

Form MMS 123A/123S - Electronic Version
Application for Revised Sidetrack

Lease G16865 **Area/Block** AT 140 **Well Name** 001 **ST** 01 **BP** 00 **Well** Exploration
Application Status Approved **Operato** 02219 Kerr-McGee Oil & Gas Corporation

Correction Narrative

Verbal apporval was granted by Mr Mr David Trocquet on May 23, 2006 to modify the plugback for sidetrack and sidetrack procedure for Well #1 ST01/BP00. The original approval allow for cutting and pulling the 13 5/8" casing from 9000', set a cement 500' cement plug in the 13 5/8" casing, cut a window and sidetrack. Due to being uable to pull the 13 5/8" casing after several cuts the procedure had to be changed as noted in the attached revised procedure.

General Well Information

API Number 608184005901	Approval Date 06/12/2006	Approved By Dave Trocquet
Date of Request 05/24/2006	Req Spud 05/24/2006	Kickoff Point N/A
Water Depth (ft.) 3739	Drive Size (in) 36	Mineral Code Hydrocarbon
RKB Elevation 82	Drive Depth 3927	Subsea BOP Yes
Verbal Approval 05/23/2006	Verbal Approval By Mr. Davis Trocquet	

Proposed Well Location

SURFACE LOCATION

LEASE (OCS) G16865	Area/Block AT 140	Authority Federal Lease
Entered NAD 27	Calculated NAD 27 Departures	Calculated NAD 27 X-Y
Lat: 27.81194139	N 4861.0	X 816235.975463
Lon: -89.55002528	E 7444.0	Y 1.0101059004935E7
Surface Plan	Plan Lease (OCS)	Area/Block null

BOTTOM LOCATION

LEASE (OCS) G16865	Area/Block AT140	
Entered NAD 27	Calculated NAD 27 Departures	Calculated NAD 27 X-Y
Lat: 27.82443139	N 374.0	X 818946.578036
Lon: -89.54193278	E 4733.0	Y 1.0105546262107E7
Bottom Plan	Plan Lease (OCS)	Area/Block null

Approval Comments

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Geologic Information

H2S Designation Absent	H2S TVD
Anticipated Geologic Markers	
Name	Top MD
S abies B	15885

Rig Information

RIG SPECIFICATIONS		ANCHORS Yes	
Rig Name	DIAMOND OCEAN STAR		
Type	SEMISUBMERSIBLE	ID Number	28516
Function	DRILLING	Constructed	1969
Shipyard	BETHLEHEM	Refurbished	
RATED DEPTHS			
Water Depth	5500	Drill Depth	20000
CERTIFICATES			
ABS/DNV	02/28/2007	Coast Guard	02/03/2006
SAFE WELDING AREA			
Approval Date	03/20/1998	District	
Remarks	As per email dated May 16, 2005, from the operator Mr. Cary Bradford, advised that they drilled into a depleted Sand, and had to set the 9 5/8" casing at 15052'MD/13500'TVD, the approved depth 17052'MD/14932'YVD, and requested to set set a 7 5/8" liner. A revised APD Inf. Sheet to reflect this change was submitted for review & approval.		

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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?	NO	
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	GMG 290000
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	Proposed Wellbore Schematic	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

Optional/Supplemental Attachments

pdf	Revised MMS 123S (05/24/2006)	Attached
pdf	Revised Casing Design (05/24/2006)	Attached
pdf	Revised Pressure Calculation (05/24/2006)	Attached
pdf	Revised Pore Pressure Chartn (05/24/2006)	Attached
pdf	Revised Wellbore Schematic (05/24/2006)	Attached
pdf	Revised Procedure (05/24/2006)	Attached
pdf	Safe Welding Area Drawing	Attached
pdf	U.S. Coast Guard Certificate	Attached
pdf	Rig Picture and Drawing	Attached
pdf	MMS 123s	Attached
pdf	Departure List	Attached
pdf	ABS/DNV Certificate	Attached

Contacts Information

Name	Cary Bradford
Company	02219 Kerr-McGee Oil & Gas Corporation
Phone Number	281-673-6338
E-mail Address	cbradford@kmg.com
Contact	Please contact me concerning any questions related to this submittal.

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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	22.0	224.3	X-80	6360.0	3870.0	5770. 5770.	8.6
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)	26.0		Type	Blowout		Annular Test (psi)	3500.0
Mud Weight (ppg)	8.8		Size (in)	18.75		BOP/Diverter Test	5000.0
Mud Type Code	Gelled Sea		Wellhead Rating	15000		Test Fluid Weight	8.6
Fracture Gradient	10.7		Annular Rating (psi)	10000		Casing/Liner Test	1476.0
Liner Top Depth (ft)			BOP/Diverter Rating	15000		Formation Test (ppg)	10.9
Cement Volume (cu	6187.0						

Interval Number 2			Type Liner		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	17.875	93.5	HCN-80	3916.0	1290.0	6390. 6390.	10.2
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)	22.0		Type	Blowout		Annular Test (psi)	3500.0
Mud Weight (ppg)	10.4		Size (in)	18.75		BOP/Diverter Test	5000.0
Mud Type Code	Synthetic		Wellhead Rating	15000		Test Fluid Weight	10.4
Fracture Gradient	11.8		Annular Rating (psi)	10000		Casing/Liner Test	965.0
Liner Top Depth (ft)	4150.0		BOP/Diverter Rating	15000		Formation Test (ppg)	11.8
Cement Volume (cu	609.0						

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	16.0	97.0	P-110	6920.0	2340.0	8455. 8455.	10.5
GENERAL INFORMATION			PREVENTER INFORMATION			TEST INFORMATION	
Hole Size (in)	20.0		Type	Blowout		Annular Test (psi)	3500.0
Mud Weight (ppg)	10.7		Size (in)	18.75		BOP/Diverter Test	5000.0
Mud Type Code	Synthetic		Wellhead Rating	15000		Test Fluid Weight	13.5
Fracture Gradient	14.5		Annular Rating (psi)	10000		Casing/Liner Test	940.0
Liner Top Depth (ft)	4060.0		BOP/Diverter Rating	15000		Formation Test (ppg)	13.5
Cement Volume (cu	1386.0						

