b>	<b>1.33%</b>
Derrick Barge 500	\$201,500.00				
Dive Basic Spread Saturation	\$98,115.00				
Pipeline Survey	\$7,130.00				
Abrasive Cutter Spread	\$19,375.00				
CB 400 & Tug	\$31,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Houchin MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Sever Piles- Abrasive</b>		<b>46.14</b>	<b>0.98%</b>	<b>\$571,308.79</b>	<b>2.13%</b>
Derrick Barge 500	\$299,910.00				
Dive Basic Spread Saturation	\$146,033.09				
Pipeline Survey	\$10,612.20				
Abrasive Cutter Spread	\$28,837.50				
CB 400 & Tug	\$46,140.00				
Pile Abrasive Cut 7 to 48 inches	\$39,776.00				
<b>Cut Jacket</b>		<b>120.00</b>	<b>2.56%</b>	<b>\$1,422,176.00</b>	<b>5.31%</b>
Derrick Barge 500	\$780,000.00				
Dive Basic Spread Saturation	\$379,800.00				
Pipeline Survey	\$27,600.00				
Abrasive Cutter Spread	\$75,000.00				
CB 400 & Tug	\$120,000.00				
Pile Abrasive Cut 7 to 48 inches	\$39,776.00				
<b>Remove Jacket - Meth 1</b>		<b>120.00</b>	<b>2.56%</b>	<b>\$1,382,400.00</b>	<b>5.16%</b>
Derrick Barge 500	\$780,000.00				
Dive Basic Spread Saturation	\$379,800.00				
Pipeline Survey	\$27,600.00				
CB 400 & Tug	\$120,000.00				
Abrasive Cutter Spread	\$75,000.00				
<b>Demob CB 400 &amp; Tug</b>		<b>22.20</b>	<b>0.47%</b>	<b>\$66,600.00</b>	<b>0.25%</b>
CB 400 & Tug	\$66,600.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Houchin MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Pick Up DB Anchors</b>		<b>6.75</b>	<b>0.14%</b>	<b>\$71,010.00</b>	<b>0.27%</b>
Derrick Barge 500	\$43,875.00				
Dive Basic Spread Saturation	\$21,363.75				
Pipeline Survey	\$1,552.50				
Abrasive Cutter Spread	\$4,218.75				
<b>Demob Dive Spread</b>		<b>10.10</b>	<b>0.22%</b>	<b>\$45,652.00</b>	<b>0.17%</b>
Work Boat	\$5,050.00				
Dive Basic Spread Saturation	\$31,966.50				
Abrasive Cutter Spread	\$6,312.50				
Pipeline Survey	\$2,323.00				
<b>Demob DB 500</b>		<b>600.00</b>	<b>12.78%</b>	<b>\$3,510,000.00</b>	<b>13.11%</b>
Derrick Barge 500	\$3,510,000.00				
<b>Site Clearance - with Divers</b>		<b>72.00</b>	<b>1.53%</b>	<b>\$709,000.00</b>	<b>2.65%</b>
Manual Calculation	\$709,000.00				
<b>Offload CB 300</b>		<b>912.00</b>	<b>19.43%</b>	<b>\$226,960.00</b>	<b>0.85%</b>
Cargo Barge 300	\$186,960.00				
CB Damage Deduct	\$40,000.00				
<b>Offload CB 400</b>		<b>1656.00</b>	<b>35.28%</b>	<b>\$490,560.00</b>	<b>1.83%</b>
Cargo Barge 400	\$430,560.00				
CB Damage Deduct	\$60,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Houchin MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.02%</b>	<b>\$20,977.00</b>	<b>0.08%</b>
Manual Calculation			\$2,750.00	
Manual Calculation			\$1,055.00	
Manual Calculation			\$12,000.00	
Manual Calculation			\$5,172.00	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$320,644.00</b>	<b>1.20%</b>
Manual Calculation			\$320,644.00	
<b>Total</b>	<b>4530.64</b>	<b>96.53%</b>	<b>\$22,112,294.79</b>	<b>82.58%</b>



## MMS

### Pipeline Information

#### Houchin MMS POCS 29056 (Ver1) Segment#:14101

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#### General Data

Water Depth: 163'  
Origin / Terminus: Origin  
Opposite End Name: Hogan  
Opposite End Water Depth: 163'  
Pipeline Operator: Pacific Operators Offshore, Inc.  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

#### Pipeline Data

Outside Diameter: 10.75"	Wall Thickness:	Length: 3355'
Depth of Burial:	# Crossings:	Product: OIL
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

#### Comments

This segment runs to Hogan. It is estimated as abandoned in place.



## MMS

### Pipeline Information

#### Houchin MMS POCS 29056 (Ver1) Segment#:15201

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### General Data

Water Depth: 163'  
Origin / Terminus: Origin  
Opposite End Name: Hogan  
Opposite End Water Depth: 163'  
Pipeline Operator: Pacific Operators Offshore, Inc.  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 10.00%

### Pipeline Data

Outside Diameter: 12.75"	Wall Thickness:	Length: 3355'
Depth of Burial:	# Crossings:	Product: GAS
Installation Date:	Weight Coating: No	J Tube: No
Riser?: No	Riser Guard?: No	

### Comments

This segment runs to Hogan. It is estimated as abandoned in place.



**MMS**

**Pipeline Decommission Task Information**

**Houchin MMS POCS 29056 (Ver 1) Segment#:1410166**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	2.50	3.36%	\$4,526.25	3.36%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	6.71%	\$9,052.50	6.71%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	5.27	7.08%	\$9,541.33	7.08%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.69%	\$3,621.00	2.69%
Expose Pipeline		<input checked="" type="checkbox"/>	5.21	6.99%	\$9,432.71	6.99%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.21	6.99%	\$9,432.71	6.99%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.47	4.66%	\$6,282.44	4.66%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.47	4.66%	\$6,282.44	4.66%
Bury Pipeline		<input checked="" type="checkbox"/>	3.47	4.66%	\$6,282.44	4.66%
Reposition Workboat		<input checked="" type="checkbox"/>	3.06	4.11%	\$5,540.13	4.11%
Expose Pipeline		<input checked="" type="checkbox"/>	5.21	6.99%	\$9,432.71	6.99%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.21	6.99%	\$9,432.71	6.99%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.47	4.66%	\$6,282.44	4.66%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.47	4.66%	\$6,282.44	4.66%
Bury Pipeline		<input checked="" type="checkbox"/>	3.47	4.66%	\$6,282.44	4.66%
Demob Work Boat		<input type="checkbox"/>	2.50	3.36%	\$4,526.25	3.36%
<b>Task Total</b>			<b>61.99</b>	<b>83.22%</b>	<b>\$112,232.94</b>	<b>83.22%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>7.50</b>	<b>10.07%</b>	<b>\$13,576.04</b>	<b>10.07%</b>
<b>Other Contingency (10.00%)</b>			<b>5.00</b>	<b>6.71%</b>	<b>\$9,050.69</b>	<b>6.71%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>74.49</b>	<b>100.00%</b>	<b>\$134,859.68</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Houchin MMS POCS 29056 (Ver 1) Segment#:1520166**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Mobilize Work Boat		<input type="checkbox"/>	2.50	3.24%	\$4,526.25	3.24%
Rig Up Decomm Equipment		<input type="checkbox"/>	5.00	6.48%	\$9,052.50	6.48%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	7.42	9.61%	\$13,433.91	9.61%
Derig Decomm Equipment		<input type="checkbox"/>	2.00	2.59%	\$3,621.00	2.59%
Expose Pipeline		<input checked="" type="checkbox"/>	5.21	6.75%	\$9,432.71	6.75%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.21	6.75%	\$9,432.71	6.75%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.47	4.50%	\$6,282.44	4.50%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.47	4.50%	\$6,282.44	4.50%
Bury Pipeline		<input checked="" type="checkbox"/>	3.47	4.50%	\$6,282.44	4.50%
Reposition Workboat		<input checked="" type="checkbox"/>	3.06	3.97%	\$5,540.13	3.97%
Expose Pipeline		<input checked="" type="checkbox"/>	5.21	6.75%	\$9,432.71	6.75%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	5.21	6.75%	\$9,432.71	6.75%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	3.47	4.50%	\$6,282.44	4.50%
Remove Tube Turn		<input checked="" type="checkbox"/>	3.47	4.50%	\$6,282.44	4.50%
Bury Pipeline		<input checked="" type="checkbox"/>	3.47	4.50%	\$6,282.44	4.50%
Demob Work Boat		<input type="checkbox"/>	2.50	3.24%	\$4,526.25	3.24%
<b>Task Total</b>			<b>64.14</b>	<b>83.11%</b>	<b>\$116,125.52</b>	<b>83.11%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>7.82</b>	<b>10.13%</b>	<b>\$14,159.93</b>	<b>10.13%</b>
<b>Other Contingency (10.00%)</b>			<b>5.21</b>	<b>6.76%</b>	<b>\$9,439.95</b>	<b>6.76%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>77.18</b>	<b>100.00%</b>	<b>\$139,725.40</b>	<b>100.00%</b>



