UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT GULF OF MEXICO REGION

ACCIDENT INVESTIGATION REPORT

For Public Release

1.	OCCURRED		
	DATE:		STRUCTURAL DAMAGE
	24-FEB-2013 TIME: 2240 HOURS		X CRANE
			OTHER LIFTING DEVICE
2.	OPERATOR: BHP Billiton Petroleum (GOM) Inc.		DAMAGED/DISABLED SAFETY SYS.
	REPRESENTATIVE:		INCIDENT >\$25K
	TELEPHONE:		H2S/15MIN./20PPM
	CONTRACTOR:		REQUIRED MUSTER
	REPRESENTATIVE:		SHUTDOWN FROM GAS RELEASE
	TELEPHONE:		HOTHER
3.	OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR ON SITE AT TIME OF INCIDENT:	6.	OPERATION:
			PRODUCTION
			X DRILLING
4.	LEASE: G20084		WORKOVER
	AREA: GC LATITUDE:		COMPLETION
	BLOCK: 653 LONGITUDE:		HELICOPTER
			MOTOR VESSEL
5.	PLATFORM:		PIPELINE SEGMENT NO.
	RIG NAME: T.O. DEVELOPMENT DRILLER I		OTHER
6.	ACTIVITY: EXPLORATION (POE)	8.	CAUSE:
	X DEVELOPMENT/PRODUCTION		EQUIPMENT FAILURE
	(DOCD/POD)		X HUMAN ERROR
7.	TYPE:		EXTERNAL DAMAGE
	HISTORIC INJURY		SLIP/TRIP/FALL
	REQUIRED EVACUATION 1		WEATHER RELATED
	LTA (1-3 days)		LEAK
	x LTA (>3 days 1		UPSET H20 TREATING
	RW/JT (1-3 days)		OVERBOARD DRILLING FLUID
	RW/JT (>3 days)		OTHER
	Other Injury	a	WATER DEPTH: 4356 FT.
	T FATALITY	۶.	WATER DEFIN: 4550 FT.
	POLLUTION	10	DISTANCE FROM SHORE: 114 MI.
	FIRE	10.	DISTANCE FROM SHORE: 114 MI.
	EXPLOSION		
	LWC 🗖 HISTORIC BLOWOUT	11.	WIND DIRECTION: SSE
			SPEED: 23 M.P.H.
	UNDERGROUND		
	SURFACE	12.	CURRENT DIRECTION: SE
	DEVERTER SURFACE EQUIPMENT FAILURE OR PROCEDURES		SPEED: 0 M.P.H.
	COLLISION HISTORIC >\$25K <pre></pre>	13.	SEA STATE: 4 FT.

EV2010R

On February 24, 2013, a Roustabout was struck on the left knee by a joint of 9 5/8" casing. The crane crew was moving a bundle of slings from the deck to a container. While performing this operation, one of the slings caught the edge of a deck beam. This forced the sling into tension against a joint of laid down casing. This tensioning caused the casing to roll and strike the Roustabout on the left knee. She reported to the rig Medic for evaluation and was sent in for further evaluation. Her knee required surgery to repair the damage. The Roustabout will need an estimated three months to recover.

The Injured Person (IP) did not recognize that she had poor body placement prior to the lift being executed. A contributing cause to this incident is that all hazards associated with doing this work were not recognized prior to performing the work. Procedures identified for the lift were used, and a Risk Assessment was conducted. The hazard of poor body placement was identified as a risk, but the possibility of casing movement was not. This had only been considered a risk when the weather was rough.

The Crane Operator also had warned the IP of poor body placement earlier in the same operation. He also noted the casing was not secured prior to the lift but this was not considered a hazard since the rig was not experiencing rough seas.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

The IP did not recognize poor body placement at the time of the incident.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

The hazard of casing movement was not recognized. 20. LIST THE ADDITIONAL INFORMATION:

Procedures for the lift were used, and a Risk Assessment was conducted. The hazard of poor body placement was identified as a risk, but the possibility of casing movement was not. This has only been considered a risk when the weather is rough.

The Crane Operator had warned the IP of poor body placement earlier in the same operation. He also noted the casing was not secured prior to the lift, but this was not considered a hazard since it was not rough seas.

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

N/A

N/A

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

N/A

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23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: NO

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

25. DATE OF ONSITE INVESTIGATION:

26-APR-2013

- 26. ONSITE TEAM MEMBERS: Josh Ladner / Cedric Bernard / Jerry Freeman /
- 29. ACCIDENT INVESTIGATION PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

Bryan A. Domangue

APPROVED	
DATE:	06-AUG-2013

INJURY/FATALITY/WITNESS ATTACHMENT

 OPERATOR REPRESENTATIVE X CONTRACTOR REPRESENTATIVE OTHER 	X INJURY FATALITY WITNESS	
NAME :		
HOME ADDRESS:		
CITY:	STATE:	
WORK PHONE:	TOTAL OFFSHORE EXPERIENCE:	YEARS
EMPLOYED BY:		
BUSINESS ADDRESS:		
CITY:	STATE:	
ZIP CODE:		