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Well Design Information

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	13.625	88.2	HC Q125	10030.0	6370.0	8600. 8600.	10.5
GENERAL INFORMATION			PREVENTER INFORMATION		TEST INFORMATION		
Hole Size (in)		17.5	Type		Blowout		Annular Test (psi)
Mud Weight (ppg)		13.5	Size (in)		18.75		BOP/Diverter Test
Mud Type Code		Synthetic	Wellhead Rating		15000		Test Fluid Weight
Fracture Gradient		14.5	Annular Rating (psi)		10000		Casing/Liner Test
Liner Top Depth (ft)			BOP/Diverter Rating		15000		Formation Test (ppg)
Cement Volume (cu		465.0					14.5

Interval Number 5		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	11.875	71.8	HCQ125	10720.0	7190.0	14893 14000	11.0
GENERAL INFORMATION			PREVENTER INFORMATION		TEST INFORMATION		
Hole Size (in)		14.5	Type		Blowout		Annular Test (psi)
Mud Weight (ppg)		13.5	Size (in)		18.75		BOP/Diverter Test
Mud Type Code		Synthetic	Wellhead Rating		15000		Test Fluid Weight
Fracture Gradient		15.3	Annular Rating (psi)		10000		Casing/Liner Test
Liner Top Depth (ft)			BOP/Diverter Rating		15000		Formation Test (ppg)
Cement Volume (cu		1850.0					15.3

Interval Number 6		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						18587 17000	11.5
GENERAL INFORMATION			PREVENTER INFORMATION		TEST INFORMATION		
Hole Size (in)		10.625	Type		Blowout		Annular Test (psi)
Mud Weight (ppg)		13.5	Size (in)		18.75		BOP/Diverter Test
Mud Type Code		Synthetic	Wellhead Rating		15000		Test Fluid Weight
Fracture Gradient		15.7	Annular Rating (psi)		10000		Casing/Liner Test
Liner Top Depth (ft)			BOP/Diverter Rating		15000		Formation Test (ppg)
Cement Volume (cu							0.0

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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. MMS 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 250.196. 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 this form is estimated to average 2? hours per response, including 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



AT 140 #1 ST01
OCS-G 16685
Sidetrack Procedure

May 5, 2006

Existing Casing

22" @ 5,770' MD / TVD LOT=10.7 emw
17-7/8" @ 6,346' MD / TVD LOT=11.5 emw
16" @ 8,455' MD / TVD FIT=14.5 emw

Planned Casing

13-5/8" @ 14,893' MD / 14,000' TVD LOT=15.3 emw
12-1/4" open hole to 18,587' MD 17,000' TVD
TD MW 13.5 ppg

1. After waiting on cement, test the 16" x 20" casing to 940 psi for 30 minutes using 13.5 ppg mud (500 psi over the 16" shoe test).
2. Pick up a 14.5" x 17" rotary steerable and concentric reamer assembly.
3. TIH and drill out the 16" shoe to sufficiently bury the BHA or until 10' of formation is drilled.
4. After drilling 10' of formation spot a viscous pill and test the 16" casing shoe to 14.5 ppg emw.
5. Kickoff and build angle to 33° at 2.5 °/100' along an azimuth of 30.5°. Planned base of build at 9,905' MD / 9,830' TVD. Hold angle and azimuth to the planned 13-5/8" casing point at ±14893' MD / 14,000' TVD.
6. Run and cement 13-5/8" casing. Test casing shoe to leakoff (expect 15.3 ppg emw).
7. Drill 12-1/4" hole to a total depth of ±18,587' MD / 17,000' TVD with a maximum angle of 37° and azimuth of 32.5°.
8. Run open hole logs as needed.
9. Plans will be submitted for future operations after evaluation of the well.

Maximum Anticipated Pressure Calculations

Field Claymore Block AT 140 OCS-G- 16685 Well #1 ST01 Rig RKB 82'
 Casing 22.000" @ 5,770' WD 3,739' TVDtd 6,390'

Fracture at casing shoe less gas column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{GG} * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>10.7</u>	ppg
GG	Gas Gradient	<u>0.10</u>	psi/ft
TVDs	TVD of Casing Shoe	<u>5,770</u>	ft

MASP 2783 psig

Notes: 1. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.

Bottom hole pressure less gas mud column

$$\text{MASP} = (\text{PP} * .052 * \text{TVDtd}) - (\% \text{Gas} * \text{GG} * \text{TVDtd}) - (\% \text{mud} * .052 * \text{MWtd} * \text{TVDtd})$$

PP	Pore pressure @ deepest depth drilled below casing	<u>10.20</u>	ppg
%Gas	Gas percentage used in Calculations	<u>70%</u>	
%Mud	Mud percentage used in Calculations	<u>30%</u>	
MWtd	Highest MW used below the referenced casing, ppg	<u>10.4</u>	ppg
TVDtd	TVD of deepest hole the casing will be exposed to	<u>6,390</u>	Feet
GG	Gas gradient, psi per ft	<u>0.100</u>	psi/ft
TVDadj	TVD adjusted to well head using water depth and RKB	<u>2569</u>	

MASP 1,905 psig

Mud/Gas Interface = 4591.7 ft

Notes: 1. For depths above 12,000' a 70% gas column will be used. Between 12,000' and 15,000' a 60% column will be used, and 50% for depths 15000' or deeper. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.
 2. MASP assumes mud over gas calculated on TVD.

Percentage of bottom hole pressure

$$\text{MASP} = (\text{PP} * 0.052 * \text{TVDtd}) * (0.45)$$

PP	Pore Pressure at Deepest Depth Drilled Below Casing	<u>10.2</u>	ppg
TVDtd	True Vertical Depth of Deepest Hole the Casing Will be Exposed To	<u>6,390</u>	feet
BHP%	Percentage of Bottom Hole Pressure at Surface During Kick / Kill	<u>45%</u>	

MASP 1,525 psig

Fracture at casing shoe less seawater column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{SW} * .052 * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>10.7</u>	ppg
TVDs	TVD of Casing Shoe	<u>5770</u>	ft
SW	Sea water density, 8.6 ppg	<u>8.6</u>	ppg

MASP 3357 psig

Maximum Anticipated Pressures

MASP= 1525 psig

Maximum Anticipated Pressure Calculations

Field Claymore Block AT 140 OCS-G- 16685 Well #1 ST01 Rig RKB 82'
 Casing 17.875" @ 6,390' WD 3,739' TVDtd 9,000'

Fracture at casing shoe less gas column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{GG} * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>11.8</u>	ppg
GG	Gas Gradient	<u>0.10</u>	psi/ft
TVDs	TVD of Casing Shoe	<u>6,390</u>	ft

MASP 3448 psig

Notes: 1. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.

Bottom hole pressure less gas mud column

$$\text{MASP} = (\text{PP} * .052 * \text{TVDtd}) - (\% \text{Gas} * \text{GG} * \text{TVDtd}) - (\% \text{mud} * .052 * \text{MWtd} * \text{TVDtd})$$

PP	Pore pressure @ deepest depth drilled below casing	<u>10.50</u>	ppg
%Gas	Gas percentage used in Calculations	<u>70%</u>	
%Mud	Mud percentage used in Calculations	<u>30%</u>	
MWtd	Highest MW used below the referenced casing, ppg	<u>10.7</u>	ppg
TVDtd	TVD of deepest hole the casing will be exposed to	<u>9,000</u>	Feet
GG	Gas gradient, psi per ft	<u>0.100</u>	psi/ft
TVDadj	TVD adjusted to well head using water depth and RKB	<u>5179</u>	

MASP 2,782 psig

Mud/Gas Interface = 5374.7 ft

Notes: 1. For depths above 12,000' a 70% gas column will be used. Between 12,000' and 15,000' a 60% column will be used, and 50% for depths 15000' or deeper. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.
 2. MASP assumes mud over gas calculated on TVD.

Percentage of bottom hole pressure

$$\text{MASP} = (\text{PP} * 0.052 * \text{TVDtd}) * (0.45)$$

PP	Pore Pressure at Deepest Depth Drilled Below Casing	PP=	<u>10.5</u> ppg
TVDtd	True Vertical Depth of Deepest Hole the Casing Will be Exposed To	TVDtd=	<u>9,000</u> feet
BHP%	Percentage of Bottom Hole Pressure at Surface During Kick / Kill	BHP%=	<u>45%</u>

MASP 2,211 psig

Fracture at casing shoe less seawater column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{SW} * .052 * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>11.8</u>	ppg
TVDs	TVD of Casing Shoe	<u>6390</u>	ft
SW	Sea water density, 8.6 ppg	<u>8.6</u>	ppg

MASP 4083 psig

Maximum Anticipated Pressures

MASP= 2211 psig

Maximum Anticipated Pressure Calculations

Field Claymore Block AT 140 OCS-G- 16685 Well #1 ST01 Rig RKB 82'
 Casing 16,000" @ 8,455' WD 3,739' TVDtd 13,500'

Fracture at casing shoe less gas column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{GG} * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>14.5</u>	ppg
GG	Gas Gradient	<u>0.15</u>	psi/ft
TVDs	TVD of Casing Shoe	<u>8,455</u>	ft

MASP 5327 psig

Notes: 1. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.

Bottom hole pressure less gas mud column

$$\text{MASP} = (\text{PP} * .052 * \text{TVDtd}) - (\% \text{Gas} * \text{GG} * \text{TVDtd}) - (\% \text{mud} * .052 * \text{MWtd} * \text{TVDtd})$$

PP	Pore pressure @ deepest depth drilled below casing	<u>13.00</u>	ppg
%Gas	Gas percentage used in Calculations	<u>60%</u>	
%Mud	Mud percentage used in Calculations	<u>40%</u>	
MWtd	Highest MW used below the referenced casing, ppg	<u>13.8</u>	ppg
TVDtd	TVD of deepest hole the casing will be exposed to	<u>13,500</u>	Feet
GG	Gas gradient, psi per ft	<u>0.150</u>	psi/ft
TVDadj	TVD adjusted to well head using water depth and RKB	<u>9679</u>	

MASP 4,036 psig

Mud/Gas Interface = 7692.6 ft

Notes: 1. For depths above 12,000' a 70% gas column will be used. Between 12,000' and 15,000' a 60% column will be used, and 50% for depths 15000' or deeper. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.
 2. MASP assumes mud over gas calculated on TVD.

Percentage of bottom hole pressure

$$\text{MASP} = (\text{PP} * 0.052 * \text{TVDtd}) * (0.45)$$

PP	Pore Pressure at Deepest Depth Drilled Below Casing	PP=	<u>13.0</u> ppg
TVDtd	True Vertical Depth of Deepest Hole the Casing Will be Exposed To	TVDtd=	<u>13,500</u> feet
BHP%	Percentage of Bottom Hole Pressure at Surface During Kick / Kill	BHP%=	<u>45%</u>

MASP 4,107 psig

Fracture at casing shoe less seawater column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{SW} * .052 * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>14.5</u>	ppg
TVDs	TVD of Casing Shoe	<u>8455</u>	ft
SW	Sea water density, 8.6 ppg	<u>8.6</u>	ppg

MASP 6591 psig

Maximum Anticipated Pressures

MASP= 4036 psig

Maximum Anticipated Pressure Calculations

Field Claymore Block AT 140 OCS-G- 16685 Well #1 ST01 Rig RKB 82'
 Casing 13.625" @ 14,000' WD 3,739' TVDtd 17,000'

Fracture at casing shoe less gas column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{GG} * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>15.3</u>	ppg
GG	Gas Gradient	<u>0.15</u>	psi/ft
TVDs	TVD of Casing Shoe	<u>14,000</u>	ft

MASP 9402 psig

Notes: 1. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.

Bottom hole pressure less gas mud column

$$\text{MASP} = (\text{PP} * .052 * \text{TVDtd}) - (\% \text{Gas} * \text{GG} * \text{TVDtd}) - (\% \text{mud} * .052 * \text{MWtd} * \text{TVDtd})$$

PP	Pore pressure @ deepest depth drilled below casing	<u>11.50</u>	ppg
%Gas	Gas percentage used in Calculations	<u>50%</u>	
%Mud	Mud percentage used in Calculations	<u>50%</u>	
MWtd	Highest MW used below the referenced casing, ppg	<u>13.5</u>	ppg
TVDtd	TVD of deepest hole the casing will be exposed to	<u>17,000</u>	Feet
GG	Gas gradient, psi per ft	<u>0.150</u>	psi/ft
TVDadj	TVD adjusted to well head using water depth and RKB	<u>13179</u>	

MASP 2,924 psig

Mud/Gas Interface = 10410.5 ft

Notes: 1. For depths above 12,000' a 70% gas column will be used. Between 12,000' and 15,000' a 60% column will be used, and 50% for depths 15000' or deeper. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.
 2. MASP assumes mud over gas calculated on TVD.

Percentage of bottom hole pressure

$$\text{MASP} = (\text{PP} * 0.052 * \text{TVDtd}) * (0.45)$$

PP	Pore Pressure at Deepest Depth Drilled Below Casing	<u>11.5</u>	ppg
TVDtd	True Vertical Depth of Deepest Hole the Casing Will be Exposed To	<u>17,000</u>	feet
BHP%	Percentage of Bottom Hole Pressure at Surface During Kick / Kill	<u>45%</u>	

MASP 4,575 psig

Fracture at casing shoe less seawater column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{SW} * .052 * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>15.3</u>	ppg
TVDs	TVD of Casing Shoe	<u>14000</u>	ft
SW	Sea water density, 8.6 ppg	<u>8.6</u>	ppg

MASP 11499 psig

Maximum Anticipated Pressures

MASP= 2924 psig

DRILLING SCHEMATIC
5-May-06
Claymore Prospect
Ocean Star

Well: AT 140 #1 ST01
Lease: OCS-G-16865
Surf Loc: 7445' FEL & 4869' FNL

Water Depth (ft): 3739'
KB to MSL (ft): 82'
KB to Mud Line (ft): 3811'

Total Depth: 18587'
TD Loc: 4730' FEL & 354' FNL

EVALUATION	GEOLOGY/ COMMENTS		HOLE SIZE CASING	CEMENT	MUD (Est LOT)	DIRECTIONAL BHA
		4060	16" TOL 4146 17-7/8" TOL	Jetted 36" Drive Pipe @ 4131'		
GR/LWD/PWD		5770 [5770]	26"Hole	TOC: 3807	Spud 8.6 - 8.8 ppg Spotted 13.0 ppg mud in open hole	Straight Hole Pendulum
GR/LWD/PWD		6346 [6346]	22"Cond, 224#, X-80, S-60 MT		(10.7ppg LOT)	
GR/LWD/PWD		8455 [8455]	23"Hole	TOC: 5846	Synthetic 9.2 - 10.4 ppg	Straight Hole Pendulum
GR/LWD/PWD		8455 [8455]	17.875" Liner, 93.5#, N-80., HY-521		(11.5ppg LOT)	
GR/LWD/PWD		8455 [8455]	20"Hole	TOC: 7000	Synthetic 10.4 - 11.0 ppg	Straight Hole Pendulum
GR/LWD/PWD		8455 [8455]	16" Liner, 97#, P-110 HC, HY-511		(14.5ppg FIT)	
GR/LWD/PWD		8455 [8455]	17"Hole	TOC: 10000	Synthetic 13.5. ppg	Build and Hold Rotary Steerable
GR/RES/PWD		14893 [14000]	13.625" Csg, 88.2#, Q-125 HC, HY-523		(15.3 ppg LOT)	
GR/RES/DEN/NEUTRON/PWD		18587 [17000]	12.25"Hole		Synthetic 13.5. ppg	Hold Rotary Steerable
GR/RES/DEN/NEUTRON/PWD		18587 [17000]	Open Hole			

KERR-McGEE

OCS-G-26363

96

KMG PROP BHL AT 140 #1ST1
374' FNL, 4733' FEL
X= 818,947
Y= 10,105,546
LAT= 27°49' 27.93" N
LONG= 89°32' 30.948" W
PTD= 18,587' MD/
17,000' SSTVD

Y= 10,105,920

**MMS APPROVED
KMG LOC "D"**

**MMS APPROVED
KMG LOC "B"**

**KMG SL
AT 140 #1**

**MMS APPROVED
KMG LOC "A"**

KERR-McGEE
OCS-G-16865
140

**MMS APPROVED
KMG LOC "C"**

KMG PROP SL AT 140 #1ST1
4869' FNL, 7446' FEL
X= 816,234
Y= 10,101,051
Lat= 27°48' 42.706" N
Long= 89°33' 00.124" W



KerrMcGee

16666 Northchase Dr. Houston, Texas 77060

**ATWATER VALLEY BLOCK 140 (OCS-G-16865)
PROPOSED WELL LOCATION #1ST1**

Submitted By: L. Terlikoski/F. Burton
Date: 5/06

Confidential Document



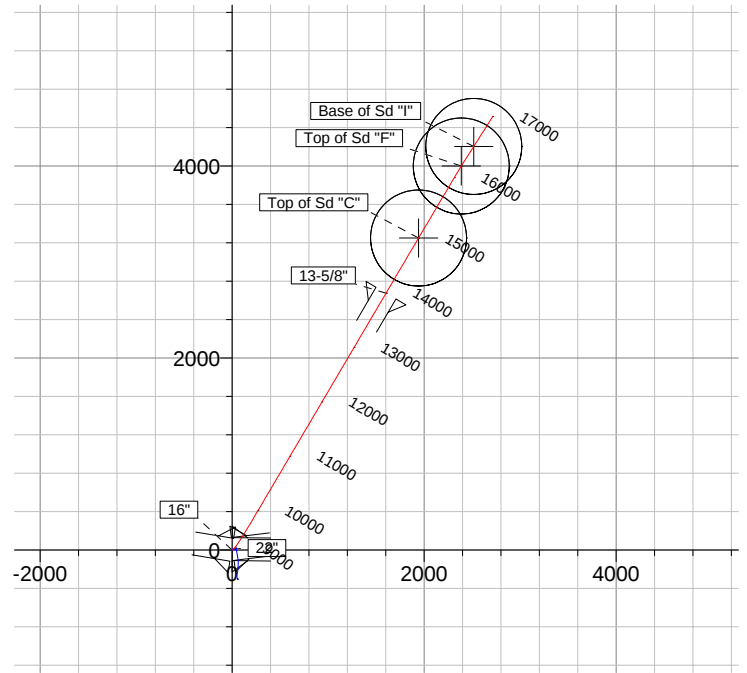
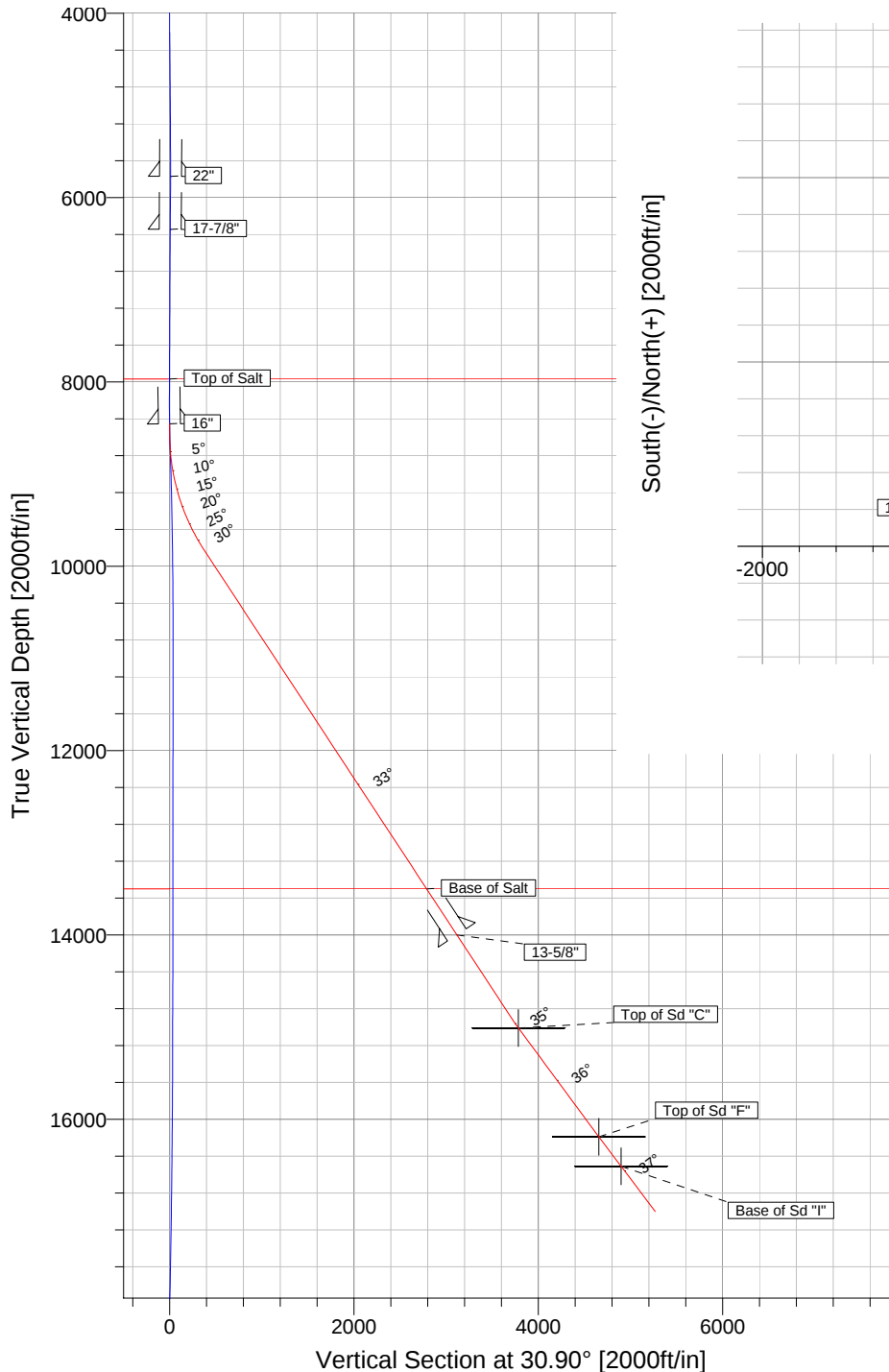
X= 823,680



Field: AT 140
 Site: POE A Location
 Well: Well #1
 Wellpath: Well #1 ST01
 Plan: Original Sidetrack



Azimuths to Grid North
 True North: 2.36°
 Magnetic North: 4.33°
 Magnetic Field
 Strength: 47321nT
 Dip Angle: 57.88°
 Date: 05/03/2006
 Model: igrf2000



West(-)/East(+) [2000ft/in]

WELLPATH DETAILS

Well #1 ST01

Parent Wellpath:	Tie on MD:	Actual Surveys	8455.00
Rig:	Ref. Datum:	SITE	82.00ft
V. Section Angle	Origin +N/-S	Origin +E/-W	Starting From TVD
30.90°	0.00	0.00	16510.00

PLAN DETAILS

Original Sidetrack

Version 1
 05/03/2006

MD	Inc	Azi	Start Point TVD	+N/-S	+E/-W
8455.00	2.04	99.37	8454.78	1.55	-3.28

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Site Centre POE A Location, Grid North
 Vertical (TVD) Reference: SITE 82.00
 Section (VS) Reference: Slot - (0.00N,0.00E)
 Measured Depth Reference: SITE 82.00
 Calculation Method: Minimum Curvature

CASING DETAILS

No.	TVD	MD	Name	Size
1	5770.00	5770.05	22"	22.000
2	6346.00	6346.08	17-7/8"	17.875
3	8455.00	8455.22	16"	16.000
4	14000.00	14893.56	13-5/8"	13.625

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	8455.00	2.04	99.37	8454.78	1.55	-3.28	0.00	0.00	-0.35	
2	8600.31	2.04	99.37	8600.00	0.71	1.82	0.00	0.00	1.54	
3	9904.95	33.30	30.50	9830.52	314.05	212.15	2.50	-71.83	378.42	
4	15977.52	33.30	30.50	14905.97	3186.91	1904.07	0.00	0.00	3712.40	
5	16104.35	36.47	30.68	15010.00	3249.35	1940.98	2.50	1.99	3784.93	
6	16105.29	36.46	30.65	15010.75	3249.83	1941.26	2.50	-128.33	3785.48	Top of Sd "C"
7	17520.36	36.46	30.65	16148.92	3973.20	2369.90	0.00	0.00	4626.31	
8	17571.64	37.09	32.51	16190.00	3999.35	2385.98	2.50	61.08	4657.00	Top of Sd "F"
9	17972.79	37.09	32.51	16510.00	4203.35	2515.98	0.00	0.00	4898.81	Base of Sd "I"
10	18587.06	37.09	32.51	17000.00	4515.75	2715.08	0.00	0.00	5269.11	

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Top of Sd "F"	16190.00	3999.35	2385.98	Circle (Radius: 500)
Top of Sd "C"	15010.00	3249.35	1940.98	Circle (Radius: 500)
Base of Sd "I"	16510.00	4203.35	2515.98	Circle (Radius: 500)

Kerr-McGee Shared Services, LLC

Planning Report - Geographic

Company: WWW Field: AT 140 Site: POE A Location Well: Well #1 Wellpath: Well #1 ST01	Date: 05/05/2006 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Plan:	Time: 11:19:18 Site: POE A Location, Grid North SITE 82.0 Well (0.00N,0.00E,30.90Azi) Original Sidetrack	Page: 1
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Field: AT 140	
Map System: Universal Transverse Mercator Geo Datum: NAD27 (Clarke 1866) Sys Datum: Mean Sea Level	Map Zone: UTM Zone 16, North 90W to 84W Coordinate System: Site Centre Geomagnetic Model: igrf2000

Site: POE A Location	
Site Position: From: Map Position Uncertainty: 0.00 ft Ground Level: 0.00 ft	Northing: 10101050.65 ft Easting: 816234.02 ft Latitude: 27 48 42.706 N Longitude: 89 33 0.124 W North Reference: Grid Grid Convergence: -2.36 deg

Well: Well #1	Slot Name:
Well Position: +N/-S 0.00 ft +E/-W 0.00 ft Position Uncertainty: 0.00 ft	Northing: 10101050.65 ft Easting : 816234.02 ft Latitude: 27 48 42.706 N Longitude: 89 33 0.124 W

Wellpath: Well #1 ST01	Drilled From: Actual Surveys Tie-on Depth: 8455.00 ft Above System Datum: Mean Sea Level Declination: 1.97 deg Mag Dip Angle: 57.88 deg
Current Datum: SITE Magnetic Data: 05/03/2006 Field Strength: 47321 nT Vertical Section: Depth From (TVD) ft	Height 82.00 ft +N/-S ft +E/-W ft Direction deg
16510.00	0.00 0.00 30.90

Plan: Original Sidetrack Principal: Yes	Date Composed: 05/03/2006 Version: 1 Tied-to: From: Definitive Path
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Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
8455.00	2.04	99.37	8454.78	1.55	-3.28	0.00	0.00	0.00	0.00	
8600.31	2.04	99.37	8600.00	0.71	1.82	0.00	0.00	0.00	0.00	
9904.95	33.30	30.50	9830.52	314.05	212.15	2.50	2.40	-5.28	-71.83	
15977.52	33.30	30.50	14905.97	3186.91	1904.07	0.00	0.00	0.00	0.00	
16104.35	36.47	30.68	15010.00	3249.35	1940.98	2.50	2.50	0.15	1.99	Top of Sd "C"
16105.29	36.46	30.65	15010.75	3249.83	1941.26	2.50	-1.55	-3.30	-128.33	
17520.36	36.46	30.65	16148.92	3973.20	2369.90	0.00	0.00	0.00	0.00	
17571.64	37.09	32.51	16190.00	3999.35	2385.98	2.50	1.24	3.63	61.08	Top of Sd "F"
17972.79	37.09	32.51	16510.00	4203.35	2515.98	0.00	0.00	0.00	0.00	Base of Sd "I"
18587.06	37.09	32.51	17000.00	4515.75	2715.08	0.00	0.00	0.00	0.00	

Section 1 : Start Hold										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
5770.05	0.39	262.99	5770.00	9.39	6.12	11.20	0.00	0.00	0.00	0.00
6346.08	0.56	270.62	6346.00	7.81	0.50	6.96	0.03	0.03	1.32	24.38
8455.00	2.04	99.37	8454.78	1.55	-3.28	-0.35	0.12	0.07	-8.12	-173.13
8455.22	2.04	99.37	8455.00	1.55	-3.27	-0.35	0.00	0.00	0.00	180.00
8500.25	2.04	99.37	8500.00	1.29	-1.69	0.24	0.00	0.00	0.00	180.00
8600.31	2.04	99.37	8600.00	0.71	1.82	1.54	0.00	0.00	0.00	180.00

Section 2 : Start DLS 2.50 TFO -71.83										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
8700.43	3.68	59.26	8700.00	2.07	6.34	5.03	2.49	1.64	-40.06	-71.83
8800.79	5.95	46.46	8800.00	7.32	12.89	12.90	2.49	2.26	-12.75	-31.77
8901.59	8.35	40.85	8900.00	16.50	21.49	25.20	2.48	2.38	-5.57	-19.01

Kerr-McGee Shared Services, LLC

Planning Report - Geographic

Company: WWW Field: AT 140 Site: POE A Location Well: Well #1 Wellpath: Well #1 ST01	Date: 05/05/2006 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Plan:	Time: 11:19:18 Site: POE A Location, Grid North SITE 82.0 Well (0.00N,0.00E,30.90Azi) Original Sidetrack	Page: 2
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Section 2 : Start DLS 2.50 TFO -71.83

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
9003.02	10.87	37.68	9000.00	29.68	32.17	41.99	2.54	2.49	-3.13	-13.44
9105.32	13.40	35.70	9100.00	46.95	44.99	63.39	2.50	2.47	-1.93	-10.31
9208.70	15.96	34.33	9200.00	68.42	60.00	89.52	2.50	2.48	-1.32	-8.38
9313.43	18.56	33.32	9300.00	94.24	77.28	120.55	2.50	2.48	-0.96	-7.05
9419.77	21.21	32.54	9400.00	124.60	96.92	156.69	2.50	2.49	-0.73	-6.09
9528.07	23.90	31.92	9500.00	159.74	119.06	198.21	2.50	2.49	-0.58	-5.36
9638.67	26.66	31.41	9600.00	199.95	143.85	245.44	2.50	2.49	-0.46	-4.78
9752.01	29.49	30.97	9700.00	245.58	171.46	298.77	2.50	2.49	-0.38	-4.32
9868.62	32.39	30.60	9800.00	297.08	202.13	358.71	2.50	2.49	-0.32	-3.93
9904.95	33.30	30.50	9830.52	314.05	212.15	378.42	2.50	2.50	-0.29	-3.61

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
9988.07	33.30	30.50	9900.00	353.37	235.31	424.06	0.00	0.00	0.00	180.00
10107.72	33.30	30.50	10000.00	409.98	268.64	489.75	0.00	0.00	0.00	180.00
10227.37	33.30	30.50	10100.00	466.58	301.98	555.43	0.00	0.00	0.00	180.00
10347.01	33.30	30.50	10200.00	523.18	335.31	621.12	0.00	0.00	0.00	180.00
10466.66	33.30	30.50	10300.00	579.79	368.65	686.81	0.00	0.00	0.00	180.00
10586.30	33.30	30.50	10400.00	636.39	401.98	752.50	0.00	0.00	0.00	180.00
10705.95	33.30	30.50	10500.00	692.99	435.32	818.19	0.00	0.00	0.00	180.00
10825.60	33.30	30.50	10600.00	749.60	468.65	883.88	0.00	0.00	0.00	180.00
10945.24	33.30	30.50	10700.00	806.20	501.99	949.56	0.00	0.00	0.00	180.00
11064.89	33.30	30.50	10800.00	862.80	535.33	1015.25	0.00	0.00	0.00	180.00
11184.53	33.30	30.50	10900.00	919.41	568.66	1080.94	0.00	0.00	0.00	180.00
11304.18	33.30	30.50	11000.00	976.01	602.00	1146.63	0.00	0.00	0.00	180.00
11423.83	33.30	30.50	11100.00	1032.61	635.33	1212.32	0.00	0.00	0.00	180.00
11543.47	33.30	30.50	11200.00	1089.22	668.67	1278.01	0.00	0.00	0.00	180.00
11663.12	33.30	30.50	11300.00	1145.82	702.00	1343.69	0.00	0.00	0.00	180.00
11782.76	33.30	30.50	11400.00	1202.42	735.34	1409.38	0.00	0.00	0.00	180.00
11902.41	33.30	30.50	11500.00	1259.02	768.67	1475.07	0.00	0.00	0.00	180.00
12022.06	33.30	30.50	11600.00	1315.63	802.01	1540.76	0.00	0.00	0.00	180.00
12141.70	33.30	30.50	11700.00	1372.23	835.34	1606.45	0.00	0.00	0.00	180.00
12261.35	33.30	30.50	11800.00	1428.83	868.68	1672.14	0.00	0.00	0.00	180.00
12380.99	33.30	30.50	11900.00	1485.44	902.02	1737.82	0.00	0.00	0.00	180.00
12500.64	33.30	30.50	12000.00	1542.04	935.35	1803.51	0.00	0.00	0.00	180.00
12620.29	33.30	30.50	12100.00	1598.64	968.69	1869.20	0.00	0.00	0.00	180.00
12739.93	33.30	30.50	12200.00	1655.25	1002.02	1934.89	0.00	0.00	0.00	180.00
12859.58	33.30	30.50	12300.00	1711.85	1035.36	2000.58	0.00	0.00	0.00	180.00
12979.22	33.30	30.50	12400.00	1768.45	1068.69	2066.27	0.00	0.00	0.00	180.00
13098.87	33.30	30.50	12500.00	1825.06	1102.03	2131.95	0.00	0.00	0.00	180.00
13218.52	33.30	30.50	12600.00	1881.66	1135.36	2197.64	0.00	0.00	0.00	180.00
13338.16	33.30	30.50	12700.00	1938.26	1168.70	2263.33	0.00	0.00	0.00	180.00
13457.81	33.30	30.50	12800.00	1994.87	1202.03	2329.02	0.00	0.00	0.00	180.00
13577.45	33.30	30.50	12900.00	2051.47	1235.37	2394.71	0.00	0.00	0.00	180.00
13697.10	33.30	30.50	13000.00	2108.07	1268.70	2460.40	0.00	0.00	0.00	180.00
13816.75	33.30	30.50	13100.00	2164.68	1302.04	2526.08	0.00	0.00	0.00	180.00
13936.39	33.30	30.50	13200.00	2221.28	1335.38	2591.77	0.00	0.00	0.00	180.00
14056.04	33.30	30.50	13300.00	2277.88	1368.71	2657.46	0.00	0.00	0.00	180.00
14175.69	33.30	30.50	13400.00	2334.49	1402.05	2723.15	0.00	0.00	0.00	180.00
14295.33	33.30	30.50	13500.00	2391.09	1435.38	2788.84	0.00	0.00	0.00	180.00
14414.98	33.30	30.50	13600.00	2447.69	1468.72	2854.53	0.00	0.00	0.00	180.00
14534.62	33.30	30.50	13700.00	2504.29	1502.05	2920.21	0.00	0.00	0.00	180.00
14654.27	33.30	30.50	13800.00	2560.90	1535.39	2985.90	0.00	0.00	0.00	180.00
14773.92	33.30	30.50	13900.00	2617.50	1568.72	3051.59	0.00	0.00	0.00	180.00
14893.56	33.30	30.50	14000.00	2674.10	1602.06	3117.28	0.00	0.00	0.00	180.00
15013.21	33.30	30.50	14100.00	2730.71	1635.39	3182.97	0.00	0.00	0.00	180.00
15132.85	33.30	30.50	14200.00	2787.31	1668.73	3248.65	0.00	0.00	0.00	180.00
15252.50	33.30	30.50	14300.00	2843.91	1702.06	3314.34	0.00	0.00	0.00	180.00
15372.15	33.30	30.50	14400.00	2900.52	1735.40	3380.03	0.00	0.00	0.00	180.00
15491.79	33.30	30.50	14500.00	2957.12	1768.74	3445.72	0.00	0.00	0.00	180.00
15611.44	33.30	30.50	14600.00	3013.72	1802.07	3511.41	0.00	0.00	0.00	180.00
15731.08	33.30	30.50	14700.00	3070.33	1835.41	3577.10	0.00	0.00	0.00	180.00