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Houchin MMS POCS 29056 (Ver 1) Segment#:1410**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$6,973.92	5.17%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$54,861.15	40.68%
Pipeline Surveying	\$230.00	per Hour	\$14,257.70	10.57%
Work Boat	\$583.00	per Hour	\$36,140.17	26.80%



**TWACHTMAN SNYDER & BYRD, INC.**

## **MMS**

### **Pipeline Decommission Resources Breakdown**

#### **Houchin MMS POCS 29056 (Ver 1) Segment#:1520**

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Decommissioning Crew	\$0.00	Calculated from tables	\$7,215.80	5.16%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$56,763.90	40.63%
Pipeline Surveying	\$230.00	per Hour	\$14,752.20	10.56%
Work Boat	\$583.00	per Hour	\$37,393.62	26.76%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Houchin MMS POCS 29056 (Ver 1) Segment#:14101**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize Work Boat</b>	<b>2.50</b>	<b>3.36%</b>	<b>\$4,526.25</b>	<b>3.36%</b>
Work Boat			\$1,457.50	
Dive Basic Spread- Mixed Gas			\$2,212.50	
Decommissioning Crew			\$281.25	
Pipeline Surveying			\$575.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00</b>	<b>6.71%</b>	<b>\$9,052.50</b>	<b>6.71%</b>
Work Boat			\$2,915.00	
Dive Basic Spread- Mixed Gas			\$4,425.00	
Decommissioning Crew			\$562.50	
Pipeline Surveying			\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>5.27</b>	<b>7.08%</b>	<b>\$9,541.33</b>	<b>7.08%</b>
Work Boat			\$3,072.41	
Dive Basic Spread- Mixed Gas			\$4,663.95	
Decommissioning Crew			\$592.87	
Pipeline Surveying			\$1,212.10	
<b>Derig Decomm Equipment</b>	<b>2.00</b>	<b>2.69%</b>	<b>\$3,621.00</b>	<b>2.69%</b>
Work Boat			\$1,166.00	
Dive Basic Spread- Mixed Gas			\$1,770.00	
Decommissioning Crew			\$225.00	
Pipeline Surveying			\$460.00	
<b>Expose Pipeline</b>	<b>5.21</b>	<b>6.99%</b>	<b>\$9,432.71</b>	<b>6.99%</b>
Work Boat			\$3,037.43	
Dive Basic Spread- Mixed Gas			\$4,610.85	
Decommissioning Crew			\$586.13	
Pipeline Surveying			\$1,198.30	
<b>Cut &amp; Plug Pipeline</b>	<b>5.21</b>	<b>6.99%</b>	<b>\$9,432.71</b>	<b>6.99%</b>
Work Boat			\$3,037.43	
Dive Basic Spread- Mixed Gas			\$4,610.85	
Decommissioning Crew			\$586.13	
Pipeline Surveying			\$1,198.30	



## MMS

### Pipeline Decommission Cost Breakdown

<b>Cut Pipeline Riser</b>		<b>3.47</b>	<b>4.66%</b>	<b>\$6,282.44</b>	<b>4.66%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<hr/>					
<b>Remove Tube Turn</b>		<b>3.47</b>	<b>4.66%</b>	<b>\$6,282.44</b>	<b>4.66%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<hr/>					
<b>Bury Pipeline</b>		<b>3.47</b>	<b>4.66%</b>	<b>\$6,282.44</b>	<b>4.66%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<hr/>					
<b>Reposition Workboat</b>		<b>3.06</b>	<b>4.11%</b>	<b>\$5,540.13</b>	<b>4.11%</b>
Work Boat	\$1,783.98				
Dive Basic Spread- Mixed Gas	\$2,708.10				
Decommissioning Crew	\$344.25				
Pipeline Surveying	\$703.80				
<hr/>					
<b>Expose Pipeline</b>		<b>5.21</b>	<b>6.99%</b>	<b>\$9,432.71</b>	<b>6.99%</b>
Work Boat	\$3,037.43				
Dive Basic Spread- Mixed Gas	\$4,610.85				
Decommissioning Crew	\$586.13				
Pipeline Surveying	\$1,198.30				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>5.21</b>	<b>6.99%</b>	<b>\$9,432.71</b>	<b>6.99%</b>
Work Boat	\$3,037.43				
Dive Basic Spread- Mixed Gas	\$4,610.85				
Decommissioning Crew	\$586.13				
Pipeline Surveying	\$1,198.30				



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>3.47</b>	<b>4.66%</b>	<b>\$6,282.44</b>	<b>4.66%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Remove Tube Turn</b>		<b>3.47</b>	<b>4.66%</b>	<b>\$6,282.44</b>	<b>4.66%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Bury Pipeline</b>		<b>3.47</b>	<b>4.66%</b>	<b>\$6,282.44</b>	<b>4.66%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Demob Work Boat</b>		<b>2.50</b>	<b>3.36%</b>	<b>\$4,526.25</b>	<b>3.36%</b>
Work Boat	\$1,457.50				
Dive Basic Spread- Mixed Gas	\$2,212.50				
Decommissioning Crew	\$281.25				
Pipeline Surveying	\$575.00				
		<b>Total</b>	<b>61.99 83.22%</b>	<b>\$112,232.94</b>	<b>83.22%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Houchin MMS POCS 29056 (Ver 1) Segment#:15201**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Mobilize Work Boat</b>	<b>2.50</b>	<b>3.24%</b>	<b>\$4,526.25</b>	<b>3.24%</b>
Work Boat			\$1,457.50	
Dive Basic Spread- Mixed Gas			\$2,212.50	
Decommissioning Crew			\$281.25	
Pipeline Surveying			\$575.00	
<b>Rig Up Decomm Equipment</b>	<b>5.00</b>	<b>6.48%</b>	<b>\$9,052.50</b>	<b>6.48%</b>
Work Boat			\$2,915.00	
Dive Basic Spread- Mixed Gas			\$4,425.00	
Decommissioning Crew			\$562.50	
Pipeline Surveying			\$1,150.00	
<b>Pig &amp; Flush Pipeline</b>	<b>7.42</b>	<b>9.61%</b>	<b>\$13,433.91</b>	<b>9.61%</b>
Work Boat			\$4,325.86	
Dive Basic Spread- Mixed Gas			\$6,566.70	
Decommissioning Crew			\$834.75	
Pipeline Surveying			\$1,706.60	
<b>Derig Decomm Equipment</b>	<b>2.00</b>	<b>2.59%</b>	<b>\$3,621.00</b>	<b>2.59%</b>
Work Boat			\$1,166.00	
Dive Basic Spread- Mixed Gas			\$1,770.00	
Decommissioning Crew			\$225.00	
Pipeline Surveying			\$460.00	
<b>Expose Pipeline</b>	<b>5.21</b>	<b>6.75%</b>	<b>\$9,432.71</b>	<b>6.75%</b>
Work Boat			\$3,037.43	
Dive Basic Spread- Mixed Gas			\$4,610.85	
Decommissioning Crew			\$586.13	
Pipeline Surveying			\$1,198.30	
<b>Cut &amp; Plug Pipeline</b>	<b>5.21</b>	<b>6.75%</b>	<b>\$9,432.71</b>	<b>6.75%</b>
Work Boat			\$3,037.43	
Dive Basic Spread- Mixed Gas			\$4,610.85	
Decommissioning Crew			\$586.13	
Pipeline Surveying			\$1,198.30	