Crane/Other Material-Handling Equipment Attachment

Equipment Information

Installation date: 19-MAY-2005 Manufacturer: LIEBHERR Manufacture date: 19-MAY-2005 Make/Model: MTC / MTC 6000-150D Any modifications since manufactured? Describe and include date(s). What was the maximum lifting capacity at the time of the lift?-Static: Dynamic: -Was a tag line utilized during the lift? ${\tt Y}$ Were there any known documented deficiencies prior to conducting the lift? If yes, what were the deficiencies? List specific type of failure that occured during this incident.(e.g. cable parted, sticking control valve, etc.) -If sling/loose gear failure occurred does operatorhave a sling/loose gear inspection program in place? y_- Type of lift: DM For crane only: Type of crane: HYDRAULIC Boom angle at time of incident: Degrees: 80 Radius: 360 What was load limit at that angle? 99 Crane equipped with: B Which line was in use at time of incident? ${\bf F}$ -If load line involved, what configuration is the load block: 1 part.

Load Information

What was being lifted?

Description of what was being lifted (e.g. 10 joints of 2 3/8-inch pipe, ten 500-lb. sacks of sand, 2 employees, etc.)

bundle of slings

Approximate weight of load being lifted:

Was crane/lifting device equipped with an operable weight indicator? N

Was the load identified with the correct or approximate weight? ${f N}$

Where was the lift started, where was it destined to finish, and at what point in the lift did the incident occur? Give specific details (e.g. pipe rack, riser cart, drill floor, etc.)

If personnel was being lifted at the time of this incident, give specific details of lifting device and riding apparatus in use (e.g. 1) crane-personnel basket, 2) air hoist-boatswain chair, other)

Were personnel wearing a safety harness?

Was a lifeline available and utilized?

List property lost overboard.

Rigger/Operator Information

Has rigger had rigger training? Y. If yes, date of last training: 15-NOV-2007. How many years of rigger experience did rigger have? 8 How many hours was the operator on duty prior to the incident? Was operator on medication when incident occurred? N How many hours was the rigger on duty prior to the incident? 11 How much sleep did rigger have in the 24 hours preceding this incident? Was rigger on medication when incident occurred? N Were all personnel involved in the lift drug tested immediately following this incident?

Operator: N Rigger: N Other:

While conducting the lift, was line of sight between operator and load maintained?

N -

Does operator wear glasses or contact lenses? ${\tt N}\,\text{-}\,$

If so, were glasses or contacts in use at time of the incident? $\ensuremath{\,N}\xspace$ -

Does operator wear a hearing aid? N-

If so, was operator using hearing aid at time of the incident? N-

What type of communication system was being utilized between operator and rigger at time of this incident?

RADIO/VHF

For crane only:

What crane training institution did crane operator attend?

LIEBHERR

Where was institution located? **NENZING, AUSTRIA**-Was operator qualified on this type of crane? **Y**-

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How much actual operational time did operator have on this particular crane involved in this incident?

Years: 7 Months 0

List recent crane operator training dates. 19-MARCH-2013

For other material-handling equipment only:

Has operator been trained to operate the lifting device involved in the incident? ${\tt N}$

How many years of experience did operator have operating the specific type oflifting device involved in the incident?-

Inspection/Maintenance Information

For crane only: Is the crane involved classified as Heavy, Moderate or Infrequent use. н Was pre-use inspeciton conducted? Ν For the annual/quarterly/monthly crane inspections, please fill out the following information: What was the date of the last inspection? 04-JUN-2012 Who performed the last inspection? SPARROWS ENGINEERING AND OPERATIONS Was inspection conducted in-house or by a 3rd party? ͲР Who qualified the inspector? SPARROWS ENGINEERING Does operators' policy require load or pull test prior to heavy lift? N Which type of test was conducted prior to heavy lift? Load test: Date of last pull test: Results: If fail explain why: Test Parameters: Boom angle: Radius: -What was the date of most recent crane maintenance performed? 18-FEB-2013 -Who performed crane maintenance? (Please clarify persons name or company name.) -DD1'S CHIEF MECHANIC AND MECHANIC Was crane maintenance performed in-house or by a third party? IH-

What type of maintenance was performed? preventive maintenance, 1000 hour P.M.

For other material-handling equipment only:

Was equipment visually inspected before the lift took place?

What is the manufacture's recommendation for performing periodic inspection on the equipment involved in this incident?

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Safety Management Systems

Does the company have a safety management program in place? N Does the company's safety management program address crane/other materialhandling equipment operations? N Provide any remarks you may have that applies to the company's safety management program and this incident? Did operator fill out a Job Safety Analysis (JSA) prior to job being performed? Y Did operator have an operational or safety meeting prior to job being performed? Y What precautions were taken by operator before conducting lift resulting in incident?

Procedures in place for crane/other material-handling equipment activities:

Did operator have procedures written? Y

Did procedures cover the circumstances of this incident? N

Was a copy available for review prior to incident? Y

Were procedures available to MMS upon request? $\ensuremath{\,\underline{Y}}$

Is it documented that operator's representative reviewed procedures before conducting lift?

Ν

Additional observations or concerns: