



2010 MARINE SURVEY – Chukchi Sea Outer Continental Shelf and Submerged State Lands

Work Plan

Prepared by:

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TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Introduction	1
1 MARINE SURVEYS.....	1
1.1 Ice Gouge.....	1
1.1.1 Location	2
1.1.2 Duration	2
1.1.3 Instrumentation	2
1.1.4 Vessel.....	2
1.2 Seafloor Soil Sampling Program	4
1.2.1 Location	4
1.2.2 Duration	5
1.2.3 Vessel.....	5
1.3 Marine Environmental Baseline Studies Program	5
1.3.1 Location	6
1.3.2 Duration	6
1.3.3 Vessel.....	6
2 ACOUSTIC EQUIPMENT AND METHODS.....	6
2.1 Introduction.....	6
2.2 High Resolution Surveys	7
2.2.1 Introduction.....	7
2.2.2 Seafloor Imagery.....	7
2.2.3 Bathymetry	7
2.2.4 High Resolution Acoustic Profiling.....	8
2.3 Navigation.....	9
2.4 ROV Video Survey.....	9

List of Figures

Figure 1	Chukchi Sea Proposed Ice Gouge Survey and Seafloor Soil Sampling Area Vicinity Map..	4
Figure 2	GeoDAS Onboard Acquisition and Image Processing Software	8
Figure 3	Example of Chirp II Subbottom Record	9

List of Photos

Photo 1	Photograph of the AUV on the vessel in preparation for launch	3
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INTRODUCTION

Shell Gulf of Mexico (Shell) plans to complete several marine surveys designed to gather additional data relative to ice gouge, seafloor sediments, and the marine environment in select areas of the Chukchi Sea. This 2010 Marine Survey Work Plan (work plan) represents Shell's official request for Ancillary Activity Authorization on Outer Continental Shelf (OCS) lease blocks in the Chukchi Sea acquired by Shell during Lease Sale 193, and addresses proposed work in both state and federal waters.

Shell plans to complete the following surveys during the 2010 open-water season (collectively the proposed open water marine survey program, hereinafter referred to as the "Program"):

- Chukchi Sea Marine Surveys
 1. Ice Gouge Survey
 2. Seafloor Soil Sampling
 3. Marine Environmental Baseline Studies

During the 2010 open water season, Shell plans to use acoustic instrumentation to gather additional data regarding seabed sediments, seafloor topography, and to measure water depths. Acoustic instrumentation will record medium- and deep penetration profiles, side-scan sonar, bathymetry, and subbottom profiles. Shell will also have a remotely operated vehicle (ROV) available on a vessel to visually verify selected anomalies on the seafloor.

The 2010 Program will be conducted using equipment deployed from marine vessels. Ice gouge survey activities are proposed to occur in (Figure 1) in state waters and federal OCS waters, and focus on Shell leases in the Chukchi Sea, though some activity may occur outside of Shell's existing leases. The marine geophysical equipment to be deployed from the vessel for ice gouge surveys is confirmed for use in 2010 and is listed Section 1.0 of this work plan and is described in detail in Section 2.0. Seafloor soil sampling will be conducted from a marine vessel via borings into the seabed to obtain shallow depth soil cores (~20 feet below seafloor) for analysis of geotechnical soil parameters. Coordination of the proposed program operations will be managed through the Chukchi Sea Communication (Com) Centers or Call Centers located in Barrow, Point Hope, Point Lay, and Wainwright.

Shell is proposing to conduct a marine environmental baseline study program in both state submerged land and OCS waters of the Chukchi Sea. The baseline studies are proposed to supplement existing data sets regarding the site-specific biological and physical conditions within Shell's Chukchi Sea project area.

The 2010 Program constraints will be dictated by ice and weather conditions present during the open water period, generally July through October. Shell's program will be executed in adherence to all appropriate federal, state, and municipal permits.

1 MARINE SURVEYS

1.1 Ice Gouge

As part of the feasibility study for Shell's Alaskan prospects a survey is required to identify and evaluate seabed conditions. The 2010 ice gouge surveys will be conducted using the conventional survey method where the acoustic instrumentation will be towed behind the survey vessel, or possibly with the use of an

Autonomous Underwater Vehicle (AUV). The same acoustic instrumentation will be used during both AUV and the conventional survey methods.

The AUV is a self-propelled autonomous vehicle that will be equipped with acoustic instrumentation and programmed for remote operation over the seafloor where the ice gouge survey is to be conducted, and the vehicle is launched and retrieved from a marine vessel (Photo 1). Ice gouging is created by ice keels, which project from the bottom of moving ice and gouge into seafloor sediment. Ice gouge features are mapped, and by surveying each year, new gouges can be identified. The ice gouge information is used to aid in predicting the prospect of, orientation, depth, and frequency of future ice gouges. Ice gouge information is required for the design of potential pipelines and for the design of pipeline trenching and installation equipment.

1.1.1 Location

The proposed ice gouge survey will be conducted in both state submerged land and OCS waters of the Chukchi Sea (Figure 1). The ice gouge surveys will range from near shore to approximately 124 miles offshore. The water depth in the survey area ranges from 15 to 150 ft., and the surveys will be conducted over approximately 2,473 kilometer (km) of linear survey within an area of 56,861.5 km².

1.1.2 Duration

Shell is proposing this work within the timeframe of July 2010 through October 2010. Duration of the ice gouge survey is expected to be 60 days within this timeframe, not including any delays caused by ice or weather conditions. All activities will operate under the conditions outline in the Plan of Cooperation (POC). The POC will specify times and areas to avoid to minimize any possible conflict with marine subsistence activities.

1.1.3 Instrumentation

It is proposed that the following acoustic instrumentation, or something similar would be used.

- Dual Frequency subbottom profiler; (2 to 7 kHz or 8 to 23 kHz) or similar
- Multibeam Echo Sounder; (240 Hz) or similar
- Side-scan sonar system; (190 to 210 kHz), or similar
- Visual inspection (if needed) using a ROV.

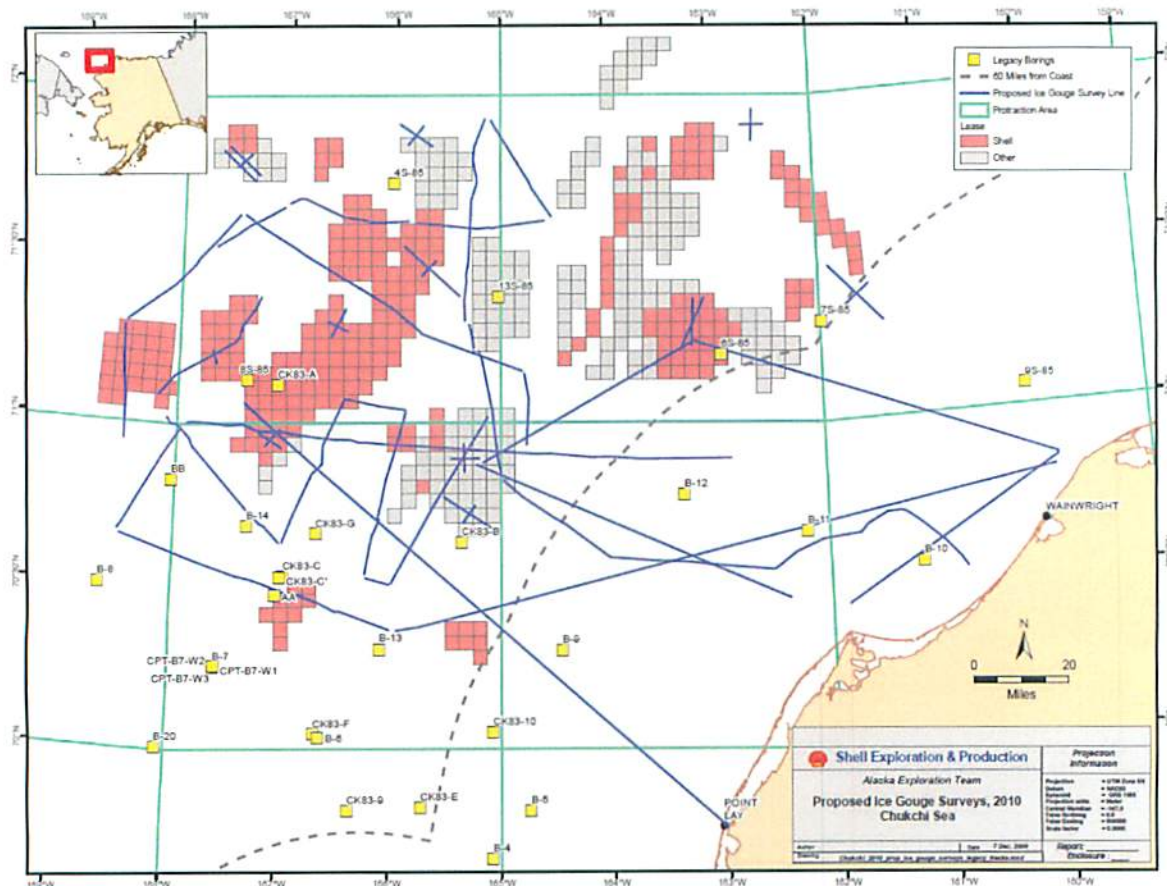
1.1.4 Vessel

The vessel selected is the *M/V Ocean Pioneer*, which is similar to the *M/V Mt. Mitchell* that has been used in the past for this work. The *Ocean Pioneer* is 62.5 m (205 ft) in length, 12.2 m (40 ft) wide, and has a 4.3 m (14 ft) draft.

Photo 1 Photograph of the AUV on the vessel in preparation for launch



Figure 1 Chukchi Sea Proposed Ice Gouge Survey and Seafloor Soil Sampling Area Vicinity Map



1.2 Seafloor Soil Sampling

Seafloor soil sampling will allow further analysis of seafloor sediments likely to be encountered in areas of proposed exploration activities.

Two methods are proposed to investigate the seafloor during this operation. A drop core or vibro core obtains a steel tube of soil. As the tube is advanced into the seafloor, it collects soil inside the tube. This tube of soil is then retrieved to the vessel, and examined and tested. The second investigation method is the Cone Penetrometer Tests or CPT. CPT uses a small cone that is deployed by a crane or A-frame at the stern of the vessel. The frame is deployed to the seafloor. The cone is then pushed into the soil and the resistance is recorded. This information tells us the type and strength of the soil without removing a soil sample.

1.2.1 Location

The proposed seafloor soil sampling survey will be conducted in OCS waters of the Chukchi Sea (Figure 1).

1.2.2 Duration

Shell is proposing this work within the timeframe of July 2010 through October 2010. Duration of the seafloor soil sampling surveys is expected to be approximately 15 days within this timeframe, not including any delays caused by ice or weather conditions. All activities will operate under the conditions outline in the POC. The POC will specify times and areas to avoid to minimize any possible conflict with marine subsistence activities.

1.2.3 Vessel

The vessel selected is the *M/V Ocean Pioneer*. The *Ocean Pioneer* is 62.5 m (205 ft) in length, 12.2 m (40 ft) wide, and 4.3 m (14 ft) draft.

1.3 Marine Environmental Baseline Studies

A series of additional baseline studies are proposed to supplement existing data sets used to evaluate environmental conditions in the Chukchi Sea. The 2010 baseline studies will collect additional site-specific biological and physical media samples, provide an opportunity to further evaluate the presence of potential sensitive ecological receptors, and provide additional information on the area of influence of potential offshore oil and gas activities.

To further evaluate the water quality profile around the Chukchi Sea acquisition areas, a water quality-sampling program is proposed to be conducted.

Benthic community samples will be collected around the Chukchi Sea to determine the composition and diversity of the benthic fauna. This sampling will occur simultaneously with the water quality sampling. Random sampling design will ensure that representative samples will be analyzed to identify the main benthic fauna and spatial differences between working areas.

Sediment samples collected in the field will be subject to analytical protocols to measure heavy metal content, including mercury, cadmium, lead, zinc, and copper. The goal of this program is to establish the natural baseline metal content in the sediment.

Additional images of the sea floor will be collected prior to operations. The images gathered during the 2010 program will supplement existing data sets and be used to further evaluate the presence of any areas of archaeological or environmental significance.

A Metocean buoy is also expected to be deployed in early August 2010 by the *M/V Ocean Pioneer*, or another similar vessel in the Chukchi Sea, near the Burger Prospect. The Metocean buoy will be painted in high-visibility yellow, contain a radar reflector, a strobe light, and will be registered with the U.S. Coast Guard via a Notice to Mariners. The metocean buoy will be attached to a mooring chain terminating to an approximately 2,000 pound anchor and will have a programmed release anchor which will allow the buoy to drift with the ice pack once freezeup occurs. Data from the buoy will be uploaded via satellite (Argos and/or Iridium) at least once per day with hourly measurements including current position, attitude, and internal health parameters.

1.3.1 Location

The sampling program will be focused in the near-shore area along northwest Alaskan coastline, and out into the Chukchi Sea OCS. The numbers and locations of samples will be developed as part of the field sampling plan.

1.3.2 Duration

Shell is proposing this work within the timeframe of July 2010 through October 2010. Duration of the environmental baseline sampling surveys is expected to be approximately 20 days within this timeframe, not including any delays caused by ice or weather conditions. All activities will operate under the conditions outline in the POC. The POC will specify times and areas to avoid to minimize any possible conflict with marine subsistence activities.

1.3.3 Vessel

The vessel selected is the *R/V Alpha Helix*, which is similar to the *R/V Arctic Seal* that has been used in the past. The *R/V Alpha Helix* is 40.5 m (133 ft) in length, 9.4 m (31 ft) wide, and has a 4.2 m (13.8 ft) draft.

2 ACOUSTIC EQUIPMENT AND METHODS

2.1 Introduction

Data will be acquired to provide information on seafloor conditions that may present hazards for future facility design and construction planning to support operational integrity, safety, installation, and maintenance programs. High resolution surveys provide remote sensing information about the geologic, geotechnical, and subsea environment of the structure site. These data elements are used to detect potentially significant geologic, geotechnical, and environmental features such as: faults, submarine landslides, irregular seafloor topography, areas of seafloor scour, unusually soft or hard sediments, permafrost, shallow bedrock or boulders, sediments containing gas, prehistoric or historic features of archaeological significance, and critical ecological habitats.

Proposed sonar operations will be conducted in accordance with stipulations assigned by the MMS in its Ancillary Activities authorization and the Incidental Harassment Authorization (IHA) issued by the NMFS. Sonar operations are proposed to be conducted at frequencies between 200 and 500 kilohertz (kHz). An ROV would be deployed as needed to identify unique features identified in the side-scan and multibeam bathymetry records.

The acoustic survey team and onboard marine mammal observers will be housed onboard the vessel allowing for 24-hour operations. Communications with the survey vessels will be through the vessels' Global Maritime Distress and Safety System communications systems which include a satellite telephone, radio, and text message service. In addition to the vessel's communications center, the project team will have a communication link providing satellite telephone and e-mail connections. Communications of vessel operations and transit will occur in accordance with protocols set forth by the Com and Call Centers proposed to be operated in Barrow, Point Hope, Point Lay, and Wainwright.

2.2 High Resolution Surveys

2.2.1 Introduction

The planned ice gouge surveys are proposed to be performed using one or more acoustic-profiling systems. The term “high resolution” indicates the basic difference between acoustic systems used for defining seafloor and near-seafloor conditions and the conventional “low resolution” systems used for hydrocarbon exploration. Several high resolution profiling systems are planned to be operated simultaneously to obtain detailed records of the seafloor and near-seafloor conditions. High resolution systems show small-scale geologic details not detected in deep profiling systems.

2.2.2 Seafloor Imagery

Side-scan sonar data provide a two-dimensional view (map or plan view) of seafloor topography and of objects on the seafloor. Generally, side-scan sonar systems do not provide depth information. The side-scan sonar method provides a swath display or record covering an area on the seafloor up to 100 m (328 ft) or more on both sides of the survey track line. The side-scan sonar transmits very high frequency acoustic signals (100 to 410 kHz) and records the energy signal reflected from the seafloor. Signals reflected from the seafloor are displayed on a continuous record produced by a two-channel recorder.

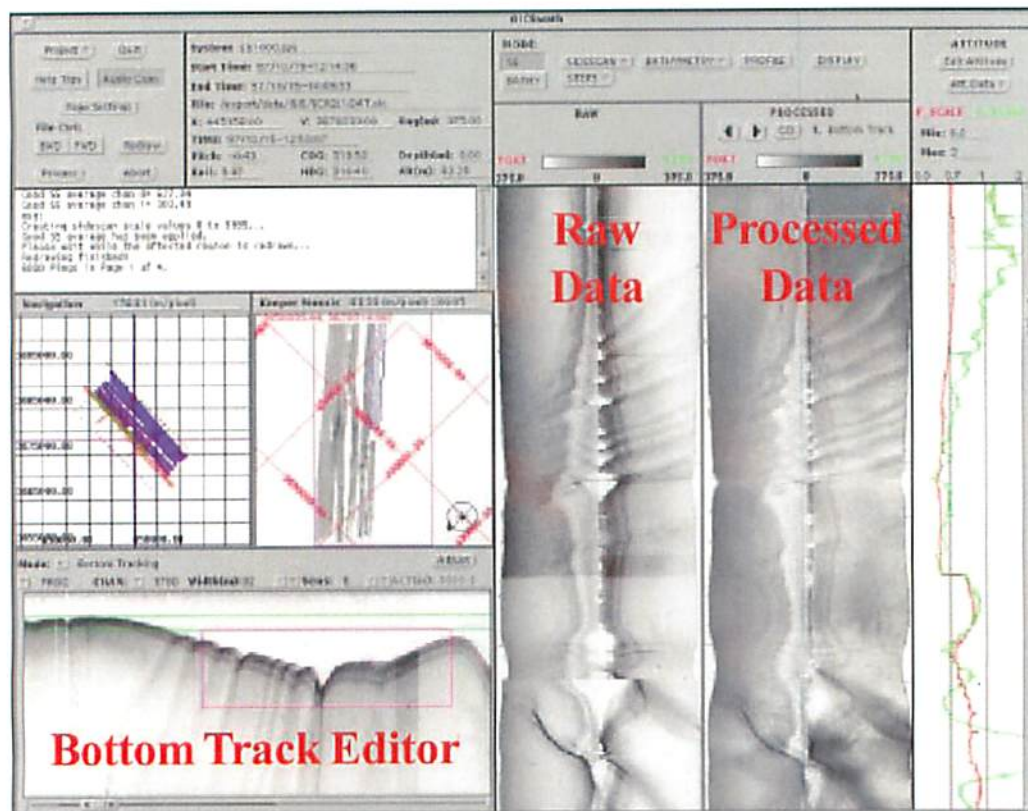
Side-scan sonar is useful for mapping areas of boulders, rock outcrops, and other areas of rough seafloor, and for determining the location and trends of seafloor scarps and ice gouges. These data are also used to locate shipwrecks, pipelines, and other objects on the seafloor.

2.2.3 Bathymetry

Water depth recorders or multi-beam bathymetric equipment will be mounted in the AUV. The system transmits acoustic signals (200 to 500 kHz) from multiple projectors propagating to either side of the AUV at angles that vary from vertical to near horizontal. The locations of the soundings cover a swath whose width may be equal to many times the water depth. The time it takes to receive the signals, as well as signal intensity, positions, and other characteristics for echoes received across the swath, are used to calculate depth of each individual beam transmitted.

Water column sound velocity is obtained using conductivity, temperature, and depth (CTD) or by using a velocity probe capable of recording in the maximum water depths expected within the survey area. The water column velocity is used to adjust or correct the depth measured by the multi-beam system.

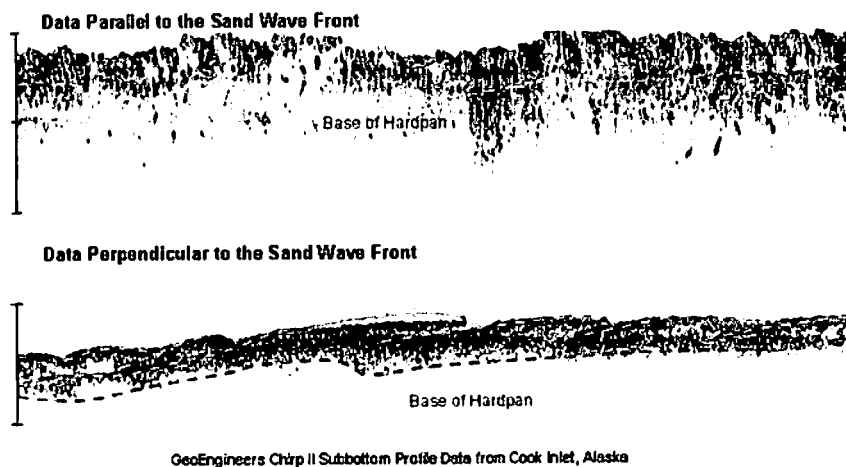
The side-scan sonar system and Multi-beam utilize the GeoDAS system. GeoDAS software can acquire, log, and process side-scan, multibeam, sub-bottom, and interferometric sonar data, along with all associated navigation, attitude, and metadata, providing fail-safe logging while still offering real-time processing and data interactivity (Figure 2).

Figure 2 GeoDAS Onboard Acquisition and Image Processing Software

2.2.4 High Resolution Acoustic Profiling

The subbottom profiler (Chirp II) is a shallow penetration, profiling system designed to provide extremely high resolution records with seafloor penetrations of 5 m (16 ft) in very hard conditions to 30 m (98 ft) in soft soil conditions (Figure 3). This system transmits a 2.0 to 7.0 kHz pulse or 10 to 20 kHz pulse with an energy output of 2.0 joules and a wavelength of the transmitted pulse of 5 to 7 cm (2.0 to 2.8 inches). This short wavelength provides the opportunity for resolution of fine details in the shallow subsurface. The data set will be recorded digitally and heave compensation will be digitally applied through post processing using the sensors bottom track data and the DGPS/RTK position data and bathymetry.

Figure 3 Example of Chirp II Subbottom Record



2.3 Navigation

A DGPS and a Canada-wide DGPS (CDGPS) corrections receiver will be used to provide real-time horizontal positioning during bathymetric data acquisition. Positioning accuracy with any of these systems typically is one meter or less, and will be verified at the beginning of the survey.

2.4 ROV Video Survey

The ROV will be deployed as needed at any seafloor anomalies identified from the side-scan sonar imagery and multibeam data. The ROV will be a Benthos Mini-Rover Mark II system. The video data will be recorded to VHS tape and digitized.



**United States Department of the Interior
BUREAU OF OCEAN ENERGY MANAGEMENT**

**Alaska Outer Continental Shelf Region
3801 Centerpoint Drive, Suite 500
Anchorage, Alaska 99503-5823**

DEC 16 2011

**Ms. Susan Childs
Shell Gulf of Mexico, Inc.
3601 C Street, Suite 1334
Anchorage, Alaska 99503**

Dear Ms. Childs:

The Bureau of Ocean Energy Management (BOEM) Alaska Region has reviewed the Shell Gulf of Mexico Inc. (Shell) Revised 2012 Outer Continental Shelf Lease Exploration Plan, Chukchi Sea, Alaska (EP) for OCS Leases Y-2280, Y-2267, Y-2321, Y-2294, Y-2278, and Y-2324.

BOEM hereby approves the EP subject to the conditions below:

- 1. Shell must inform the Regional Supervisor for Leasing and Plans (RS/LP) before deviating from activities specified under the EP.**
- 2. No exploratory drilling operations may be conducted under this EP until Shell has satisfied the Bureau of Safety and Environmental Enforcement (BSEE) requirements with respect to the Oil Spill Response Plan (OSRP). Once BSEE's requirements are met, Shell must submit a copy of the OSRP to the RS/LP.**
- 3. No exploratory drilling activities can be conducted without an approved Application for a Permit to Drill (APD) issued by BSEE. Shell must submit a copy of the approved APD to the RS/LP prior to commencing drilling operations.**

Shell is advised that the APD must comply with all applicable BSEE regulations and Notice to Lessee 2010-N10. In accordance with 30 CFR 250.410-418 (MODU), BSEE must receive all required information for APD approval. This includes a current Certificate of Inspection or Letter of Compliance from the U.S. Coast Guard (USCG), current documentation of any operational limitations imposed by an appropriate classification society, and other fitness requirements for the M/V Noble Discoverer (Discoverer) mobile offshore drilling unit required in accordance with 30 CFR 250.417 (Certification of the Drilling Unit).

4. In consideration of the distance to limited support infrastructure on the Chukchi coast, as well as limited drilling experience in the Chukchi Sea, and in keeping with the Secretary of the Interior's desire to proceed cautiously with oil and gas exploration and development in the Chukchi Sea, BOEM will require the following condition designed to reduce risks associated with the proposal by assuring a greater opportunity for response and cleanup in the unlikely event of a late season oil spill.

No exploratory drilling will be allowed below the last casing point set prior to penetrating a *zone capable of flowing liquid hydrocarbons in measureable quantities into the well* within 38 days of a "trigger date" established each year by BOEM, based upon the date of first ice encroachment over the drill site within any of the last 5 years. For 2012, based upon interpretation of satellite imagery for the period 2007 to 2011, BOEM has determined November 1 as the earliest date in which sea ice covered the Shell drill sites listed in the EP. Accordingly, Shell must not drill below the casing shoe of the last string of casing set before penetrating a zone capable of flowing liquid hydrocarbons in measureable quantities into the well after September 24, 2012. In all other aspects, Shell can continue to operate as conditions permit up to October 31. A new trigger date will be established by the RS/LP for each subsequent year that operations are conducted under the EP.

Consistent with adaptive management principles, the RS/LP may revise its method for determining the trigger date based upon changes to best available scientific information (i.e., availability of a reliable ice forecasting system capable of predicting with a high degree of certainty when ice will likely encroach upon the drill site locations).

5. No exploratory drilling activities can be conducted until Shell has received an approved Marine Mammal Protection Act (MMPA) authorization from the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) for the specific activity, and the RS/LP has received a corresponding Endangered Species Act Incidental Take Statement (ITS) for threatened, endangered and protected species. Shell must submit a copy of the approved IHA or LOA to the RS/LP prior to commencing operations.
6. Shell's EP includes a marine mammal monitoring program and Shell has applied for an Incidental Harassment Authorization (IHA) from the National Marine Fisheries Service (NMFS) and a Letter of Authorization (LOA) from the US Fish and Wildlife Service (USFWS). The EP describes Shell's plans for aerial monitoring, on-vessel marine mammal observers, real time acoustical recorders, and site-specific sound source verification to confirm acoustic safety zones prior to commencement of drilling operations. The RS/LP, in consultation with the NMFS and the USFWS, may modify lease operations as necessary to comply with the requirements of authorizations issued by NMFS and USFWS.
7. Shell has developed a Plan of Cooperation (POC) designed to prevent unreasonable conflicts with subsistence activities in compliance with Lease Stipulation 5 (Conflict

Avoidance Mechanisms to Protect Subsistence Whaling and Other Subsistence-harvest Activities). Stipulation 5 applies to support activities, such as vessel and aircraft traffic, that traverse the blocks listed or Federal waters landward of the sale during periods of subsistence use regardless of lease location.

No support activities may be conducted on the blocks listed or on Federal waters landward of the Sale 193 area until Shell has documented to the satisfaction of the RS/LP that the monitoring and mitigating measures detailed in the POC to prevent unreasonable conflicts with subsistence activities for the Chukchi Sea program are in place and operational prior to mobilization of each drilling season.

BOEM retains the authority to restrict lease-related use if it is determined that it is necessary to prevent unreasonable conflicts with local subsistence hunting activities. Shell must provide this office with daily summaries on POC activities and daily monitoring results including but not limited to Marine Mammal Observers' and local Subsistence Advisors' reports and notifications and Shell's responses to each incident. Shell must also include the BOEM contact number (907) 334-5200 in the Subsistence Advisors Handbook with specific instructions for the Subsistence Advisors to call BOEM if they are unable to contact Shell and/or if any subsistence use conflict has not been resolved. A copy of the handbook must be submitted to this office prior to commencement of exploratory drilling operations.

The POC states that Shell plans to have continuing engagement with local subsistence users to discuss and possibly further supplement the POC. Shell must inform the RS/LP (or designee) promptly of any deviation from or alteration of the POC that Shell intends to take as a result of these ongoing community meetings.

Shell shall inform the RS/LP of any presentation/meeting Shell intends to conduct under the POC to allow the RS/LP (or designee) to attend such engagement.

- 8. Prior to commencement of exploratory drilling operations, Shell must confirm the final staging location and schedule for mobilizing the designated relief well rig to the drill site and the consistency of response times for commencement and completion of a relief well with the approved EP. Confirmation must be sent to the RS/LP.**

Prior to commencement of drilling operations, Shell must demonstrate that the relief well drilling unit meets the requirements of 30 CFR 250.417 and confirm that they have received approval from BSEE for the relief well drilling unit for use in the Chukchi Sea. Shell must present a copy of BSEE's approval letter to the RS/LP prior to commencing operations.

- 9. Shell has committed to having a subsea well capping and containment system. The system is currently in the design stage. Prior to commencement of exploratory drilling operations, Shell must confirm that they have documented and received approval from BSEE that the system is designed for the projected worst case discharge conditions. Shell must also confirm that they have documented and received approval from BSEE**

regarding the procedures for deployment, installation and operation of the system under anticipated environmental conditions, including the potential presence of sea ice.

Shell will also be required to conduct a field exercise to demonstrate their ability to deploy the system. Shell must confirm that they are in compliance with any agreement concerning well capping and containment reached with BSEE.

Shell must present a copy of BSEE's approval letter to the RS/LP prior to commencing operations.

10. An orientation program that will satisfy the requirements of Lease Stipulation 2 (Orientation Program) must be submitted to the RS/LP annually for approval prior to commencing drilling operations.
11. If Shell transits to the Chukchi Sea from the Beaufort Sea during the fall bowhead whale migration and before or during Barrow's fall bowhead whale subsistence hunt, Shell shall meet with the appropriate whaling captains to coordinate vessel transit routes westward through the Beaufort Sea to prevent any deflection of the bowhead whale migration and any conflicts with Barrow's fall whaling season. Emergency operations will take precedence over this condition.
12. The Marine Mammal Observers (MMOs) on vessels underway in the Chukchi Sea must monitor the ocean waters near the vessel for surfacing whales. If a surfacing whale is observed within 300 ft (100 m) of the vessel, the vessel must disengage propellers to avoid potential propeller injury to the whale (prop strike) and, to a lesser degree, collision. Propellers must remain disengaged until the whale moves beyond 300 ft (100 m). Safety of the vessel and its personnel will take precedence over this condition.
13. In addition to the measures committed to by Shell in its Bird Strike Avoidance and Lighting Plan to comply with Lease Stipulation 7 (Lighting of Lease Structures to Minimize Effects to Spectacled and Steller's Eider), the following measures also are required pursuant to the September 3, 2009, FWS *Biological Opinion for Beaufort and Chukchi Sea Program Area Lease Sales and Associated Seismic Surveys and Exploratory Drilling*:
 - a. Routine deck searches for dead or injured birds should be performed, especially during or following periods of darkness or inclement weather. Most avian collisions occur during periods of darkness and/or inclement weather such as rain or fog.
 - b. Birds perching on ship structures (such as antennas or rigging) should be allowed to rest and depart on their own.
 - c. All bird fatalities shall be documented and reported within 3 days to the RS/LP. Minimum information will include species, date/time, location, weather,

identification of the vessel involved and its operational status when the strike occurred. Carcasses should be returned to the sea.

Photographs are not required, but would be very helpful in verifying species as part of the collision report. If photographs are taken, FWS has requested the following views of any birds killed by collision: wingspread (if possible), top and bottom views, and head.

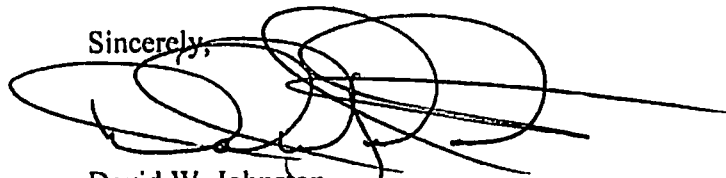
If a bird strikes and remains on the vessel, leave it to recover and depart on its own. If necessary to take it out of harm's way, move it to a dry place where it can depart on its own. If the bird does not depart after about 12 hours but is still alive, carefully return it to the sea surface.

14. Shell's fuel-transfer plan does not fully comply with the requirements of Lease Stipulation 6 to surround the fuel barge with oil-spill containment boom before fuel transfer. Prior to conducting exploratory drilling operations, Shell must either modify its fuel-transfer plans to comply with the stipulation or provide justification of how the alternative configuration would provide an equivalent level of response preparedness. This information must be submitted to the RS/LP for approval.
15. No exploratory activities may be conducted until BOEM completes its ongoing Endangered Species Act consultation with the U.S. Fish and Wildlife Service.

As provided by 30 CFR 550.284, BOEM will annually conduct a pre/post review of the activities conducted under the approved EP and may require Shell to submit updated information or revise the approved EP. BOEM plans to conduct this review annually, prior to each subsequent open water season, but may review the plan earlier if it receives substantial new information.

If you have any questions regarding this action, please contact me directly at (907) 334-5200.

Sincerely,

A handwritten signature in black ink, appearing to read 'David W. Johnston', with a long horizontal line extending to the right.

David W. Johnston
Regional Supervisor, Leasing and Plans.

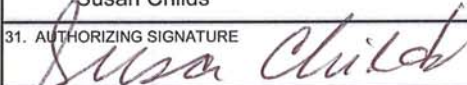
cc: State of Alaska - Office of the Governor
 Office of the Governor - EXECUTIVE OFFICE ANCH, ATT: Jeffrey Jones, Special Staff Assistant
 Department of Natural Resources OPM-OFFICE PRJ MGMT/PERMIT, ATT: Sara Longan
 Alaska Oil & Gas Conservation Commission, ATT: Steve Davies
 Department of Natural Resources Division of Geological and Geophysical Surveys, ATT: Patty Burns
 Department of Environmental Conservation Commissioner's Office
 Department of Environmental Conservation Commissioner's Office, Prog Coordinator, ATT: Gary Mendivil
 U.S. Department of Environmental Conservation, Division of Water
 U.S. Department of Environmental Conservation, Division of Air
 U.S. Department of Environmental Conservation, Spill Response
 U.S. Department of Environmental Conservation, Division of Spill Prevention & Response, ATT: Larry Iwamoto
 U.S. Department of Environmental Conservation, Division of Spill Prevention & Response, ATT: Dale W. Gardner
 U.S. Department of the Interior, Office of the Secretary, Environmental Policy and Compliance, ATT: Pamela Bergmann
 U.S. Fish and Wildlife Service Region 7, Regional Director, ATT: Geoff Haskett
 U.S. Fish & Wildlife Service – Endangered Species, ATT: Tim Jennings
 U.S. Fish & Wildlife Service – Endangered Species, ATT: Ted Swem
 U.S. Fish & Wildlife Service – Marine Mammal Management, ATT: Craig Perham
 U.S. Fish & Wildlife Service – Marine Mammal Management, ATT: Christopher Putnam
 U.S. Fish & Wildlife Service – Marine Mammal Management, ATT: Joel GarlichMiller
 U.S. Fish & Wildlife Service – Northern Alaska Ecological SVCS
 U.S. Fish & Wildlife Service – Conservation Planning Branch, ATT: Jewel Bennett
 U.S. Fish & Wildlife Service – Conservation Planning Assistance, ATT: Louise Smith
 Alaska Region National Marine Fisheries Service - Alaska Region, ATT: James W. Balsiger
 Alaska Region National Marine Fisheries Service, ATT: Brad Smith
 U.S. NMFS NOAA – Office of Protected Species, ATT: Michael Payne
 U.S. Army Corps of Engineers Regulatory Branch Alaska District, ATT: Chief Kevin Morgan
 U.S. Environmental Protection Agency Region X Alaska, ATT: Diane Soderland
 U.S. Coast Guard Alaska Region, ATT: U.S. Coast Guard Commander
 U.S. Coast Guard Alaska Region, ATT: COMMANDING OFFICER MARINE SAFETY OFFICE
 U.S. National Park Service, ATT: Glen Yankus
 Mayor of Northwest Arctic Borough
 Mayor of North Slope Borough
 North Slope Borough Planning Department, ATT: Dan Forrester
 North Slope Borough Dept of Wildlife Management, ATT: Taqulik Hepa
 North Slope Borough Dept of Wildlife Management, ATT: Robert Suydam
 North Slope Borough, ATT: Andrew Mack
 North Slope Borough, ATT: Tom Lohman
 Mayor of Kaktovik
 Mayor of Nuiqsut
 Mayor of Barrow
 Mayor of Wainwright
 Native Village of Wainwright
 Mayor of Point Hope
 Native Village of Point Hope
 Native Village of Point Lay
 Native Village of Kotzebue
 Inupiat Community of the Arctic Slope
 Alaska Eskimo Whaling Commission, ATT: Harry Brower
 Alaska Eskimo Whaling Commission, ATT: Janice Meadows
 Alaska Beluga Whale Committee
 Alaska Nanuq Commission
 Alaska Ice Seal Committee
 Eskimo Walrus Commission
 Earthjustice, ATT: Erik Grafe
 Alaska Wilderness League, ATT: David Dickson

Center for Biological Diversity, ATT: Rebecca Noblin
Audubon Alaska, ATT: Stanley E. Senner
Defenders of Wildlife, ATT: Richard Charter
Natural Resource Defense Council, ATT: Charles M. Clusen
Northern Alaska Environmental Center, Pamela A. Miller
Ocean Conservancy, Andrew Hartsig
Pacific Oceana, ATT: Jim Ayers
Pacific Environment, ATT: Whit Sheard
Sierra Club, Trish Rolfe
The Wilderness Society, ATT: Eleanor Huffines
World Wildlife Fund, ATT: Layla Hughes

Public Information Copy

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)Submit original plus THREE copies,
with ONE copy marked "Public Information."OMB Control No. 1010-0141
OMB Approval Expires 10/31/2014

Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117	3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. Suite 1000 3601 C Street Anchorage, AK 99503		
4. WELL NAME (CURRENT) OCS-Y 2280 #001 (Burger A)		5. SIDETRACK NO. (CURRENT) n/a	6. BYPASS NO. (CURRENT) n/a		
7. PROPOSED START DATE July 4, 2012		8. PLAN CONTROL NO. (NEW WELL ONLY) n/a			
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a					
10. <input type="checkbox"/> Revision	11. If revision, please list changes:				
WELL AT TOTAL DEPTH (PROPOSED)			WELL AT SURFACE		
12. LEASE NO. OCS-Y 2280			17. LEASE NO. OCS-Y 2280		
13. AREA NAME Posey			18. AREA NAME Posey		
14. BLOCK NO. 6764 (Lat. N71 deg 18' 30.92"; Long. W163 deg 12' 43.17")			19. BLOCK NO. 6764 (Lat. N71 deg 18' 30.92"; Long. W163 deg 12' 43.17")		
15. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		16. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
LIST OF SIGNIFICANT MARKERS ANTICIPATED					
22. NAME	23. TOP (MD)	24. TOP (TVD)	22. NAME	23. TOP (MD)	24. TOP (TVD)
25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.) See the APD Table of Contents for all the documents associated with this APD submission.					
26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122	28. CONTACT E-MAIL ADDRESS jim.miller@shell.com		
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager			
31. AUTHORIZING SIGNATURE 		32. DATE January 31, 2012			
THIS SPACE FOR BSEE USE ONLY					
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions		BY		TITLE	
API WELL NO. ASSIGNED TO THIS WELL				DATE	

Public Information Copy

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

OMB Control No. 1001-0111
OMB Approval Expires 10/31/2014

Supplemental APD Information Sheet (Casing Design)

1) Operator Name: Shell Gulf of Mexico Inc.				2) Well Name (Proposed): 001 (Burger A) ST: BP:			
3) Bottom Hole Lease: OCS-Y 2280				4) Surface Lease: OCS-Y 2280			
5) API Number: n/a				6) Type of Well: <input checked="" type="checkbox"/> Exploratory <input type="checkbox"/> Development			
7) H ₂ S: <input type="checkbox"/> Absent <input type="checkbox"/> Known <input checked="" type="checkbox"/> Unknown				8) H ₂ S Activation Plan Depth (TVD) (ft): 0			
9) Rig Name: Noble Discoverer				10) SubSea BOP: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
11) Water Depth (ft): 150		12) RKB Height (ft):		13) Mineral Code: n/a			
14) Drive Pipe Size (in):		15) Drive Pipe Depth (ft):		16) Anchors <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
17) Well Design Information							
Interval Number: 1				Type: Drive Pipe		Name: Structural	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number: 2				Type: Casing		Name: Conductor	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number: 3				Type: Casing		Name: Surface	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							

* NOTE* For additional casing/liner intervals, please submit an additional Form 0123S.

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Forms BSEE-0123 and BSEE-0123S is estimated to average 100 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

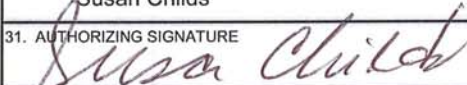
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U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Submit original plus THREE copies,
with ONE copy marked "Public Information."

OMB Control No. 1010-0141
OMB Approval Expires 10/31/2014

Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117		3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. Suite 1000 3601 C Street Anchorage, AK 99503	
4. WELL NAME (CURRENT) OCS-Y 2280 #001 (Burger A)		5. SIDETRACK NO. (CURRENT) n/a		6. BYPASS NO. (CURRENT) n/a	
7. PROPOSED START DATE July 4, 2012		8. PLAN CONTROL NO. (NEW WELL ONLY) n/a			
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a					
10. <input type="checkbox"/> Revision		11. If revision, please list changes:			
WELL AT TOTAL DEPTH (PROPOSED)			WELL AT SURFACE		
12. LEASE NO. OCS-Y 2280			17. LEASE NO. OCS-Y 2280		
13. AREA NAME Posey			18. AREA NAME Posey		
14. BLOCK NO. 6764 (Lat. N71 deg 18' 30.92"; Long. W163 deg 12' 43.17")			19. BLOCK NO. 6764 (Lat. N71 deg 18' 30.92"; Long. W163 deg 12' 43.17")		
15. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		16. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
				21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
LIST OF SIGNIFICANT MARKERS ANTICIPATED					
22. NAME		23. TOP (MD)		24. TOP (TVD)	
25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.) See the APD Table of Contents for all the documents associated with this APD submission.					
26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122		28. CONTACT E-MAIL ADDRESS jim.miller@shell.com	
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager			
31. AUTHORIZING SIGNATURE 		32. DATE January 31, 2012			
THIS SPACE FOR BSEE USE ONLY					
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions		BY		TITLE	
				DATE	
API WELL NO. ASSIGNED TO THIS WELL					

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

OMB Control No. 1016-0181
OMB Approval Expires 10/31/2014

Supplemental APD Information Sheet (Casing Design)

1) Operator Name: Shell Gulf of Mexico Inc.				2) Well Name (Proposed): 001 (Burger A) ST: BP:			
3) Bottom Hole Lease: OCS-Y 2280				4) Surface Lease: OCS-Y 2280			
5) API Number: n/a				6) Type of Well: <input checked="" type="checkbox"/> Exploratory <input type="checkbox"/> Development			
7) H ₂ S: <input type="checkbox"/> Absent <input type="checkbox"/> Known <input checked="" type="checkbox"/> Unknown				8) H ₂ S Activation Plan Depth (TVD) (ft): 0			
9) Rig Name: Noble Discoverer				10) SubSea BOP: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
11) Water Depth (ft): 150		12) RKB Height (ft):		13) Mineral Code: n/a			
14) Drive Pipe Size (in):		15) Drive Pipe Depth (ft):		16) Anchors <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
17) Well Design Information							
Interval Number: 1				Type: Drive Pipe		Name: Structural	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number: 2				Type: Casing		Name: Conductor	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number: 3				Type: Casing		Name: Surface	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							

* NOTE* For additional casing/liner intervals, please submit an additional Form 0123S.

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Forms BSEE-0123 and BSEE-0123S is estimated to average 100 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

Application for Permit to Drill (APD)


1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117	3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. Suite 1000 3601 C Street Anchorage, AK 99503
4. WELL NAME (CURRENT) OCS-Y 2280 #001 (Burger A)	5. SIDETRACK NO. (CURRENT) n/a	6. BYPASS NO. (CURRENT) n/a	
7. PROPOSED START DATE July 4, 2012	8. PLAN CONTROL NO. (NEW WELL ONLY) n/a		
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a			
10. <input type="checkbox"/> Revision	11. If revision, please list changes:		

WELL AT TOTAL DEPTH (PROPOSED)		WELL AT SURFACE	
12. LEASE NO. OCS-Y 2280	17. LEASE NO. OCS-Y 2280		
13. AREA NAME Posey	18. AREA NAME Posey		
14. BLOCK NO. 6764 (Lat. N71 deg 18' 30.92"; Long. W163 deg 12' 43.17")	19. BLOCK NO. 6764 (Lat. N71 deg 18' 30.92"; Long. W163 deg 12' 43.17")		
15. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	16. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)

LIST OF SIGNIFICANT MARKERS ANTICIPATED					
22. NAME	23. TOP (MD)	24. TOP (TVD)	22. NAME	23. TOP (MD)	24. TOP (TVD)

25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.)

See the APD Table of Contents for all the documents associated with this APD submission.

26. CONTACT NAME Jim Miller	27. CONTACT TELEPHONE NO. 907 646 7122	28. CONTACT E-MAIL ADDRESS jim.miller@shell.com
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs	30. TITLE Alaska Venture Support Integrator, Manager	
31. AUTHORIZING SIGNATURE 	32. DATE 4/17/12	

THIS SPACE FOR BSEE USE ONLY		
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions	BY	TITLE
API WELL NO. ASSIGNED TO THIS WELL		DATE

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and BOP to be installed after setting conductor at ~1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0005.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	

Supplemental APD Information Sheet (Casing Design)

1) Operator Name: Shell Gulf of Mexico Inc.				2) Well Name (Proposed): 001 (Burger A) ST: BP:			
3) Bottom Hole Lease:				4) Surface Lease: OCS-Y 2280			
5) API Number: n/a				6) Type of Well: <input checked="" type="checkbox"/> Exploratory <input type="checkbox"/> Development			
7) H ₂ S: <input type="checkbox"/> Absent <input type="checkbox"/> Known <input type="checkbox"/> Unknown				8) H ₂ S Activation Plan Depth (TVD) (ft):			
9) Rig Name: Noble Discoverer				10) SubSea BOP: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
11) Water Depth (ft): 150		12) RKB Height (ft):		13) Mineral Code: n/a			
14) Drive Pipe Size (in):		15) Drive Pipe Depth (ft):		16) Anchors <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
17) Well Design Information							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							

* NOTE* For additional casing/liner intervals, please submit an additional Form 0123S.

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April 17, 2012

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Submit original plus **THREE** copies,
with **ONE** copy marked "Public Information."

OMB Control No. 1010-0141
OMB Approval Expires 10/31/2014

Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117		3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf Of Mexico Inc. 3601 C Street Suite 1000 Anchorage AK 99503	
4. WELL NAME (CURRENT) OCS-Y 2267 #001 (Burger F)		5. SIDETRACK NO. (CURRENT) n/a		6. BYPASS NO. (CURRENT) n/a	
7. PROPOSED START DATE July 4, 2012		8. PLAN CONTROL NO. (NEW WELL ONLY) n/a			
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a					
10. <input type="checkbox"/> Revision		11. If revision, please list changes:			
WELL AT TOTAL DEPTH (PROPOSED)			WELL AT SURFACE		
12. LEASE NO. OCS-Y 2267			17. LEASE NO. OCS-Y 2267		
13. AREA NAME Posey			18. AREA NAME Posey		
14. BLOCK NO. 6714 (N71 deg 20' 13.96"; W163 deg 12' 21.75")			19. BLOCK NO. 6714 (N71 deg 20' 13.96"; W163 deg 12' 21.75")		
15. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		16. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
				21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
LIST OF SIGNIFICANT MARKERS ANTICIPATED					
22. NAME		23. TOP (MD)		24. TOP (TVD)	
25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.) See the APD Table of Contents for all the documents associated with this APD submission.					
26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122		28. CONTACT E-MAIL ADDRESS jim.miller@shell.com	
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager			
31. AUTHORIZING SIGNATURE 		32. DATE 4/17/12			
THIS SPACE FOR BSEE USE ONLY					
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions		BY		TITLE	
API WELL NO. ASSIGNED TO THIS WELL				DATE	

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and BOP to be installed after setting conductor at ~1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0006.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	

Supplemental APD Information Sheet (Casing Design)

1) Operator Name: Shell Gulf of Mexico Inc.				2) Well Name (Proposed): 001 (Burger F) ST: BP:			
3) Bottom Hole Lease:				4) Surface Lease: OCS-Y 2267			
5) API Number: n/a				6) Type of Well: <input checked="" type="checkbox"/> Exploratory <input type="checkbox"/> Development			
7) H ₂ S: <input type="checkbox"/> Absent <input type="checkbox"/> Known <input type="checkbox"/> Unknown				8) H ₂ S Activation Plan Depth (TVD) (ft):			
9) Rig Name: Noble Discoverer				10) SubSea BOP: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
11) Water Depth (ft): 149		12) RKB Height (ft):		13) Mineral Code: n/a			
14) Drive Pipe Size (in):		15) Drive Pipe Depth (ft):		16) Anchors <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
17) Well Design Information							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							

* NOTE* For additional casing/liner intervals, please submit an additional Form 0123S.


PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Forms BSEE-0123 and BSEE-0123S is estimated to average 100 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Submit original plus **THREE** copies,
with **ONE** copy marked "Public Information."

OMB Control No. 1010-0141
OMB Approval Expires 10/31/2014

Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117	3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf Of Mexico Inc. 3601 C Street Suite 1000 Anchorage AK 99503	
4. WELL NAME (CURRENT) OCS-Y 2321 #001 (Burger J)		5. SIDETRACK NO. (CURRENT) n/a	6. BYPASS NO. (CURRENT) n/a	
7. PROPOSED START DATE July 4, 2012		8. PLAN CONTROL NO. (NEW WELL ONLY) n/a		
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a				
10. <input type="checkbox"/> Revision	11. If revision, please list changes:			
WELL AT TOTAL DEPTH (PROPOSED)			WELL AT SURFACE	
12. LEASE NO. OCS-Y 2321			17. LEASE NO. OCS-Y 2321	
13. AREA NAME Posey			18. AREA NAME Posey	
14. BLOCK NO. 6912 (N71 deg 10' 24.03"; W163 deg 28' 18.52")			19. BLOCK NO. 6912 (N71 deg 10' 24.03"; W163 deg 28' 18.52")	
15. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		16. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)
				21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)
LIST OF SIGNIFICANT MARKERS ANTICIPATED				
22. NAME	23. TOP (MD)	24. TOP (TVD)	22. NAME	23. TOP (MD)
25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.) See the APD Table of Contents for all the documents associated with this APD submission.				
26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122	28. CONTACT E-MAIL ADDRESS jim.miller@shell.com	
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager		
31. AUTHORIZING SIGNATURE 		32. DATE 4/17/12		
THIS SPACE FOR BSEE USE ONLY				
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions		BY		TITLE
API WELL NO. ASSIGNED TO THIS WELL				DATE

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and BOP to be installed after setting conductor at ~1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0004.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	

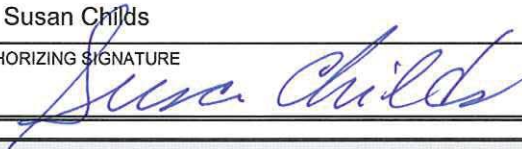
Supplemental APD Information Sheet (Casing Design)

1) Operator Name: Shell Gulf of Mexico Inc.				2) Well Name (Proposed): 001 (Burger J) ST: BP:			
3) Bottom Hole Lease:				4) Surface Lease: OCS-Y 2321			
5) API Number: n/a				6) Type of Well: <input checked="" type="checkbox"/> Exploratory <input type="checkbox"/> Development			
7) H ₂ S: <input type="checkbox"/> Absent <input type="checkbox"/> Known <input type="checkbox"/> Unknown				8) H ₂ S Activation Plan Depth (TVD) (ft):			
9) Rig Name: Noble Discoverer				10) SubSea BOP: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
11) Water Depth (ft): 144		12) RKB Height (ft):		13) Mineral Code: n/a			
14) Drive Pipe Size (in):		15) Drive Pipe Depth (ft):		16) Anchors <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
17) Well Design Information							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							

* NOTE* For additional casing/liner intervals, please submit an additional Form 0123S.

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Forms BSEE-0123 and BSEE-0123S is estimated to average 100 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117		3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf Of Mexico Inc. 3601 C Street Suite 1000 Anchorage AK 99503	
4. WELL NAME (CURRENT) OCS-Y 2294 #001 (Burger R)		5. SIDETRACK NO. (CURRENT) n/a		6. BYPASS NO. (CURRENT) n/a	
7. PROPOSED START DATE July 4, 2012		8. PLAN CONTROL NO. (NEW WELL ONLY) n/a			
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a					
10. <input type="checkbox"/> Revision		11. If revision, please list changes:			
WELL AT TOTAL DEPTH (PROPOSED)			WELL AT SURFACE		
12. LEASE NO. OCS-Y 2294			17. LEASE NO. OCS-Y 2294		
13. AREA NAME Posey			18. AREA NAME Posey		
14. BLOCK NO. 6812 (N71 deg 16' 06.57"; W163 deg 30' 39.44")			19. BLOCK NO. 6812 (N71 deg 16' 06.57"; W163 deg 30' 39.44")		
15. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		16. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
				21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
LIST OF SIGNIFICANT MARKERS ANTICIPATED					
22. NAME		23. TOP (MD)		24. TOP (TVD)	
25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.) See the APD Table of Contents for all the documents associated with this APD submission.					
26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122		28. CONTACT E-MAIL ADDRESS jim.miller@shell.com	
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager			
31. AUTHORIZING SIGNATURE 		32. DATE 4/17/12			
THIS SPACE FOR BSEE USE ONLY					
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions		BY		TITLE	
API WELL NO. ASSIGNED TO THIS WELL				DATE	

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and BOP to be installed after setting conductor at ~1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0013.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	


Supplemental APD Information Sheet (Casing Design)

1) Operator Name: Shell Gulf of Mexico Inc.				2) Well Name (Proposed): 001 (Burger R) ST: BP:			
3) Bottom Hole Lease:				4) Surface Lease: OCS-Y 2294			
5) API Number: n/a				6) Type of Well: <input checked="" type="checkbox"/> Exploratory <input type="checkbox"/> Development			
7) H ₂ S: <input type="checkbox"/> Absent <input type="checkbox"/> Known <input type="checkbox"/> Unknown				8) H ₂ S Activation Plan Depth (TVD) (ft):			
9) Rig Name: Noble Discoverer				10) SubSea BOP: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
11) Water Depth (ft): 143		12) RKB Height (ft):		13) Mineral Code: n/a			
14) Drive Pipe Size (in):		15) Drive Pipe Depth (ft):		16) Anchors <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
17) Well Design Information							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							

* NOTE* For additional casing/liner intervals, please submit an additional Form 0123S.

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Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117		3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf Of Mexico Inc. 3601 C Street Suite 1000 Anchorage AK 99503	
4. WELL NAME (CURRENT) OCS-Y 2278 #001 (Burger S)		5. SIDETRACK NO. (CURRENT) n/a		6. BYPASS NO. (CURRENT) n/a	
7. PROPOSED START DATE July 4, 2012		8. PLAN CONTROL NO. (NEW WELL ONLY) n/a			
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a					
10. <input type="checkbox"/> Revision		11. If revision, please list changes:			
WELL AT TOTAL DEPTH (PROPOSED)			WELL AT SURFACE		
12. LEASE NO. OCS-Y 2278			17. LEASE NO. OCS-Y 2278		
13. AREA NAME Posey			18. AREA NAME Posey		
14. BLOCK NO. 6762 (N71 deg 19' 25.79"; W163 deg 28' 40.84")			19. BLOCK NO. 6762 (N71 deg 19' 25.79"; W163 deg 28' 40.84")		
15. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		16. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
				21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
LIST OF SIGNIFICANT MARKERS ANTICIPATED					
22. NAME		23. TOP (MD)		24. TOP (TVD)	
25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.) See the APD Table of Contents for all the documents associated with this APD submission.					
26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122		28. CONTACT E-MAIL ADDRESS jim.miller@shell.com	
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager			
31. AUTHORIZING SIGNATURE 		32. DATE 4/17/12			
THIS SPACE FOR BSEE USE ONLY					
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions		BY		TITLE	
API WELL NO. ASSIGNED TO THIS WELL				DATE	

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and BOP to be installed after setting conductor at ~1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0014.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	

Supplemental APD Information Sheet (Casing Design)

1) Operator Name: Shell Gulf of Mexico Inc.				2) Well Name (Proposed): 001 (Burger S) ST: BP:			
3) Bottom Hole Lease:				4) Surface Lease: OCS-Y 2278			
5) API Number: n/a				6) Type of Well: <input checked="" type="checkbox"/> Exploratory <input type="checkbox"/> Development			
7) H ₂ S: <input type="checkbox"/> Absent <input type="checkbox"/> Known <input type="checkbox"/> Unknown				8) H ₂ S Activation Plan Depth (TVD) (ft):			
9) Rig Name: Noble Discoverer				10) SubSea BOP: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
11) Water Depth (ft): 147		12) RKB Height (ft):		13) Mineral Code: n/a			
14) Drive Pipe Size (in):		15) Drive Pipe Depth (ft):		16) Anchors <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
17) Well Design Information							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							

* NOTE* For additional casing/liner intervals, please submit an additional Form 0123S.

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Forms BSEE-0123 and BSEE-0123S is estimated to average 100 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

April 17, 2012

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Submit original plus THREE copies,
with ONE copy marked "Public Information."

OMB Control No. 1010-0141
OMB Approval Expires 10/31/2014

Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117		3. OPERATOR NAME and ADDRESS <i>(Submitting office)</i> Shell Gulf Of Mexico Inc. 3601 C Street Suite 1000 Anchorage AK 99503			
4. WELL NAME (CURRENT) OCS-Y 2324 #001 (Burger V)		5. SIDETRACK NO. (CURRENT) n/a				6. BYPASS NO. (CURRENT) n/a	
7. PROPOSED START DATE July 4, 2012		8. PLAN CONTROL NO. (NEW WELL ONLY) n/a					
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a							
10. <input type="checkbox"/> Revision		11. If revision, please list changes:					

WELL AT TOTAL DEPTH (PROPOSED)			WELL AT SURFACE				
12. LEASE NO. OCS-Y 2324			17. LEASE NO. OCS-Y 2324				
13. AREA NAME Posey			18. AREA NAME Posey				
14. BLOCK NO. 6915 (N71 deg 10' 33.39"; W163 deg 04' 21.23")			19. BLOCK NO. 6915 (N71 deg 10' 33.39"; W163 deg 04' 21.23")				
15. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		16. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	

LIST OF SIGNIFICANT MARKERS ANTICIPATED					
22. NAME	23. TOP (MD)	24. TOP (TVD)	22. NAME	23. TOP (MD)	24. TOP (TVD)

25. LIST ALL ATTACHMENTS *(Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.)*

See the APD Table of Contents for all the documents associated with this APD submission.

26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122		28. CONTACT E-MAIL ADDRESS jim.miller@shell.com	
29. AUTHORIZING OFFICIAL <i>(Type or print name)</i> Susan Childs			30. TITLE Alaska Venture Support Integrator, Manager		
31. AUTHORIZING SIGNATURE 			32. DATE 4/17/12		

THIS SPACE FOR BSEE USE ONLY

APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions	BY	TITLE
API WELL NO. ASSIGNED TO THIS WELL		DATE

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and BOP to be installed after setting conductor at ~1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0019.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	


Supplemental APD Information Sheet (Casing Design)

1) Operator Name: Shell Gulf of Mexico Inc.				2) Well Name (Proposed): 001 (Burger V) ST: BP:			
3) Bottom Hole Lease:				4) Surface Lease: OCS-Y 2324			
5) API Number: n/a				6) Type of Well: <input checked="" type="checkbox"/> Exploratory <input type="checkbox"/> Development			
7) H ₂ S: <input type="checkbox"/> Absent <input type="checkbox"/> Known <input type="checkbox"/> Unknown				8) H ₂ S Activation Plan Depth (TVD) (ft):			
9) Rig Name: Noble Discoverer				10) SubSea BOP: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
11) Water Depth (ft): 147		12) RKB Height (ft):		13) Mineral Code: n/a			
14) Drive Pipe Size (in):		15) Drive Pipe Depth (ft):		16) Anchors <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
17) Well Design Information							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							
Interval Number:				Type:		Name:	
Section Number	Casing Size (in)	Casing Weight (#/ft)	Casing Grade	Burst Rating (psi)		Collapse Rating (psi)	Depth (ft) MD TVD Pore Pressure (ppg)
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)			Type			Annular Test (psi)	
Mud Weight (ppg)			Size (in)			BOP/Diverter Test (psi)	
Mud Type Code			Wellhead Rating (psi)			Mud Test Weight (ppg)	
Frac Gradient (ppg)			Annular Rating (psi)			Casing/Liner Test (psi)	
Liner Top Depth (ft)			BOP/Diverter Rating (psi)			Formation Test (ppg)	
Cement Volume (ft ³)							

* NOTE* For additional casing/liner intervals, please submit an additional Form 0123S.

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Forms BSEE-0123 and BSEE-0123S is estimated to average 100 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117	3. OPERATOR NAME and ADDRESS <i>(Submitting office)</i> Shell Gulf of Mexico Inc. Suite 1000 3601 C Street Anchorage, AK 99503	
4. WELL NAME (CURRENT) OCS-Y 12280 #001 (Burger A)		5. SIDETRACK NO. (CURRENT) n/a	6. BYPASS NO. (CURRENT) n/a	
7. PROPOSED START DATE July 4, 2012		8. PLAN CONTROL NO. (NEW WELL ONLY) n/a		
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a				
10. <input type="checkbox"/> Revision		11. If revision, please list changes:		
WELL AT TOTAL DEPTH (PROPOSED)			WELL AT SURFACE	
12. LEASE NO.			17. LEASE NO. OCS-Y 2280	
13. AREA NAME			18. AREA NAME Posey	
14. BLOCK NO.			19. BLOCK NO. 6764 (N71 deg 18' 30.92"; W163 deg 12' 43.17")	
15. LATITUDE (<input type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		16. LONGITUDE (<input type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)
LIST OF SIGNIFICANT MARKERS ANTICIPATED				
22. NAME	23. TOP (MD)	24. TOP (TVD)	22. NAME	23. TOP (MD)
25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.)				
26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122	28. CONTACT E-MAIL ADDRESS jim.miller@shell.com	
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager		
31. AUTHORIZING SIGNATURE 		32. DATE 6-11-2012		
THIS SPACE FOR BSEE USE ONLY				
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions		BY		TITLE
API WELL NO. ASSIGNED TO THIS WELL		DATE		

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drilling vessel in sufficient quantities to kill any flows. Riser and BOP to be installed after setting conductor at ~1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0005.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	


Public Information Copy

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Submit original plus THREE copies,
with ONE copy marked "Public Information."

OMB Control No. 1010-0141
OMB Approval Expires 10/31/2014

Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117		3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf Of Mexico Inc. 3601 C Street Suite 1000 Anchorage AK 99503	
4. WELL NAME (CURRENT) OCS-Y 2267 #001 (Burger F)		5. SIDETRACK NO. (CURRENT) n/a		6. BYPASS NO. (CURRENT) n/a	
7. PROPOSED START DATE July 4, 2012		8. PLAN CONTROL NO. (NEW WELL ONLY) n/a			
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a					
10. <input type="checkbox"/> Revision		11. If revision, please list changes:			
WELL AT TOTAL DEPTH (PROPOSED)			WELL AT SURFACE		
12. LEASE NO.			17. LEASE NO. OCS-Y 2267		
13. AREA NAME			18. AREA NAME Posey		
14. BLOCK NO.			19. BLOCK NO. 6714 (N71 deg 20' 13.96"; W163 deg 12' 21.75")		
15. LATITUDE (<input type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		16. LONGITUDE (<input type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
				21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
LIST OF SIGNIFICANT MARKERS ANTICIPATED					
22. NAME	23. TOP (MD)	24. TOP (TVD)	22. NAME	23. TOP (MD)	24. TOP (TVD)
25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.) See the APD Table of Contents for all the documents associated with this APD submission.					
26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122		28. CONTACT E-MAIL ADDRESS jim.miller@shell.com	
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager			
31. AUTHORIZING SIGNATURE 		32. DATE 6-11-2012			
THIS SPACE FOR BSEE USE ONLY					
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions		BY		TITLE	
API WELL NO. ASSIGNED TO THIS WELL				DATE	

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and BOP to be installed after setting conductor at ~1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-006.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	


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U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Submit original plus THREE copies,
with ONE copy marked "Public Information."

OMB Control No. 1010-0141
OMB Approval Expires 10/31/2014

Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117		3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf Of Mexico Inc. 3601 C Street Suite 1000 Anchorage AK 99503	
4. WELL NAME (CURRENT) OCS-Y 2321 #001 (Burger J)		5. SIDETRACK NO. (CURRENT) n/a		6. BYPASS NO. (CURRENT) n/a	
7. PROPOSED START DATE July 4, 2012		8. PLAN CONTROL NO. (NEW WELL ONLY) n/a			
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a					
10. <input type="checkbox"/> Revision		11. If revision, please list changes:			
WELL AT TOTAL DEPTH (PROPOSED)			WELL AT SURFACE		
12. LEASE NO.			17. LEASE NO. OCS-Y 2321		
13. AREA NAME			18. AREA NAME Posey		
14. BLOCK NO.			19. BLOCK NO. 6912 (N71 deg 10' 24.03"; W163 deg 28' 18.52")		
15. LATITUDE (<input type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		16. LONGITUDE (<input type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
				21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
LIST OF SIGNIFICANT MARKERS ANTICIPATED					
22. NAME		23. TOP (MD)		24. TOP (TVD)	
25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.) See the APD Table of Contents for all the documents associated with this APD submission.					
26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122		28. CONTACT E-MAIL ADDRESS jim.miller@shell.com	
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager			
31. AUTHORIZING SIGNATURE 		32. DATE 6-11-2012			
THIS SPACE FOR BSEE USE ONLY					
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions		BY		TITLE	
API WELL NO. ASSIGNED TO THIS WELL				DATE	

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and BOP to be installed after setting conductor at -1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0004.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	


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Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117	3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf Of Mexico Inc. 3601 C Street Suite 1000 Anchorage AK 99503	
4. WELL NAME (CURRENT) OCS-Y 2294 #001 (Burger R)	5. SIDETRACK NO. (CURRENT) n/a	6. BYPASS NO. (CURRENT) n/a		
7. PROPOSED START DATE July 4, 2012	8. PLAN CONTROL NO. (NEW WELL ONLY) n/a			
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a				
10. <input type="checkbox"/> Revision	11. If revision, please list changes:			
WELL AT TOTAL DEPTH (PROPOSED)		WELL AT SURFACE		
12. LEASE NO.		17. LEASE NO. OCS-Y 2294		
13. AREA NAME		18. AREA NAME Posey		
14. BLOCK NO.		19. BLOCK NO. 6812 (N71 deg 16' 06.57"; W163 deg 30' 39.44")		
15. LATITUDE (<input type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	16. LONGITUDE (<input type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
LIST OF SIGNIFICANT MARKERS ANTICIPATED				
22. NAME	23. TOP (MD)	24. TOP (TVD)	22. NAME	23. TOP (MD)
25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.) See the APD Table of Contents for all the documents associated with this APD submission.				
26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122	28. CONTACT E-MAIL ADDRESS jim.miller@shell.com	
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager		
31. AUTHORIZING SIGNATURE 		32. DATE 6-11-2012		
THIS SPACE FOR BSEE USE ONLY				
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions		BY		TITLE
API WELL NO. ASSIGNED TO THIS WELL				DATE

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and SOP to be installed after setting conductor at -1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0013.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	


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Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117		3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf Of Mexico Inc. 3601 C Street Suite 1000 Anchorage AK 99503			
4. WELL NAME (CURRENT) OCS-Y 2278 #001 (Burger S)		5. SIDETRACK NO. (CURRENT) n/a				6. BYPASS NO. (CURRENT) n/a	
7. PROPOSED START DATE July 4, 2012		8. PLAN CONTROL NO. (NEW WELL ONLY) n/a					
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a							
10. <input type="checkbox"/> Revision		11. If revision, please list changes:					
WELL AT TOTAL DEPTH (PROPOSED)			WELL AT SURFACE				
12. LEASE NO.			17. LEASE NO. OCS-Y 2278				
13. AREA NAME			18. AREA NAME Posey				
14. BLOCK NO.			19. BLOCK NO. 6762 (N71 deg 19' 25.79"; W163 deg 28' 40.84")				
15. LATITUDE (<input type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		16. LONGITUDE (<input type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)			
				21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)			
LIST OF SIGNIFICANT MARKERS ANTICIPATED							
22. NAME	23. TOP (MD)	24. TOP (TVD)	22. NAME	23. TOP (MD)	24. TOP (TVD)		
25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.) See the APD Table of Contents for all the documents associated with this APD submission.							
26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122		28. CONTACT E-MAIL ADDRESS jim.miller@shell.com			
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager					
31. AUTHORIZING SIGNATURE 		32. DATE 6-11-2012					
THIS SPACE FOR BSEE USE ONLY							
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions		BY		TITLE			
API WELL NO. ASSIGNED TO THIS WELL				DATE			

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and BOP to be installed after setting conductor at -1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is with in 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0014.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	


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4. WELL NAME (CURRENT) OCS-Y 2324 #001 (Burger V)	5. SIDETRACK NO. (CURRENT) n/a	6. BYPASS NO. (CURRENT) n/a		
7. PROPOSED START DATE July 4, 2012	8. PLAN CONTROL NO. (NEW WELL ONLY) n/a			
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a				
10. <input type="checkbox"/> Revision	11. If revision, please list changes:			
WELL AT TOTAL DEPTH (PROPOSED)		WELL AT SURFACE		
12. LEASE NO.		17. LEASE NO. OCS-Y 2324		
13. AREA NAME		18. AREA NAME Posey		
14. BLOCK NO.		19. BLOCK NO. 6915 (N71 deg 120' 33.39"; W163 deg 04' 21.23")		
15. LATITUDE (<input type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	16. LONGITUDE (<input type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
LIST OF SIGNIFICANT MARKERS ANTICIPATED				
22. NAME	23. TOP (MD)	24. TOP (TVD)	22. NAME	23. TOP (MD)
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29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager		
31. AUTHORIZING SIGNATURE 		32. DATE 6-11-2012		
THIS SPACE FOR BSEE USE ONLY				
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions		BY		TITLE
API WELL NO. ASSIGNED TO THIS WELL		DATE		

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and EOP to be installed after setting conductor at ~1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is with in 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0019.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	



United States Department of the Interior
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT

Alaska OCS Region
3801 Centerpoint Drive, Suite 500
Anchorage, Alaska 99503-5823

Ms. Susan Childs
Shell Gulf of Mexico, Inc.
3601 C Street, Suite 1334
Anchorage, AK 99503
United States of America

AUG 30 2012

Dear Ms. Childs:

The Alaska Region of the Bureau of Safety and Environmental Enforcement (BSEE) is in receipt of Shell's Application for a Permit to Drill (APD) Well Number 001, Burger A, on lease OCS Y-2280, Block 6764, in the Chukchi Sea (API number 55-352-0000200). The application was partially submitted and dated January 31, 2012 and completed on July 18th 2012. More recently, in a letter to BSEE from Shell Vice President Peter Slaiby, dated August 21, 2012, you sought "conditional approval" of the APD to allow for limited drilling operations before the arrival of the Arctic containment system. In particular, you requested permission to drill and set the 30" structural and the 20" surface casings. Your application has been reviewed for compliance with the Outer Continental Shelf Lands Act, 30 CFR Part 250 and other statutes and regulations applicable to APD's. (b) (4), (b) (9)

Upon completion of the testing and siting of the Arctic Containment System Shell will submit an Application for Permit to Modify, which, if approved, would allow Shell to continue operations outlined in the initial APD.

This approval is based on the findings below and subject to the conditions attached to this communication as Attachment A, Conditions of Approval for the Burger A, Well #001 and Attachment B Procedures for Well Data and Records Submittal. It is also conditioned on Shell's compliance during the permitted activities with all applicable BSEE regulations and requirements, U.S. Coast Guard regulations and requirements, provisions in the Exploration Plan (EP) dated May 2011, as approved by the Bureau of Ocean Energy Management (BOEM), BOEM regulations and requirements, provisions in the Oil Spill Response Plan approved by BSEE, conditions of approval for all permits or authorizations issued by Federal agencies, all lease stipulations, and Notices to Lessees.

This approval is valid unless and until there is a material change to conditions or facts as presented in Shell's application.

If any provision contained in any plan or application conflicts with any provision or condition approved in writing by BSEE, the provision or condition approved by BSEE later in time will control. In the event another agency approves deviations from plans, permits or conditions initially issued by that agency, copies of such approvals must be sent to BSEE. Except when emergency action is required, a written request for authorization must be sent to BSEE for the bureau's review and approval prior to deviating from BSEE approved plans, applications, or conditions.

BSEE finds that you have provided sufficient data, as required with relation to the applicable provisions of 30 CFR 250.417, to show that the Mobile Offshore Drilling Unit Noble Discoverer is in compliance and

is hereby approved for all exploratory drilling operations conducted in the Chukchi Sea of the Arctic Outer Continental Shelf (OCS) pursuant to this application and the EP.

BSEE also finds that you have provided sufficient data, as required with relation to the applicable provisions of 30 CFR 250.417, to show that the designated relief well drilling unit Kulluk is in compliance, and is hereby approved, for all exploratory drilling operations conducted in the Chukchi Sea of the Arctic Outer Continental Shelf (OCS) pursuant to this application and to the EP. In the event hydrogen sulfide is found during the drilling operations the Kulluk will be required to comply with 30 CFR 250.490 if used as a relief well rig.

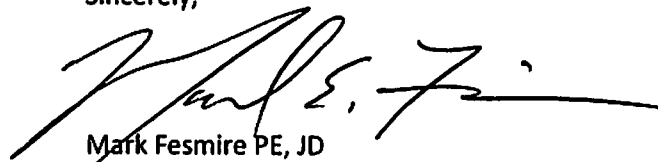
BSEE further finds that Shell's proposed well capping and containment systems have been designed for the projected worst case discharge conditions. The intended uses of these systems are hereby approved. BSEE will require that a witnessed deployment test of the containment system in which Shell has demonstrated that it has the ability to successfully deploy the system and have it on location pursuant to the oil spill response plan prior to BSEE's consideration of Shell's request to drill below the 20 inch casing point.

BSEE hereby approves Shell's Welding and Burning Program and Hydrogen Sulfide Contingency Plans for operations conducted on the Noble Discoverer.

BSEE will provide a continuous inspection presence during drilling operations and will use Shell transportation and lodging for this purpose. As allowed in 30 CFR 250.133, Shell will request reimbursement for transportation based on the existing agreement between Shell, DOI Aviation Management Division and BSEE. Reimbursement for lodging must be submitted within 90 days of the completion of the drilling program. In addition BSEE will be conducting inspections and collecting data in regard to the EPA's National Pollutant Discharge Elimination System General Permit No. AKG-28-0000 and EPA issued air quality permits at the request of the EPA by letter dated July 27, 2012 (copy enclosed).

After office hours, weekends, and holidays, all notifications relating to activities approved pursuant to this application should be made to the BSEE active duty officer at 855-277-2733 (toll free) and during business hours, all notifications should be made to the BSEE, active duty officer at (907) 334-5300.

Sincerely,



Mark Fesmire PE, JD
Regional Director, BSEE

Attachments

cc: U.S. DOI, BOEM, AKOCSR, Regional Director
U.S. DOC, NOAA, NMFS
U.S. DOI, Fish and Wildlife

Conditions of Approval for the Burger A, #001 Well

1. The following waivers have been authorized:
 - a. Testing of casing strings as indicated on Form BSEE -0123S is approved.
 - b. Your request for a waiver to the requirements under 30 CFR 250. 423 (c) regarding a negative pressure test is approved.
 - c. Testing of the BOP components to the pressures indicated on Form BSEE -0123S is approved.
 - d. Your test pressure for the annular preventer as indicated on Form BSEE -0123S is approved.
 - e. Deployment of a remote BOP control panel intended to operate the BOP stack from the sea floor is approved.
 - f. Your request to test the deadman/autoshear system during the stump test only is approved.
 - g. Your requested method to temporarily abandon the proposed pilot hole is approved.
2. This office will conduct a predrill inspection of your drilling vessel prior to the start of operations.
3. Shell will not be able to drill below the 20 inch casing point without fulfilling the conditions stated in the letter accompanying these conditions.
4. No drilling activities may be conducted beyond each additional casing shoe unless specifically approved by the BSEE inspector on location. BSEE will evaluate the condition of the well, results of safety equipment tests, the nature and duration of the next phase of the drilling program, existing and forecasted environmental conditions, and the procedures under an approved contingency plan (30 CFR250.417(c)(2)) that addresses design and operating limitations of the drilling unit as well as the actions necessary (i.e. suspension, curtailment, or modification of drilling or rig operations) to remedy various operational or environmental situations in order to maintain safety and prevent damage to the environment; including implementing well capping and containment or relief well drilling plans.
5. Final certification of the blowout preventer system as required in 30 CFR 250.416 (f) shall be provided to this office prior to the initial use of the BOP on this well.
6. Data submission procedures and criteria for this well are listed in a attached document (Procedures for Well Data and Records Submittal)
7. Shell must submit a daily summary report on form BSEE-0133 to this office until the final status of the well is established (one copy). Daily marine mammal reports shall be attached to the form.
8. Shell must notify this office immediately in the event the well encounters shallow gas, abnormal pressure, or lost circulation.
9. Shell must provide this office with representative dry samples collected during the drilling of this well as soon as available. Shell is also requested to collect and retain a set of wet well cuttings for the Bureau of Ocean Energy Management. This request is voluntary and the samples are intended to provide for public access once the proprietary term for the samples is concluded. Further discussions related to this voluntary request can be concluded with appropriate BOEM representatives.
10. Shell must submit within thirty days of completion of the well all oceanographic and meteorological data collected during the drilling of this well.
11. Shell must submit an Application for Permit to Modify to change any approved portion of the APD prior to the commencement of the proposed operations. Verbal approval in an emergency

ATTACHMENT A

may be granted, however written APM's must be submitted no later than the end of the 3rd business day following the verbal approval.

12. Shell shall notify this office as well as the onsite representative 24 hours in advance of a Blowout Preventer test.
13. Shell must submit form BSEE – 0124 in advance of either temporarily or permanently abandoning this well. This form must contain all information required in 30 CFR 250, Subpart Q for abandonment of wells.

BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT ALASKA OCS REGION

Procedures for Well Data and Records Submittal

This document defines the procedures on how lessees/operators submit well records required by 30 CFR 250.468 and 469, and clarifies the specific well records you should submit, the submittal dates of the various well records, and the correct locations where you should send these well records.

The BSEE collects, verifies, and stores data by the well's unique 12-digit American Petroleum Institute (API) number we assign. The BSEE Alaska Outer Continental Shelf Region (AKOCS) uses the data collected to make informed regulatory decisions based on your timely submittal of complete and accurate well records. We define "submittal date" as the original date the data are due to the appropriate office.

According to 30 CFR 250.468(a), "you must submit copies of logs or charts of electrical, radioactive, sonic, and other well-logging operations; directional and vertical well surveys; velocity profiles and surveys; and analysis of cores to BSEE." Also, in accordance with 30 CFR 250.469(b), the AKOCS will also require submittal of paleontological reports as well as washed and dried samples collected from the well.

When to Submit Well Data Records

1. Field Data

As stated in the approval documents for these operations this office will take an active role in assess plans for the continuation of well activities. Shell will be expected to make available digital data and field prints electronically from the well site via a secure website data delivery system or equivalent to enable this review from this office. This should be done for all logging operations including pilot hole, surface, intermediate and final runs(both wireline and Logging While Drilling logs). This also includes detailed mud logging data.

2. Final Data

Operators should submit one copy of the digital data on a CD or DVD in a read-only format to the appropriate entity as outlined in Attachment 1. Each CD or DVD should be properly labeled with the Area, Block, OCS, Well Number, Well Suffix, API, and the data type (i.e., Paleo Report, Conventional Core Report, Vertical Seismic Survey, etc.). Digital and image NMR data must be submitted on separate physical media and nomenclature for NMR data files and tool codes should clearly identify them as NMR datasets.

Well records are divided into four groups for the timely submittal of the data.

- a) Well Log Data, Directional Surveys, Velocity Surveys, Analyses of Percussion Sidewall Cores, Wireline Formation Test Logs, Drill Stem Tests and Mudlogs/Reports

Submit:

Well log data,
Directional surveys,
Velocity surveys (time/depth pairs),
Percussion/rotary sidewall analysis of cores,
Wireline formation tests logs (summary log), and
Drill stem tests (initial report)

To be submitted within 30 days of the "Date Operations Completed" of the last logging run (MWD/LWD or wireline) that you report in Item 7 of the Open Hole Report (Form BSEE-0133S) for each 12-digit wellbore, sidetrack, and/or bypass. Note: "Date Operations Completed" for MWD/LWD is when the data is retrieved from the drill string.

- b) Paleontological, Detailed Rotary Sidewall and Conventional Core Analyses, and Vertical Seismic Profile Reports and Information

For each wellbore in which these data were collected, submit no later than 90 days after the "TD DATE" you report in Item 10 of the Well Activity Report (Form BSEE-0133).

Detailed paleontological reports and information,
Detailed rotary sidewall and conventional core analyses/reports and information, and
Detailed vertical seismic profile reports

Submit these well records when the report is completed, even if the report is generated by you and/or third party (i.e., academic partners, non-lessee partners and/or consultants) years after the wellbore is completed.

- c) Geochemical Analyses and PVT Analysis of Fluid Samples

For each wellbore in which these data were collected, submit geochemical analyses and/or PVT Analysis of Fluid Samples no later than 120 days after the "TD DATE" that you report in Item 10 of the Well Activity Report (Form BSEE-0133). Submit these well records when the report is completed, even if the

report is generated by you and/or third party (i.e., academic partners, non-lessee partners and/or consultants) years after the wellbore is completed.

d) End of Operations Report (Form BSEE-0125)

For each wellbore, submit an End of Operations Report (Form BSEE-0125) and all its attachments no later than 30 days after the "END DATE" you report in Item 10 of the Well Activity Report (Form BSEE-0133).

The BSEE AKOCS uses the Well Activity Report (Form BSEE-0133) and Open Hole Report (Form BSEE-0133S) to track well activity; therefore, it is crucial that you submit a complete and accurate report to the appropriate BSEE AKOCS District Office in a timely manner. We will treat delinquent and/or incomplete reports in the same manner as delinquent and/or incomplete well data, and such violations may result in the BSEE AKOCS exacting an appropriate remedy, such as issuing an Incident of Non-compliance (INC).

The BSEE AKOCS may request that you submit well logging data, directional surveys, velocity profiles and surveys, percussion sidewall analyses of cores, wireline formation tests, and drill stem tests before the 30-day limit when we determine that circumstances warrant such action. When we determine that circumstances so warrant, we may also request that you submit preliminary reports of analytical data, namely

Geochemical analyses/reports and information,
PVT analyses of fluid samples,
Detailed paleontological reports and information,
Detailed rotary sidewall core analysis and information, and
Detailed conventional core analysis and information before the
respective 90-day or 120-day limits.

The BSEE AKOCS recognizes that you need adequate time to submit complete and accurate well records. If you request it, BSEE AKOCS may grant you a departure under 30 CFR 250.142 for a new required date for submitting the data pertaining to that wellbore.

Where to Submit Well Records

Shell will need to coordinate access to field digital well logs with the following office. This office will also handle receipt of dry samples.

Bureau of Safety and Environmental Enforcement
Alaska OCS Office
3801 Centerpoint Dr., Suite 500
Anchorage, AK 99503
Office Phone: 907-334-5300
Office Fax: 907-334-5302

Shell will provide final copies of all digital image and vector well log data and related reports to both the Alaska BSEE office and to:

A2D Technologies
d/b/a TGS Geological Products and Services
1010 Common Street, Suite 2040
Attn: BSEE Well Records (Alaska)
New Orleans, LA 70112
Office telephone: 504-524-3450
Fax: 504-524-3454

A "Well Records Submission Summary" in Attachment 1 of this NTL provides an overview of the various well records, including which entity receives which well records and the addresses and contact numbers of the appropriate BSEE AKOCS Offices, and A2D Technologies. We strongly recommend that you provide a transmittal letter when you submit any well records. This transmittal should contain the following information:

- Operator's Name
- Operator's Contact Name and Telephone Number
- Bottomhole Location: Area/Block/Lease/Well Name and Number/API Number
- Date Well Records Sent
- Detailed List of Well Records

It is your responsibility to ensure that the BSEE AKOCS and A2D Technologies receive all well data and information within the specific periods. If we notify you of delinquent data, we will initiate an appropriate remedy, such as issuing an Incident of Non-Compliance (INC). If you choose to use a third party to submit well data, it remains your responsibility to ensure that the data are timely received by the BSEE AKOCS and A2D Technologies. Realizing that you may need time beyond the specified deadlines to prepare unique data or information, we will address the submission of such on an individual basis. We will address INC's issued by the BSEE AKOCS Office for the delinquent data submittal at your yearly performance review or through other appropriate and timely measures.

Well Naming and Numbering

Show the API Number and well name assigned by the BSEE AKOCS Office on all well records you submit to us. You can find these on the approved Application for Permit to Drill (Form BSEE-0123) for the original hole, sidetracks, and/or bypasses.

Data Types and Formats

A. Well Log Data types

- a. Log Curve Requirements: Submit the following curve types and log images in final form, if the data were obtained in the open-hole portion of a wellbore, sidetrack, or bypass****:

- Acoustic or Sonic
- Bulk Density
- Caliper
- Conductivity
- Density Correction
- Dipmeter
(computed)
- Gamma Ray
- Resistivity/Induction
- Spontaneous
Potential
- Nuclear Magnetic
Resonance *
- Mudlogs***
- Neutron
- Tension
- Porosity
- Borehole Image
- Equivalent
circulation density
- Rwa
- Temperature
- Formation Tester**
- Rate of Penetration
- Photoelectric
- Slide Indicator

- b. Cased hole log data: Submit all curve types and log images as identified above for any cased hole logs collected in lieu of, or in addition to, open hole logs.

* For the submittal of digital NMR vector curve data,. The following are examples of curve types are to be submitted, and are not limited to you should submit:

- Quality Control Curves
- Computed Curves
- T2 Bin Distributions

Due to NMR file sizes and complexities, the BSEE now requires that digital and image NMR data are submitted on separate physical media (separate from other well log data) to its logging contractor, A2D Technologies. Also, NMR data file and tool code nomenclature should clearly identify these data as NMR-related. We encourage direct submittal of the completed log data set from the acquiring service company.

** Formation Tester is considered any logging tool that collects pressure data and/or fluid samples from the borehole. Summary Print log Images, pressure gradient plots, and preliminary sample analysis must be submitted. Formation Tester summary data should also be submitted in ASCII format. All detailed reports (i.e., PVT Analysis) generated from the samples collected from the borehole must be submitted in a timely manner (see Attachment 1).

*** For mudlog specifications, see section Part I, Section G of this NTL. You will be required to submit an image file for these types of logs to A2D Technologies.

****Although API Recommended Practice (RP) 31A, Standard Form for Hardcopy Presentation of Downhole Well Log Data, is not incorporated by reference in BSEE regulation's, you may use it for guidance on providing complete and accurate well information.

Note: Do not submit digital data for Formation Tester, Borehole Image, and Computed Dipmeter to A2D Technologies.

c. Well Log Image File:

Submit image files in one of the formats listed below. For Formation Tester type logs, the summary logs will suffice. See Part I, Section H of this NTL for mudlog specifications.

- i. For all vertical wells, as defined in 30 CFR 250.461, submit image files for
 - Measured depth (MD) 1-inch, or 2-inch correlation, and 5-inch formation evaluation logs and
 - Any additional scales you obtained.
- ii. For all non-vertical wells, as defined in 30 CFR 250.461, submit image files for
 - True vertical depth (TVD) 1-inch, or 2-inch correlation and, 5-inch formation evaluation logs,
 - Measured depth (MD) 1-inch, or 2-inch correlation, and 5-inch formation evaluation logs, and
 - Any additional scales you obtained.

Detailed 5- inch image logs must be composited, but individual runs do not need to be spliced.

If logging data from more than one logging vendor are collected in a borehole, you may submit either an image of the logging data from all vendors composited into a single set of logs or a set of images of the composited logs from each individual vendor.

d. **Image File Formats:** If the original log is in color, the submitted image file should also be in color.

i. The following image file formats are preferred:

- Computer Graphic Metafile (CGM) version 1-4
- Baker Metafile
- Schlumberger PDS (PDS files are usually for one logging run; any borehole with multiple runs should submit composited file format)
- Halliburton CGM
- Weatherford DPK

If the preferred formats listed above are not available, you may submit the image file in the Tag Image File Format (TIFF) with the following specifications:

ii. **Format (TIFF) with the following specifications:**

1. **Black and White TIFF Images:**

- Header tags as per TIFF standard
- Resolution – 200 dpi
- Compression – CCITT group IV
- Tiling – No

2. **Color TIFF Images:**

- Header tags as per TIFF standard
- Resolution – 200 dpi
- Palette color – 256 colors
- File format LZW Compressed TIFF
- Tiling - No

Clearly label each well log image with its associated API number, bottom hole lease number, well name, well name suffix, log type, scale and depth domain (MD or TVD).

e. **Digital (Vector) Well Log Data:** Submit composite digital curve data (one value per curve for each depth value and with individual tool runs merged) in the Canadian Well Log Society Log ASCII Standard (LAS), Version 2.0 format; and Digital Log Interchange Standard (DLIS) or Log Interchange Standard (LIS) format . Ensure that the curve data are in a MD composite layout, including full headers for each wireline and MWD/LWD logging tool run and curve description for all curves. Ensure that all required log curves (see Part A.1 of this NTL) represented on the log image file are included in the digital curve file. If you collect logging data from more than one logging vendor in a single borehole, submit a separate set of composited log curves from each individual vendor . Do not splice digital curves from different vendors to form a set of composited log curves.

i. Full header information, should including the following:

- 12-digit API number
- well name suffix
- bottom hole lease number
- bottom hole area and block
- well name

ii. Information for each tool run, should including the following:

- borehole fluids
- depth interval
- mud
- filtrate resistivity and temperatures
- casing information
- bottomhole or maximum recorded temperature
- circulation history information
- tool schematic
- tool calibration record

Full logging tool parameters (including matrix values), position of logging tool (i.e., centered or eccentric), and logging engineer's comments; and adequate curve description and

Tool -specific and service provider-specific curve and parameter mnemonics (names and abbreviations) maintained as originally acquired.

If a log is spliced, the splice depth should be clearly noted along with which files were used.

Submit digital and image logs on CD or DVD ROM (read-only memory). Digital and image logs may be submitted on the same CD or DVD.

Directional Surveys

Submit one digital copy of the final composite directional survey. For the Digital Directional Survey format, see NTL 2009-N10.

- Submit, on CD or DVD ROM these survey results coded in ASCII.
- According to 30 CFR 250.461(d) (2), "You must correct all surveys to Universal-Transverse-Mercator-Grid-north or Lambert-Grid-north after making the magnetic-to-true-north correction."

If your use of more than one vendor prevents the consolidation of the separate surveys within a well, submit the final composite survey from each vendor .

Velocity Profiles and Surveys

Vertical Seismic Profiles: Submit the results from all borehole seismic data (in cased or uncased holes), as well as concurrently run directional surveys for both vertical and directional wells, if they are different from directional surveys referred to in Part I, Section B of this NTL . Submit, on CD or DVD ROM, digitally recorded data in a industry standard format (LAS, DLIS, ASCII, CGM, TIFF, JPG, SEG Y, DOC), that include, but are not limited to:

- Normal Incidence VSP;
- Acoustic Log Calibration Report;
- Final VSP and Corridor stacks for 2D data and final stacked and migrated volume for 3D VSP data;
- Composite plot with VSP, Corridor stacks, synthetic seismogram, and well logs;
- any referenced information within the report correlative with the acquisition, such as 2-way time indexed depths and velocities, survey parameters, digital images, and computed survey data and directional; and
- If acquired, format time/depth pairs.

Velocity Surveys (Time-Depth Pairs/Checkshots): Submit, on CD or DVD ROM, one digital copy coded in ASCII format (see Attachment 2 of this NTL). The report should include or be annotated with the following:

- API number
- Well name and number
- Well name suffix
- Contractor or service provider
- Contact name (phone number or e-mail address)

Note that the digital format has been modified to expand the columns for True Vertical Depth and One-Way Travel Time from 5 to 8 to include two decimal places for each column.

We encourage direct submittal of the completed survey from the acquiring service company .

Analysis of Conventional Cores, Percussion/Rotary Sidewall Cores, Wireline Formation Tests, and Drill Stem Tests

IF...

you conduct any of the following:

- Conventional cores descriptions and analysis
- Percussion/Rotary sidewall core analysis or equivalent,
- Wireline formation tests - include any logs (summary logs are acceptable) and associated lab results, or
- Drill stem tests

THEN...

As soon as the final and/or revised conventional core, percussion/rotary sidewall core reports and/or data become available to you, send one digital copy of the entire, detailed report. Reports should include, but are not limited to the following:

- Standard analyses for porosity,
- Permeability
- Water saturation
- Core photos
- compaction analyses
- laser grain size analyses
- stressed brine porosity and permeability analyses
- rock mechanic studies
- water extraction and core gamma logs
- core photos

In addition, provide one copy of all studies you performed on the core(s) and tests for the purpose of describing and characterizing the reservoir architecture through detailed stratigraphic or depositional analyses. In certain situations, the BSEE AKOCS may require that you submit preliminary or interim reports .

Submit, on CD or DVD ROM, one copy of the description and analysis of the conventional core, the percussion/rotary sidewall core, wireline formation tests, and drill stem tests reports in the original digital format (i.e., WordPerfect, Word, Excel, Lotus 1-2-3). Any data acquired in a log format should be submitted as a log image.

Geochemical Analyses/Reports and Information

Submit one copy of the Geochemical Analyses/Reports and Information in the original digital format (i.e., WordPerfect, Word, Excel, Lotus 1-2-3, JPEG, CGM, TIFF) if you conducted any geochemical analyses/reports, including internal company or external contractor interpretation reports on

- Cuttings,
- Sidewall or conventional cores, and
- Fluid samples from the well. The term "sample" encompasses:
- Hydrocarbon gases, specifically methane through pentanes and C6+ hydrocarbons;
- Non-hydrocarbon gases (carbon dioxide, hydrogen sulfide, argon, helium, and radon); and
- Any liquid hydrocarbons (such as condensate, crude, and bitumen) encountered by the well in cuttings or shows and from any other well sampling or fluid testing.

The analyses, reports, and interpretations to be submitted include, but are not necessarily limited to , the following types of data:

- Total organic carbon
- Polynuclear aromatic hydrocarbons
- Rock-eval pyrolysis
- Stable isotope analyses of carbon & hydrogen
- Thermal chromatography-gas chromatography
- Compound-specific isotope ratio mass spectrometry
- Bulk pyrolysis & hydrous pyrolysis

- Isotope ratio mass spectrometry
- Gas chromatography
- Kerogen isolation & bitumen separation
- Pyrolysis/gas chromatography
- Organic petrography
- Complete saturated biomarker & aromatic hydrocarbon analysis by GC MS
- Vitrinite reflectance
- Elemental analysis of kerogen

In addition, submit all data and reports on geochemical characterization of produced oils, including

- All whole-oil GC, GC MS on oils,
- SARA (or SARA),
- Isotopes on the fractions,
- Molecular and isotopic analyses of C1-C5 hydrocarbons metals data, and
- Any other geochemical data used from production samples intended for reservoir characterization studies.

Submit, on CD or DVD ROM, digitally recorded data in industry standard formats.

Detailed Paleontological Reports and Information

As soon as the final and/or revised paleontological information and/or data become available to you, submit one copy in digital format of the entire, detailed paleontological report(s), chart(s), striplog(s), checklist(s), and any other paleontological records. Include the following:

The range of samples taken,

- Sample analysis identifying fossils and lithology by MD,
- Summary and interpretation (based on identification of foraminifera, nannofossils, or other microfossils) of all biostratigraphic markers, zones, tops, or local markers,
- Description of paleontological ecological zones with water depth at the time of deposition (e.g., Middle Shelf/Neritic 20-100 meters, Outer Shelf/Neritic 100-200 meters),
- Sequence analysis interpretations based on histograms of faunal abundance,
- Identification of all rock units by depth to the top of relative chronostratigraphic stages (e.g., Upper Pleistocene, Middle Miocene, or Lower Oligocene), and
- Pleistocene, Middle Miocene, or Lower Oligocene), and
- Biostratigraphic chart noting the relative ages of the biostratigraphic zones you used in the detailed paleontological reports.

Submit, on CD or DVD ROM, one copy of the detailed paleontological report in the original digital format (i.e., WordPerfect, Word, Excel, Lotus 1-2-3, JPEG, CGM, TIFF).

Mudlogs and Reports

Submit one image copy of the following types of Mudlogs:

- Physical Formation Log
- Pore Pressure Log
- Engineering Log
- Show Report Log

Image File Formats for Mudlogs: If the original log is in color, the submitted image file must also be in color.

The following image file formats are preferred:

- Geologix - geo draft file (.gdf)
- Geologix - output data file (.odf)

If the preferred formats listed above are not available, submit the image file in the Tag Image File

Format (TIFF) with the following specifications:

Black and White TIFF Images

- Header tags as per TIFF standard
- Resolution – 200 dpi
- Compression – CCITT group IV
- Tiling – No

Color TIFF Images

- Header tags as per TIFF standard
- Resolution – 200 dpi
- Palette color – 256 colors
- File format LZW Compressed TIFF
- Tiling – No.

Submit one copy of the following types of Mudlogs reports, if collected:

- Show reports – composite into one file
- Mud reports – composite into one file
- End of Well reports – composite into one file
- Daily Drilling reports – composite into one file

Submit, on CD or DVD ROM, digitally recorded data in industry standard formats.

End of Operations Report (Form BSEE-0125) and Attachments

Pursuant to 30 CFR 250.465(a), you must submit End of Operations Report (Form BSEE-0125) and the required attachments.

Additional Information

Pursuant to 30 CFR 250.469(d), the BSEE AKOCS may require that you submit additional well reports or records for a specific well(s).


Public Information Copy

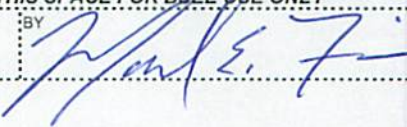
U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Submit original plus **THREE** copies,
with **ONE** copy marked "Public Information."

OMB Control No. 1010-0141
OMB Approval Expires 10/31/2014

Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN		2. BSEE OPERATOR NO. 02117		3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. Suite 1000 3601 C Street Anchorage, AK 99503	
4. WELL NAME (CURRENT) OCS-Y 2280 #001 (Burger A)		5. SIDETRACK NO. (CURRENT) n/a		6. BYPASS NO. (CURRENT) n/a	
7. PROPOSED START DATE July 4, 2012		8. PLAN CONTROL NO. (NEW WELL ONLY) n/a			
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a					
10. <input type="checkbox"/> Revision		11. If revision, please list changes:			
WELL AT TOTAL DEPTH (PROPOSED)			WELL AT SURFACE		
12. LEASE NO. OCS-Y 2280			17. LEASE NO. OCS-Y 2280		
13. AREA NAME Posey			18. AREA NAME Posey		
14. BLOCK NO. 6764 (Lat. N71 deg 18' 30.92"; Long. W163 deg 12' 43.17")			19. BLOCK NO. 6764 (Lat. N71 deg 18' 30.92"; Long. W163 deg 12' 43.17")		
15. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		16. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)		20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
				21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	
LIST OF SIGNIFICANT MARKERS ANTICIPATED					
22. NAME		23. TOP (MD)		24. TOP (TVD)	
25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.) See the APD Table of Contents for all the documents associated with this APD submission.					
26. CONTACT NAME Jim Miller		27. CONTACT TELEPHONE NO. 907 646 7122		28. CONTACT E-MAIL ADDRESS jim.miller@shell.com	
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs		30. TITLE Alaska Venture Support Integrator, Manager			
31. AUTHORIZING SIGNATURE 		32. DATE April 16, 2012			

THIS SPACE FOR BSEE USE ONLY		
APPROVED: <input type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions	BY 	TITLE Alaska BSEE Regional Director
API WELL NO. ASSIGNED TO THIS WELL		DATE 8/30/2012

Public Information Copy

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and BOP to be installed after setting conductor at -1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0005.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	

Tankersley, Yolanda J

From: Monkelien, Kyle
Sent: Sunday, September 09, 2012 12:51 PM
To: Fesmire, Mark E; Walker, Jeffrey
Subject: Rig update

Mike called to let me know that the rig may need to move due to ice. I told him the procedure we had discussed with Shell on abandonment of the pilot hole and he indicated that was what they where planning in the event that they needed to move. I gave him verbal permission to let them go ahead and then send in an apm with details tomorrow if it happens. Let me know if you see any issues and I will try to get back in touch.

Tankersley, Yolanda J

From: Monkelien, Kyle
Sent: Sunday, September 09, 2012 3:36 PM
To: Kendall, James; Watson, James A; Fesmire, Mark E; Feldgus, Steven H; 'aewcdir1@gci.net'; 'harry.brower@north-slope.org'; 'jason.bergerson@north-slope.org'; 'richard.camilleri@north-slope.org'; 'tolemaun@nvbarrow.net'
Subject: Shell drilling update

Shell is in the process of suspending drilling operations at Burger. Ice is expected to be at the drill site within the next 26 hours. Shell will temporarily abandon the pilot hole, release anchors and move to a safe location near the supply ship.

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Submit original plus THREE copies, with ONE copy
marked "Public Information."

SEP 12 2012

OMB Control No. 1014-0018

OMB Approval Expires 10/31/2014

Regional Director, Alaska OCS
Bureau of Safety and Environmental Enforcement
Anchorage, Alaska

Application for Permit to Modify (APM)

1. WELL NAME (CURRENT) POSEY 6764 OCS-Y 2280 001	2. SIDETRACK NO. (CURRENT) 00	3. BYPASS NO. (CURRENT) 00	4. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. 3601 C Street Suite 1000 Anchorage, AK 99503
5. API WELL NO. (12 digits) 55-352-0000200	6. START DATE (Proposed) 09/09/2012	7. ESTIMATED DURATION (DAYS) 1 day	
8. <input type="checkbox"/> Revision	9. If revision, please list changes:		
WELL AT TOTAL DEPTH		WELL AT SURFACE	
10. LEASE NO. OCS-Y 2280		13. LEASE NO. OCS-Y 2280	
11. AREA NAME POSEY		14. AREA NAME POSEY	
12. BLOCK NO. 6764		15. BLOCK NO. 6764	
Proposed or Completed Work			
16. PROPOSED OR COMPLETED WORK (Describe in Section 17) PLEASE SELECT ONLY ONE PRIMARY TYPE IN BOLD AND AS MANY SECONDARY TYPES AS NECESSARY.			
<input type="checkbox"/> Enhance Production <input type="checkbox"/> Acidize <input type="checkbox"/> Artificial Lift <input type="checkbox"/> Wash/Desand Well <input type="checkbox"/> Jet Well <input type="checkbox"/> Utility <input type="checkbox"/> Initial Injection Well <input type="checkbox"/> Additional Fluids for Injection <input type="checkbox"/> Other Operations <input type="checkbox"/> Describe Operation(s)			
<input type="checkbox"/> Workover: <input type="checkbox"/> Change Tubing <input type="checkbox"/> Casing Pressure Repair <input checked="" type="checkbox"/> Abandonment of Well Bore: <input type="checkbox"/> Permanent Abandonment <input checked="" type="checkbox"/> Temporary Abandonment <input type="checkbox"/> Plugback to Sidetrack/Bypass <input type="checkbox"/> Site Clearance			
<input type="checkbox"/> Completion: <input type="checkbox"/> Initial Completion <input type="checkbox"/> Reperforation <input type="checkbox"/> Change Zone <input type="checkbox"/> Modify Perforations <input type="checkbox"/> Information: <input type="checkbox"/> Surface Location Plat <input type="checkbox"/> Change Well Name			
17. BRIEFLY DESCRIBE PROPOSED OPERATIONS (Attach prognosis):			
18. LIST ALL ATTACHMENTS (Attach complete well prognosis and attachments required by 30 CFR 250.513(a) through (d); 250.613(a) through (d); 250.1712(a) through (g); 250.1721(a) through (h); 250.1722(a) through (d); or 250.1743(a).)			
19. Rig Name or Primary Unit (e.g., Wireline Unit, Coil Tubing, Snubbing Unit, etc.) Mobile Offshore Drilling Unit Noble Discoverer			
20. The greater of SITP or MASP (psi): N/A	21. Type of Safety Valve (SV): SCSSV __ SSCSV __ X N/A		22. SV Depth BML (ft): N/A
23. Rig BOP (Rams)		24. Rig BOP (Annular)	
Size: (inches) N/A	Working Pressure (psi) N/A	Test Pressure (psi) N/A	Low/High: N/A
25. Coiled Tubing BOP:		26. Snubbing Unit BOP:	
Working Pressure (psi) N/A	BOP Test Pressure (psi) N/A	Working Pressure (psi) N/A	Test Pressure (psi) N/A
Low/High: N/A		Low/High: N/A	
27. Wireline Lubricator:		28. CONTACT NAME: John A. Henley	
Working Pressure (psi) N/A	Test Pressure (psi) N/A	29. CONTACT TELEPHONE NO.: +1.281.795.0250	
Low/High: N/A		30. CONTACT E-MAIL ADDRESS: John.A.Henley@shell.com	
31. AUTHORIZING OFFICIAL (Type or print name) Jim Miller		32. TITLE Drilling Superintendent	
33. AUTHORIZING SIGNATURE Jim Miller		34. DATE Sept 12/12	
THIS SPACE FOR BSEE USE ONLY			
APPROVED BY:	TITLE	DATE	

Public Information

Application for Permit to Modify (APM) Information Sheet

35) Question Information		
Questions	Response	Remarks
a) Is H ₂ S present in the well? If yes, then comment on the inclusion of a Contingency Plan for this operation.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	Current status is H ₂ S unknown. Shell has an H ₂ S contingency plan in place in the event that H ₂ S is present during drilling.
b) Is this proposed operation the only lease holding activity for the subject lease? If yes, then comment.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
c) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
d) If sands are to be commingled for this completion, has aproval been obtained?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
e) Will the completed interval be within 500 feet of a block line? If yes, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
f) For permanent abandonment, will casings be cut 15 feet below the mudline? If no, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Form BSEE-0124 is estimated to average 17 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Submit original plus THREE copies, with ONE copy
marked "Public Information."

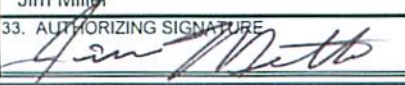
OMB Control No. 1014-0018
OMB Approval Expires 10/31/2014

SEP 24 2012

Regional Director, Alaska OCS

Bureau of Safety and Environmental Enforcement
Anchorage, Alaska

Application for Permit to Modify (APM)

1. WELL NAME (CURRENT) POSEY 6764 OCS-Y 2280 001	2. SIDETRACK NO. (CURRENT) 00	3. BYPASS NO. (CURRENT) 00	4. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. 3601 C Street Suite 1000 Anchorage, AK 99503
5. API WELL NO. (12 digits) 55-352-0000200	6. START DATE (Proposed) 09/09/2012	7. ESTIMATED DURATION (DAYS) 1 day	
8. <input type="checkbox"/> Revision	9. If revision, please list changes:		
WELL AT TOTAL DEPTH		WELL AT SURFACE	
10. LEASE NO. OCS-Y 2280		13. LEASE NO. OCS-Y 2280	
11. AREA NAME POSEY		14. AREA NAME POSEY	
12. BLOCK NO. 6764		15. BLOCK NO. 6764	
Proposed or Completed Work			
16. PROPOSED OR COMPLETED WORK (Describe in Section 17) PLEASE SELECT ONLY ONE PRIMARY TYPE IN BOLD AND AS MANY SECONDARY TYPES AS NECESSARY.			
<input type="checkbox"/> Enhance Production <input type="checkbox"/> Acidize <input type="checkbox"/> Artificial Lift <input type="checkbox"/> Wash/Desand Well <input type="checkbox"/> Jet Well <input type="checkbox"/> Utility <input type="checkbox"/> Initial Injection Well <input type="checkbox"/> Additional Fluids for Injection <input type="checkbox"/> Other Operations <input type="checkbox"/> Describe Operation(s)			
<input type="checkbox"/> Workover: <input type="checkbox"/> Change Tubing <input type="checkbox"/> Casing Pressure Repair <input checked="" type="checkbox"/> Abandonment of Well Bore: <input type="checkbox"/> Permanent Abandonment <input checked="" type="checkbox"/> Temporary Abandonment <input type="checkbox"/> Plugback to Sidetrack/Bypass <input type="checkbox"/> Site Clearance			
<input type="checkbox"/> Completion: <input type="checkbox"/> Initial Completion <input type="checkbox"/> Reperforation <input type="checkbox"/> Change Zone <input type="checkbox"/> Modify Perforations <input type="checkbox"/> Information: <input type="checkbox"/> Surface Location Plat <input type="checkbox"/> Change Well Name			
17. BRIEFLY DESCRIBE PROPOSED OPERATIONS (Attach prognosis): See following sheet for list of documents in support of this APM.			
18. LIST ALL ATTACHMENTS (Attach complete well prognosis and attachments required by 30 CFR 250.513(a) through (d); 250.613(a) through (d); 250.1712(a) through (g); 250.1721(a) through (h); 250.1722(a) through (d); or 250.1743(a).)			
19. Rig Name or Primary Unit (e.g., Wireline Unit, Coil Tubing, Snubbing Unit, etc.) Mobile Offshore Drilling Unit Noble Discoverer			
20. The greater of SITP or MASP (psi): <u>N/A</u>		21. Type of Safety Valve (SV): <u>SCSSV</u> <u>SSCSV</u> <u>X</u> <u>N/A</u>	
22. SV Depth BML (ft): <u>N/A</u>			
23. Rig BOP (Rams)		24. Rig BOP (Annular)	
Size: (inches)	Working Pressure (psi)	Test Pressure (psi)	Working Pressure (psi)
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Low/High: <u>N/A</u>		Low/High: <u>N/A</u>	
25. Coiled Tubing BOP:		26. Snubbing Unit BOP:	
Working Pressure (psi)	BOP Test Pressure (psi)	Working Pressure (psi)	Test Pressure (psi)
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Low/High: <u>N/A</u>		Low/High: <u>N/A</u>	
27. Wireline Lubricator:			
Working Pressure (psi)	Test Pressure (psi)	Working Pressure (psi)	Test Pressure (psi)
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Low/High: <u>N/A</u>		Low/High: <u>N/A</u>	
28. CONTACT NAME: John A. Henley		29. CONTACT TELEPHONE NO.: +1.281.795.0250	
30. CONTACT E-MAIL ADDRESS: John.A.Henley@shell.com			
31. AUTHORIZING OFFICIAL (Type or print name) Jim Miller		32. TITLE Drilling Superintendent	
33. AUTHORIZING SIGNATURE 		34. DATE 2012-9-24	
THIS SPACE FOR BSEE USE ONLY			
APPROVED BY:		DATE	

Public Information

Application for Permit to Modify (APM) Information Sheet

35) Question Information		
Questions	Response	Remarks
a) Is H ₂ S present in the well? If yes, then comment on the inclusion of a Contingency Plan for this operation.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	Current status is H ₂ S unknown. Shell has an H ₂ S contingency plan in place in the event that H ₂ S is present during drilling.
b) Is this proposed operation the only lease holding activity for the subject lease? If yes, then comment.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	
c) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
d) If sands are to be commingled for this completion, has approval been obtained?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
e) Will the completed interval be within 500 feet of a block line? If yes, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
f) For permanent abandonment, will casings be cut 15 feet below the mudline? If no, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT. The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Form BSEE-0124 is estimated to average 17 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

Tankersley, Yolanda J

From: Monkelién, Kyle
Sent: Monday, September 10, 2012 8:43 AM
To: Feldgus, Steven H; Fesmire, Mark E; Harry Brower, Jr.; Jason Bergerson; Johnny L. Aiken; Richard Camileri; Thomas P. Olemaun; Watson, James A; Kendall, James
Subject: Drilling update

Shell is in the process of retrieving anchors and preparing to move off location due to ice. Ice is within approximately 9.5 miles of the location slowly drifting toward the location. Shell will be ready to depart in 4 to 6 hours. This is in accordance with Shell's ice management plan.

Kyle Monkelién
Senior Petroleum Engineer
BSEE – Alaska Region
Field Operations
907-334-5307 – work
907-351-2402 - cell

Tankersley, Yolanda J

From: Monkelién, Kyle
Sent: Monday, September 10, 2012 8:43 AM
To: Feldgus, Steven H; Fesmire, Mark E; Harry Brower, Jr.; Jason Bergerson; Johnny L. Aiken; Richard Camileri; Thomas P. Olemaun; Watson, James A; Kendall, James
Subject: Drilling update

Shell is in the process of retrieving anchors and preparing to move off location due to ice. Ice is within approximately 9.5 miles of the location slowly drifting toward the location. Shell will be ready to depart in 4 to 6 hours. This is in accordance with Shell's ice management plan.

Kyle Monkelién
Senior Petroleum Engineer
BSEE – Alaska Region
Field Operations
907-334-5307 – work
907-351-2402 - cell

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Public Information

Submit original plus **THREE** copies, with **ONE** copy
marked "Public Information."

OMB Control No. 1017-0047
OMB Approval Expires 10/31/2011


1101-02b

Regional Director, Alaska OCS
Bureau of Safety and Environmental Enforcement
Anchorage, Alaska

SEP 11 2012

RECEIVED

Application for Permit to Modify (APM)

1. WELL NAME (CURRENT) Posey 6764 OCS-Y 2280 001(Burger A)		2. SIDETRACK NO. (CURRENT) 00		3. BYPASS NO. (CURRENT) 00		4. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. 3601 C Street Suite 1000 Anchorage, AK, 99503	
5. API WELL NO. (12 digits) 55-352-0000200		6. START DATE (Proposed) 9/10/2012		7. ESTIMATED DURATION (DAYS) n/a			
8. <input type="checkbox"/> Revision		9. If revision, please list changes:					
WELL AT TOTAL DEPTH				WELL AT SURFACE			
10. LEASE NO. OCS-Y 2280				13. LEASE NO. OCS-Y 2280			
11. AREA NAME Posey				14. AREA NAME Posey			
12. BLOCK NO. 6764				15. BLOCK NO. 6764			
Proposed or Completed Work							
16. PROPOSED OR COMPLETED WORK (Describe in Section 17) PLEASE SELECT ONLY ONE PRIMARY TYPE IN BOLD AND AS MANY SECONDARY TYPES AS NECESSARY.							
<input type="checkbox"/> Enhance Production <input type="checkbox"/> Acidize <input type="checkbox"/> Artificial Lift <input type="checkbox"/> Wash/Desand Well <input type="checkbox"/> Jet Well <input type="checkbox"/> Utility <input type="checkbox"/> Initial Injection Well <input type="checkbox"/> Additional Fluids for Injection <input type="checkbox"/> Other Operations <input type="checkbox"/> Describe Operation(s)							
<input type="checkbox"/> Workover: <input type="checkbox"/> Change Tubing <input type="checkbox"/> Casing Pressure Repair <input type="checkbox"/> Abandonment of Well Bore: <input type="checkbox"/> Permanent Abandonment <input type="checkbox"/> Temporary Abandonment <input type="checkbox"/> Plugback to Sidetrack/Bypass <input type="checkbox"/> Site Clearance							
<input type="checkbox"/> Completion: <input type="checkbox"/> Initial Completion <input type="checkbox"/> Reperforation <input type="checkbox"/> Change Zone <input type="checkbox"/> Modify Perforations <input type="checkbox"/> Information: <input checked="" type="checkbox"/> Surface Location Plat <input type="checkbox"/> Change Well Name							
17. BRIEFLY DESCRIBE PROPOSED OPERATIONS (Attach prognosis): n/a							
18. LIST ALL ATTACHMENTS (Attach complete well prognosis and attachments required by 30 CFR 250.513(a) through (d); 250.613(a) through (d); 250.1712(a) through (g); 250.1721(a) through (h); 250.1722(a) through (d); or 250.1743(a). See attached Well Final Location figure.							
19. Rig Name or Primary Unit (e.g., Wireline Unit, Coil Tubing, Snubbing Unit, etc.) Noble Discoverer							
20. The greater of SITP or MASP (psi): n/a		21. Type of Safety Valve (SV): SCSSV SSCSV x N/A			22. SV Depth BML (ft): n/a		
23. Rig BOP (Rams)				24. Rig BOP (Annular)			
Size: (inches)		Working Pressure (psi)		Test Pressure (psi)		Low/High: n/a	
n/a		n/a		n/a		n/a	
25. Coiled Tubing BOP:		26. Snubbing Unit BOP:		27. Wireline Lubricator:			
Working Pressure (psi)		BOP Test Pressure (psi)		Working Pressure (psi)		Test Pressure (psi)	
n/a		Low/High: n/a		n/a		Low/High: n/a	
28. CONTACT NAME: John A. Henley		29. CONTACT TELEPHONE NO.: 1-281-795-0250			30. CONTACT E-MAIL ADDRESS: john.a.henley@shell.com		
31. AUTHORIZING OFFICIAL (Type or print name) Jim Miller				32. TITLE Drilling Superintendent			
33. AUTHORIZING SIGNATURE 				34. DATE 2012-9-11			
THIS SPACE FOR BSEE USE ONLY							
APPROVED BY:		TITLE			DATE		

Public Information

Application for Permit to Modify (APM) Information Sheet

35) Question Information		
Questions	Response	Remarks
a) Is H ₂ S present in the well? If yes, then comment on the inclusion of a Contingency Plan for this operation.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	Current status is H ₂ S unknown. Shell has an H ₂ S contingency plan in place in the event that H ₂ S is present during drilling.
b) Is this proposed operation the only lease holding activity for the subject lease? If yes, then comment.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
c) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
d) If sands are to be commingled for this completion, has aproval been obtained?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
e) Will the completed interval be within 500 feet of a block line? If yes, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
f) For permanent abandonment, will casings be cut 15 feet below the mudline? If no, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT. The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Form BSEE-0124 is estimated to average 17 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

U3 6714

No. 001 Final Well Loc'n
 X= 563,945.23m
 Y= 7,912,758.65m
 Lat. 71° 18' 30.895"N
 Lon. 163° 12' 43.170"W

1,545.23m

U3 6764
 OCS-Y-2280
 SHELL

2,358.65m

GRID NORTH

U3 6814

I HEREBY CERTIFY THAT THE ABOVE FINAL
 WELL LOCATION IS CORRECT.



Stephen R. Henry
 REG. PROFESSIONAL LAND SURVEYOR NO. 4903
 STATE OF LOUISIANA 9-10-12

**PUBLIC
 INFORMATION**



Shell Exploration & Production Company

FINAL LOCATION
OCS-Y-2280 WELL NO. 001
 BLOCK 6764
 POSEY AREA
 GULF OF MEXICO

FUGRO CHANCE INC.
 200 Dulles Dr., Lafayette, Louisiana 70508-3001 (337) 237-1300



GEODETIC DATUM: NAD83
 PROJECTION: U.T.M. 3 (NORTH)
 GRID UNITS: METERS

SCALE 0 200 400 600 800
 1:25,000 METERS

Job No.: 1201945 Date: 9/10/12 Drwn: SJL Chart: Of:

Dwgfile: O:\WellPermit\UTM3m\Posey\Permit\6764_F_1_Y2280

1 1

Printed: 9/10/12

Tankersley, Yolanda J

From: Monkelien, Kyle
Sent: Tuesday, September 11, 2012 9:12 AM
To: Feldgus, Steven H; Fesmire, Mark E; Harry Brower, Jr.; Jason Bergerson; Johnny L. Aiken; Johnston, David; Loman, Jeffery; Richard Camileri; Thomas P. Olemaun; Wall, Rance; Warren, Sharon E; Watson, James A
Subject: Drilling Update 9-11-12

Currently off location waiting for ice to depart drill site.

Kyle Monkelien
Senior Petroleum Engineer
BSEE – Alaska Region
Field Operations
907-334-5307 – work
907-351-2402 - cell

Tankersley, Yolanda J

From: Monkelien, Kyle
Sent: Wednesday, September 12, 2012 7:46 AM
To: Feldgus, Steven H; Fesmire, Mark E; Harry Brower, Jr.; Jason Bergerson; Johnny L. Aiken; Johnston, David; Loman, Jeffery; Richard Camileri; Thomas P. Olemaun; Wall, Rance; Warren, Sharon E; Watson, James A
Subject: Drilling update

Shell is currently waiting on ice to vacate the drilling location.

Kyle Monkelien
Senior Petroleum Engineer
BSEE – Alaska Region
Field Operations
907-334-5307 – work
907-351-2402 - cell

Tankersley, Yolanda J

From: Monkelién, Kyle
Sent: Thursday, September 13, 2012 8:08 AM
To: Feldgus, Steven H; Fesmire, Mark E; Harry Brower, Jr.; Jason Bergerson; Johnny L. Aiken; Johnston, David; Loman, Jeffery; Pardi, Nicholas W; Richard Camileri; Thomas P. Olemaun; Wall, Rance; Warren, Sharon E; Watson, James A
Subject: Report for 9-13-12

Waiting on ice conditions to clear. Expected return to location now forecast for Sunday.

Kyle Monkelién
Senior Petroleum Engineer
BSEE – Alaska Region
Field Operations
907-334-5307 – work
907-351-2402 - cell

Tankersley, Yolanda J

From: Monkelien, Kyle
Sent: Saturday, September 15, 2012 10:39 AM
To: Bohl, Christy; Johnston, David; Watson, James A; Loman, Jeffery; Missal, Jeffrey H; Walker, Jeffrey; Fesmire, Mark E; Pardi, Nicholas W; Wall, Rance; Warren, Sharon E; Feldgus, Steven H; 'aewcd1@gci.net'; 'harry.brower@north-slope.org'; 'jason.bergerson@north-slope.org'; 'richard.camilleri@north-slope.org'; 'tolemaun@nvbarrow.net'
Subject: Daily report 9/15/12

Still waiting on ice

Tankersley, Yolanda J

From: Monkelien, Kyle
Sent: Sunday, September 16, 2012 9:11 AM
To: Bohl, Christy; Johnston, David; Watson, James A; Loman, Jeffery; Missal, Jeffrey H; Walker, Jeffrey; Fesmire, Mark E; Pardi, Nicholas W; Wall, Rance; Warren, Sharon E; Feldgus, Steven H; 'aewcd1@gci.net'; 'harry.brower@north-slope.org'; 'jason.bergerson@north-slope.org'; 'richard.camilleri@north-slope.org'; 'tolemaun@nvbarrow.net'
Subject: Drilling 9/16/12

Current activity: waiting on ice. No changes

Tankersley, Yolanda J

From: Monkelien, Kyle
Sent: Monday, September 17, 2012 8:53 AM
To: Bohl, Christy; Johnston, David; Watson, James A; Loman, Jeffery; Missal, Jeffrey H; Walker, Jeffrey; Fesmire, Mark E; Pardi, Nicholas W; Wall, Rance; Warren, Sharon E; Feldgus, Steven H; 'aewcd1@gci.net'; 'harry.brower@north-slope.org'; 'jason.bergerson@north-slope.org'; 'richard.camilleri@north-slope.org'; 'tolemaun@nvbarrow.net'
Subject: Daily drilling report 9/17/12

Waiting on weather. Ice conditions may allow return Tuesday or Wednesday. Please check news for Shell announcement regarding drilling plans for the this rest of this season.

Tankersley, Yolanda J

From: Monkelien, Kyle
Sent: Thursday, September 20, 2012 6:44 AM
To: Fesmire, Mark E; Crumrine, Kathleen
Subject: Return to location

I reviewed the latest ice data and forecast for the burger area. There is a small amount of ice approximately 38 miles to the north of the location. Forecast is for wind out of the northeast which should clear out that ice. I have given approval to move back to the Burger location and start preparing for re-anchoring. Shell plans to continue ice reconnaissance and I have asked to have that data available for review. I will provide more info after the 7 am briefing.



United States Department of the Interior
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT

Alaska OCS Region
3801 Centerpoint Drive, Suite 500
Anchorage, Alaska 99503-5823

SEP 20 2012

Memorandum

To: Shell Gulf of Mexico

From: Mark Fesmire, JD, PE
Regional Director

MEF

Subject: Return of Proprietary Applications for Permit to Modify (APM)

BSEE Alaska is returning 3 Proprietary copies of the APD submitted on 11 September 2012, and 3 Proprietary copies of the APD submitted on 12 September 2012 for the Burger A well. We are returning at the request of Shell Gulf of Mexico that they be withdrawn.

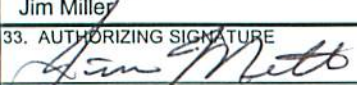
Received by: W. A. Sears
Date: 9/20/12

Also given public information copies of APM's
submitted on Sept 11 and Sept 12.
YT

SEP 24 2012

RECEIVED

Application for Permit to Modify (APM)

1. WELL NAME (CURRENT) POSEY 6764 OCS-Y 2280 001	2. SIDETRACK NO. (CURRENT) 00	3. BYPASS NO. (CURRENT) 00	4. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. 3601 C Street Suite 1000 Anchorage, AK 99503
5. API WELL NO. (12 digits) 55-352-0000200	6. START DATE (Proposed) 09/20/2012	7. ESTIMATED DURATION (DAYS) 2 day	
8. <input type="checkbox"/> Revision	9. If revision, please list changes:		
WELL AT TOTAL DEPTH		WELL AT SURFACE	
10. LEASE NO. OCS-Y 2280		13. LEASE NO. OCS-Y 2280	
11. AREA NAME POSEY		14. AREA NAME POSEY	
12. BLOCK NO. 6764		15. BLOCK NO. 6764	
Proposed or Completed Work			
16. PROPOSED OR COMPLETED WORK (Describe in Section 17) PLEASE SELECT ONLY ONE PRIMARY TYPE IN BOLD AND AS MANY SECONDARY TYPES AS NECESSARY.			
<input type="checkbox"/> Enhance Production <input type="checkbox"/> Acidize <input type="checkbox"/> Artificial Lift <input type="checkbox"/> Wash/Desand Well <input type="checkbox"/> Jet Well <input type="checkbox"/> Utility <input type="checkbox"/> Initial Injection Well <input type="checkbox"/> Additional Fluids for Injection <input checked="" type="checkbox"/> Other Operations <input type="checkbox"/> Describe Operation(s)			
<input type="checkbox"/> Workover: <input type="checkbox"/> Change Tubing <input type="checkbox"/> Casing Pressure Repair <input checked="" type="checkbox"/> Abandonment of Well Bore: <input type="checkbox"/> Permanent Abandonment <input checked="" type="checkbox"/> Temporary Abandonment <input type="checkbox"/> Plugback to Sidetrack/Bypass <input type="checkbox"/> Site Clearance			
<input type="checkbox"/> Completion: <input type="checkbox"/> Initial Completion <input type="checkbox"/> Reperforation <input type="checkbox"/> Change Zone <input type="checkbox"/> Modify Perforations <input type="checkbox"/> Information: <input type="checkbox"/> Surface Location Plat <input type="checkbox"/> Change Well Name			
17. BRIEFLY DESCRIBE PROPOSED OPERATIONS (Attach prognosis): See attachment: BSEE-124 Proposed Operations 20-9-2012			
18. LIST ALL ATTACHMENTS (Attach complete well prognosis and attachments required by 30 CFR 250.513(a) through (d); 250.613(a) through (d); 250.1712(a) through (g); 250.1721(a) through (h); 250.1722(a) through (d); or 250.1743(a).)			
19. Rig Name or Primary Unit (e.g., Wireline Unit, Coil Tubing, Snubbing Unit, etc.) Mobile Offshore Drilling Unit Noble Discoverer			
20. The greater of SITP or MASP (psi): N/A	21. Type of Safety Valve (SV): SCSSV SSSCV <input checked="" type="checkbox"/> N/A		22. SV Depth BML (ft): N/A
23. Rig BOP (Rams) Size: Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A		24. Rig BOP (Annular) Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A	
25. Coiled Tubing BOP: Working Pressure BOP Test Pressure (psi) (psi) N/A N/A Low/High: N/A		26. Snubbing Unit BOP: Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A	
27. Wireline Lubricator: Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A			
28. CONTACT NAME: John A. Henley		29. CONTACT TELEPHONE NO.: +1.281.795.0250	
30. CONTACT E-MAIL ADDRESS: John.A.Henley@shell.com			
31. AUTHORIZING OFFICIAL (Type or print name) Jim Miller		32. TITLE Drilling Superintendent	
33. AUTHORIZING SIGNATURE 		34. DATE 2012-9-24	
THIS SPACE FOR BSEE USE ONLY			
APPROVED BY:		DATE	

Application for Permit to Modify (APM) Information Sheet

35) Question Information		
Questions	Response	Remarks
a) Is H ₂ S present in the well? If yes, then comment on the inclusion of a Contingency Plan for this operation.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	Current status is H ₂ S unknown. Shell has an H ₂ S contingency plan in place in the event that H ₂ S is present during drilling.
b) Is this proposed operation the only lease holding activity for the subject lease? If yes, then comment.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	
c) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
d) If sands are to be commingled for this completion, has aproval been obtained?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
e) Will the completed interval be within 500 feet of a block line? If yes, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
f) For permanent abandonment, will casings be cut 15 feet below the mudline? If no, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Form BSEE-0124 is estimated to average 17 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

Tankersley, Yolanda J

From: Monkelien, Kyle
Sent: Friday, September 21, 2012 7:31 AM
To: Fesmire, Mark E; Walker, Jeffrey
Subject: Daily update

Moving to location. Expect to start anchoring this morning. May have weather coming in this weekend so will do pilot hole if possible but won't do MLC till weather drops

Tankersley, Yolanda J

From: Monkelien, Kyle
Sent: Friday, September 21, 2012 10:48 AM
To: Fesmire, Mark E; Walker, Jeffrey
Cc: Shank, Michael L
Subject: Back on location

We arrived back on location and dropped the first anchor at 10:25 this morning. We will be running anchors for the next twenty four to thirty six hours. Will confirm ice continues to be absent prior to allowing drilling of pilot hole.

Public Information

RECEIVED

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

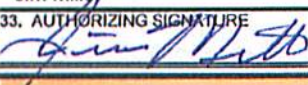
Submit original plus THREE copies, with ONE copy
marked "Public Information."

SEP 21 2012

OMB Control No. 1014-0018
OMB Approval Expires 10/31/2014

Regional Director, Alaska OCS
Bureau of Safety and Environmental Enforcement
Anchorage, Alaska

Application for Permit to Modify (APM)

1. WELL NAME (CURRENT) Posey 6764 OCS-Y 2280 001(Burger A)	2. SIDETRACK NO. (CURRENT) 00	3. BYPASS NO. (CURRENT) 00	4. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. 3601 C Street Suite 1000 Anchorage, AK, 99503
5. API WELL NO. (12 digits) 55-352-0000200	6. START DATE (Proposed) 9/21/2012	7. ESTIMATED DURATION (DAYS) n/a	
8. <input type="checkbox"/> Revision	9. If revision, please list changes:		
WELL AT TOTAL DEPTH		WELL AT SURFACE	
10. LEASE NO. OCS-Y 2280		13. LEASE NO. OCS-Y 2280	
11. AREA NAME Posey		14. AREA NAME Posey	
12. BLOCK NO. 6764		15. BLOCK NO. 6764	
Proposed or Completed Work			
16. PROPOSED OR COMPLETED WORK (Describe in Section 17) PLEASE SELECT ONLY ONE PRIMARY TYPE IN BOLD AND AS MANY SECONDARY TYPES AS NECESSARY.			
<input type="checkbox"/> Enhance Production <input type="checkbox"/> Acidize <input type="checkbox"/> Artificial Lift <input type="checkbox"/> Wash/Desand Well <input type="checkbox"/> Jet Well <input type="checkbox"/> Utility <input type="checkbox"/> Initial Injection Well <input type="checkbox"/> Additional Fluids for Injection <input type="checkbox"/> Other Operations <input type="checkbox"/> Describe Operation(s)			
<input type="checkbox"/> Workover: <input type="checkbox"/> Change Tubing <input type="checkbox"/> Casing Pressure Repair <input type="checkbox"/> Abandonment of Well Bore: <input type="checkbox"/> Permanent Abandonment <input type="checkbox"/> Temporary Abandonment <input type="checkbox"/> Plugback to Sidetrack/Bypass <input type="checkbox"/> Site Clearance			
<input type="checkbox"/> Completion: <input type="checkbox"/> Initial Completion <input type="checkbox"/> Reperforation <input type="checkbox"/> Change Zone <input type="checkbox"/> Modify Perforations <input type="checkbox"/> Information: <input type="checkbox"/> Surface Location Plat <input type="checkbox"/> Change Well Name			
17. BRIEFLY DESCRIBE PROPOSED OPERATIONS (Attach prognosis): See attached Final Well Location figure.			
18. LIST ALL ATTACHMENTS (Attach complete well prognosis and attachments required by 30 CFR 250.513(a) through (d); 250.613(a) through (d); 250.1712(a) through (g); 250.1721(a) through (h); 250.1722(a) through (d); or 250.1743(a).)			
19. Rig Name or Primary Unit (e.g., Wireline Unit, Coil Tubing, Snubbing Unit, etc.) Noble Discoverer			
20. The greater of SITP or MASP (psi): n/a	21. Type of Safety Valve (SV): SCSSV SSCSV x N/A	22. SV Depth BML (ft): n/a	
23. Rig BOP (Rams) Size: Working Pressure Test Pressure (inches) (psi) (psi) n/a n/a Low/High: n/a		24. Rig BOP (Annular) Working Pressure Test Pressure (psi) (psi) n/a n/a Low/High: n/a	
25. Coiled Tubing BOP: Working Pressure BOP Test Pressure (psi) (psi) n/a n/a Low/High: n/a		26. Snubbing Unit BOP: Working Pressure Test Pressure (psi) (psi) n/a n/a Low/High: n/a	
27. Wireline Lubricator: Working Pressure Test Pressure (psi) (psi) n/a n/a Low/High: n/a			
28. CONTACT NAME: John A. Henley		29. CONTACT TELEPHONE NO.: 1-281-795-0250	
30. CONTACT E-MAIL ADDRESS: john.a.henley@shell.com			
31. AUTHORIZING OFFICIAL (Type or print name) Jim Miller		32. TITLE Drilling Superintendent	
33. AUTHORIZING SIGNATURE 		34. DATE 2012-9-21	
THIS SPACE FOR BSEE USE ONLY			
APPROVED BY:		DATE	

Public Information

Application for Permit to Modify (APM) Information Sheet

35) Question Information		
Questions	Response	Remarks
a) Is H ₂ S present in the well? If yes, then comment on the inclusion of a Contingency Plan for this operation.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	<div style="border: 1px solid black; padding: 5px;"> Current status is H₂S unknown. Shell has an H₂S contingency plan in place in the event that H₂S is present during drilling. </div>
b) Is this proposed operation the only lease holding activity for the subject lease? If yes, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<div style="border: 1px solid black; height: 30px;"></div>
c) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<div style="border: 1px solid black; height: 30px;"></div>
d) If sands are to be commingled for this completion, has approval been obtained?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<div style="border: 1px solid black; height: 30px;"></div>
e) Will the completed interval be within 500 feet of a block line? If yes, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<div style="border: 1px solid black; height: 30px;"></div>
f) For permanent abandonment, will casings be cut 15 feet below the mudline? If no, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<div style="border: 1px solid black; height: 30px;"></div>

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Form BSEE-0124 is estimated to average 17 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

U3 6714

No. 001 Final Well Loc'n
 X= 563,945.23m
 Y= 7,912,758.65m
 Lat. 71° 18' 30.895"N
 Lon. 163° 12' 43.170"W

1,545.23m

U3 6764
 OCS-Y-2280
 SHELL

2,358.65m

GRID NORTH

U3 6814

I HEREBY CERTIFY THAT THE ABOVE FINAL
 WELL LOCATION IS CORRECT.



Stephen R. Henry
 REG. PROFESSIONAL LAND SURVEYOR NO. 4903
 STATE OF LOUISIANA 9-10-12

**PUBLIC
 INFORMATION**

Printed: 9/10/12



Shell Exploration & Production Company

FINAL LOCATION
OCS-Y-2280 WELL NO. 001
 BLOCK 6764
 POSEY AREA
 ALASKA

FUGRO CHANCE INC.

200 Dulles Dr., Lafayette, Louisiana 70506-3001 (337) 237-1300



GEODETIC DATUM: NAD83
 PROJECTION: U.T.M. 3 (NORTH)
 GRID UNITS: METERS

SCALE 0 200 400 600 800
 1:25,000 METERS

Job No.: 1201945	Date: 9/10/12	Drwn: SJL	Chart: Of:
Dwgfile: O:\WellPermit\UTM3m\Posey\Permit\6764_F_1_Y2280			1 1

Tankersley, Yolanda J

From: Monkeliën, Kyle
Sent: Saturday, September 22, 2012 7:49 AM
To: Fesmire, Mark E
Subject: Re: Notification of Move for Mobile Offshore Drilling Unit - Discoverer - in the Chukchi Sea

We are on location and running anchors. I have confirmed with the on board ice observer that there is no ice within 35 miles so I plan to give them the go ahead to start pilot hole operation once they have finished anchoring. T times will be evaluated as operation proceed and I will continue to monitor.

From: Fesmire, Mark E
Sent: Saturday, September 22, 2012 09:41 AM
To: Monkeliën, Kyle
Subject: RE: Notification of Move for Mobile Offshore Drilling Unit - Discoverer - in the Chukchi Sea

Kyle:

Could I get an update on the Discoverer?

Mark

From: Monkeliën, Kyle
Sent: Friday, September 21, 2012 12:02 PM
To: Fesmire, Mark E; Walker, Jeffrey
Subject: Fw: Notification of Move for Mobile Offshore Drilling Unit - Discoverer - in the Chukchi Sea

From: Greg.Horner@shell.com [<mailto:Greg.Horner@shell.com>]
Sent: Friday, September 21, 2012 01:12 PM
To: todd.r.buck@uscg.mil <todd.r.buck@uscg.mil>
Cc: Crumrine, Kathleen; Monkeliën, Kyle; John.A.Henley@shell.com <John.A.Henley@shell.com>; Chris.Riley@shell.com <Chris.Riley@shell.com>; John.Kaighin@shell.com <John.Kaighin@shell.com>; Sandy.Sears@shell.com <Sandy.Sears@shell.com>; Heather.Ptak@shell.com <Heather.Ptak@shell.com>; Regulatory-Reporting@shell.com <Regulatory-Reporting@shell.com>; Greg.Horner@shell.com <Greg.Horner@shell.com>
Subject: Notification of Move for Mobile Offshore Drilling Unit - Discoverer - in the Chukchi Sea

Mr. Buck: This notification is to inform the U.S. Coast Guard that Shell has moved the drillship *Discoverer* from the temporary stand-by location back to the location identified on the attached form. The Bureau of Safety and Environmental Enforcement (BSEE) has been notified as well.

Any questions please contact:
Pauline Ruddy
Regulatory Affairs Team Lead
Shell Exploration & Production
907 223 9381



United States Department of the Interior
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
 Alaska OCS Region
 3801 Centerpoint Drive, Suite 500
 Anchorage, Alaska 99503-5823

SEP 27 2012

Ms. Susan Childs
 Shell Gulf of Mexico, Inc.
 3601 C Street, Suite 1334
 Anchorage, AK 99503
 United States of America

Dear Ms. Childs:

The Alaska Region of the Bureau of Safety and Environmental Enforcement (BSEE) is in receipt of Shell's Application for a Permit to Drill (APD) **Well Number 001, Burger J, on lease OCS Y-2321, Posey Block 6912, in the Chukchi Sea (API number 55-352-00004-00)**. An initial application was submitted April 2012 and completed August 2012. More recently, in a letter to BSEE from Shell Vice President Peter Slaiby, dated August 21, 2012, you sought "conditional approval" of the APD to allow for limited drilling operations before the arrival of the Arctic Containment System. In particular, you requested permission to drill and set the 30" structural and the 20" surface casings. Your application has been reviewed for compliance with the Outer Continental Shelf (OCS) Lands Act, 30 CFR Part 250 and other statutes and regulations applicable to APDs. (b) (4), (b) (9)

Upon completion of the testing and siting of the Arctic Containment System Shell will submit an Application for Permit to Modify, which, if approved, would allow Shell to continue operations outlined in the initial APD.

This approval is based on the findings below and subject to the conditions attached to this communication as Attachment A, Conditions of Approval for the Burger J, Well #001 and Attachment B Procedures for Well Data and Records Submittal. It is also conditioned on Shell's compliance during the permitted activities with all applicable BSEE regulations and requirements, U.S. Coast Guard regulations and requirements, provisions in the Exploration Plan (EP) as approved by the Bureau of Ocean Energy Management (BOEM) December 2011, BOEM regulations and requirements, provisions in the Oil Spill Response Plan approved by BSEE, conditions of approval for all permits or authorizations issued by Federal agencies, all lease stipulations, and Notices to Lessees.

This approval is valid unless and until there is a material change to conditions or facts as presented in Shell's application.

If any provision contained in any plan or application conflicts with any provision or condition approved in writing by BSEE, the provision or condition approved by BSEE later in time will control. In the event another agency approves deviations from plans, permits or conditions initially issued by that agency, copies of such approvals must be sent to BSEE.

In a letter dated August 30, 2012 BSEE approved both the Noble Discoverer and the Kulluk for operations in the Arctic OCS. Also as stated in that letter, in the event hydrogen sulfide is found during the drilling operations the Kulluk will be required to comply with 30 CFR 250.490 if used as a relief well rig.

BSEE further finds that Shell's proposed well capping and containment systems have been designed for the projected worst case discharge conditions. The intended uses of these systems are hereby approved. BSEE will require that a witnessed deployment test of the containment system in which Shell has demonstrated that it has the ability to successfully deploy the system and have it on location pursuant to the oil spill response plan prior to BSEE's consideration of Shell's request to drill below the 20 inch casing point.

In a letter dated August 30, 2012 BSEE approved Shell's Welding and Burning Program and Hydrogen Sulfide Contingency Plans for operations conducted on the Noble Discoverer.

BSEE will provide a continuous inspection presence during drilling operations and will use Shell transportation and lodging for this purpose. As allowed in 30 CFR 250.133, Shell will request reimbursement for transportation based on the existing agreement between Shell, DOI Aviation Management Division and BSEE. Reimbursement for meals and lodging must be submitted within 90 days of the completion of the drilling program. In addition BSEE will be conducting inspections and collecting data in regard to the EPA's National Pollutant Discharge Elimination System General Permit No. AKG-28-0000 and EPA issued air quality permits at the request of the EPA letter dated July 27, 2012(copy enclosed).

All notifications related to activities described in the approved applications should be made to the BSEE active duty officer at 907-334-5300 during business hours and 855-277-2733 (toll free) after business hours.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Mark Fesmire', is written over a horizontal line.

Mark Fesmire PE, JD
Regional Director, BSEE

Attachments:

Attachment A, Conditions of Approval for the Burger J, Well #001
Attachment B, Procedures for Well Data and Records Submittal
Attachment, EPA letter dated July 27, 2012
Attachment, Copy 3 of 3 Burger J APD Binder (1)

Cc: U.S. DOI, BOEM, AKOCS, Regional Director (Letter & Attachment A)
Cc: U.S. DOC, NOAA, NMFS (Letter & Attachment A)
Cc: U.S. DOI, Fish and Wildlife Service(Letter & Attachment A)

ATTACHMENT A
Conditions of Approval for the Burger J, #001 Well

1. The following waivers have been authorized:
 - a. Testing of casing strings as indicated on Form BSEE -0123S is approved.
 - b. Your request for a waiver to the requirements under 30 CFR 250. 423 (c) regarding a negative pressure test is approved.
 - c. Testing of the BOP components to the pressures indicated on Form BSEE -0123S is approved.
 - d. Your test pressure for the annular preventer as indicated on Form BSEE -0123S is approved.
 - e. Deployment of a remote BOP control panel intended to operate the BOP stack from the sea floor is approved.
 - f. Your request to test the deadman/autoshear system during the stump test only is approved.
 - g. Your requested method to temporarily abandon the proposed pilot hole is approved.
 - h. Your request to eliminate the addition of a flare, to the Discoverer, for possible use during an H2S event is granted.
2. This office will conduct a predrill inspection of your drilling vessel prior to the start of operations.
3. Shell will not be able to drill below the 20 inch casing point without fulfilling the conditions stated in the letter accompanying these conditions.
4. No drilling activities may be conducted beyond each additional casing shoe unless specifically approved by the BSEE inspector on location. BSEE will evaluate the condition of the well, results of safety equipment tests, the nature and duration of the next phase of the drilling program, existing and forecasted environmental conditions, and the procedures under an approved contingency plan [30 CFR250.417(c)(2)] that addresses design and operating limitations of the drilling unit as well as the actions necessary (i.e. suspension, curtailment, or modification of drilling or rig operations) to remedy various operational or environmental situations in order to maintain safety and prevent damage to the environment; including implementing well capping and containment or relief well drilling plans.
5. Final certification of the blowout preventer system as required in 30 CFR 250.416 (f) shall be provided to this office prior to the initial use of the BOP on this well.
6. Data submission procedures and criteria for this well are listed in an attached document (Procedures for Well Data and Records Submittal)
7. Shell must submit a daily summary report on form BSEE-0133 to this office until the final status of the well is established (one copy). Daily marine mammal reports shall be attached to the form.
8. Shell must notify this office immediately in the event the well encounters shallow gas, abnormal pressure, or lost circulation.
9. Shell must provide this office with representative dry samples collected during the drilling of this well as soon as available. Shell is also requested to collect and retain a set of wet well cuttings for the Bureau of Ocean Energy Management. This request is voluntary and the samples are intended to provide for public access once the proprietary

term for the samples is concluded. Further discussions related to this voluntary request can be concluded with appropriate BOEM representatives.

10. Shell must submit within thirty days of completion of the well all oceanographic and meteorological data collected during the drilling of this well.
11. Shell must submit an Application for Permit to Modify to change any approved portion of the APD prior to the commencement of the proposed operations. Verbal approval in an emergency may be granted, however written APM's must be submitted no later than the end of the 3rd business day following the verbal approval.
12. Shell shall notify this office as well as the onsite representative 24 hours in advance of a Blowout Preventer test.
13. Shell must submit form BSEE – 0124 in advance of either temporarily or permanently abandoning this well. This form must contain all information required in 30 CFR 250, Subpart Q for abandonment of wells.

Attachment B

**BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT
ALASKA OCS REGION****Procedures for Well Data and Records Submittal**

This document defines the procedures on how lessees/operators submit well records required by 30 CFR 250.468 and 469, and clarifies the specific well records you should submit, the submittal dates of the various well records, and the correct locations where you should send these well records.

The BSEE collects, verifies, and stores data by the well's unique 12-digit American Petroleum Institute (API) number we assign. The BSEE Alaska Outer Continental Shelf Region (AKOCS) uses the data collected to make informed regulatory decisions based on your timely submittal of complete and accurate well records. We define "submittal date" as the original date the data are due to the appropriate office.

According to 30 CFR 250.468(a), "you must submit copies of logs or charts of electrical, radioactive, sonic, and other well-logging operations; directional and vertical well surveys; velocity profiles and surveys; and analysis of cores to BSEE." Also, in accordance with 30 CFR 250.469(b), the AKOCS will also require submittal of paleontological reports as well as washed and dried samples collected from the well.

When to Submit Well Data Records**1. Field Data**

As stated in the approval documents for these operations this office will take an active role in assess plans for the continuation of well activities. Shell will be expected to make available digital data and field prints electronically from the well site via a secure website data delivery system or equivalent to enable this review from this office. This should be done for all logging operations including pilot hole, surface, intermediate and final runs (both wireline and Measurement While Drilling logs). This also includes detailed mud logging data.

2. Final Data

Operators should submit one copy of the digital data on a CD or DVD in a read-only format to the appropriate entity as outlined in Attachment 1. Each CD or DVD should be properly labeled with the Area, Block, OCS, Well Number, Well Suffix, API, and the data type (i.e., Paleo Report, Conventional Core Report,

Vertical Seismic Survey, etc.). Digital and image NMR data must be submitted on separate physical media and nomenclature for NMR data files and tool codes should clearly identify them as NMR datasets.

Well records are divided into four groups for the timely submittal of the data.

- a) Well Log Data, Directional Surveys, Velocity Surveys, Analyses of Percussion Sidewall Cores, Wireline Formation Test Logs, Drill Stem Tests and Mudlogs/Reports

Submit:

Well log data,
Directional surveys,
Velocity surveys (time/depth pairs),
Percussion/rotary sidewall analysis of cores,
Wireline formation tests logs (summary log), and
Drill stem tests (initial report)

To be submitted within 30 days of the "Date Operations Completed" of the last logging run (MWD/LWD or wireline) that you report in Item 7 of the Open Hole Report (Form BSEE-0133S) for each 12-digit wellbore, sidetrack, and/or bypass. Note: "Date Operations Completed" for MWD/LWD is when the data is retrieved from the drill string.

- b) Paleontological, Detailed Rotary Sidewall and Conventional Core Analyses, and Vertical Seismic Profile Reports and Information

For each wellbore in which these data were collected, submit no later than 90 days after the "TD DATE" you report in Item 10 of the Well Activity Report (Form BSEE-0133).

Detailed paleontological reports and information,
Detailed rotary sidewall and conventional core analyses/reports
and information, and
Detailed vertical seismic profile reports

Submit these well records when the report is completed, even if the report is generated by you and/or third party (i.e., academic partners, non-lessee partners and/or consultants) years after the wellbore is completed.

- c) Geochemical Analyses and PVT Analysis of Fluid Samples

For each wellbore in which these data were collected, submit geochemical analyses and/or PVT Analysis of Fluid Samples no later than 120 days

after the “TD DATE” that you report in Item 10 of the Well Activity Report (Form BSEE-0133). Submit these well records when the report is completed, even if the report is generated by you and/or third party (i.e., academic partners, non-lessee partners and/or consultants) years after the wellbore is completed.

d) End of Operations Report (Form BSEE-0125)

For each wellbore, submit an End of Operations Report (Form BSEE-0125) and all its attachments no later than 30 days after the “END DATE” you report in Item 10 of the Well Activity Report (Form BSEE-0133).

The BSEE AKOCS uses the Well Activity Report (Form BSEE-0133) and Open Hole Report (Form BSEE-0133S) to track well activity; therefore, it is crucial that you submit a complete and accurate report to the appropriate BSEE AKOCS District Office in a timely manner. We will treat delinquent and/or incomplete reports in the same manner as delinquent and/or incomplete well data, and such violations may result in the BSEE AKOCS exacting an appropriate remedy, such as issuing an Incident of Non-compliance (INC).

The BSEE AKOCS may request that you submit well logging data, directional surveys, velocity profiles and surveys, percussion sidewall analyses of cores, wireline formation tests, and drill stem tests before the 30-day limit when we determine that circumstances warrant such action. When we determine that circumstances so warrant, we may also request that you submit preliminary reports of analytical data, namely

Geochemical analyses/reports and information,
PVT analyses of fluid samples,
Detailed paleontological reports and information,
Detailed rotary sidewall core analysis and information, and
Detailed conventional core analysis and information before the
respective 90-day or 120-day limits.

The BSEE AKOCS recognizes that you need adequate time to submit complete and accurate well records. If you request it, BSEE AKOCS may grant you a departure under 30 CFR 250.142 for a new required date for submitting the data pertaining to that wellbore.

Where to Submit Well Records

Shell will need to coordinate access to field digital well logs with the following office. This office will also handle receipt of dry samples.

**Bureau of Safety and Environmental Enforcement
Alaska OCS Office
3801 Centerpoint Dr., Suite 500
Anchorage, AK 99503
Office Phone: 907-334-5300
Office Fax: 907-334-5302**

Shell will provide final copies of all digital image and vector well log data and related reports to both the Alaska BSEE office and to:

**A2D Technologies
d/b/a TGS Geological Products and Services
1010 Common Street, Suite 2040
Attn: BSEE Well Records (Alaska)
New Orleans, LA 70112
Office telephone: 504-524-3450
Fax: 504-524-3454**

A “Well Records Submission Summary” in Attachment B of this document provides an overview of the various well records, including which entity receives which well records and the addresses and contact numbers of the appropriate BSEE AKOCS Offices, and A2D Technologies. We strongly recommend that you provide a transmittal letter when you submit any well records. This transmittal should contain the following information:

- Operator’s Name**
- Operator’s Contact Name and Telephone Number**
- Bottomhole Location: Area/Block/Lease/Well Name and Number/API Number**
- Date Well Records Sent**
- Detailed List of Well Records**

It is your responsibility to ensure that the BSEE AKOCS and A2D Technologies receive all well data and information within the specific periods. If we notify you of delinquent data, we will initiate an appropriate remedy, such as issuing an Incident of Non-Compliance (INC). If you choose to use a third party to submit well data, it remains your responsibility to ensure that the data are timely received by the BSEE AKOCS and A2D Technologies. Realizing that you may need time beyond the specified deadlines to prepare unique data or information, we will address the submission of such on an individual basis. We will address INC’s issued by the BSEE AKOCS Office for the delinquent data submittal at your yearly performance review or through other appropriate and timely measures.

Well Naming and Numbering

Show the API Number and well name assigned by the BSEE AKOCS Office on all well records you submit to us. You can find these on the approved Application for Permit to Drill (Form BSEE-0123) for the original hole, sidetracks, and/or bypasses.

Data Types and Formats

A. Well Log Data types

- a. **Log Curve Requirements:** Submit the following curve types and log images in final form, if the data were obtained in the open-hole portion of a wellbore, sidetrack, or bypass****:

- Acoustic or Sonic
- Bulk Density
- Caliper
- Conductivity
- Density Correction
- Dipmeter
(computed)
- Gamma Ray
Resistivity/Induction
- Spontaneous
Potential
- Nuclear Magnetic
Resonance *
- Mudlogs***
- Neutron
- Tension
- Porosity
- Borehole Image
- Equivalent
circulation density
- Rwa
- Temperature
- Formation Tester**
- Rate of Penetration
- Photoelectric
- Slide Indicator

- b. Cased hole log data: Submit all curve types and log images as identified above for any cased hole logs collected in lieu of, or in addition to, open hole logs.

* For the submittal of digital NMR vector curve data, The following are examples of curve types are to be submitted, and are not limited to you should submit:

- Quality Control Curves
- Computed Curves
- T2 Bin Distributions

Due to NMR file sizes and complexities, the BSEE now requires that digital and image NMR data are submitted on separate physical media (separate from other well log data) to its logging contractor, A2D Technologies. Also, NMR data file and tool code nomenclature should clearly identify these data as NMR-related. We encourage direct submittal of the completed log data set from the acquiring service company.

** Formation Tester is considered any logging tool that collects pressure data and/or fluid samples from the borehole. Summary Print log images, pressure gradient plots, and preliminary sample analysis must be submitted. Formation Tester summary data should also be submitted in ASCII format. All detailed reports (i.e., PVT Analysis) generated from the samples collected from the borehole must be submitted in a timely manner (see Attachment 1).

*** You will be required to submit an image file for these types of logs to A2D Technologies.

**** Although API Recommended Practice (RP) 31A, Standard Form for Hardcopy Presentation of Downhole Well Log Data, is not incorporated by reference in BSEE regulations, you may use it for guidance on providing complete and accurate well information.

Note: Do not submit digital data for Formation Tester, Borehole Image, and Computed Dipmeter to A2D Technologies.

c. Well Log Image File:

Submit image files in one of the formats listed below. For Formation Tester type logs, the summary logs will suffice

- i. For all vertical wells, as defined in 30 CFR 250.461, submit image files for
 - Measured depth (MD) 1-inch, or 2-inch correlation, and 5-inch formation evaluation logs and
 - Any additional scales you obtained.
- ii. For all non-vertical wells, as defined in 30 CFR 250.461, submit image files for
 - True vertical depth (TVD) 1-inch, or 2-inch correlation and, 5-inch formation evaluation logs,
 - Measured depth (MD) 1-inch, or 2-inch correlation, and 5-inch formation evaluation logs, and
 - Any additional scales you obtained.

Detailed 5- inch image logs must be composited, but individual runs do not need to be spliced.

If logging data from more than one logging vendor are collected in a borehole, you may submit either an image of the logging data from all vendors composited into a single set of logs or a set of images of the composited logs from each individual vendor.

d. **Image File Formats:** If the original log is in color, the submitted image file should also be in color.

i. The following image file formats are preferred:

- Computer Graphic Metafile (CGM) version 1-4
- Baker Metafile
- Schlumberger PDS (PDS files are usually for one logging run; any borehole with multiple runs should submit composited file format)
- Halliburton CGM
- Weatherford DPK

If the preferred formats listed above are not available, you may submit the image file in the Tag Image File Format (TIFF) with the following specifications:

ii. **Format (TIFF) with the following specifications:**

1. **Black and White TIFF Images:**

- Header tags as per TIFF standard
- Resolution – 200 dpi
- Compression – CCITT group IV
- Tiling – No

2. **Color TIFF Images:**

- Header tags as per TIFF standard
- Resolution – 200 dpi
- Palette color – 256 colors
- File format LZW Compressed TIFF
- Tiling - No

Clearly label each well log image with its associated API number, bottom hole lease number, well name, well name suffix, log type, scale and depth domain (MD or TVD).

e. **Digital (Vector) Well Log Data:** Submit composite digital curve data (one value per curve for each depth value and with individual tool runs merged) in the Canadian Well Log Society Log ASCII Standard (LAS), Version 2.0 formats; and Digital Log Interchange Standard (DLIS) or Log Interchange Standard (LIS) format. Ensure that the curve data are in a MD composite layout, including full headers for each wireline and MWD/LWD logging tool run and curve description for all curves. Ensure that all required log curves represented on the log image file are included in the digital curve file. If you collect logging data from more

than one logging vendor in a single borehole, submit a separate set of composited log curves from each individual vendor. Do not splice digital curves from different vendors to form a set of composited log curves.

i. Full header information, should including the following:

- 12-digit API number
- well name suffix
- bottom hole lease number
- bottom hole area and block
- well name

ii. Information for each tool run, should including the following:

- borehole fluids
- depth interval
- mud
- filtrate resistivity and temperatures
- casing information
- bottomhole or maximum recorded temperature
- circulation history information
- tool schematic
- tool calibration record

Full logging tool parameters (including matrix values), position of logging tool (i.e., centered or eccentric), and logging engineer's comments; and adequate curve description and

Tool -specific and service provider-specific curve and parameter mnemonics (names and abbreviations) maintained as originally acquired.

If a log is spliced, the splice depth should be clearly noted along with which files were used.

Submit digital and image logs on CD or DVD ROM (read-only memory). Digital and image logs may be submitted on the same CD or DVD.

Directional Surveys

Submit one digital copy of the final composite directional survey. For the Digital Directional Survey format, see NTL 2009-N10.

- Submit, on CD or DVD ROM these survey results coded in ASCII.
- According to 30 CFR 250.461(d) (2), "You must correct all surveys to Universal-Transverse- Mercator-Grid-north or Lambert-Grid-north after making the magnetic-to-true-north correction."

If your use of more than one vendor prevents the consolidation of the separate surveys within a well, submit the final composite survey from each vendor.

Velocity Profiles and Surveys

Vertical Seismic Profiles: Submit the results from all borehole seismic data (in cased or uncased holes), as well as concurrently run directional surveys for both vertical and directional wells. Submit, on CD or DVD ROM, digitally recorded data in an industry standard format (LAS, DLIS, ASCII, CGM, TIFF, JPG, SEG Y, DOC), that include, but are not limited to:

- Normal Incidence VSP;
- Acoustic Log Calibration Report;
- Final VSP and Corridor stacks for 2D data and final stacked and migrated volume for 3D VSP data;
- Composite plot with VSP, Corridor stacks, synthetic seismogram, and well logs;
- any referenced information within the report correlative with the acquisition, such as 2-way time indexed depths and velocities, survey parameters, digital images, and computed survey data and directional; and
- If acquired, format time/depth pairs.

Velocity Surveys (Time-Depth Pairs/Checkshots): Submit, on CD or DVD ROM, one digital copy coded in ASCII format. The report should include or be annotated with the following:

- API number
- Well name and number
- Well name suffix
- Contractor or service provider
- Contact name (phone number or e-mail address)

Note that the digital format has been modified to expand the columns for True Vertical Depth and One- Way Travel Time from 5 to 8 to include two decimal places for each column.

We encourage direct submittal of the completed survey from the acquiring service company.

Analysis of Conventional Cores, Percussion/Rotary Sidewall Cores, Wireline Formation Tests, and Drill Stem Tests

IF...

you conduct any of the following:

- Conventional cores descriptions and analysis
- Percussion/Rotary sidewall core analysis or equivalent,
- Wireline formation tests - include any logs (summary logs are acceptable) and associated lab results, or
- Drill stem tests

THEN...

As soon as the final and/or revised conventional core, percussion/rotary sidewall core reports and/or data become available to you, send one digital copy of the entire, detailed report. Reports should include, but are not limited to the following:

- Standard analyses for porosity,
- Permeability
- Water saturation
- Core photos
- compaction analyses
- laser grain size analyses
- stressed brine porosity and permeability analyses
- rock mechanic studies
- water extraction and core gamma logs
- core photos

In addition, provide one copy of all studies you performed on the core(s) and tests for the purpose of describing and characterizing the reservoir architecture through detailed stratigraphic or depositional analyses. In certain situations, the BSEE AKOCS may require that you submit preliminary or interim reports.

Submit, on CD or DVD ROM, one copy of the description and analysis of the conventional core, the percussion/rotary sidewall core, wireline formation tests, and drill stem tests reports in the original digital format. Any data acquired in a log format should be submitted as a log image.

Geochemical Analyses/Reports and Information

Submit one copy of the Geochemical Analyses/Reports and Information in the original digital format. If you conducted any geochemical analyses/reports, including internal company or external contractor interpretation reports on

- Cuttings,
- Sidewall or conventional cores, and
- Fluid samples from the well. The term "sample" encompasses:
- Hydrocarbon gases, specifically methane through pentanes and C6+ hydrocarbons;
- Non-hydrocarbon gases (carbon dioxide, hydrogen sulfide, argon, helium, and radon); and
- Any liquid hydrocarbons (such as condensate, crude, and bitumen) encountered by the well in cuttings or shows and from any other well sampling or fluid testing.

The analyses, reports, and interpretations to be submitted include, but are not necessarily limited to, the following types of data:

- Total organic carbon
- Polynuclear aromatic hydrocarbons
- Rock-eval pyrolysis

- Stable isotope analyses of carbon & hydrogen
- Thermal chromatography-gas chromatography
- Compound-specific isotope ratio mass spectrometry
- Bulk pyrolysis & hydrous pyrolysis
- Isotope ratio mass spectrometry
- Gas chromatography
- Kerogen isolation & bitumen separation
- Pyrolysis/gas chromatography
- Organic petrography
- Complete saturated biomarker & aromatic hydrocarbon analysis by GC MS
- Vitrinite reflectance
- Elemental analysis of kerogen

In addition, submit all data and reports on geochemical characterization of produced oils, including

- All whole-oil GC, GC MS on oils,
- SARAH (or SARA),
- Isotopes on the fractions,
- Molecular and isotopic analyses of C1-C5 hydrocarbons metals data, and
- Any other geochemical data used from production samples intended for reservoir characterization studies.

Submit, on CD or DVD ROM, digitally recorded data in industry standard formats.

Detailed Paleontological Reports and Information

As soon as the final and/or revised paleontological information and/or data become available to you, submit one copy in digital format of the entire, detailed paleontological report(s), chart(s), striplog(s), checklist(s), and any other paleontological records. Include the following:

The range of samples taken,

- Sample analysis identifying fossils and lithology by MD,
- Summary and interpretation (based on identification of foraminifera, nannofossils, or other microfossils) of all biostratigraphic markers, zones, tops, or local markers,
- Description of paleontological ecological zones with water depth at the time of deposition (e.g., Middle Shelf/Neritic 20-100 meters, Outer Shelf/Neritic 100-200 meters),
- Sequence analysis interpretations based on histograms of faunal abundance,
- Identification of all rock units by depth to the top of relative chronostratigraphic stages (e.g., Upper Pleistocene, Middle Miocene, or Lower Oligocene), and
- Pleistocene, Middle Miocene, or Lower Oligocene), and
- Biostratigraphic chart noting the relative ages of the biostratigraphic zones you used in the detailed paleontological reports.

Submit, on CD or DVD ROM, one copy of the detailed paleontological report in the original digital format.

Mudlogs and Reports

Submit one image copy of the following types of Mudlogs:

- **Physical Formation Log**
- **Pore Pressure Log**
- **Engineering Log**
- **Show Report Log**

Image File Formats for Mudlogs: If the original log is in color, the submitted image file must also be in color.

The following image file formats are preferred:

- **Geologix - geo draft file (.gdf)**
- **Geologix - output data file (.odf)**

If the preferred formats listed above are not available, submit the image file in the Tag Image File

Format (TIFF) with the following specifications:

Black and White TIFF Images

- **Header tags as per TIFF standard**
- **Resolution – 200 dpi**
- **Compression – CCITT group IV**
- **Tiling – No**

Color TIFF Images

- **Header tags as per TIFF standard**
- **Resolution – 200 dpi**
- **Palette color – 256 colors**
- **File format LZW Compressed TIFF**
- **Tiling – No.**

Submit one copy of the following types of Mudlogs reports, if collected:

- **Show reports – composite into one file**
- **Mud reports – composite into one file**
- **End of Well reports – composite into one file**
- **Daily Drilling reports – composite into one file**

Submit, on CD or DVD ROM, digitally recorded data in industry standard formats.

End of Operations Report (Form BSEE-0125) and Attachments

Pursuant to 30 CFR 250.465(a), you must submit End of Operations Report (Form BSEE-0125) and the required attachments.

Additional Information

Pursuant to 30 CFR 250.469(d), the BSEE AKOCS may require that you submit additional well reports or records for a specific well(s).



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 10
 1200 Sixth Avenue, Suite 900
 Seattle, WA 98101-3140

OFFICE OF THE
 REGIONAL
 ADMINISTRATOR

JUL 27 2012

Mr. Mark Fesmire
 Director of Alaska Region
 Bureau of Safety and Environmental Enforcement
 3801 Centerpoint Drive, Suite 500
 Anchorage, Alaska 99503-5820

RECEIVED

AUG 03 2012

Regional Director, Alaska OCS
 Bureau of Safety and Environmental Enforcement
 Anchorage, Alaska

Dear Mr. Fesmire:

The U.S. Environmental Protection Agency, Region 10, is contacting the Bureau of Safety and Environmental Enforcement to finalize the EPA's request for assistance in conducting inspections and collecting data on exploration facilities located on the Alaska outer continental shelf during the 2012 drilling season.

Our respective agency inspectors have been working cooperatively to develop procedures to assist BSEE inspectors in conducting inspections and collecting data related to exploration facilities covered by the National Pollutant Discharge Elimination System General Permit for Oil and Gas Exploration Facilities on the Outer Continental Shelf and Contiguous State Waters, NPDES Permit No. AKG-28-0000, and EPA-issued air quality permits. These procedures are based, in part, on the 1993 memorandum of agreement between the EPA and the Minerals Management Service that was intended to improve cooperation and coordination in oil and gas lease activities on the outer continental shelf.

Our proposed joint efforts will assist the EPA's ongoing OCS compliance and enforcement program and increase regulatory accountability of exploration facilities that are drilling in the OCS during the 2012 drilling season. The respective agency inspectors are in the process of developing the procedures for these joint efforts and in working through logistical and procedural issues that may arise during the drilling season.

Accordingly, I want to take this opportunity to recognize BSEE's ongoing assistance and to request your confirmation of our joint efforts for this drilling season. Please contact me or have your staff contact Mr. Rick Cool in our Office of Compliance and Enforcement at 206-553-6223 if you have any questions about this letter.

Sincerely,

Dennis J. McLerran
 Regional Administrator

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Public Information

Submit original plus THREE copies,
with ONE copy marked "Public Information."

RECEIVED

AUG 09 2012

OMB Control No. 1010-0141

OMB Approval Expires 10/31/2014

Regional Director, Alaska OCS
Bureau of Safety and Environmental Enforcement
Anchorage, Alaska

Application for Permit to Drill (APD)

1. PROPOSAL TO DRILL <input checked="" type="checkbox"/> NEW WELL <input type="checkbox"/> SIDETRACK <input type="checkbox"/> BYPASS <input type="checkbox"/> DEEPEN	2. BSEE OPERATOR NO. 02117	3. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf Of Mexico Inc. 3601 C Street Suite 1000 Anchorage AK 99503
4. WELL NAME (CURRENT) OCS-Y 2321 #001 (Burger J)	5. SIDETRACK NO. (CURRENT) n/a	6. BYPASS NO. (CURRENT) n/a
7. PROPOSED START DATE July 4, 2012	8. PLAN CONTROL NO. (NEW WELL ONLY) n/a	
9. API WELL NO. (CURRENT SIDETRACK / BYPASS) (12 DIGITS) n/a		

10. <input type="checkbox"/> Revision	11. If revision, please list changes:
---------------------------------------	---

WELL AT TOTAL DEPTH (PROPOSED)		WELL AT SURFACE	
12. LEASE NO. OCS-Y 2321	17. LEASE NO. OCS-Y 2321		
13. AREA NAME Posey	18. AREA NAME Posey		
14. BLOCK NO. 6912 (N71 deg 10' 24.03"; W163 deg 28' 18.52")	19. BLOCK NO. 6912 (N71 deg 10' 24.03"; W163 deg 28' 18.52")		
15. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	16. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	20. LATITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)	21. LONGITUDE (<input checked="" type="checkbox"/> NAD 83 / <input type="checkbox"/> NAD 27)

LIST OF SIGNIFICANT MARKERS ANTICIPATED					
22. NAME	23. TOP (MD)	24. TOP (TVD)	22. NAME	23. TOP (MD)	24. TOP (TVD)

25. LIST ALL ATTACHMENTS (Attach complete well prognosis + attachments required by 30 CFR 250.414 or 30 CFR 250.1617(c) and (d) as appropriate.)

See the APD Table of Contents for all the documents associated with this APD submission.

26. CONTACT NAME Jim Miller	27. CONTACT TELEPHONE NO. 907 646 7122	28. CONTACT E-MAIL ADDRESS jim.miller@shell.com
29. AUTHORIZING OFFICIAL (Type or print name) Susan Childs	30. TITLE Alaska Venture Support Integrator, Manager	
31. AUTHORIZING SIGNATURE <i>Susan Childs</i>	32. DATE August 9, 2012	

THIS SPACE FOR BSEE USE ONLY		
APPROVED: <input checked="" type="checkbox"/> With Attached Conditions <input type="checkbox"/> Without Conditions	BY <i>[Signature]</i>	TITLE Alaska Regional Dir.
API WELL NO. ASSIGNED TO THIS WELL		DATE 9/27/2012

Application for Permit to Drill (APD) Information Sheet

33) Question Information Sheet		
Questions	Response	Remarks
A) Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight 1/2 ppg or more?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
B) If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Water based drilling fluids will be used.
C) If drilling the shallow casings strings riserless, will you maintain kill weight mud on the rig and monitor the wellbore with an ROV to ensure that it is not flowing?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Kill weight mud will be stored on the drillship in sufficient quantities to kill any flows. Riser and BOP to be installed after setting conductor at ~1244 feet below the mudline. All deeper portions of the well will be drilled with the riser installed. ROV monitoring will be in place.
D) If requesting a waiver of the conductor casing, have you submitted a log to BSEE District Office that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	Conductor casing to be installed at a depth of approximately 1244 feet below the mudline.
E) Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in remarks for this question)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	Discharges from the proposed operation will be covered under the EPA NPDES Arctic General Permit, authorization number AKG-28-0004.
F) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	The proposed well will be drilled from a floating drillship, not from a platform.
G) Is the calculated daily volume possible from an uncontrolled blowout of this well greater than the daily volume included in the worst case discharge scenario in the approved oil spill response plan?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	

Public Information

RECEIVED



U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Submit original plus THREE copies, with ONE copy
marked "Public Information."

SEP 21 2012
Control No. 1014-0018
OMB Approval Expires 10/31/2014

Regional Director, Alaska OCS
Bureau of Safety and Environmental Enforcement
Anchorage, Alaska

Application for Permit to Modify (APM)

1. WELL NAME (CURRENT) Posey 6764 OCS-Y 2280 001(Burger A)	2. SIDETRACK NO. (CURRENT) 00	3. BYPASS NO. (CURRENT) 00	4. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. 3601 C Street Suite 1000 Anchorage, AK, 99503
5. API WELL NO. (12 digits) 55-352-0000200	6. START DATE (Proposed) 9/21/2012	7. ESTIMATED DURATION (DAYS) n/a	
8. <input type="checkbox"/> Revision	9. If revision, please list changes:		
WELL AT TOTAL DEPTH		WELL AT SURFACE	
10. LEASE NO. OCS-Y 2280		13. LEASE NO. OCS-Y 2280	
11. AREA NAME Posey		14. AREA NAME Posey	
12. BLOCK NO. 6764		15. BLOCK NO. 6764	
Proposed or Completed Work			
16. PROPOSED OR COMPLETED WORK (Describe in Section 17) PLEASE SELECT ONLY ONE PRIMARY TYPE IN BOLD AND AS MANY SECONDARY TYPES AS NECESSARY.			
<input type="checkbox"/> Enhance Production <input type="checkbox"/> Acidize <input type="checkbox"/> Artificial Lift <input type="checkbox"/> Wash/Desand Well <input type="checkbox"/> Jet Well <input type="checkbox"/> Utility <input type="checkbox"/> Initial Injection Well <input type="checkbox"/> Additional Fluids for Injection <input type="checkbox"/> Other Operations <input type="checkbox"/> Describe Operation(s)			
<input type="checkbox"/> Workover: <input type="checkbox"/> Change Tubing <input type="checkbox"/> Casing Pressure Repair <input type="checkbox"/> Abandonment of Well Bore: <input type="checkbox"/> Permanent Abandonment <input type="checkbox"/> Temporary Abandonment <input type="checkbox"/> Plugback to Sidetrack/Bypass <input type="checkbox"/> Site Clearance			
<input type="checkbox"/> Completion: <input type="checkbox"/> Initial Completion <input type="checkbox"/> Reperforation <input type="checkbox"/> Change Zone <input type="checkbox"/> Modify Perforations <input type="checkbox"/> Information: <input checked="" type="checkbox"/> Surface Location Plat <input type="checkbox"/> Change Well Name			
17. BRIEFLY DESCRIBE PROPOSED OPERATIONS (Attach prognosis): See attached Final Well Location figure.			
18. LIST ALL ATTACHMENTS (Attach complete well prognosis and attachments required by 30 CFR 250.513(a) through (d); 250.613(a) through (d); 250.1712(a) through (g); 250.1721(a) through (h); 250.1722(a) through (d); or 250.1743(a).)			
19. Rig Name or Primary Unit (e.g., Wireline Unit, Coil Tubing, Snubbing Unit, etc.) Noble Discoverer			
20. The greater of SITP or MASP (psi): n/a	21. Type of Safety Valve (SV): SCSSV SSCSV X N/A	22. SV Depth BML (ft): n/a	
23. Rig BOP (Rams) Size: Working Pressure Test Pressure (inches) (psi) (psi) n/a n/a n/a Low/High: n/a		24. Rig BOP (Annular) Working Pressure Test Pressure (psi) (psi) n/a n/a Low/High: n/a	
25. Coiled Tubing BOP: Working Pressure BOP Test Pressure (psi) (psi) n/a n/a Low/High: n/a		26. Snubbing Unit BOP: Working Pressure Test Pressure (psi) (psi) n/a n/a Low/High: n/a	
27. Wireline Lubricator: Working Pressure Test Pressure (psi) (psi) n/a n/a Low/High: n/a			
28. CONTACT NAME: John A. Henley		29. CONTACT TELEPHONE NO.: 1-281-795-0250	
30. CONTACT E-MAIL ADDRESS: john.a.henley@shell.com			
31. AUTHORIZING OFFICIAL (Type or print name) Jim Miller		32. TITLE Drilling Superintendent	
33. AUTHORIZING SIGNATURE 		34. DATE 2012-9-21	
THIS SPACE FOR BSEE USE ONLY			
APPROVED BY: 		DATE 9/27/2012	

Application for Permit to Modify (APM) Information Sheet

35) Question Information		
Questions	Response	Remarks
a) Is H ₂ S present in the well? If yes, then comment on the inclusion of a Contingency Plan for this operation.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	<div style="border: 1px solid black; padding: 5px;"> Current status is H₂S unknown. Shell has an H₂S contingency plan in place in the event that H₂S is present during drilling. </div>
b) Is this proposed operation the only lease holding activity for the subject lease? If yes, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<div style="border: 1px solid black; height: 30px;"></div>
c) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<div style="border: 1px solid black; height: 30px;"></div>
d) If sands are to be commingled for this completion, has aproval been obtained?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<div style="border: 1px solid black; height: 30px;"></div>
e) Will the completed interval be within 500 feet of a block line? If yes, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<div style="border: 1px solid black; height: 30px;"></div>
f) For permanent abandonment, will casings be cut 15 feet below the mudline? If no, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<div style="border: 1px solid black; height: 30px;"></div>

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Form BSEE-0124 is estimated to average 17 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

U3 6714

U3 6763

U3 6765

No. 001 Final Well Loc'n
 X= 563,945.23m
 Y= 7,912,758.65m
 Lat. 71° 18' 30.895"N
 Lon. 163° 12' 43.170"W

1,545.23m

2,358.65m

U3 6764
 OCS-Y-2280
 SHELL

GRID NORTH

U3 6814

I HEREBY CERTIFY THAT THE ABOVE FINAL WELL LOCATION IS CORRECT.



Stephen R. Henry
 REG. PROFESSIONAL LAND SURVEYOR NO. 4903
 STATE OF LOUISIANA 8-10-12

**PUBLIC
 INFORMATION**



Shell Exploration & Production Company

FINAL LOCATION
OCS-Y-2280 WELL NO. 001
 BLOCK 6764
 POSEY AREA
 ALASKA

FUGRO CHANCE INC.

200 Dulles Dr., Lafayette, Louisiana 70506-3301 (337) 237-1500



GEODETTIC DATUM: NAD83
 PROJECTION: U.T.M. 3 (NORTH)
 GRID UNITS: METERS

SCALE 0 200 400 600 800
 1:25,000 METERS

Job No.: 1201945	Date: 9/10/12	Drwn: SJL	Chart: Of:
Dwgfile: O:\WellPermit\UTM3m\Posey\Permit\6764_F_1_Y2280			1 1

Printed: 9/10/12

SEP 24 2012

RECEIVED

Application for Permit to Modify (APM)

1. WELL NAME (CURRENT) POSEY 6764 OCS-Y 2280 001	2. SIDETRACK NO. (CURRENT) 00	3. BYPASS NO. (CURRENT) 00	4. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. 3601 C Street Suite 1000 Anchorage, AK 99503
5. API WELL NO. (12 digits) 55-352-0000200	6. START DATE (Proposed) 09/20/2012	7. ESTIMATED DURATION (DAYS) 2 day	
8. <input type="checkbox"/> Revision	9. If revision, please list changes:		
WELL AT TOTAL DEPTH		WELL AT SURFACE	
10. LEASE NO. OCS-Y 2280		13. LEASE NO. OCS-Y 2280	
11. AREA NAME POSEY		14. AREA NAME POSEY	
12. BLOCK NO. 6764		15. BLOCK NO. 6764	
Proposed or Completed Work			
16. PROPOSED OR COMPLETED WORK (Describe in Section 17) PLEASE SELECT ONLY ONE PRIMARY TYPE IN BOLD AND AS MANY SECONDARY TYPES AS NECESSARY.			
<input type="checkbox"/> Enhance Production <input type="checkbox"/> Acidize <input type="checkbox"/> Artificial Lift <input type="checkbox"/> Wash/Desand Well <input type="checkbox"/> Jet Well <input type="checkbox"/> Utility <input type="checkbox"/> Initial Injection Well <input type="checkbox"/> Additional Fluids for Injection <input checked="" type="checkbox"/> Other Operations <input type="checkbox"/> Describe Operation(s)			
<input type="checkbox"/> Workover: <input type="checkbox"/> Change Tubing <input type="checkbox"/> Casing Pressure Repair <input checked="" type="checkbox"/> Abandonment of Well Bore: <input type="checkbox"/> Permanent Abandonment <input checked="" type="checkbox"/> Temporary Abandonment <input type="checkbox"/> Plugback to Sidetrack/Bypass <input type="checkbox"/> Site Clearance			
<input type="checkbox"/> Completion: <input type="checkbox"/> Initial Completion <input type="checkbox"/> Reperforation <input type="checkbox"/> Change Zone <input type="checkbox"/> Modify Perforations <input type="checkbox"/> Information: <input type="checkbox"/> Surface Location Plat <input type="checkbox"/> Change Well Name			
17. BRIEFLY DESCRIBE PROPOSED OPERATIONS (Attach prognosis): See attachment: BSEE-124 Proposed Operations 20-9-2012			
18. LIST ALL ATTACHMENTS (Attach complete well prognosis and attachments required by 30 CFR 250.513(a) through (d); 250.613(a) through (d); 250.1712(a) through (g); 250.1721(a) through (h); 250.1722(a) through (d); or 250.1743(a).)			
19. Rig Name or Primary Unit (e.g., Wireline Unit, Coil Tubing, Snubbing Unit, etc.) Mobile Offshore Drilling Unit Noble Discoverer			
20. The greater of SITP or MASP (psi): N/A	21. Type of Safety Valve (SV): SCSSV SSCSV X N/A		22. SV Depth BML (ft): N/A
23. Rig BOP (Rams) Size: Working Pressure Test Pressure (inches) (psi) (psi) N/A N/A N/A Low/High: N/A		24. Rig BOP (Annular) Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A	
25. Coiled Tubing BOP: Working Pressure BOP Test Pressure (psi) (psi) N/A N/A Low/High: N/A		26. Snubbing Unit BOP: Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A	
27. Wireline Lubricator: Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A			
28. CONTACT NAME: John A. Henley		29. CONTACT TELEPHONE NO.: +1.281.795.0250	
30. CONTACT E-MAIL ADDRESS: John.A.Henley@shell.com			
31. AUTHORIZING OFFICIAL (Type or print name) Jim Miller		32. TITLE Drilling Superintendent	
33. AUTHORIZING SIGNATURE 		34. DATE 2012-9-24	
APPROVED BY: TITLE: Alaska Regional Dir DATE: 9/27/2012			

Application for Permit to Modify (APM) Information Sheet

35) Question Information		
Questions	Response	Remarks
a) Is H ₂ S present in the well? If yes, then comment on the inclusion of a Contingency Plan for this operation.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	Current status is H ₂ S unknown. Shell has an H ₂ S contingency plan in place in the event that H ₂ S is present during drilling.
b) Is this proposed operation the only lease holding activity for the subject lease? If yes, then comment.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	
c) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
d) If sands are to be commingled for this completion, has approval been obtained?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
e) Will the completed interval be within 500 feet of a block line? If yes, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
f) For permanent abandonment, will casings be cut 15 feet below the mudline? If no, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT. The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Form BSEE-0124 is estimated to average 17 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

Application for Permit to Modify (APM)

Regional Director, Alaska OCS

Bureau of Safety and Environmental Enforcement

Anchorage, Alaska

1. WELL NAME (CURRENT) POSEY 6764 OCS-Y 2280 001	2. SIDETRACK NO. (CURRENT) 00	3. BYPASS NO. (CURRENT) 00	4. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. 3601 C Street Suite 1000 Anchorage, AK 99503
5. API WELL NO. (12 digits) 55-352-0000200	6. START DATE (Proposed) 09/09/2012	7. ESTIMATED DURATION (DAYS) 1 day	
8. <input type="checkbox"/> Revision	9. If revision, please list changes:		
WELL AT TOTAL DEPTH		WELL AT SURFACE	
10. LEASE NO. OCS-Y 2280		13. LEASE NO. OCS-Y 2280	
11. AREA NAME POSEY		14. AREA NAME POSEY	
12. BLOCK NO. 6764		15. BLOCK NO. 6764	
Proposed or Completed Work			
16. PROPOSED OR COMPLETED WORK (Describe in Section 17) PLEASE SELECT ONLY ONE PRIMARY TYPE IN BOLD AND AS MANY SECONDARY TYPES AS NECESSARY.			
<input type="checkbox"/> Enhance Production <input type="checkbox"/> Acidize <input type="checkbox"/> Artificial Lift <input type="checkbox"/> Wash/Desand Well <input type="checkbox"/> Jet Well <input type="checkbox"/> Utility <input type="checkbox"/> Initial Injection Well <input type="checkbox"/> Additional Fluids for Injection <input type="checkbox"/> Other Operations <input type="checkbox"/> Describe Operation(s)			
<input type="checkbox"/> Workover: <input type="checkbox"/> Change Tubing <input type="checkbox"/> Casing Pressure Repair <input checked="" type="checkbox"/> Abandonment of Well Bore: <input type="checkbox"/> Permanent Abandonment <input checked="" type="checkbox"/> Temporary Abandonment <input type="checkbox"/> Plugback to Sidetrack/Bypass <input type="checkbox"/> Site Clearance			
<input type="checkbox"/> Completion: <input type="checkbox"/> Initial Completion <input type="checkbox"/> Reperforation <input type="checkbox"/> Change Zone <input type="checkbox"/> Modify Perforations <input type="checkbox"/> Information: <input type="checkbox"/> Surface Location Plat <input type="checkbox"/> Change Well Name			
17. BRIEFLY DESCRIBE PROPOSED OPERATIONS (Attach prognosis): See following sheet for list of documents in support of this APM.			
18. LIST ALL ATTACHMENTS (Attach complete well prognosis and attachments required by 30 CFR 250.513(a) through (d); 250.613(a) through (d); 250.1712(a) through (g); 250.1721(a) through (h); 250.1722(a) through (d); or 250.1743(a).			
19. Rig Name or Primary Unit (e.g., Wireline Unit, Coil Tubing, Snubbing Unit, etc.) Mobile Offshore Drilling Unit Noble Discoverer			
20. The greater of SITP or MASP (psi): N/A	21. Type of Safety Valve (SV): SCSSV SSCSV <u>X</u> N/A		22. SV Depth BML (ft): N/A
23. Rig BOP (Rams) Size: Working Pressure Test Pressure (inches) (psi) (psi) N/A N/A Low/High: N/A		24. Rig BOP (Annular) Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A	
25. Coiled Tubing BOP: Working Pressure BOP Test Pressure (psi) (psi) N/A N/A Low/High: N/A		26. Snubbing Unit BOP: Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A	
27. Wireline Lubricator: Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A			
28. CONTACT NAME: John A. Henley		29. CONTACT TELEPHONE NO.: +1.281.795.0250	
30. CONTACT E-MAIL ADDRESS: John.A.Henley@shell.com			
31. AUTHORIZING OFFICIAL (Type or print name) Jim Miller		32. TITLE Drilling Superintendent	
33. AUTHORIZING SIGNATURE 		34. DATE 2012-9-24	
THIS SPACE FOR BSEE USE ONLY			
APPROVED BY: 		DATE 9/27/2012	

Application for Permit to Modify (APM) Information Sheet

35) Question Information		
Questions	Response	Remarks
a) Is H ₂ S present in the well? If yes, then comment on the inclusion of a Contingency Plan for this operation.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	Current status is H ₂ S unknown. Shell has an H ₂ S contingency plan in place in the event that H ₂ S is present during drilling.
b) Is this proposed operation the only lease holding activity for the subject lease? If yes, then comment.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	
c) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
d) If sands are to be commingled for this completion, has approval been obtained?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
e) Will the completed interval be within 500 feet of a block line? If yes, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
f) For permanent abandonment, will casings be cut 15 feet below the mudline? If no, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT. The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Form BSEE-0124 is estimated to average 17 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.

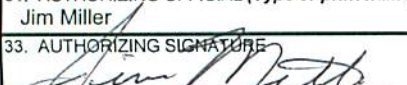
U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Submit original plus THREE copies, with ONE copy
marked "Public Information."

OCT 12 2012 OMB Control No. 1014-0018
OMB Approval Expires 10/31/2014

Regional Director, Alaska OCS
Bureau of Safety and Environmental Enforcement
Anchorage, Alaska

Application for Permit to Modify (APM)

1. WELL NAME (CURRENT) POSEY 6764 OCS-Y 2280 001	2. SIDETRACK NO. (CURRENT) 00	3. BYPASS NO. (CURRENT) 00	4. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. 3601 C Street Suite 1000 Anchorage, AK 99503
5. API WELL NO. (12 digits) 55-352-0000200	6. START DATE (Proposed) 10/15/2012	7. ESTIMATED DURATION (DAYS) 2 day	
8. <input type="checkbox"/> Revision	9. If revision, please list changes:		
WELL AT TOTAL DEPTH		WELL AT SURFACE	
10. LEASE NO. OCS-Y 2280		13. LEASE NO. OCS-Y 2280	
11. AREA NAME POSEY		14. AREA NAME POSEY	
12. BLOCK NO. 6764		15. BLOCK NO. 6764	
Proposed or Completed Work			
16. PROPOSED OR COMPLETED WORK (Describe in Section 17) PLEASE SELECT ONLY ONE PRIMARY TYPE IN BOLD AND AS MANY SECONDARY TYPES AS NECESSARY.			
<input type="checkbox"/> Enhance Production <input type="checkbox"/> Acidize <input type="checkbox"/> Artificial Lift <input type="checkbox"/> Wash/Desand Well <input type="checkbox"/> Jet Well <input type="checkbox"/> Utility <input type="checkbox"/> Initial Injection Well <input type="checkbox"/> Additional Fluids for Injection <input checked="" type="checkbox"/> Other Operations <input type="checkbox"/> Describe Operation(s)			
<input type="checkbox"/> Workover: <input type="checkbox"/> Change Tubing <input type="checkbox"/> Casing Pressure Repair <input checked="" type="checkbox"/> Abandonment of Well Bore: <input type="checkbox"/> Permanent Abandonment <input checked="" type="checkbox"/> Temporary Abandonment <input type="checkbox"/> Plugback to Sidetrack/Bypass <input type="checkbox"/> Site Clearance			
<input type="checkbox"/> Completion: <input type="checkbox"/> Initial Completion <input type="checkbox"/> Reperforation <input type="checkbox"/> Change Zone <input type="checkbox"/> Modify Perforations <input type="checkbox"/> Information: <input type="checkbox"/> Surface Location Plat <input type="checkbox"/> Change Well Name			
17. BRIEFLY DESCRIBE PROPOSED OPERATIONS (Attach prognosis): TA the Burger A well between the 2012 and 2013 open water seasons. See attached 30CFR 250.1721.pdf for necessary references.			
18. LIST ALL ATTACHMENTS (Attach complete well prognosis and attachments required by 30 CFR 250.513(a) through (d); 250.613(a) through (d); 250.1712(a) through (g); 250.1721(a) through (h); 250.1722(a) through (d); or 250.1743(a).			
19. Rig Name or Primary Unit (e.g., Wireline Unit, Coil Tubing, Snubbing Unit, etc.) Mobile Offshore Drilling Unit Noble Discoverer			
20. The greater of SITP or MASP (psi): N/A	21. Type of Safety Valve (SV): SCSSV SSSCV X N/A		22. SV Depth BML (ft): N/A
23. Rig BOP (Rams) Size: Working Pressure Test Pressure (inches) (psi) (psi) N/A N/A N/A Low/High: N/A		24. Rig BOP (Annular) Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A	
25. Coiled Tubing BOP: Working Pressure BOP Test Pressure (psi) (psi) N/A N/A Low/High: N/A		26. Snubbing Unit BOP: Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A	
27. Wireline Lubricator: Working Pressure Test Pressure (psi) (psi) N/A N/A Low/High: N/A			
28. CONTACT NAME: John A. Henley		29. CONTACT TELEPHONE NO.: +1.281.795.0250	
30. CONTACT E-MAIL ADDRESS: John.A.Henley@shell.com			
31. AUTHORIZING OFFICIAL (Type or print name) Jim Miller		32. TITLE Drilling Superintendent	
33. AUTHORIZING SIGNATURE 		34. DATE October 12, 2012	
THIS SPACE FOR BSEE USE ONLY			
APPROVED BY:		DATE	

Application for Permit to Modify (APM) Information Sheet

35) Question Information		
Questions	Response	Remarks
a) Is H ₂ S present in the well? If yes, then comment on the inclusion of a Contingency Plan for this operation.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	Current status is H ₂ S unknown. Shell has an H ₂ S contingency plan in place in the event that H ₂ S is present during drilling.
b) Is this proposed operation the only lease holding activity for the subject lease? If yes, then comment.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	
c) Will all wells in the well bay and related production equipment be shut-in when moving on to or off of an offshore platform, or from well to well on the platform? If not, please explain.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
d) If sands are to be commingled for this completion, has approval been obtained?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
e) Will the completed interval be within 500 feet of a block line? If yes, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
f) For permanent abandonment, will casings be cut 15 feet below the mudline? If no, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	

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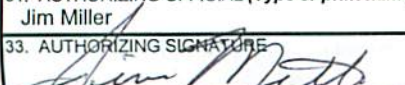

U.S. Department of the Interior
Bureau of Safety and Environmental
Enforcement (BSEE)

Submit original plus THREE copies, with ONE copy
marked "Public Information."

OCT 12 2012 OMB Control No. 1014-0018
OMB Approval Expires 10/31/2014

Regional Director, Alaska OCS
Bureau of Safety and Environmental Enforcement
Anchorage, Alaska

Application for Permit to Modify (APM)

1. WELL NAME (CURRENT) POSEY 6764 OCS-Y 2280 001	2. SIDETRACK NO. (CURRENT) 00	3. BYPASS NO. (CURRENT) 00	4. OPERATOR NAME and ADDRESS (Submitting office) Shell Gulf of Mexico Inc. 3601 C Street Suite 1000 Anchorage, AK 99503
5. API WELL NO. (12 digits) 55-352-0000200	6. START DATE (Proposed) 10/15/2012	7. ESTIMATED DURATION (DAYS) 2 day	
8. <input type="checkbox"/> Revision	9. If revision, please list changes:		
10. LEASE NO. OCS-Y 2280		13. LEASE NO. OCS-Y 2280	
11. AREA NAME POSEY		14. AREA NAME POSEY	
12. BLOCK NO. 6764		15. BLOCK NO. 6764	
Proposed or Completed Work			
16. PROPOSED OR COMPLETED WORK (Describe in Section 17) PLEASE SELECT ONLY ONE PRIMARY TYPE IN BOLD AND AS MANY SECONDARY TYPES AS NECESSARY.			
<input type="checkbox"/> Enhance Production <input type="checkbox"/> Acidize <input type="checkbox"/> Artificial Lift <input type="checkbox"/> Wash/Desand Well <input type="checkbox"/> Jet Well <input type="checkbox"/> Utility <input type="checkbox"/> Initial Injection Well <input type="checkbox"/> Additional Fluids for Injection <input checked="" type="checkbox"/> Other Operations <input type="checkbox"/> Describe Operation(s)			
<input type="checkbox"/> Workover: <input type="checkbox"/> Change Tubing <input type="checkbox"/> Casing Pressure Repair <input checked="" type="checkbox"/> Abandonment of Well Bore: <input type="checkbox"/> Permanent Abandonment <input checked="" type="checkbox"/> Temporary Abandonment <input type="checkbox"/> Plugback to Sidetrack/Bypass <input type="checkbox"/> Site Clearance			
<input type="checkbox"/> Completion: <input type="checkbox"/> Initial Completion <input type="checkbox"/> Reperforation <input type="checkbox"/> Change Zone <input type="checkbox"/> Modify Perforations <input type="checkbox"/> Information: <input type="checkbox"/> Surface Location Plat <input type="checkbox"/> Change Well Name			
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18. LIST ALL ATTACHMENTS (Attach complete well prognosis and attachments required by 30 CFR 250.513(a) through (d); 250.613(a) through (d); 250.1712(a) through (g); 250.1721(a) through (h); 250.1722(a) through (d); or 250.1743(a).)			
19. Rig Name or Primary Unit (e.g., Wireline Unit, Coil Tubing, Snubbing Unit, etc.) Mobile Offshore Drilling Unit Noble Discoverer			
20. The greater of SITP or MASP (psi): <u>N/A</u>	21. Type of Safety Valve (SV): <u>SCSSV</u> <u>SSCSV</u> <u>X</u> <u>N/A</u>		22. SV Depth BML (ft): <u>N/A</u>
23. Rig BOP (Rams) Size: Working Pressure Test Pressure (inches) (psi) (psi) <u>N/A</u> <u>N/A</u> <u>N/A</u> Low/High: <u>N/A</u>		24. Rig BOP (Annular) Working Pressure Test Pressure (psi) (psi) <u>N/A</u> <u>N/A</u> Low/High: <u>N/A</u>	
25. Coiled Tubing BOP: Working Pressure BOP Test Pressure (psi) (psi) <u>N/A</u> <u>N/A</u> Low/High: <u>N/A</u>		26. Snubbing Unit BOP: Working Pressure Test Pressure (psi) (psi) <u>N/A</u> <u>N/A</u> Low/High: <u>N/A</u>	
27. Wireline Lubricator: Working Pressure Test Pressure (psi) (psi) <u>N/A</u> <u>N/A</u> Low/High: <u>N/A</u>			
28. CONTACT NAME: John A. Henley		29. CONTACT TELEPHONE NO.: +1.281.795.0250	
30. CONTACT E-MAIL ADDRESS: John.A.Henley@shell.com			
31. AUTHORIZING OFFICIAL (Type or print name) Jim Miller		32. TITLE Drilling Superintendent	
33. AUTHORIZING SIGNATURE 		34. DATE October 12, 2012	
THIS SPACE FOR BSEE USE ONLY			
APPROVED BY 		DATE 10/13/12	

Application for Permit to Modify (APM) Information Sheet

35) Question Information		
Questions	Response	Remarks
a) Is H ₂ S present in the well? If yes, then comment on the inclusion of a Contingency Plan for this operation.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	Current status is H ₂ S unknown. Shell has an H ₂ S contingency plan in place in the event that H ₂ S is present during drilling.
b) Is this proposed operation the only lease holding activity for the subject lease? If yes, then comment.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A	
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d) If sands are to be commingled for this completion, has approval been obtained?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
e) Will the completed interval be within 500 feet of a block line? If yes, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	
f) For permanent abandonment, will casings be cut 15 feet below the mudline? If no, then comment.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	

PAPERWORK REDUCTION ACT OF 1995 (PRA) STATEMENT: The PRA (44 U.S.C. 3501 et. seq.) requires us to inform you that we collect this information to obtain knowledge of equipment and procedures to be used in drilling operations. BSEE uses the information to evaluate and approve or disapprove the adequacy of the equipment and/or procedures to safely perform the proposed drilling operation. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.197. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. Public reporting burden for Form BSEE-0124 is estimated to average 17 hours per response. This includes the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Bureau of Safety and Environmental Enforcement, 381 Elden Street, Herndon, VA 20170.



United States Department of the Interior
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT

Alaska OCS Region
3801 Centerpoint Drive, Suite 500
Anchorage, Alaska 99503-5823

OCT 18 2012

Ms. Susan Childs
Shell Gulf of Mexico, Inc.
3601 C Street, Suite 1334
Anchorage, AK 99503
United States of America

Dear Ms. Childs:

The Alaska Region of the Bureau of Safety and Environmental Enforcement (BSEE) is in receipt of Shell's Application for a Permit to Drill (APD) **Well Number 001, Burger V, on lease OCS Y-2324, Posey Block 6915, in the Chukchi Sea (API number 55-352-00007-00)**. An initial application was submitted April 2012 and completed September 2012. In a letter to BSEE from Shell Vice President Peter Slaiby, dated August 21, 2012, you sought "conditional approval" of the APD to allow for limited drilling operations before the arrival of the Arctic Containment System. In particular, you requested permission to drill and set the 30" structural and the 20" surface casings. Your application has been reviewed for compliance with the Outer Continental Shelf (OCS) Lands Act, 30 CFR Part 250 and other statutes and regulations applicable to APDs.

(b) (4), (b) (9)

Upon completion of the testing and siting of the Arctic Containment System Shell will submit an Application for Permit to Modify, which, if approved, would allow Shell to continue operations outlined in the initial APD.

This approval is based on the findings below and subject to the conditions attached to this communication as Attachment A, Conditions of Approval for the Burger V, Well #001 and Attachment B Procedures for Well Data and Records Submittal. It is also conditioned on Shell's compliance during the permitted activities with all applicable BSEE regulations and requirements, U.S. Coast Guard regulations and requirements, provisions in the Exploration Plan (EP) as approved by the Bureau of Ocean Energy Management (BOEM) December 2011, BOEM regulations and requirements, provisions in the Oil Spill Response Plan approved by BSEE, conditions of approval for all permits or authorizations issued by Federal agencies, all lease stipulations, and Notices to Lessees.

This approval is valid unless and until there is a material change to conditions or facts as presented in Shell's application.

If any provision contained in any plan or application conflicts with any provision or condition approved in writing by BSEE, the provision or condition approved by BSEE later in time will control. In the event another agency approves deviations from plans, permits or conditions initially issued by that agency, copies of such approvals must be sent to BSEE.

In a letter dated August 30, 2012 BSEE approved both the Noble Discoverer and the Kulluk for operations in the Arctic OCS. Also as stated in that letter, in the event hydrogen sulfide is found during the drilling operations the Kulluk will be required to comply with 30 CFR 250.490 if used as a relief well rig.

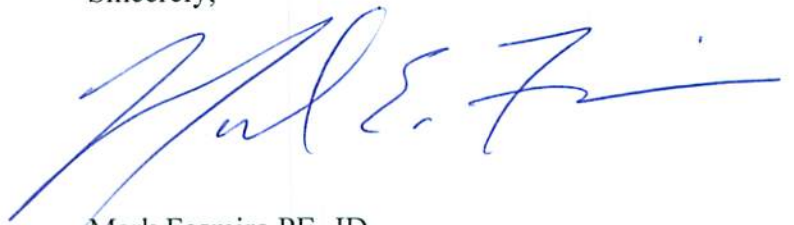
BSEE further finds that Shell's proposed well capping and containment systems have been designed for the projected worst case discharge conditions. The intended uses of these systems are hereby approved. BSEE will require that a witnessed deployment test of the containment system in which Shell has demonstrated that it has the ability to successfully deploy the system and have it on location pursuant to the oil spill response plan prior to BSEE's consideration of Shell's request to drill below the 20 inch casing point.

In a letter dated August 30, 2012 BSEE approved Shell's Welding and Burning Program and Hydrogen Sulfide Contingency Plans for operations conducted on the Noble Discoverer.

BSEE will provide a continuous inspection presence during drilling operations and will use Shell transportation and lodging for this purpose. As allowed in 30 CFR 250.133, Shell will request reimbursement for transportation based on the existing agreement between Shell, DOI Aviation Management Division and BSEE. Reimbursement for meals and lodging must be submitted within 90 days of the completion of the drilling program. In addition BSEE will be conducting inspections and collecting data in regard to the EPA's National Pollutant Discharge Elimination System General Permit No. AKG-28-0000 and EPA issued air quality permits at the request of the EPA by letter dated July 27, 2012(copy enclosed).

All notifications related to activities described in the approved applications should be made to the BSEE active duty officer at 907-334-5300 during business hours and 855-277-2733 (toll free) after business hours.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Mark Fesmire', with a long horizontal flourish extending to the right.

Mark Fesmire PE, JD
Regional Director, BSEE

Cc: U.S. DOI, BOEM, AKOCS, Regional Director
Cc: U.S. DOC, NOAA, NMFS
Cc: U.S. DOI, Fish and Wildlife Service

ATTACHMENT A
Conditions of Approval for the Burger V, #001 Well

1. The following waivers have been authorized:
 - a. Testing of casing strings as indicated on Form BSEE -0123S is approved.
 - b. Your request for a waiver to the requirements under 30 CFR 250. 423 (c) regarding a negative pressure test is approved.
 - c. Testing of the BOP components to the pressures indicated on Form BSEE -0123S is approved.
 - d. Your test pressure for the annular preventer as indicated on Form BSEE -0123S is approved.
 - e. Deployment of a remote BOP control panel intended to operate the BOP stack from the sea floor is approved.
 - f. Your request to test the deadman/autoshear system during the stump test only is approved.
 - g. Your requested method to temporarily abandon the proposed pilot hole is approved.
 - h. Your request to eliminate the addition of a flare, to the Discoverer, for possible use during an H2S event is granted.
2. This office will conduct a predrill inspection of your drilling vessel prior to the start of operations.
3. Shell will not be able to drill below the 20 inch casing point without fulfilling the conditions stated in the letter accompanying these conditions.
4. No drilling activities may be conducted beyond each additional casing shoe unless specifically approved by the BSEE inspector on location. BSEE will evaluate the condition of the well, results of safety equipment tests, the nature and duration of the next phase of the drilling program, existing and forecasted environmental conditions, and the procedures under an approved contingency plan [30 CFR250.417(c)(2)] that addresses design and operating limitations of the drilling unit as well as the actions necessary (i.e. suspension, curtailment, or modification of drilling or rig operations) to remedy various operational or environmental situations in order to maintain safety and prevent damage to the environment; including implementing well capping and containment or relief well drilling plans.
5. Final certification of the blowout preventer system as required in 30 CFR 250.416 (f) shall be provided to this office prior to the initial use of the BOP on this well.
6. Data submission procedures and criteria for this well are listed in an attached document (Procedures for Well Data and Records Submittal)
7. Shell must submit a daily summary report on form BSEE-0133 to this office until the final status of the well is established (one copy). Daily marine mammal reports shall be attached to the form.
8. Shell must notify this office immediately in the event the well encounters shallow gas, abnormal pressure, or lost circulation.
9. Shell must provide this office with representative dry samples collected during the drilling of this well as soon as available. Shell is also requested to collect and retain a set of wet well cuttings for the Bureau of Ocean Energy Management. This request is voluntary and the samples are intended to provide for public access once the proprietary

term for the samples is concluded. Further discussions related to this voluntary request can be concluded with appropriate BOEM representatives.

10. Shell must submit within thirty days of completion of the well all oceanographic and meteorological data collected during the drilling of this well.
11. Shell must submit an Application for Permit to Modify to change any approved portion of the APD prior to the commencement of the proposed operations. Verbal approval in an emergency may be granted, however written APM's must be submitted no later than the end of the 3rd business day following the verbal approval.
12. Shell shall notify this office as well as the onsite representative 24 hours in advance of a Blowout Preventer test.
13. Shell must submit form BSEE – 0124 in advance of either temporarily or permanently abandoning this well. This form must contain all information required in 30 CFR 250, Subpart Q for abandonment of wells.

Attachment B

BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT ALASKA OCS REGION

Procedures for Well Data and Records Submittal

This document defines the procedures on how lessees/operators submit well records required by 30 CFR 250.468 and 469, and clarifies the specific well records you should submit, the submittal dates of the various well records, and the correct locations where you should send these well records.

The BSEE collects, verifies, and stores data by the well's unique 12-digit American Petroleum Institute (API) number we assign. The BSEE Alaska Outer Continental Shelf Region (AKOCS) uses the data collected to make informed regulatory decisions based on your timely submittal of complete and accurate well records. We define "submittal date" as the original date the data are due to the appropriate office.

According to 30 CFR 250.468(a), "you must submit copies of logs or charts of electrical, radioactive, sonic, and other well-logging operations; directional and vertical well surveys; velocity profiles and surveys; and analysis of cores to BSEE." Also, in accordance with 30 CFR 250.469(b), the AKOCS will also require submittal of paleontological reports as well as washed and dried samples collected from the well.

When to Submit Well Data Records

1. Field Data

As stated in the approval documents for these operations this office will take an active role in assess plans for the continuation of well activities. Shell will be expected to make available digital data and field prints electronically from the well site via a secure website data delivery system or equivalent to enable this review from this office. This should be done for all logging operations including pilot hole, surface, intermediate and final runs (both wireline and Measurement While Drilling logs). This also includes detailed mud logging data.

2. Final Data

Operators should submit one copy of the digital data on a CD or DVD in a read-only format to the appropriate entity as outlined in Attachment 1. Each CD or DVD should be properly labeled with the Area, Block, OCS, Well Number, Well Suffix, API, and the data type (i.e., Paleo Report, Conventional Core Report,

Vertical Seismic Survey, etc.). Digital and image NMR data must be submitted on separate physical media and nomenclature for NMR data files and tool codes should clearly identify them as NMR datasets.

Well records are divided into four groups for the timely submittal of the data.

- a) Well Log Data, Directional Surveys, Velocity Surveys, Analyses of Percussion Sidewall Cores, Wireline Formation Test Logs, Drill Stem Tests and Mudlogs/Reports

Submit:

Well log data,
Directional surveys,
Velocity surveys (time/depth pairs),
Percussion/rotary sidewall analysis of cores,
Wireline formation tests logs (summary log), and
Drill stem tests (initial report)

To be submitted within 30 days of the "Date Operations Completed" of the last logging run (MWD/LWD or wireline) that you report in Item 7 of the Open Hole Report (Form BSEE-0133S) for each 12-digit wellbore, sidetrack, and/or bypass. Note: "Date Operations Completed" for MWD/LWD is when the data is retrieved from the drill string.

- b) Paleontological, Detailed Rotary Sidewall and Conventional Core Analyses, and Vertical Seismic Profile Reports and Information

For each wellbore in which these data were collected, submit no later than 90 days after the "TD DATE" you report in Item 10 of the Well Activity Report (Form BSEE-0133).

Detailed paleontological reports and information,
Detailed rotary sidewall and conventional core analyses/reports and information, and
Detailed vertical seismic profile reports

Submit these well records when the report is completed, even if the report is generated by you and/or third party (i.e., academic partners, non-lessee partners and/or consultants) years after the wellbore is completed.

- c) Geochemical Analyses and PVT Analysis of Fluid Samples

For each wellbore in which these data were collected, submit geochemical analyses and/or PVT Analysis of Fluid Samples no later than 120 days

after the “TD DATE” that you report in Item 10 of the Well Activity Report (Form BSEE-0133). Submit these well records when the report is completed, even if the report is generated by you and/or third party (i.e., academic partners, non-lessee partners and/or consultants) years after the wellbore is completed.

d) End of Operations Report (Form BSEE-0125)

For each wellbore, submit an End of Operations Report (Form BSEE-0125) and all its attachments no later than 30 days after the “END DATE” you report in Item 10 of the Well Activity Report (Form BSEE-0133).

The BSEE AKOCS uses the Well Activity Report (Form BSEE-0133) and Open Hole Report (Form BSEE-0133S) to track well activity; therefore, it is crucial that you submit a complete and accurate report to the appropriate BSEE AKOCS District Office in a timely manner. We will treat delinquent and/or incomplete reports in the same manner as delinquent and/or incomplete well data, and such violations may result in the BSEE AKOCS exacting an appropriate remedy, such as issuing an Incident of Non-compliance (INC).

The BSEE AKOCS may request that you submit well logging data, directional surveys, velocity profiles and surveys, percussion sidewall analyses of cores, wireline formation tests, and drill stem tests before the 30- day limit when we determine that circumstances warrant such action. When we determine that circumstances so warrant, we may also request that you submit preliminary reports of analytical data, namely

Geochemical analyses/reports and information,
PVT analyses of fluid samples,
Detailed paleontological reports and information,
Detailed rotary sidewall core analysis and information, and
Detailed conventional core analysis and information before the
respective 90-day or 120-day limits.

The BSEE AKOCS recognizes that you need adequate time to submit complete and accurate well records. If you request it, BSEE AKOCS may grant you a departure under 30 CFR 250.142 for a new required date for submitting the data pertaining to that wellbore.

Where to Submit Well Records

Shell will need to coordinate access to field digital well logs with the following office. This office will also handle receipt of dry samples.

Bureau of Safety and Environmental Enforcement
Alaska OCS Office
3801 Centerpoint Dr., Suite 500
Anchorage, AK 99503
Office Phone: 907-334-5300
Office Fax: 907-334-5302

Shell will provide final copies of all digital image and vector well log data and related reports to both the Alaska BSEE office and to:

A2D Technologies
d/b/a TGS Geological Products and Services
1010 Common Street, Suite 2040
Attn: BSEE Well Records (Alaska)
New Orleans, LA 70112
Office telephone: 504-524-3450
Fax: 504-524-3454

A "Well Records Submission Summary" in Attachment B of this document provides an overview of the various well records, including which entity receives which well records and the addresses and contact numbers of the appropriate BSEE AKOCS Offices, and A2D Technologies. We strongly recommend that you provide a transmittal letter when you submit any well records. This transmittal should contain the following information:

- Operator's Name
- Operator's Contact Name and Telephone Number
- Bottomhole Location: Area/Block/Lease/Well Name and Number/API Number
- Date Well Records Sent
- Detailed List of Well Records

It is your responsibility to ensure that the BSEE AKOCS and A2D Technologies receive all well data and information within the specific periods. If we notify you of delinquent data, we will initiate an appropriate remedy, such as issuing an Incident of Non-Compliance (INC). If you choose to use a third party to submit well data, it remains your responsibility to ensure that the data are timely received by the BSEE AKOCS and A2D Technologies. Realizing that you may need time beyond the specified deadlines to prepare unique data or information, we will address the submission of such on an individual basis. We will address INC's issued by the BSEE AKOCS Office for the delinquent data submittal at your yearly performance review or through other appropriate and timely measures.

Well Naming and Numbering

Show the API Number and well name assigned by the BSEE AKOCS Office on all well records you submit to us. You can find these on the approved Application for Permit to Drill (Form BSEE-0123) for the original hole, sidetracks, and/or bypasses.

Data Types and Formats

A. Well Log Data types

- a. Log Curve Requirements: Submit the following curve types and log images in final form, if the data were obtained in the open-hole portion of a wellbore, sidetrack, or bypass****:

- Acoustic or Sonic
- Bulk Density
- Caliper
- Conductivity
- Density Correction
- Dipmeter
(computed)
- Gamma Ray
- Resistivity/Induction
- Spontaneous
Potential
- Nuclear Magnetic
Resonance *
- Mudlogs***
- Neutron
- Tension
- Porosity
- Borehole Image
- Equivalent
circulation density
- Rwa
- Temperature
- Formation Tester**
- Rate of Penetration
- Photoelectric
- Slide Indicator

- b. Cased hole log data: Submit all curve types and log images as identified above for any cased hole logs collected in lieu of, or in addition to, open hole logs.

* For the submittal of digital NMR vector curve data, The following are examples of curve types are to be submitted, and are not limited to you should submit:

- Quality Control Curves
- Computed Curves
- T2 Bin Distributions

Due to NMR file sizes and complexities, the BSEE now requires that digital and image NMR data are submitted on separate physical media (separate from other well log data) to its logging contractor, A2D Technologies. Also, NMR data file and tool code nomenclature should clearly identify these data as NMR-related. We encourage direct submittal of the completed log data set from the acquiring service company.

** Formation Tester is considered any logging tool that collects pressure data and/or fluid samples from the borehole. Summary Print log images, pressure gradient plots, and preliminary sample analysis must be submitted. Formation Tester summary data should also be submitted in ASCII format. All detailed reports (i.e., PVT Analysis) generated from the samples collected from the borehole must be submitted in a timely manner (see Attachment 1).

*** You will be required to submit an image file for these types of logs to A2D Technologies.

**** Although API Recommended Practice (RP) 31A, Standard Form for Hardcopy Presentation of Downhole Well Log Data, is not incorporated by reference in BSEE regulations, you may use it for guidance on providing complete and accurate well information.

Note: Do not submit digital data for Formation Tester, Borehole Image, and Computed Dipmeter to A2D Technologies.

c. Well Log Image File:

Submit image files in one of the formats listed below. For Formation Tester type logs, the summary logs will suffice

- i. For all vertical wells, as defined in 30 CFR 250.461, submit image files for
 - Measured depth (MD) 1-inch, or 2-inch correlation, and 5-inch formation evaluation logs and
 - Any additional scales you obtained.
- ii. For all non-vertical wells, as defined in 30 CFR 250.461, submit image files for
 - True vertical depth (TVD) 1-inch, or 2-inch correlation and, 5-inch formation evaluation logs,
 - Measured depth (MD) 1-inch, or 2-inch correlation, and 5-inch formation evaluation logs, and
 - Any additional scales you obtained.

Detailed 5- inch image logs must be composited, but individual runs do not need to be spliced.

If logging data from more than one logging vendor are collected in a borehole, you may submit either an image of the logging data from all vendors composited into a single set of logs or a set of images of the composited logs from each individual vendor.

d. Image File Formats: If the original log is in color, the submitted image file should also be in color.

i. The following image file formats are preferred:

- Computer Graphic Metafile (CGM) version 1-4
- Baker Metafile
- Schlumberger PDS (PDS files are usually for one logging run; any borehole with multiple runs should submit composited file format)
- Halliburton CGM
- Weatherford DPK

If the preferred formats listed above are not available, you may submit the image file in the Tag Image File Format (TIFF) with the following specifications:

ii. Format (TIFF) with the following specifications:

1. Black and White TIFF Images:

- Header tags as per TIFF standard
- Resolution – 200 dpi
- Compression – CCITT group IV
- Tiling – No

2. Color TIFF Images:

- Header tags as per TIFF standard
- Resolution – 200 dpi
- Palette color – 256 colors
- File format LZW Compressed TIFF
- Tiling - No

Clearly label each well log image with its associated API number, bottom hole lease number, well name, well name suffix, log type, scale and depth domain (MD or TVD).

e. Digital (Vector) Well Log Data: Submit composite digital curve data (one value per curve for each depth value and with individual tool runs merged) in the Canadian Well Log Society Log ASCII Standard (LAS), Version 2.0 formats; and Digital Log Interchange Standard (DLIS) or Log Interchange Standard (LIS) format. Ensure that the curve data are in a MD composite layout, including full headers for each wireline and MWD/LWD logging tool run and curve description for all curves. Ensure that all required log curves represented on the log image file are included in the digital curve file. If you collect logging data from more

than one logging vendor in a single borehole, submit a separate set of composited log curves from each individual vendor. Do not splice digital curves from different vendors to form a set of composited log curves.

i. Full header information, should including the following:

- 12-digit API number
- well name suffix
- bottom hole lease number
- bottom hole area and block
- well name

ii. Information for each tool run, should including the following:

- borehole fluids
- depth interval
- mud
- filtrate resistivity and temperatures
- casing information
- bottomhole or maximum recorded temperature
- circulation history information
- tool schematic
- tool calibration record

Full logging tool parameters (including matrix values), position of logging tool (i.e., centered or eccentric), and logging engineer's comments; and adequate curve description and

Tool -specific and service provider-specific curve and parameter mnemonics (names and abbreviations) maintained as originally acquired.

If a log is spliced, the splice depth should be clearly noted along with which files were used.

Submit digital and image logs on CD or DVD ROM (read-only memory). Digital and image logs may be submitted on the same CD or DVD.

Directional Surveys

Submit one digital copy of the final composite directional survey. For the Digital Directional Survey format, see NTL 2009-N10.

- Submit, on CD or DVD ROM these survey results coded in ASCII.
- According to 30 CFR 250.461(d) (2), "You must correct all surveys to Universal-Transverse- Mercator-Grid-north or Lambert-Grid-north after making the magnetic-to-true-north correction."

If your use of more than one vendor prevents the consolidation of the separate surveys within a well, submit the final composite survey from each vendor.

Velocity Profiles and Surveys

Vertical Seismic Profiles: Submit the results from all borehole seismic data (in cased or uncased holes), as well as concurrently run directional surveys for both vertical and directional wells. Submit, on CD or DVD ROM, digitally recorded data in an industry standard format (LAS, DLIS, ASCII, CGM, TIFF, JPG, SEG Y, DOC), that include, but are not limited to:

- Normal Incidence VSP;
- Acoustic Log Calibration Report;
- Final VSP and Corridor stacks for 2D data and final stacked and migrated volume for 3D VSP data;
- Composite plot with VSP, Corridor stacks, synthetic seismogram, and well logs;
- any referenced information within the report correlative with the acquisition, such as 2-way time indexed depths and velocities, survey parameters, digital images, and computed survey data and directional; and
- If acquired, format time/depth pairs.

Velocity Surveys (Time-Depth Pairs/Checkshots): Submit, on CD or DVD ROM, one digital copy coded in ASCII format. The report should include or be annotated with the following:

- API number
- Well name and number
- Well name suffix
- Contractor or service provider
- Contact name (phone number or e-mail address)

Note that the digital format has been modified to expand the columns for True Vertical Depth and One- Way Travel Time from 5 to 8 to include two decimal places for each column.

We encourage direct submittal of the completed survey from the acquiring service company.

Analysis of Conventional Cores, Percussion/Rotary Sidewall Cores, Wireline Formation Tests, and Drill Stem Tests

IF...

you conduct any of the following:

- Conventional cores descriptions and analysis
- Percussion/Rotary sidewall core analysis or equivalent,
- Wireline formation tests - include any logs (summary logs are acceptable) and associated lab results, or
- Drill stem tests

THEN...

As soon as the final and/or revised conventional core, percussion/rotary sidewall core reports and/or data become available to you, send one digital copy of the entire, detailed report. Reports should include, but are not limited to the following:

- Standard analyses for porosity,
- Permeability
- Water saturation
- Core photos
- compaction analyses
- laser grain size analyses
- stressed brine porosity and permeability analyses
- rock mechanic studies
- water extraction and core gamma logs
- core photos

In addition, provide one copy of all studies you performed on the core(s) and tests for the purpose of describing and characterizing the reservoir architecture through detailed stratigraphic or depositional analyses. In certain situations, the BSEE AKOCS may require that you submit preliminary or interim reports.

Submit, on CD or DVD ROM, one copy of the description and analysis of the conventional core, the percussion/rotary sidewall core, wireline formation tests, and drill stem tests reports in the original digital format. Any data acquired in a log format should be submitted as a log image.

Geochemical Analyses/Reports and Information

Submit one copy of the Geochemical Analyses/Reports and Information in the original digital format. If you conducted any geochemical analyses/reports, including internal company or external contractor interpretation reports on

- Cuttings,
- Sidewall or conventional cores, and
- Fluid samples from the well. The term "sample" encompasses:
- Hydrocarbon gases, specifically methane through pentanes and C6+ hydrocarbons;
- Non-hydrocarbon gases (carbon dioxide, hydrogen sulfide, argon, helium, and radon); and
- Any liquid hydrocarbons (such as condensate, crude, and bitumen) encountered by the well in cuttings or shows and from any other well sampling or fluid testing.

The analyses, reports, and interpretations to be submitted include, but are not necessarily limited to, the following types of data:

- Total organic carbon
- Polynuclear aromatic hydrocarbons
- Rock-eval pyrolysis

- Stable isotope analyses of carbon & hydrogen
- Thermal chromatography-gas chromatography
- Compound-specific isotope ratio mass spectrometry
- Bulk pyrolysis & hydrous pyrolysis
- Isotope ratio mass spectrometry
- Gas chromatography
- Kerogen isolation & bitumen separation
- Pyrolysis/gas chromatography
- Organic petrography
- Complete saturated biomarker & aromatic hydrocarbon analysis by GC MS
- Vitrinite reflectance
- Elemental analysis of kerogen

In addition, submit all data and reports on geochemical characterization of produced oils, including

- All whole-oil GC, GC MS on oils,
- SARAH (or SARA),
- Isotopes on the fractions,
- Molecular and isotopic analyses of C1-C5 hydrocarbons metals data, and
- Any other geochemical data used from production samples intended for reservoir characterization studies.

Submit, on CD or DVD ROM, digitally recorded data in industry standard formats.

Detailed Paleontological Reports and Information

As soon as the final and/or revised paleontological information and/or data become available to you, submit one copy in digital format of the entire, detailed paleontological report(s), chart(s), striplog(s), checklist(s), and any other paleontological records. Include the following:

The range of samples taken,

- Sample analysis identifying fossils and lithology by MD,
- Summary and interpretation (based on identification of foraminifera, nannofossils, or other microfossils) of all biostratigraphic markers, zones, tops, or local markers,
- Description of paleontological ecological zones with water depth at the time of deposition (e.g., Middle Shelf/Neritic 20-100 meters, Outer Shelf/Neritic 100-200 meters),
- Sequence analysis interpretations based on histograms of faunal abundance,
- Identification of all rock units by depth to the top of relative chronostratigraphic stages (e.g., Upper Pleistocene, Middle Miocene, or Lower Oligocene), and
- Pleistocene, Middle Miocene, or Lower Oligocene), and
- Biostratigraphic chart noting the relative ages of the biostratigraphic zones you used in the detailed paleontological reports.

Submit, on CD or DVD ROM, one copy of the detailed paleontological report in the original digital format.

Mudlogs and Reports

Submit one image copy of the following types of Mudlogs:

- Physical Formation Log
- Pore Pressure Log
- Engineering Log
- Show Report Log

Image File Formats for Mudlogs: If the original log is in color, the submitted image file must also be in color.

The following image file formats are preferred:

- Geologix - geo draft file (.gdf)
- Geologix - output data file (.odf)

If the preferred formats listed above are not available, submit the image file in the Tag Image File

Format (TIFF) with the following specifications:

Black and White TIFF Images

- Header tags as per TIFF standard
- Resolution – 200 dpi
- Compression – CCITT group IV
- Tiling – No

Color TIFF Images

- Header tags as per TIFF standard
- Resolution – 200 dpi
- Palette color – 256 colors
- File format LZW Compressed TIFF
- Tiling – No.

Submit one copy of the following types of Mudlogs reports, if collected:

- Show reports – composite into one file
- Mud reports – composite into one file
- End of Well reports – composite into one file
- Daily Drilling reports – composite into one file

Submit, on CD or DVD ROM, digitally recorded data in industry standard formats.

End of Operations Report (Form BSEE-0125) and Attachments

Pursuant to 30 CFR 250.465(a), you must submit End of Operations Report (Form BSEE-0125) and the required attachments.

Additional Information

Pursuant to 30 CFR 250.469(d), the BSEE AKOCS may require that you submit additional well reports or records for a specific well(s).

Tankersley, Yolanda J

From: Monkelien, Kyle
Sent: Friday, September 14, 2012 8:27 AM
To: Bohl, Christy; Feldgus, Steven H; Fesmire, Mark E; Harry Brower, Jr.; Jason Bergerson; Johnny L. Aiken; Johnston, David; Loman, Jeffery; Missal, Jeffrey H; Pardi, Nicholas W; Richard Camileri; Thomas P. Olemaun; Walker, Jeffrey; Wall, Rance; Warren, Sharon E; Watson, James A
Cc: Howell, Randy
Subject: DAily report for 09-14-12

Still waiting on Ice. Current forecast indicates possible return to location Monday or Tuesday.

Kyle Monkelien
Senior Petroleum Engineer
BSEE – Alaska Region
Field Operations
907-334-5307 – work
907-351-2402 - cell

From: [Walker, Jeffrey](#)
To: [Crumrine, Kathleen](#); [Howell, Randy](#); [Lusher, James A](#); [Monkelien, Kyle](#); [Shank, Michael L](#)
Cc: [Fesmire, Mark E](#)
Subject: FW: Chukchi Sea EP review
Date: Monday, November 21, 2011 2:01:00 PM
Attachments: [Following is an assessment of the Shell Chukchi Sea EP.DOC](#)

Kyle: Attached is the assessment you prepared for the last Chukchi Sea EP. I think this is a good start. Obviously it needs to be updated for the revised EP.

Citations to the regulations we are reviewing, citations to the portion(s) of the EP that addresses the topic and a finding that the information is appropriate and that we conclude meets the regulations is the key to our assessment.

Something we did not discuss this morning is to review the EP for any requested "departures" from our (BSEE) regulations.

Jeff

From: Monkelien, Kyle
Sent: Friday, November 20, 2009 6:34 AM
To: Walker, Jeffrey
Subject: RE: Chukchi Sea EP review

Sorry I missed that, here is an accurate document.

From: Walker, Jeffrey
Sent: Thursday, November 19, 2009 2:17 PM
To: Monkelien, Kyle
Cc: Crumrine, Kathleen; Bohl, Christy
Subject: RE: Chukchi Sea EP review

This still references the Beaufort Sea exploration examples in using floating drilling units – can't we make the same statement relative to Chukchi Sea experience?

From: Monkelien, Kyle
Sent: Tuesday, November 17, 2009 9:47 AM
To: Walker, Jeffrey
Cc: Crumrine, Kathleen; Bohl, Christy
Subject: RE: Chukchi Sea EP review

I think I covered your issues

From: Walker, Jeffrey
Sent: Tuesday, November 17, 2009 8:39 AM
To: Walker, Jeffrey; Monkelien, Kyle
Cc: Crumrine, Kathleen; Bohl, Christy
Subject: RE: Chukchi Sea EP review

Sorry, another thought. We make the point that relief well supplies should be available on the North Slope. We should make some statement that these supplies can be transported to the Chukchi Sea in a reasonable timeframe that would not delay relief well operations.

From: Walker, Jeffrey
Sent: Tuesday, November 17, 2009 8:36 AM
To: Monkelien, Kyle
Cc: Crumrine, Kathleen; Bohl, Christy
Subject: RE: Chukchi Sea EP review

Kyle: Is this based on the Chukchi Sea ODPCP? The characterization of ice conditions seems to be from the Camden Bay ODPCP. The ice conditions in the Chukchi Sea are somewhat different; please look at page 3-22/23 or the Chukchi Sea ODPCP.

Also, this assessment references Beaufort Sea exploration examples in using floating drilling units – We should make the same statements based on Chukchi Sea experience.

The EP notes relief well drilling to be 16-18 days (which would put the relief well activity into mid-November). The ODPCP includes scenarios for 34 days for deeper wells (which extends the relief well into December). This should be clarified in the assessment.

From: Monkelien, Kyle
Sent: Monday, November 16, 2009 2:20 PM
To: Walker, Jeffrey
Cc: Crumrine, Kathleen; Bohl, Christy
Subject: RE: Chukchi Sea EP review

See attached

From: Walker, Jeffrey
Sent: Monday, November 16, 2009 10:23 AM
To: Monkelien, Kyle
Subject: FW: Chukchi Sea EP review

Kyle: Please update the 250.220 assessment for the Chukchi Sea EP. I have attached the one done for the Camden Bay EP. It needs to be modified as appropriate for the Chukchi Sea EP. Work with Cathy as necessary. Need by COB today.

From: Walker, Jeffrey
Sent: Thursday, October 22, 2009 11:20 AM
To: Herman, Bruce; Bohl, Christy; Choromanski, Douglas; Crumrine, Kathleen; Felter, Mary G; Hartung, Daniel; Howell, Randy; Lusher, James A; Monkelien, Kyle; Shank, Michael L
Subject: Chukchi Sea EP review

We deemed the EP submitted on October 20. Review comments are due November 10. Our action date is November 19. Shell proposes to drill up to three wells on one of five identified well locations. Our review should focus on these five sites.

FO needs to wrap up its review functions, with draft assessments to me by the end of next week. These include:

- Shallow hazards findings – Doug/Bruce/Kyle
- Site clearance for biological resources - Doug
- Site clearance for archeological resources – Doug/Bruce

Similar to the Camden Bay EP, I would like a review of the emergency plan and critical operations and curtailment procedures (250.220): Jim/Kathy/Kyle

Oil spill response plan – Christy (please also compare the ODPCP with the EP worst-case scenarios/discussion).

Kyle/Kathy: please confirm if the EP requests or suggests any departures to the regs or other regulatory action (i.e., H2S determination).

Blowout Scenarios, Relief Wells and Worst Case Discharges

Following is an assessment of:

- MMS regulations that address blowout scenarios, loss or disablement of the drilling unit or support craft, relief wells and worst case discharges.
- Shell's EP and ODPCP submissions.
- Findings and Recommendations on the EP.

MMS regulations

The regulations at 30 CFR 250.213(g) for an exploration plan, require a scenario for the potential blowout what will have the highest volume and maximum duration of the potential blowout. The potential for the well to bridge over, the likelihood for surface intervention to stop the blowout and the availability of a rig to drill a relief well and rig constraints and the estimated time to drill a relief well should be discussed.

The regulations at 30 CFR 250.219(a)(1)(iv) and (v) for an exploration plan require a calculated volume of worse case discharges scenario and a description of the worst case discharge scenario as determined by 30 CFR 254.26.

The regulations at 30 CFR 250.220 (a) require a description of emergency plans to respond to a blowout, loss or disablement of a drilling unit, and loss of or damage to support craft.

Shell's EP and ODPCP Submissions

The EP, pages 73-75, provides a description of Shell's plan to respond to a blowout. The plan includes a description of surface control options, relief well options and planning, relief well location and timing, blowout well ignition and blowout well intervention. These measures are also described in the Oil Discharge Prevention and Contingency Plan, Section 1.6.3.

Shell also notes that most blowouts deplete naturally or bridge over in a few days (EP, page 75), but did not assume this in the worst case blowout scenarios. The MMS participated in the development of the Project Team assumptions and agreed with the 5,500 bbl/day standard adopted by the Project Team. MMS believes that 5,500 bbl/day is an appropriate planning assumption for exploratory wells. The 5,500 bbl/day standard is also in the State regulations at 18 AAC 75.434(b) for exploratory wells. The MMS and State both allow for raising or lowering a proposed worst case spill volume based on additional reservoir information. For the Chukchi Sea, there were no well test data to assess the reservoir or to adjust Shells proposed worst case spill volumes. The MMS concludes that 5,500 bbl/day planning standard is appropriate for the Chukchi Sea.

Shell identifies the loss of ice support vessel(s) as one of the factors that may result in curtailment of critical operations (EP, page 55). Shell also discusses plans in the event

of loss of or damage to the drilling unit (EP, pages 56 and 60). Shell lists operations that could be considered critical depending on the well status and conditions at the time to include: accidental or unintentional riser disconnecting, heavy load lifting and handling during resupply activities and shipboard fire (the latter are examples that could lead to loss or damage to the drilling unit). Shell also identified actions that it would execute due to an unanticipated acute hazard (e.g., well control incident, shipboard fire) and the procedures Shell would initiate (e.g., drop drillstring, cut the drillpipe).

Shell confirms that the Discoverer will comply with MMS regulations at 30 CFR 250, Subpart D (EP, page 8). Pursuant to 30 CFR 250.442, a BOP stack must include at least four remote-controlled hydraulically operated BOP's and an operable dual-pod control system to ensure proper and independent operation of the BOP system. Pursuant to 250.443, the BOP system must include an automatic backup to the primary accumulator-charging system. The power source must be independent from the power source for the primary accumulator charging system and must possess sufficient capability to closed and hold closed all BOP components. There also must be two BOP control stations. These requirements are established to assure that the BOP can be activated and the well secured. Compliance with these requirements will enable Shell to execute the response procedures described in the EP in the event the Discoverer was damaged.

Shell notes that the Discoverer will be stocked with a wellhead, casing, drillpipe, mud material, and cement in sufficient quantities to start the relief well and that additional supplies would be mobilized quickly to assure no delay in relief well and blowout control activities (EP, page 74). The MMS believes that additional drilling supplies (casing, drill pipe, mud materials) should be readily available on the North Slope and can be transported to the Chukchi Sea in a timely manner. Specific quantities and types of spare supplies may vary year to year depending on level of activity and MMS believes it is prudent that prior to the 2010 drilling season, Shell should confirm that appropriate inventories of additional materials are available either on the North Slope or can be mobilized in a timeframe that does not delay relief well drilling operations.

In the unlikely event that a relief well was required, Shell would pull the Discoverer away from the drill site and use the Discoverer as a relief well rig to drill a relief well and conduct well kill operations. The MMS recognizes and agrees that floating drilling units, such as the Discoverer, have the capacity to quickly disconnect from the well site and move off location in the event of a well control incident, and serve as a relief well rig. Under 30 CFR 250.417(e), MMS requires Shell to have a contingency plan for moving the Discoverer off location in an emergency situation. Shell's contingency plan for moving off location is discussed on in the EP as part of the ice management plan, pages 66-69.

Shell estimates it would take 16-18 days to drill a relief well for the well depths expected in the Chukchi Sea. In the event of a blowout towards the end of October, relief well drilling activities using the Discoverer could continue into November or early December. Shell notes that when considering potential relief well operations that based on past seasonal ice conditions and active ice management experience, it is very likely that the

drilling season could be extended into December (ODPCP, page 1-23). The Discoverer has been retrofitted with sponsons for ice resistance, has a turret mooring system to enable favorable heading without interruption of the drilling program, and will be supported by two ice management vessels. Ice conditions are described in the ODPCP, page 3-22: the Chukchi offshore ice is highly dynamic in response to wind and currents. Freeze-up is variable but tends to start in November. Initial ice conditions in November are very open to open drift ice in a range of 1 to 6/10 ice concentrations. MMS concludes that the Discoverer and ice management vessels are capable of operating in the type of ice conditions that could occur in November to early December.

Shell notes that a relief well would be drilled without a mud-line cellar (MLC). A MLC is a hole constructed in the ocean floor in which the blowout preventer stack is placed to protect the BOP from ice keels in the event the drilling unit moves off location. The MMS concludes that there are circumstances where drilling a relief well without a MLC could be appropriate but is not convinced that this can always be assumed. A MLC can take 7-10 days to construct in addition to Shell's estimated relief well drilling schedule.

The MMS concludes that Shell's description of plans to respond to a blowout, including using the Discoverer as a relief well rig and pre-staging initial relief well and well control supplies on the Discoverer complies with 30 CFR 250.213(g). MMS also concludes that Shell's emergency procedures described in the EP that discuss the plans and procedures to secure the well under various conditions including loss of ice support vessels and damage to the drilling unit, comply with 30 CFR 250.220.

Findings and Recommendations

The MMS concludes that the EP meets the requirements of 30 CFR 250. The MMS believes it is prudent and appropriate for Shell to confirm specific information prior to the 2010 drilling season and that the following conditions be included in the action letter:

- Shell must document that it has the capability to construct a well cellar if deemed necessary as part of the relief well planning effort.
- Shell must confirm and demonstrate that relief well equipment and supplies are available or will be made available in a time to implement relief well drilling.

MMS does not have a regulatory requirement that a second drilling unit be available for relief well purposes. On review of previous exploration plans that have used floating drilling units in the Chukchi Sea, this office notes that the MMS has required the operator to provide documentation on the location and mobilization time for other suitable drilling units which could be used for relief well drilling purposes. This provision was included as a condition of the MMS approval of the exploration plan and was adopted above and beyond the requirements under 30 CFR 250.220. We believe this remains a prudent and appropriate planning standard. Accordingly, the MMS concludes that the following condition should also be included in the action letter on the EP:

- Shell must provide documentation on the availability of a suitable alternative relief well drilling unit that would be made available to Shell for relief well drilling proposes.

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drilling season could be extended into December (ODPCP, page 1-23). The Discoverer has been retrofitted with sponsons for ice resistance, has a turret mooring system to enable favorable heading without interruption of the drilling program, and will be supported by two ice management vessels. Ice conditions are described in the ODPCP, page 3-22: the Chukchi offshore ice is highly dynamic in response to wind and currents. Freeze-up is variable but tends to start in November. Initial ice conditions in November are very open to open drift ice in a range of 1 to 6/10 ice concentrations. MMS concludes that the Discoverer and ice management vessels are capable of operating in the type of ice conditions that could occur in November to early December.

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- Shell must provide documentation on the availability of a suitable alternative relief well drilling unit that would be made available to Shell for relief well drilling proposes.

From: [Fesmire, Mark E](#)
To: [Crumrine, Kathleen](#); [Walker, Jeffrey](#)
Cc: [Monkelien, Kyle](#); [Shank, Michael L](#); [Howell, Randy](#)
Subject: RE: VERBAL REQUEST - Burger A - Rig Move / Continuing Permitted Drilling Operations - 19 Sept 2012
Date: Wednesday, September 19, 2012 2:30:31 PM

Kathy:

This looks good, but be sure that they understand that they must have the approval of the BSEE inspector on board.

Mark

From: Crumrine, Kathleen
Sent: Wednesday, September 19, 2012 2:26 PM
To: Fesmire, Mark E; Walker, Jeffrey
Cc: Monkelien, Kyle; Shank, Michael L; Howell, Randy
Subject: FW: VERBAL REQUEST - Burger A - Rig Move / Continuing Permitted Drilling Operations - 19 Sept 2012

Please respond via e-mail to me and I will respond back to Shell

From: John.A.Henley@shell.com [<mailto:John.A.Henley@shell.com>]
Sent: Wednesday, September 19, 2012 2:14 PM
To: Crumrine, Kathleen
Cc: Monkelien, Kyle; Chris.Riley@shell.com; Jim.Miller@shell.com; Pauline.Ruddy@shell.com; Greg.Horner@shell.com; Sandy.Sears@shell.com
Subject: VERBAL REQUEST - Burger A - Rig Move / Continuing Permitted Drilling Operations - 19 Sept 2012

Kathleen:

Ice conditions continue to improve at and near the Burger A Location, Shell believes we will soon be able to move back to location.

Following our phone conversation, this is the verbal to conduct the following actions:

- 1) Move the Noble Discoverer near the 25 mile boundary of the Burger A Location. The rig will stand-by near this boundary while final preparations/confirmations are made to re-moor.
- 2) Re-moor the rig at the Burger A location (Latitude: 71 degrees, 18', 30.895" Longitude: 163 degrees, 12', 43.170")
- 3) Continue with previously permitted drilling operations as specified in the Burger A APD Approval, dated 30 August 2012.

If the BSEE agrees can you please confirm via email reply?

A MMS-124 will be submitted in the next 72 hours stating the scope of work outlined above, if verbal approval is granted.

Can we discuss a departure to 250.1704(g)(1) at a mutually agreeable time tomorrow 20 Sept 2012?

It would be nice to have Shell RA / BSEE / Shell Drilling on the phone to assure alignment.

Best regards,

John A. Henley

Sr. Drilling Engineer

Shell Exploration & Production Company

One Shell Square, P. O. Box 61933, New Orleans, LA 70161-1933, United States of America

Tel: +1.504.728.4478

Mob: +1.281.795.0250

Email: john.a.henley@shell.com

From: [Walker, Jeffrey](#)
To: [Fesmire, Mark E](#); [Lusher, James A](#)
Subject: Shell Revised Chukchi Sea EP Alternatives
Date: Tuesday, November 22, 2011 11:12:00 AM

Sharron Warren invited me to a 12:30 teleconference today to discuss alternatives to the Shell program. Specifically ice forecasting and managing shut down of drilling operations and the October 31st date currently adopted in the EP. Apparently Tommy B. likes the concept. I said I would attend; you are welcome to attend also.

Tankersley, Yolanda J

From: Monkeliën, Kyle
Sent: Sunday, September 09, 2012 1:53 PM
To: Shank, Michael L; Fesmire, Mark E; Howell, Randy; Crumrine, Kathleen; Walker, Jeffrey
Subject: Re: Ice hazard moving towards drill site

I just received a call from shell to request permission to complete the temporary abandonment of the pilot hole using the procedures outlined in their request procedure document. I gave verbal approval to start the process and requested an apm be submitted via email. I also informed them they would need to submit an apm when they were ready to re-enter the well. Please call if you have any questions. (b) (6)
Kyle

From: Shank, Michael L
Sent: Sunday, September 09, 2012 03:32 PM
To: Fesmire, Mark E; Monkeliën, Kyle; Howell, Randy; Crumrine, Kathleen; Walker, Jeffrey
Subject: Ice hazard moving towards drill site

This morning's ice report showed a large ice pack encroaching on our location. Following to the Ice Management Plan, the decision has been made to secure the well and begin preparations to move off location. They will be displacing the drilling fluid in the hole with a heavy brine solution then start disconnecting and picking up anchor lines. With regards to notification, they will be submitting an APM for the move to our office on Monday (possibly Tuesday though).

-Mike

From: [Fesmire, Mark E](#)
To: [Walker, Jeffrey](#); [Howell, Randy](#); [Monkelien, Kyle](#); [Lusher, James A](#)
Subject: FW: Pew letter on Beaufort seasonal restriction
Date: Sunday, March 11, 2012 11:55:29 AM
Attachments: [image001.png](#)

Jeff, Randy, Kyle and Jim.

Please help me make sure that the Admiral is informed if the Ice warning level goes to yellow this summer.

Mark

From: Watson, James A
Sent: Sunday, March 11, 2012 5:46 AM
To: Fesmire, Mark E
Subject: RE: Pew letter on Beaufort seasonal restriction

Mark

Thanks. I noticed they have given recognition that the BSEE inspector will be aboard and should be kept informed and able to concur/non-concur. Ice threats in the Arctic seem akin to hurricanes in the Gulf. (b) (5)

Using Shell's color codes, I will want notification of a yellow condition.

thanks
Jim

From: Fesmire, Mark E
Sent: Saturday, March 10, 2012 2:41 PM
To: Watson, James A
Subject: RE: Pew letter on Beaufort seasonal restriction

Admiral Watson:

(b) (5)

(b) (5)

Mark Fesmire

From: Watson, James A
Sent: Saturday, March 10, 2012 8:36 AM
To: Fesmire, Mark E
Subject: Re: Pew letter on Beaufort seasonal restriction

Mark

In one of the reports I came across, I noticed that each of the offshore exploration operations in the 1980s experienced multiple days of down time due to ice risks. (b) (5)

Thanks

Jim

From: Fesmire, Mark E
Sent: Friday, March 09, 2012 09:51 AM
To: Watson, James A
Subject: RE: Pew letter on Beaufort seasonal restriction

Admiral:

We have some expertise in AK OCS in the form of Jim Lusher, who monitors our Ice tracking and forecasting efforts. However, I would not place him in the role of SME.

Mark Fesmire

From: Watson, James A
Sent: Friday, March 09, 2012 5:27 AM
To: Bakalov, Raya V; Fesmire, Mark E; Feldgus, Steve H; Moore, David C; Schneider, Margaret N
Subject: Fw: Pew letter on Beaufort seasonal restriction
Importance: High

All,

Need to think about response for this. Who is DOI's arctic ice expert?

Raya,

Should I respond or is David interested?

From: Marilyn Heiman [mailto:MHeiman@pewtrusts.org]
Sent: Thursday, March 08, 2012 11:35 AM
To: Hayes, David; Davis, Laura; Watson, James A; Beaudreau, Tommy
Cc: Bakalov, Raya V; Kendall, James; Fesmire, Mark E; Eleanor Huffines <EHuffines@Pewtrusts.org>;

Marsters, Lizzie

Subject: Pew letter on Beaufort seasonal restriction

David, Laura, Admiral Watson, and Tommy –

Attached is a letter from Pew urging you to impose the same seasonal restrictions in the Beaufort as you imposed in the Chukchi, which as you know, we very much appreciated. We commissioned a review by Dr. Andy Mahoney, an expert in Arctic sea ice from the University of Alaska, Fairbanks which gives a strong justification for the restrictions. This review is also attached.

Thank you for your consideration. Please let me know if you have any questions.

Marilyn

Marilyn Heiman

Director, U.S. Arctic Program

The Pew Environment Group | The Pew Charitable Trusts

1904 Third Ave., Suite 305, Seattle WA 98101 |

p: 206-905-4796 | **e:**

mheiman@pewtrusts.org | www.pewenvironment.org/arctic



PEW

From: [Fesmire, Mark E](#)
To: [Monkelien, Kyle](#)
Cc: [Shank, Michael L](#); [Howell, Randy](#); [Crumrine, Kathleen](#); [Walker, Jeffrey](#)
Subject: Re: Ice hazard moving towards drill site
Date: Sunday, September 09, 2012 3:04:40 PM

Kyle

Would you be so kind as to notify the slope entities, the Coast Guard and Jim Kendal?

Thanks for the voice mail. I concur with your decision. Good job!

Mark

Sent from my iPad

On Sep 9, 2012, at 2:53 PM, "Monkelien, Kyle" <Kyle.Monkelien@bsee.gov> wrote:

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(b) (6)
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Sent: Sunday, September 09, 2012 03:32 PM
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-Mike