## MMS

### Pipeline Decommission Cost Breakdown

<b>Cut Pipeline Riser</b>		<b>3.47</b>	<b>4.50%</b>	<b>\$6,282.44</b>	<b>4.50%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<hr/>					
<b>Remove Tube Turn</b>		<b>3.47</b>	<b>4.50%</b>	<b>\$6,282.44</b>	<b>4.50%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<hr/>					
<b>Bury Pipeline</b>		<b>3.47</b>	<b>4.50%</b>	<b>\$6,282.44</b>	<b>4.50%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<hr/>					
<b>Reposition Workboat</b>		<b>3.06</b>	<b>3.97%</b>	<b>\$5,540.13</b>	<b>3.97%</b>
Work Boat	\$1,783.98				
Dive Basic Spread- Mixed Gas	\$2,708.10				
Decommissioning Crew	\$344.25				
Pipeline Surveying	\$703.80				
<hr/>					
<b>Expose Pipeline</b>		<b>5.21</b>	<b>6.75%</b>	<b>\$9,432.71</b>	<b>6.75%</b>
Work Boat	\$3,037.43				
Dive Basic Spread- Mixed Gas	\$4,610.85				
Decommissioning Crew	\$586.13				
Pipeline Surveying	\$1,198.30				
<hr/>					
<b>Cut &amp; Plug Pipeline</b>		<b>5.21</b>	<b>6.75%</b>	<b>\$9,432.71</b>	<b>6.75%</b>
Work Boat	\$3,037.43				
Dive Basic Spread- Mixed Gas	\$4,610.85				
Decommissioning Crew	\$586.13				
Pipeline Surveying	\$1,198.30				
<hr/>					



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Cut Pipeline Riser</b>		<b>3.47</b>	<b>4.50%</b>	<b>\$6,282.44</b>	<b>4.50%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Remove Tube Turn</b>		<b>3.47</b>	<b>4.50%</b>	<b>\$6,282.44</b>	<b>4.50%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Bury Pipeline</b>		<b>3.47</b>	<b>4.50%</b>	<b>\$6,282.44</b>	<b>4.50%</b>
Work Boat	\$2,023.01				
Dive Basic Spread- Mixed Gas	\$3,070.95				
Decommissioning Crew	\$390.38				
Pipeline Surveying	\$798.10				
<b>Demob Work Boat</b>		<b>2.50</b>	<b>3.24%</b>	<b>\$4,526.25</b>	<b>3.24%</b>
Work Boat	\$1,457.50				
Dive Basic Spread- Mixed Gas	\$2,212.50				
Decommissioning Crew	\$281.25				
Pipeline Surveying	\$575.00				
<b>Total</b>		<b>64.14</b>	<b>83.11%</b>	<b>\$116,125.52</b>	<b>83.11%</b>



## **MMS**

### **Well Information**

#### **Houchin MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           Nb

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:   15.00%

Weather Contingency %:       10.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Pacific Operators Offshore, Inc.	100.00%

### **Well Data**

	<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
Tubing:			
Production Casing:			
Liner:			
Protective Casing:			
Surface Casing:			
Drive Pipe:			
Caisson:			
Perforated Depth:			

### **Comments**



**MMS**

**Well Decommission Task Information**

**Houchin MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$4,781,272.00 80.00%
		<b>Task Total</b>	0.00	\$4,781,272.00 80.00%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$717,190.83 12.00%
		<b>Other Contingency (10.00%)</b>	0.00	\$478,127.21 8.00%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$5,976,590.04 100.00%



# **MMS**

## **Well Decommission Resources Breakdown**

### **Houchin MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$4,781,272.00 80.00%



**MMS**

**Well Decommission Cost Breakdown**

**Houchin MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$4,781,272.00</b>	<b>80.00%</b>	
Manual Calculation			\$4,781,272.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$4,781,272.00</b>	<b>80.00%</b>

**Irene MMS POCS 29056**



## **MMS**

### **Platform Salvage Option**

#### **Irene MMS POCS 29056 (Ver 1)**

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##### COMPLETE REMOVAL

- Platform Irene will be removed along with Platforms Habitat and Gilda.
- Platform Irene is an 8-pile platform installed in 1985 in 242' of water.
- The estimated removal weight is the deck weight is 2,500 tons and the jacket weight is 3,100 tons.
- The platform has a total of 24 wells that will be plugged and abandoned.
- The wells will be plugged and abandoned by a Gulf of Mexico Region well service company using rig-less methods mobilized from the Gulf of Mexico to the POCSR
- Abrasive cutting equipment and crews will be mobilized from the GOM to conduct conductor and platform removal operations.
- A total of 24 conductors will be removed. The conductors will be removed by a local well service company using contracted casing jacks prior to the arrival of the DB. The conductors will be transported to shore by workboat and from there transported by truck to a disposal facility located near Bakersfield, California.
- The platform topsides and jacket will be removed by a DB 2000 that will be mobilized from southeast Asia. The total mob/demob time will be 100 days.
- The deck modules and the jacket sections will be transported on barges to Los Angeles or Long Beach and scrapped.
- Two 300' cargo barges will transport the deck modules to shore and three 400' cargo barges will transport the jacket sections to shore. The barges will be mobilized locally. The mob/demob time will be 2 days round trip. A total of 5 cargo barge trips will be required.
- The power cable servicing the platform will be totally removed from the ocean floor. A workboat will be used to remove the power cable and will be mobilized from local ports. The mob/demob time will be 2 days round trip.
- The power cable will be transported to shore on cargo barges to Port Hueneme or Los Angeles/Long Beach where it will be cut into segments and from there transported by truck a distance of approximately 150 miles to a recycling facility or disposal facility located near Bakersfield, California.
- The three pipelines (oil, gas) on the OCS will be totally removed to the state water



## MMS

### Platform Salvage Option

#### Irene MMS POCS 29056 (Ver 1)

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boundary when running to shore and in less than 200 feet of water. Segments running from platform to platform or in greater than 200 ft of water will be abandoned in place. The pipeline sections to be removed will be taken out using a small crane barge and cargo barges that will be mobilized from Los Angeles or Long Beach. The mob/demob time for the crane barge and cargo barges will be 1 day.

-A dynamically positioned (DP) dive vessel will be mobilized from southeast Asia to support the pipeline abandonment operations in greater than 200 feet of water. The total mob/demob time for the DP dive vessel will be 100 days round-trip.

-Site clearance procedures will be undertaken to ensure the area impacted by decommissioning operations (platform site and pipeline and power cable routes) is cleared of all obstructions to other activities. Pre-demolition and post-demolition high resolution side-scan surveys will be conducted using a local survey vessel or workboat. A workboat will be mobilized from a local port (Santa Barbara, Port Hueneme, Los Angeles/Long Beach) to support ROV/diver target identification and recovery of obstructions. Following these operations, a local fishing vessel will be deployed to test trawl the platform site and other selected locations.

-Platform Removal cost displayed on the next page includes the following costs: All of the Project Management, Engineering and Planning; All Permitting and Regulatory Compliance; Platform Prep and Marine Growth Removal; Conductor Removal; Mobilization and Demobilization Of Derrick Barge; Platform Removal; Site Clearance; Power Cable Removal; All Material Disposal; All the previously listed categories' respective Weather Contingencies (when applicable); All the previously listed categories' Misc. Work Provision;

-Well Plugging and Abandonment cost displayed on the next page includes the following costs: Rig-less Well P&A; Well P&A Weather Contingency; Well P&A Misc. Work Provision;

-Pipeline Abandonment cost displayed on the next page includes the following costs: Pipeline Abandonment; Pipeline Abandonment Weather Contingency; Pipeline Abandonment Misc. Work Provision;

-Weather Contingencies were calculated by taking 15% of each task cost listed with a check in the contingency box under each Task Information section of this estimate. Weather Contingency costs for each task are then summed and displayed in Appendix and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

--Misc. Work Provision costs were calculated by taking 15% of every task cost listed



## **MMS**

### **Platform Salvage Option**

#### **Irene MMS POCS 29056 (Ver 1)**

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with a check in the contingency box under each Task Information section of this estimate. Misc. Work Provision costs for each task are then summed and displayed in Appendix 2 and are also already included in their respective Platform Removal, Well P&A, and Pipeline Abandonment Totals listed on the next page.

-Project Management, Engineering and Planning costs are listed as a single line item under Platform Decommission Task Information section of this estimate and therefore are included in Platform Removal costs listed on the next page. Project Management, Engineering and Planning costs are also displayed in Appendix 2 of the report. Project Management, Engineering and Planning costs are calculated by taking 8% of the following categories' costs: Platform Prep; Conductor Removal; Platform Removal; Sit Clearance; Power Cable Removal; Pipeline Abandonment; Well P&A. The 8% Project Management, Engineering and Planning costs are not applied to the following categories: Permitting and Regulatory Compliance; Mobilization and Demobilization of Derrick Barge; Materials Disposal; Weather Contingencies; Misc. Work Provision;

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Estimated Decommissioning Gross Cost =           \$32,645,793

Estimated Decommissioning Net Cost =           \$32,645,793



## MMS

### Basic Information

#### Irene MMS POCS 29056 (Ver 1)

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#### General Data

Platform: Irene MMS POCS 29056  
Function: DRILL/PROD  
Type: Steel  
Water Depth: 242'  
Pre 461H?: No  
Year Installed: 1985  
Year Estimate Developed: 2009  
District: California  
Lease Number: OCS-P 0441  
Account Code: TSB - 29056  
Amortization: 1.00  
# Wells to P & A: 24  
# Pipelines to Abandon: 2  
Estimate Complete?: Yes

#### Partner Data

Partner	Working Interest
1 Plains Exploration & Production Company	100.00%

#### Estimated Costs

	Gross Cost	Net Cost
Platform Removal:	\$25,456,230	\$25,456,230
Well Plugging & Abandonment:	\$5,449,257	\$5,449,257
Pipeline Abandonment:	\$1,740,306	\$1,740,306
Total Decommissioning Cost:	\$32,645,793	\$32,645,793



## MMS

### Platform Information

### Irene MMS POCS 29056 (Ver 1)

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### Pile/Tendon Data

	Number	Outside Diameter	Wall Thickness	Grout Annulus	Grout Internal	Depth Below Mudline
Main:	8	60"	0.688"	Yes	No	
Skirt/Braced	0			No	No	
Anchor:	0					
Dolphin:	0					

### Deck Dimensions

	Dimensions	Elevation
Upper:		
Middle:		
Lower:		

### Conductors

Number of Slots:	72
Number Installed:	24
Outside Diameter:	24"
Wall Thickness:	0.375"
Number Slanted:	0

### Jacket Data

	Weight (Tons)	With Piles	With Piles & Grout
Submerged:			
Dry:	3100.00		
Jacket Installation Date:	8/7/85		
Jacket Contractor:	Unknown		

### Deck Data

Deck Lift Weight with Equipment:	2500 Tons
Number of Padeyes Required:	12
Deck Installation Date:	8/7/85
Deck Contractor:	Unknown



## **MMS**

### **Platform Information**

#### **Irene MMS POCS 29056 (Ver 1)**

---

### **Equipment Lift Weights**

### **Members to be Cut Data**

### **Cargo Descriptions**

<b>Cargo Barge Size</b>	<b>Cargo Description</b>		
CB 300 x 100	Equipment	Equipment	Equipment
CB 300 x 100	Deck 100-500T	Equipment	
CB 400 x 100	Deck > 500T	Deck > 500T	
CB 400 x 100	Deck > 500T	Deck > 500T	
CB 400 x 100	Jkt > 700T	Jkt > 700T	

### **Miscellaneous Data**

Derrick Barge Anchors:	8
Assist Derrick Barge Anchors:	0
Tow Distance:	
Provision for Misc. Work%:	15.00%
Weather Contingency%:	15.00%
Engineering%:	0.00%

### **Miscellaneous Cost**

Consumables:	\$0.00
Waste Disposal:	\$3,033,604.00
Structure & Equipment Disposal:	\$0.00
Reef Donation:	\$0.00
Cost of Engineering:	\$0.00



**MMS**

**Platform Decommission Task Information**

**Irene MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>		<b>Task Cost</b>	
Platform Abandonment - Manual Calculation	Project Management, Engineering & Planning Costs	<input type="checkbox"/>	0.00	0.00%	\$1,342,230.00	5.27%
NMFS Marine Observation	Representative of all permitting and regulation costs	<input type="checkbox"/>	1.00	0.03%	\$851,667.00	3.35%
Mobilize Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from Houma to LA+ Loading and Unloading costs	<input type="checkbox"/>	1.00	0.03%	\$13,984.00	0.05%
Sever Conductors- Abrasive	Abrasive severing and casing jack removal prior to DB arrival. See Conductor Removal spreadsheet.	<input checked="" type="checkbox"/>	1.00	0.03%	\$2,234,321.00	8.78%
Platform Removal Preparation	Manual Calculation	<input checked="" type="checkbox"/>	1.00	0.03%	\$1,605,564.00	6.31%
Mobilize DB 2000	Mob from Asia, 50 days divided by 3 platforms	<input type="checkbox"/>	400.00	10.44%	\$3,060,000.00	12.02%
Mobilize CB 300 & Tug	Mob From Port of LA (Qty 2)	<input type="checkbox"/>	37.80	0.99%	\$102,088.00	0.40%
Mobilize CB 400 & Tug	Mob From Port of LA (Qty 3)	<input type="checkbox"/>	37.80	0.99%	\$155,400.00	0.61%
Mobilize Dive Spread	Mob of PI Survey, Dive Spread and Abrasive Spread from LA/Long Beach to DB on location.	<input type="checkbox"/>	17.90	0.47%	\$80,908.00	0.32%
Setup Derrick Barge		<input checked="" type="checkbox"/>	6.75	0.18%	\$84,510.00	0.33%
Cut Deck/Equip/Misc	Seperate 5 Modules, per MMS	<input checked="" type="checkbox"/>	24.00	0.63%	\$324,000.00	1.27%
Remove Equipment		<input checked="" type="checkbox"/>	24.00	0.63%	\$324,000.00	1.27%
Remove 8 Pile Deck	Remove 8 Pile Deck, 5 modules	<input checked="" type="checkbox"/>	72.00	1.88%	\$972,000.00	3.82%
Demob CB 300 & Tug	Demob to Port of LA (Qty 2)	<input type="checkbox"/>	37.80	0.99%	\$74,088.00	0.29%
Jet/Airlift Pile Mud Plug		<input checked="" type="checkbox"/>	31.00	0.81%	\$419,120.00	1.65%
Sever Piles- Abrasive		<input checked="" type="checkbox"/>	53.68	1.40%	\$805,753.60	3.17%
Cut Jacket	30 Hours per section, times 2 section(s), per MMS	<input checked="" type="checkbox"/>	60.00	1.57%	\$850,976.00	3.34%
Remove Jacket - Meth 1	30 Hours per section, times 2 section(s), per MMS	<input checked="" type="checkbox"/>	60.00	1.57%	\$811,200.00	3.19%
Demob CB 400 & Tug	Demob to Port of LA (Qty 3)	<input type="checkbox"/>	37.80	0.99%	\$113,400.00	0.45%
Pick Up DB Anchors		<input checked="" type="checkbox"/>	6.75	0.18%	\$84,510.00	0.33%
Demob Dive Spread	Demob of PI Survey, Dive Spread and Abrasive Spread from DB on location to LA/Long Beach.	<input type="checkbox"/>	17.90	0.47%	\$80,908.00	0.32%
Demob DB 2000	Demob to Asia, 50 days divided by 3 platforms	<input type="checkbox"/>	400.00	10.44%	\$3,060,000.00	12.02%
Site Clearance - with Divers	Represents All Site Clearance Operations in Section 14	<input checked="" type="checkbox"/>	72.00	1.88%	\$709,000.00	2.79%
Offload CB 300		<input type="checkbox"/>	240.00	6.27%	\$89,200.00	0.35%
Offload CB 400		<input type="checkbox"/>	2064.00	53.89%	\$596,640.00	2.34%
Demob Abrasive Cutting Spread	Crew travel hourly pay + Crew Airfare + Spread Shipping costs from LA to Houma + Loading and Unloading Costs	<input type="checkbox"/>	1.00	0.03%	\$13,984.00	0.05%
Platform Abandonment - Manual Calculation	Power Cable Removal	<input checked="" type="checkbox"/>	0.00	0.00%	\$612,071.00	2.40%
<b>Task Total</b>			3706.18	96.77%	\$19,471,522.60	76.49%
<b>Misc. Work Provision (15.00%)</b>			61.83	1.61%	\$1,475,554.00	5.80%
<b>Weather Contingency (15.00%)</b>			61.83	1.61%	\$1,475,554.00	5.80%
<b>Consumables</b>					\$0.00	0.00%
<b>Waste Disposal</b>					\$3,033,604.00	11.92%



**MMS**

**Platform Decommission Task Information**

**Irene MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>	
		<b>Structure &amp; Equipment Disposal</b>		\$0.00	0.00%
		<b>Offloading</b>		\$0.00	0.00%
		<b>Storage / Scrapping</b>		\$0.00	0.00%
		<b>Reef Donation</b>		\$0.00	0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00	0.00%
			<b>Total:</b>	3829.84	100.00%
				100.00%	25,456,234.60
				100.00%	100.00%



## MMS

### Platform Decommission Resources Breakdown

#### Irene MMS POCS 29056 (Ver 1)

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Abrasive Cutter Spread	\$625.00	per Hour	\$233,737.50	0.92%
Cargo Barge 300	\$4,920.00	per Day per Barge	\$49,200.00	0.19%
Cargo Barge 400	\$6,240.00	per Day per Barge	\$536,640.00	2.11%
CB 300 & Tug	\$980.00	per Hour per Barge/Tug	\$265,776.00	1.04%
CB 400 & Tug	\$1,000.00	per Hour per Barge/Tug	\$431,480.00	1.69%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$100,000.00	0.39%
Derrick Barge 2000	\$8,500.00	per Hour per barge	\$8,994,530.00	35.33%
Dive Basic Spread Saturation	\$3,165.00	Per Hour	\$1,183,646.70	4.65%
Manual Calculation	\$0.00	Independently Calculated	\$7,382,821.00	29.00%
Pile Abrasive Cut 49 to 69 inches	\$5,000.00	per Cut	\$80,000.00	0.31%
Pile Abrasive Cut 7 to 48 inches	\$2,486.00	per Cut	\$39,776.00	0.16%
Pipeline Survey	\$230.00	per Hour	\$86,015.40	0.34%
Rig Up CB 300	\$14,000.00	per Barge	\$28,000.00	0.11%
Rig Up CB 400	\$14,000.00	per Barge	\$42,000.00	0.16%
Work Boat	\$500.00	per Hour	\$17,900.00	0.07%



**MMS**

**Platform Decommission Cost Breakdown**

**Irene MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00 0.00%</b>	<b>\$1,342,230.00 5.27%</b>
Manual Calculation		\$1,342,230.00
<b>NMFS Marine Observation</b>	<b>1.00 0.03%</b>	<b>\$851,667.00 3.35%</b>
Manual Calculation		\$851,667.00
<b>Mobilize Abrasive Cutting Spread</b>	<b>1.00 0.03%</b>	<b>\$13,984.00 0.05%</b>
Manual Calculation		\$1,833.00
Manual Calculation		\$703.00
Manual Calculation		\$8,000.00
Manual Calculation		\$3,448.00
<b>Sever Conductors- Abrasive</b>	<b>1.00 0.03%</b>	<b>\$2,234,321.00 8.78%</b>
Manual Calculation		\$2,234,321.00
<b>Platform Removal Preparation</b>	<b>1.00 0.03%</b>	<b>\$1,605,564.00 6.31%</b>
Manual Calculation		\$1,605,564.00
<b>Mobilize DB 2000</b>	<b>400.00 10.44%</b>	<b>\$3,060,000.00 12.02%</b>
Derrick Barge 2000		\$3,060,000.00
<b>Mobilize CB 300 &amp; Tug</b>	<b>37.80 0.99%</b>	<b>\$102,088.00 0.40%</b>
CB 300 & Tug		\$74,088.00
Rig Up CB 300		\$28,000.00



## MMS

### Platform Decommission Cost Breakdown

#### Irene MMS POCS 29056 (Ver 1)

Task	Task Hours	Task Cost		
<b>Mobilize CB 400 &amp; Tug</b>	<b>37.80</b>	<b>0.99%</b>	<b>\$155,400.00</b>	<b>0.61%</b>
Rig Up CB 400			\$42,000.00	
CB 400 & Tug			\$113,400.00	
<b>Mobilize Dive Spread</b>	<b>17.90</b>	<b>0.47%</b>	<b>\$80,908.00</b>	<b>0.32%</b>
Work Boat			\$8,950.00	
Dive Basic Spread Saturation			\$56,653.50	
Abrasive Cutter Spread			\$11,187.50	
Pipeline Survey			\$4,117.00	
<b>Setup Derrick Barge</b>	<b>6.75</b>	<b>0.18%</b>	<b>\$84,510.00</b>	<b>0.33%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
<b>Cut Deck/Equip/Misc</b>	<b>24.00</b>	<b>0.63%</b>	<b>\$324,000.00</b>	<b>1.27%</b>
Derrick Barge 2000			\$204,000.00	
Dive Basic Spread Saturation			\$75,960.00	
Pipeline Survey			\$5,520.00	
Abrasive Cutter Spread			\$15,000.00	
CB 300 & Tug			\$23,520.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Irene MMS POCS 29056 (Ver 1)**

<b>Task</b>		<b>Task Hours</b>		<b>Task Cost</b>	
<b>Remove Equipment</b>		<b>24.00</b>	<b>0.63%</b>	<b>\$324,000.00</b>	<b>1.27%</b>
Derrick Barge 2000	\$204,000.00				
Dive Basic Spread Saturation	\$75,960.00				
Pipeline Survey	\$5,520.00				
Abrasive Cutter Spread	\$15,000.00				
CB 300 & Tug	\$23,520.00				
<b>Remove 8 Pile Deck</b>		<b>72.00</b>	<b>1.88%</b>	<b>\$972,000.00</b>	<b>3.82%</b>
Derrick Barge 2000	\$612,000.00				
Dive Basic Spread Saturation	\$227,880.00				
Pipeline Survey	\$16,560.00				
Abrasive Cutter Spread	\$45,000.00				
CB 300 & Tug	\$70,560.00				
<b>Demob CB 300 &amp; Tug</b>		<b>37.80</b>	<b>0.99%</b>	<b>\$74,088.00</b>	<b>0.29%</b>
CB 300 & Tug	\$74,088.00				
<b>Jet/Airlift Pile Mud Plug</b>		<b>31.00</b>	<b>0.81%</b>	<b>\$419,120.00</b>	<b>1.65%</b>
Derrick Barge 2000	\$263,500.00				
Dive Basic Spread Saturation	\$98,115.00				
Pipeline Survey	\$7,130.00				
Abrasive Cutter Spread	\$19,375.00				
CB 400 & Tug	\$31,000.00				



**MMS**

**Platform Decommission Cost Breakdown**

**Irene MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
<b>Sever Piles- Abrasive</b>	<b>53.68</b>	<b>1.40%</b>	<b>\$805,753.60</b>	<b>3.17%</b>
Derrick Barge 2000			\$456,280.00	
Dive Basic Spread Saturation			\$169,897.20	
Pipeline Survey			\$12,346.40	
Abrasive Cutter Spread			\$33,550.00	
CB 400 & Tug			\$53,680.00	
Pile Abrasive Cut 49 to 69 inches			\$80,000.00	
<b>Cut Jacket</b>	<b>60.00</b>	<b>1.57%</b>	<b>\$850,976.00</b>	<b>3.34%</b>
Derrick Barge 2000			\$510,000.00	
Dive Basic Spread Saturation			\$189,900.00	
Pipeline Survey			\$13,800.00	
Abrasive Cutter Spread			\$37,500.00	
CB 400 & Tug			\$60,000.00	
Pile Abrasive Cut 7 to 48 inches			\$39,776.00	
<b>Remove Jacket - Meth 1</b>	<b>60.00</b>	<b>1.57%</b>	<b>\$811,200.00</b>	<b>3.19%</b>
Derrick Barge 2000			\$510,000.00	
Dive Basic Spread Saturation			\$189,900.00	
Pipeline Survey			\$13,800.00	
Abrasive Cutter Spread			\$37,500.00	
CB 400 & Tug			\$60,000.00	
<b>Demob CB 400 &amp; Tug</b>	<b>37.80</b>	<b>0.99%</b>	<b>\$113,400.00</b>	<b>0.45%</b>
CB 400 & Tug			\$113,400.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Irene MMS POCS 29056 (Ver 1)**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>	
<b>Pick Up DB Anchors</b>	<b>6.75</b>	<b>0.18%</b>	<b>\$84,510.00</b>	<b>0.33%</b>
Derrick Barge 2000			\$57,375.00	
Dive Basic Spread Saturation			\$21,363.75	
Pipeline Survey			\$1,552.50	
Abrasive Cutter Spread			\$4,218.75	
<b>Demob Dive Spread</b>	<b>17.90</b>	<b>0.47%</b>	<b>\$80,908.00</b>	<b>0.32%</b>
Work Boat			\$8,950.00	
Dive Basic Spread Saturation			\$56,653.50	
Abrasive Cutter Spread			\$11,187.50	
Pipeline Survey			\$4,117.00	
<b>Demob DB 2000</b>	<b>400.00</b>	<b>10.44%</b>	<b>\$3,060,000.00</b>	<b>12.02%</b>
Derrick Barge 2000			\$3,060,000.00	
<b>Site Clearance - with Divers</b>	<b>72.00</b>	<b>1.88%</b>	<b>\$709,000.00</b>	<b>2.79%</b>
Manual Calculation			\$709,000.00	
<b>Offload CB 300</b>	<b>240.00</b>	<b>6.27%</b>	<b>\$89,200.00</b>	<b>0.35%</b>
Cargo Barge 300			\$49,200.00	
CB Damage Deduct			\$40,000.00	
<b>Offload CB 400</b>	<b>2064.00</b>	<b>53.89%</b>	<b>\$596,640.00</b>	<b>2.34%</b>
Cargo Barge 400			\$536,640.00	
CB Damage Deduct			\$60,000.00	



**MMS**

**Platform Decommission Cost Breakdown**

**Irene MMS POCS 29056 (Ver 1)**

Task	Task Hours		Task Cost	
	Hours	Percentage	Amount	Percentage
<b>Demob Abrasive Cutting Spread</b>	<b>1.00</b>	<b>0.03%</b>	<b>\$13,984.00</b>	<b>0.05%</b>
Manual Calculation			\$1,833.00	
Manual Calculation			\$703.00	
Manual Calculation			\$8,000.00	
Manual Calculation			\$3,448.00	
<b>Platform Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$612,071.00</b>	<b>2.40%</b>
Manual Calculation			\$612,071.00	
<b>Total</b>	<b>3706.18</b>	<b>96.77%</b>	<b>\$19,471,522.60</b>	<b>76.49%</b>



## MMS

### Pipeline Information

#### Irene MMS POCS 29056 (Ver1) Segment#:4610441-

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### General Data

Water Depth: 242'  
Origin / Terminus: Origin  
Opposite End Name: LOMPOC  
Opposite End Water Depth: 190'  
Pipeline Operator: Spirit 76  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 15.00%

### Pipeline Data

Outside Diameter:	20"	Wall Thickness:	1.031"	Length:	12100'
Depth of Burial:	3'	# Crossings:		Product:	Oil
Installation Date:		Weight Coating:	No	J Tube:	No
Riser?:	Yes	Riser Guard?:	No		

### Comments

This segment runs to the LOMPOC Onshore facility.  
Estimate reflects removing to state waters.  
Total estimated length removed is ~12100'



## MMS

### Pipeline Information

#### Irene MMS POCS 29056 (Ver1) Segment#:4820441-

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### General Data

Water Depth: 242'  
Origin / Terminus: Origin  
Opposite End Name: LOMPOC  
Opposite End Water Depth: 190'  
Pipeline Operator: Spirit 76  
Provision for Misc. Work%: 15.00%  
Weather Contingency %: 15.00%

### Pipeline Data

Outside Diameter: 8"	Wall Thickness: 0.5"	Length: 12100'
Depth of Burial: 3'	# Crossings:	Product: Gas
Installation Date:	Weight Coating: No	J Tube: No
Riser?: Yes	Riser Guard?: No	

### Comments

This segment runs to the LOMPOC Onshore facility.  
Estimate reflects removing to state waters.  
Total estimated length removed is ~12840'



**MMS**

**Pipeline Decommission Task Information**

**Irene MMS POCS 29056 (Ver 1) Segment#:4610441-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	17.90	3.23%	\$12,449.45	1.41%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.90%	\$3,477.50	0.39%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	48.00	8.67%	\$33,384.00	3.77%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.36%	\$1,391.00	0.16%
Demob Work Boat		<input type="checkbox"/>	17.90	3.23%	\$12,449.45	1.41%
Mob P/L Removal Spread		<input type="checkbox"/>	17.90	3.23%	\$104,935.10	11.86%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	7.95	1.44%	\$25,292.92	2.86%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	5.30	0.96%	\$16,861.95	1.91%
Remove Tube Turn		<input checked="" type="checkbox"/>	5.30	0.96%	\$16,861.95	1.91%
Mobilize Vessel		<input checked="" type="checkbox"/>	17.90	3.23%	\$35,690.00	4.03%
Expose Pipeline		<input checked="" type="checkbox"/>	7.95	1.44%	\$28,771.05	3.25%
Remove Pipeline		<input checked="" type="checkbox"/>	80.00	14.46%	\$289,520.00	32.71%
Bury Pipeline		<input checked="" type="checkbox"/>	5.30	0.96%	\$19,180.70	2.17%
Demob Vessel		<input checked="" type="checkbox"/>	17.90	3.23%	\$19,690.00	2.22%
Demob P/L Removal Spread		<input type="checkbox"/>	17.90	3.23%	\$64,780.10	7.32%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	30.36%	\$41,000.00	4.63%
<b>Task Total</b>			<b>442.20</b>	<b>79.91%</b>	<b>\$725,735.17</b>	<b>82.00%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>55.59</b>	<b>10.05%</b>	<b>\$79,668.16</b>	<b>9.00%</b>
<b>Other Contingency (15.00%)</b>			<b>55.59</b>	<b>10.05%</b>	<b>\$79,668.16</b>	<b>9.00%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>553.38</b>	<b>100.00%</b>	<b>\$885,071.50</b>	<b>100.00%</b>



**MMS**

**Pipeline Decommission Task Information**

**Irene MMS POCS 29056 (Ver 1) Segment#:4820441-Shore**

Task	Note	Contingency	Task Hours		Task Cost	
Mobilize Work Boat		<input type="checkbox"/>	17.90	3.51%	\$12,449.45	1.46%
Rig Up Decomm Equipment		<input checked="" type="checkbox"/>	5.00	0.98%	\$3,477.50	0.41%
Pig & Flush Pipeline		<input checked="" type="checkbox"/>	15.00	2.94%	\$10,432.50	1.22%
Derig Decomm Equipment		<input checked="" type="checkbox"/>	2.00	0.39%	\$1,391.00	0.16%
Demob Work Boat		<input type="checkbox"/>	17.90	3.51%	\$12,449.45	1.46%
Mob P/L Removal Spread		<input type="checkbox"/>	17.90	3.51%	\$104,935.10	12.27%
Cut & Plug Pipeline		<input checked="" type="checkbox"/>	7.95	1.56%	\$25,292.92	2.96%
Cut Pipeline Riser		<input checked="" type="checkbox"/>	5.30	1.04%	\$16,861.95	1.97%
Remove Tube Turn		<input checked="" type="checkbox"/>	5.30	1.04%	\$16,861.95	1.97%
Mobilize Vessel		<input checked="" type="checkbox"/>	17.90	3.51%	\$35,690.00	4.17%
Expose Pipeline		<input checked="" type="checkbox"/>	7.95	1.56%	\$28,771.05	3.36%
Remove Pipeline		<input checked="" type="checkbox"/>	80.00	15.67%	\$289,520.00	33.85%
Bury Pipeline		<input checked="" type="checkbox"/>	5.30	1.04%	\$19,180.70	2.24%
Demob Vessel		<input checked="" type="checkbox"/>	17.90	3.51%	\$19,690.00	2.30%
Demob P/L Removal Spread		<input type="checkbox"/>	17.90	3.51%	\$64,780.10	7.57%
Offload CB 180		<input checked="" type="checkbox"/>	168.00	32.91%	\$41,000.00	4.79%
<b>Task Total</b>			<b>409.20</b>	<b>80.16%</b>	<b>\$702,783.67</b>	<b>82.17%</b>
<b>Misc. Work Provision (15.00%)</b>			<b>50.64</b>	<b>9.92%</b>	<b>\$76,225.44</b>	<b>8.91%</b>
<b>Other Contingency (15.00%)</b>			<b>50.64</b>	<b>9.92%</b>	<b>\$76,225.44</b>	<b>8.91%</b>
<b>Consumables</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Waste Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Structure &amp; Equipment Disposal</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Offloading</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Storage / Scrapping</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Reef Donation</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Cost of Engineering (0.00%)</b>					<b>\$0.00</b>	<b>0.00%</b>
<b>Total:</b>			<b>510.48</b>	<b>100.00%</b>	<b>\$855,234.55</b>	<b>100.00%</b>



TWACHTMAN SNYDER & BYRD, INC.

## MMS

### Pipeline Decommission Resources Breakdown

#### Irene MMS POCS 29056 (Ver 1) Segment#:461044

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	2.37%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$100,512.50	11.36%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	2.26%
Decommissioning Crew	\$0.00	Calculated from tables	\$12,301.87	1.39%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$130,626.00	14.76%
Manual Calculation	\$0.00	Independently Calculated	\$50,000.00	5.65%
Pipelay Barge	\$1,954.00	per Hour	\$288,410.40	32.59%
Pipeline Surveying	\$230.00	per Hour	\$33,948.00	3.84%
Rig Up CB 180	\$8,000.00	per Barge	\$16,000.00	1.81%
Work Boat	\$583.00	per Hour	\$52,936.40	5.98%



TWACHTMAN SNYDER & BYRD, INC.

## MMS

### Pipeline Decommission Resources Breakdown

Irene MMS POCS 29056 (Ver 1) Segment#:482044

<b>Resource Used</b>	<b>Unit Cost</b>		<b>Cost</b>	
Cargo Barge 180	\$3,000.00	per Day per Barge	\$21,000.00	2.46%
CB 180 & Tug	\$550.00	per Hour per Barge/Tug	\$100,512.50	11.75%
CB Damage Deduct	\$20,000.00	per Cargo Barge	\$20,000.00	2.34%
Decommissioning Crew	\$0.00	Calculated from tables	\$8,589.37	1.00%
Dive Basic Spread- Mixed Gas	\$885.00	Per Hour	\$130,626.00	15.27%
Manual Calculation	\$0.00	Independently Calculated	\$50,000.00	5.85%
Pipelay Barge	\$1,954.00	per Hour	\$288,410.40	33.72%
Pipeline Surveying	\$230.00	per Hour	\$33,948.00	3.97%
Rig Up CB 180	\$8,000.00	per Barge	\$16,000.00	1.87%
Work Boat	\$583.00	per Hour	\$33,697.40	3.94%



**MMS**

**Pipeline Decommission Cost Breakdown**

**Irene MMS POCS 29056 (Ver 1) Segment#:4610441**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>17.90 3.23%</b>	<b>\$12,449.45 1.41%</b>
Work Boat	\$10,435.70	
Decommissioning Crew	\$2,013.75	
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.90%</b>	<b>\$3,477.50 0.39%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Pig &amp; Flush Pipeline</b>	<b>48.00 8.67%</b>	<b>\$33,384.00 3.77%</b>
Work Boat	\$27,984.00	
Decommissioning Crew	\$5,400.00	
<b>Derig Decomm Equipment</b>	<b>2.00 0.36%</b>	<b>\$1,391.00 0.16%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Demob Work Boat</b>	<b>17.90 3.23%</b>	<b>\$12,449.45 1.41%</b>
Work Boat	\$10,435.70	
Decommissioning Crew	\$2,013.75	
<b>Mob P/L Removal Spread</b>	<b>17.90 3.23%</b>	<b>\$104,935.10 11.86%</b>
Dive Basic Spread- Mixed Gas	\$15,841.50	
Pipeline Surveying	\$4,117.00	
Pipelay Barge	\$34,976.60	
Manual Calculation	\$50,000.00	
<b>Cut &amp; Plug Pipeline</b>	<b>7.95 1.44%</b>	<b>\$25,292.92 2.86%</b>
Dive Basic Spread- Mixed Gas	\$7,035.75	
Pipeline Surveying	\$1,828.50	
Pipelay Barge	\$15,534.30	
Decommissioning Crew	\$894.37	
<b>Cut Pipeline Riser</b>	<b>5.30 0.96%</b>	<b>\$16,861.95 1.91%</b>
Dive Basic Spread- Mixed Gas	\$4,690.50	
Pipeline Surveying	\$1,219.00	
Pipelay Barge	\$10,356.20	
Decommissioning Crew	\$596.25	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Remove Tube Turn</b>		<b>5.30</b>	<b>0.96%</b>	<b>\$16,861.95</b>	<b>1.91%</b>
Dive Basic Spread- Mixed Gas	\$4,690.50				
Pipeline Surveying	\$1,219.00				
Pipelay Barge	\$10,356.20				
Decommissioning Crew	\$596.25				
<b>Mobilize Vessel</b>		<b>17.90</b>	<b>3.23%</b>	<b>\$35,690.00</b>	<b>4.03%</b>
CB 180 & Tug	\$19,690.00				
Rig Up CB 180	\$16,000.00				
<b>Expose Pipeline</b>		<b>7.95</b>	<b>1.44%</b>	<b>\$28,771.05</b>	<b>3.25%</b>
Pipeline Surveying	\$1,828.50				
Dive Basic Spread- Mixed Gas	\$7,035.75				
Pipelay Barge	\$15,534.30				
CB 180 & Tug	\$4,372.50				
<b>Remove Pipeline</b>		<b>80.00</b>	<b>14.46%</b>	<b>\$289,520.00</b>	<b>32.71%</b>
Pipeline Surveying	\$18,400.00				
Dive Basic Spread- Mixed Gas	\$70,800.00				
Pipelay Barge	\$156,320.00				
CB 180 & Tug	\$44,000.00				
<b>Bury Pipeline</b>		<b>5.30</b>	<b>0.96%</b>	<b>\$19,180.70</b>	<b>2.17%</b>
Pipeline Surveying	\$1,219.00				
Dive Basic Spread- Mixed Gas	\$4,690.50				
Pipelay Barge	\$10,356.20				
CB 180 & Tug	\$2,915.00				
<b>Demob Vessel</b>		<b>17.90</b>	<b>3.23%</b>	<b>\$19,690.00</b>	<b>2.22%</b>
CB 180 & Tug	\$19,690.00				
<b>Demob P/L Removal Spread</b>		<b>17.90</b>	<b>3.23%</b>	<b>\$64,780.10</b>	<b>7.32%</b>
Pipeline Surveying	\$4,117.00				
Dive Basic Spread- Mixed Gas	\$15,841.50				
Pipelay Barge	\$34,976.60				
CB 180 & Tug	\$9,845.00				
<b>Offload CB 180</b>		<b>168.00</b>	<b>30.36%</b>	<b>\$41,000.00</b>	<b>4.63%</b>
Cargo Barge 180	\$21,000.00				
CB Damage Deduct	\$20,000.00				
		<b>Total</b>	<b>442.20 79.91%</b>	<b>\$725,735.17</b>	<b>82.00%</b>



