

Form MMS 123A/123S - Electronic Version
Application for Permit to Drill a New Well

Lease G16636 **Area/Block** MC 683 **Well Name** 002 **ST** 00 **BP** 00 **Well** Exploration
Application Status Approved **Operato** 02481 **BP Exploration & Production Inc.**

General Well Information

API Number 608174113600	Approval Date 10/09/2007	Approved By David Trocquet
Date of Request 08/06/2007	Req Spud 08/22/2007	Kickoff Point N/A
Water Depth (ft.) 4619	Drive Size (in) 36	Mineral Code Hydrocarbon
RKB Elevation 88	Drive Depth 5007	Subsea BOP Yes
Verbal Approval		Verbal Approval By

Proposed Well Location

SURFACE LOCATION

LEASE (OCS) G16636	Area/Block MC 683	Authority Federal Lease
Entered NAD 27	Calculated NAD 27 Departures	Calculated NAD 27 X-Y
Lat: 28.27407222	S 629.0	X 1048480.04151
Lon: -88.83947306	W 3040.0	Y 1.0264948992688E7
Surface Plan	Plan Lease (OCS) G16636	Area/Block MC 683

BOTTOM LOCATION

LEASE (OCS) G16636	Area/Block MC683
Entered NAD 27	Calculated NAD 27 Departures
Lat: 28.28586083	S 4954.0
Lon: -88.84750611	W 520.0
Bottom Plan	Plan Lease (OCS) G16636

Approval Comments

Susan,

The APD is approved with the following cautions/conditions:

1. Caution for possible shallow gas at 549-832 ft bml and 1128-4903 ft bml. Since the Conductor/Surface Casing may penetrate possible shallow gas, a pre-spud meeting and kill weight mud is recommended.
2. Caution for a high potential shallow water flow at 549-839 ft bml and 1778-2244 ft bml.
3. Please be reminded that an APM should be submitted with a final surveyed surface location plat (in NAD 83), KB, and water depth as soon as they are determined.

Thanks,
David Trocquet

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Geologic Information

H2S Designation Absent	H2S TVD
Anticipated Geologic Markers	
Name	Top MD
Top Salt	9628
Base Salt	18573
M51 (N2 Sand)	24828
M50 (Q4 Sand)	26383
M48 (U10 Sand)	28858

Rig Information

RIG SPECIFICATIONS		ANCHORS No	
Rig Name	DIAMOND OCEAN CONFIDENCE		
Type	SEMISUBMERSIBLE	ID Number	45924
Function	DRILLING	Constructed	1998
Shipyard	TDI-HALTER	Refurbished	2000
RATED DEPTHS			
Water Depth	7500	Drill Depth	35000
CERTIFICATES			
ABS/DNV	02/19/2011	Coast Guard	10/24/2008
SAFE WELDING AREA			
Approval Date	02/06/1993	District	
Remarks	12/13/2005 Diamond submitted a letter stating that the rig can drill to 35,000 feet. Temporary ABS certificate.		

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Question Information

Number	Question	Respons	Response Text
1	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?	YES	
2	If hydrocarbon-based drilling fluids were used, is the drilling rig outfitted for zero discharge and will zero discharge procedures be followed?	N/A	
3	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?	YES	
4	If requesting a waiver of the conductor casing, have you submitted a log to MMS G&G that is within 500 feet of the proposed bottom hole location for the proposed surface casing point?	N/A	
5	Will the proposed operation be covered by an EPA Discharge Permit? (please provide permit number in comments for this question)	YES	GMG290110, Outfall Number 815
6	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.	N/A	

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Permit Attachments

File Type	File Description	Status
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Required Attachments

pdf	Proposed Well Location Plat	Attached
pdf	Drilling prognosis and summary of drilling, cementing, and mud processes	Attached
pdf	Directional Program	Attached
pdf	Pore pressure (PP), Mud Weight (MW), and Fracture Gradient (FG) Plot	Attached
pdf	Engineering Calculation	Attached
pdf	BOP & Diverter Schematics with Operating Procedures	Attached
pdf	Proposed Wellbore Schematic	Attached

Optional/Supplemental Attachments

pdf	Safe Welding Area Drawing	Attached
pdf	Diamond Loop Current Plan	Attached
pdf	U.S. Coast Guard Certificate	Attached
pdf	Logging Program	Attached
pdf	Shallow Water Zone	Attached
pdf	Casing Design Criteria	Attached
pdf	Shallow Water Zone Plan	Attached
pdf	Departure List	Attached

Contacts Information

Name	Susan Wilson
Company	02481 BP Exploration & Production Inc.
Phone Number	2813660969
E-mail Address	wilson4@bp.com
Contact	Regulatory

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Well Design Information

Interval Number 1			Type Casing	Name Conductor			
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft) MD TVD	Pore Pressure (ppg)
1	28.0	218.0	X-52	2437.0	952.0	6007. 6007.	8.8
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)	32.5	Type	No Preventers			Annular Test (psi)	0.0
Mud Weight (ppg)	8.6	Size (in)	N/A			BOP/Diverter Test	0.0
Mud Type Code	Gelled Sea	Wellhead Rating	0			Test Fluid Weight	0.0
Fracture Gradient	9.9	Annular Rating (psi)	0			Casing/Liner Test	0.0
Liner Top Depth (ft)	4702.0	BOP/Diverter Rating	0			Formation Test (ppg)	0.0
Cement Volume (cu	2600.0						

Interval Number 2			Type Casing	Name Surface			
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft) MD TVD	Pore Pressure (ppg)
1	22.0	224.0	X-80	6363.0	3876.0	7857. 7857.	9.5
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)	26.0	Type	Blowout			Annular Test (psi)	3500.0
Mud Weight (ppg)	9.6	Size (in)	18.75			BOP/Diverter Test	6000.0
Mud Type Code	Water Base	Wellhead Rating	15000			Test Fluid Weight	8.6
Fracture Gradient	11.2	Annular Rating (psi)	10000			Casing/Liner Test	3100.0
Liner Top Depth (ft)	0.0	BOP/Diverter Rating	15000			Formation Test (ppg)	11.2
Cement Volume (cu	3500.0						

Interval Number 3			Type Liner	Name Intermediate			
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft) MD TVD	Pore Pressure (ppg)
1	18.0	117.0	P-110	6680.0	2110.0	10500 10500	10.5
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)	21.0	Type	Blowout			Annular Test (psi)	3500.0
Mud Weight (ppg)	10.7	Size (in)	18.75			BOP/Diverter Test	6000.0
Mud Type Code	Synthetic	Wellhead Rating	15000			Test Fluid Weight	10.7
Fracture Gradient	14.3	Annular Rating (psi)	10000			Casing/Liner Test	2500.0
Liner Top Depth (ft)	7462.0	BOP/Diverter Rating	15000			Formation Test (ppg)	14.3
Cement Volume (cu	1300.0						

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Interval Number 4		Type Casing		Name Intermediate			
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft) MD TVD	Pore Pressure (ppg)
1	14.0	114.0	Q-125HC	12453.0	11320.0	4801. 4801.	12.5
2	13.625	88.2	BP-135	11147.0	6360.0	17838 17838	12.5

GENERAL INFORMATION		PREVENTER INFORMATION		TEST INFORMATION	
Hole Size (in)	16.5	Type	Blowout	Annular Test (psi)	3500.0
Mud Weight (ppg)	13.7	Size (in)	18.75	BOP/Diverter Test	7200.0
Mud Type Code	Synthetic	Wellhead Rating	15000	Test Fluid Weight	13.7
Fracture Gradient	15.5	Annular Rating (psi)	10000	Casing/Liner Test	3500.0
Liner Top Depth (ft)	0.0	BOP/Diverter Rating	15000	Formation Test (ppg)	15.5
Cement Volume (cu	2600.0				

Interval Number 5		Type Liner		Name Intermediate			
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft) MD TVD	Pore Pressure (ppg)
1	11.875	71.8	135	11580.0	5810.0	22414 22178	14.5

GENERAL INFORMATION		PREVENTER INFORMATION		TEST INFORMATION	
Hole Size (in)	14.0	Type	Blowout	Annular Test (psi)	3500.0
Mud Weight (ppg)	14.6	Size (in)	18.75	BOP/Diverter Test	7700.0
Mud Type Code	Synthetic	Wellhead Rating	15000	Test Fluid Weight	14.6
Fracture Gradient	15.5	Annular Rating (psi)	10000	Casing/Liner Test	2700.0
Liner Top Depth (ft)	17493.0	BOP/Diverter Rating	15000	Formation Test (ppg)	15.5
Cement Volume (cu	1500.0				

Interval Number 6		Type Liner		Name Intermediate			
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft) MD TVD	Pore Pressure (ppg)
1	9.875	66.6	C-110	13020.0	11810.0	26006 25258	14.0

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GENERAL INFORMATION		PREVENTER INFORMATION		TEST INFORMATION	
Hole Size (in)	12.25	Type	Blowout	Annular Test (psi)	3500.0
Mud Weight (ppg)	14.2	Size (in)	18.75	BOP/Diverter Test	9700.0
Mud Type Code	Synthetic	Wellhead Rating	15000	Test Fluid Weight	14.6
Fracture Gradient	16.0	Annular Rating (psi)	10000	Casing/Liner Test	2700.0
Liner Top Depth (ft)	22112.0	BOP/Diverter Rating	15000	Formation Test (ppg)	16.0
Cement Volume (cu	1120.0				

Interval Number		7		Type	Open Hole		Name	Open Hole	
Section Number	Casing Size (in)	Casing Weight (lb/ft)	Casing Grade	Burst Rating	Collapse Rating (psi)	Depth (ft) MD	TVD	Pore Pressure (ppg)	
1						30099	28768	15.3	

GENERAL INFORMATION		PREVENTER INFORMATION		TEST INFORMATION	
Hole Size (in)	8.5	Type	Blowout	Annular Test (psi)	3500.0
Mud Weight (ppg)	15.5	Size (in)	18.75	BOP/Diverter Test	9700.0
Mud Type Code	Synthetic	Wellhead Rating	15000	Test Fluid Weight	0.0
Fracture Gradient	16.5	Annular Rating (psi)	10000	Casing/Liner Test	0.0
Liner Top Depth (ft)	0.0	BOP/Diverter Rating	15000	Formation Test (ppg)	0.0
Cement Volume (cu	0.0				

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