**MMS**

**Pipeline Decommission Cost Breakdown**

**Irene MMS POCS 29056 (Ver 1) Segment#:4820441**

<b>Task</b>	<b>Task Hours</b>	<b>Task Cost</b>
<b>Mobilize Work Boat</b>	<b>17.90 3.51%</b>	<b>\$12,449.45 1.46%</b>
Work Boat	\$10,435.70	
Decommissioning Crew	\$2,013.75	
<b>Rig Up Decomm Equipment</b>	<b>5.00 0.98%</b>	<b>\$3,477.50 0.41%</b>
Work Boat	\$2,915.00	
Decommissioning Crew	\$562.50	
<b>Pig &amp; Flush Pipeline</b>	<b>15.00 2.94%</b>	<b>\$10,432.50 1.22%</b>
Work Boat	\$8,745.00	
Decommissioning Crew	\$1,687.50	
<b>Derig Decomm Equipment</b>	<b>2.00 0.39%</b>	<b>\$1,391.00 0.16%</b>
Work Boat	\$1,166.00	
Decommissioning Crew	\$225.00	
<b>Demob Work Boat</b>	<b>17.90 3.51%</b>	<b>\$12,449.45 1.46%</b>
Work Boat	\$10,435.70	
Decommissioning Crew	\$2,013.75	
<b>Mob P/L Removal Spread</b>	<b>17.90 3.51%</b>	<b>\$104,935.10 12.27%</b>
Dive Basic Spread- Mixed Gas	\$15,841.50	
Pipeline Surveying	\$4,117.00	
Pipelay Barge	\$34,976.60	
Manual Calculation	\$50,000.00	
<b>Cut &amp; Plug Pipeline</b>	<b>7.95 1.56%</b>	<b>\$25,292.92 2.96%</b>
Dive Basic Spread- Mixed Gas	\$7,035.75	
Pipeline Surveying	\$1,828.50	
Pipelay Barge	\$15,534.30	
Decommissioning Crew	\$894.37	
<b>Cut Pipeline Riser</b>	<b>5.30 1.04%</b>	<b>\$16,861.95 1.97%</b>
Dive Basic Spread- Mixed Gas	\$4,690.50	
Pipeline Surveying	\$1,219.00	
Pipelay Barge	\$10,356.20	
Decommissioning Crew	\$596.25	



**MMS**

**Pipeline Decommission Cost Breakdown**

<b>Remove Tube Turn</b>		<b>5.30</b>	<b>1.04%</b>	<b>\$16,861.95</b>	<b>1.97%</b>
Dive Basic Spread- Mixed Gas	\$4,690.50				
Pipeline Surveying	\$1,219.00				
Pipelay Barge	\$10,356.20				
Decommissioning Crew	\$596.25				
<b>Mobilize Vessel</b>		<b>17.90</b>	<b>3.51%</b>	<b>\$35,690.00</b>	<b>4.17%</b>
CB 180 & Tug	\$19,690.00				
Rig Up CB 180	\$16,000.00				
<b>Expose Pipeline</b>		<b>7.95</b>	<b>1.56%</b>	<b>\$28,771.05</b>	<b>3.36%</b>
Pipeline Surveying	\$1,828.50				
Dive Basic Spread- Mixed Gas	\$7,035.75				
Pipelay Barge	\$15,534.30				
CB 180 & Tug	\$4,372.50				
<b>Remove Pipeline</b>		<b>80.00</b>	<b>15.67%</b>	<b>\$289,520.00</b>	<b>33.85%</b>
Pipeline Surveying	\$18,400.00				
Dive Basic Spread- Mixed Gas	\$70,800.00				
Pipelay Barge	\$156,320.00				
CB 180 & Tug	\$44,000.00				
<b>Bury Pipeline</b>		<b>5.30</b>	<b>1.04%</b>	<b>\$19,180.70</b>	<b>2.24%</b>
Pipeline Surveying	\$1,219.00				
Dive Basic Spread- Mixed Gas	\$4,690.50				
Pipelay Barge	\$10,356.20				
CB 180 & Tug	\$2,915.00				
<b>Demob Vessel</b>		<b>17.90</b>	<b>3.51%</b>	<b>\$19,690.00</b>	<b>2.30%</b>
CB 180 & Tug	\$19,690.00				
<b>Demob P/L Removal Spread</b>		<b>17.90</b>	<b>3.51%</b>	<b>\$64,780.10</b>	<b>7.57%</b>
Pipeline Surveying	\$4,117.00				
Dive Basic Spread- Mixed Gas	\$15,841.50				
Pipelay Barge	\$34,976.60				
CB 180 & Tug	\$9,845.00				
<b>Offload CB 180</b>		<b>168.00</b>	<b>32.91%</b>	<b>\$41,000.00</b>	<b>4.79%</b>
Cargo Barge 180	\$21,000.00				
CB Damage Deduct	\$20,000.00				
		<b>Total</b>	<b>409.20 80.16%</b>	<b>\$702,783.67</b>	<b>82.17%</b>



## **MMS**

### **Well Information**

#### **Irene MMS POCS 29056 (Ver 1) Well#:All**

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### **General Data**

Status:

Number of Completions:

Subsea Completion:           No

Spud Date:

Last Production:

Rig Type Required:

Crane Capacity:

Living Quarters Capacity:

Deck Space:

Helideck Capacity:

Provision for Misc. Work%:   15.00%

Weather Contingency %:       15.00%

### **Partner Data**

<b>Partner</b>	<b>Working Interest</b>
1 Plains Exploration & Production Company	100.00%

### **Well Data**

<b>Diameter</b>	<b>Depth</b>	<b>Surface Pressure</b>
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Tubing:

Production Casing:

Liner:

Protective Casing:

Surface Casing:

Drive Pipe:

Caisson:

Perforated Depth:

### **Comments**



**MMS**

**Well Decommission Task Information**

**Irene MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Note</b>	<b>Contingency</b>	<b>Task Hours</b>	<b>Task Cost</b>
Well Abandonment - Manual Calculation		<input checked="" type="checkbox"/>	0.00	\$4,191,736.00 76.92%
		<b>Task Total</b>	0.00	\$4,191,736.00 76.92%
		<b>Misc. Work Provision (15.00%)</b>	0.00	\$628,760.42 11.54%
		<b>Other Contingency (15.00%)</b>	0.00	\$628,760.42 11.54%
		<b>Consumables</b>		\$0.00 0.00%
		<b>Waste Disposal</b>		\$0.00 0.00%
		<b>Structure &amp; Equipment Disposal</b>		\$0.00 0.00%
		<b>Offloading</b>		\$0.00 0.00%
		<b>Storage / Scrapping</b>		\$0.00 0.00%
		<b>Reef Donation</b>		\$0.00 0.00%
		<b>Cost of Engineering (0.00%)</b>		\$0.00 0.00%
		<b>Total:</b>	0.00 100.00%	\$5,449,256.85 100.00%



# **MMS**

## **Well Decommission Resources Breakdown**

### **Irene MMS POCS 29056 (Ver 1) Well#:All**

<b>Resource Used</b>	<b>Unit Cost</b>	<b>Cost</b>
Manual Calculation	\$0.00 Independently Calculated	\$4,191,736.00 76.92%



**MMS**

**Well Decommission Cost Breakdown**

**Irene MMS POCS 29056 (Ver 1) Well#:All**

<b>Task</b>	<b>Task Hours</b>		<b>Task Cost</b>		
<b>Well Abandonment - Manual Calculation</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$4,191,736.00</b>	<b>76.92%</b>	
Manual Calculation			\$4,191,736.00		
	<b>Total</b>	<b>0.00</b>	<b>0.00%</b>	<b>\$4,191,736.00</b>	<b>76.92%</b>