Kerr-McGee Shared Services, LLC

Planning Report - Geographic

Company: WWW	Date: 05/05/2006	Time: 11:19:18	Page: 3
Field: AT 140	Co-ordinate(NE) Reference: Site: POE A Location, Grid North		
Site: POE A Location	Vertical (TVD) Reference: SITE 82.0		
Well: Well #1	Section (VS) Reference: Well (0.00N,0.00E,30.90Azi)		
Wellpath: Well #1 ST01	Plan: Original Sidetrack		

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
15850.73	33.30	30.50	14800.00	3126.93	1868.74	3642.78	0.00	0.00	0.00	180.00
15970.38	33.30	30.50	14900.00	3183.53	1902.08	3708.47	0.00	0.00	0.00	180.00
15977.52	33.30	30.50	14905.97	3186.91	1904.07	3712.40	0.00	0.00	0.00	180.00

Section 4 : Start DLS 2.50 TFO 1.99

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
16091.94	36.16	30.66	15000.00	3243.03	1937.23	3777.58	2.50	2.50	0.15	1.99
16104.35	36.47	30.68	15010.00	3249.35	1940.98	3784.93	2.50	2.50	0.14	1.85

Section 5 : Start DLS 2.50 TFO -128.33

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
16216.25	36.46	30.65	15100.00	3306.55	1974.87	3851.41	0.02	-0.01	-0.03	-128.33

Section 6 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
16340.58	36.46	30.65	15200.00	3370.11	2012.53	3925.29	0.00	0.00	0.00	0.00
16464.91	36.46	30.65	15300.00	3433.66	2050.20	3999.16	0.00	0.00	0.00	0.00
16589.24	36.46	30.65	15400.00	3497.22	2087.86	4073.04	0.00	0.00	0.00	0.00
16713.57	36.46	30.65	15500.00	3560.77	2125.52	4146.92	0.00	0.00	0.00	0.00
16837.89	36.46	30.65	15600.00	3624.33	2163.18	4220.79	0.00	0.00	0.00	0.00
16962.22	36.46	30.65	15700.00	3687.89	2200.84	4294.67	0.00	0.00	0.00	0.00
17086.55	36.46	30.65	15800.00	3751.44	2238.50	4368.54	0.00	0.00	0.00	0.00
17210.88	36.46	30.65	15900.00	3815.00	2276.16	4442.42	0.00	0.00	0.00	0.00
17335.21	36.46	30.65	16000.00	3878.55	2313.82	4516.29	0.00	0.00	0.00	0.00
17459.54	36.46	30.65	16100.00	3942.11	2351.48	4590.17	0.00	0.00	0.00	0.00
17520.36	36.46	30.65	16148.92	3973.20	2369.90	4626.31	0.00	0.00	0.00	0.00

Section 7 : Start DLS 2.50 TFO 61.08

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
17571.64	37.09	32.51	16190.00	3999.35	2385.98	4657.00	2.50	1.24	3.63	61.08

Section 8 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
17584.18	37.09	32.51	16200.00	4005.73	2390.04	4664.56	0.00	0.00	0.00	180.00
17709.54	37.09	32.51	16300.00	4069.48	2430.68	4740.13	0.00	0.00	0.00	180.00
17834.90	37.09	32.51	16400.00	4133.24	2471.31	4815.70	0.00	0.00	0.00	180.00
17960.25	37.09	32.51	16500.00	4196.98	2511.92	4891.25	0.00	0.00	0.00	180.00
17972.79	37.09	32.51	16510.00	4203.35	2515.98	4898.81	0.00	0.00	0.00	180.00

Section 9 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
18085.61	37.09	32.51	16600.00	4260.73	2552.55	4966.82	0.00	0.00	0.00	180.00
18210.97	37.09	32.51	16700.00	4324.48	2593.18	5042.39	0.00	0.00	0.00	180.00
18336.34	37.09	32.51	16800.00	4388.24	2633.81	5117.97	0.00	0.00	0.00	180.00
18461.70	37.09	32.51	16900.00	4451.99	2674.44	5193.54	0.00	0.00	0.00	180.00
18587.06	37.09	32.51	17000.00	4515.75	2715.08	5269.11	0.00	0.00	0.00	180.00

Kerr-McGee Shared Services, LLC

Planning Report - Geographic

Company: WWW	Date: 05/05/2006	Time: 11:19:18	Page: 4
Field: AT 140	Co-ordinate(NE) Reference: Site: POE A Location, Grid North		
Site: POE A Location	Vertical (TVD) Reference: SITE 82.0		
Well: Well #1	Section (VS) Reference: Well (0.00N,0.00E,30.90Azi)		
Wellpath: Well #1 ST01	Plan: Original Sidetrack		

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ----> Deg Min Sec			<--- Longitude ---> Deg Min Sec		
5770.05	0.39	262.99	5770.00	9.39	6.12	10101060.04	816240.14	27	48	42.800 N	89	33	0.058 W
6346.08	0.56	270.62	6346.00	7.81	0.50	10101058.46	816234.52	27	48	42.783 N	89	33	0.121 W
8455.00	2.04	99.37	8454.78	1.55	-3.28	10101052.20	816230.74	27	48	42.720 N	89	33	0.161 W
8455.22	2.04	99.37	8455.00	1.55	-3.27	10101052.20	816230.75	27	48	42.720 N	89	33	0.161 W
8500.25	2.04	99.37	8500.00	1.29	-1.69	10101051.94	816232.33	27	48	42.718 N	89	33	0.143 W
8600.31	2.04	99.37	8600.00	0.71	1.82	10101051.36	816235.84	27	48	42.713 N	89	33	0.104 W
8700.43	3.68	59.26	8700.00	2.07	6.34	10101052.72	816240.36	27	48	42.728 N	89	33	0.054 W
8800.79	5.95	46.46	8800.00	7.32	12.89	10101057.97	816246.91	27	48	42.781 N	89	32	59.983 W
8901.59	8.35	40.85	8900.00	16.50	21.49	10101067.15	816255.51	27	48	42.873 N	89	32	59.889 W
9003.02	10.87	37.68	9000.00	29.68	32.17	10101080.33	816266.19	27	48	43.006 N	89	32	59.773 W
9105.32	13.40	35.70	9100.00	46.95	44.99	10101097.60	816279.01	27	48	43.180 N	89	32	59.634 W
9208.70	15.96	34.33	9200.00	68.42	60.00	10101119.07	816294.02	27	48	43.395 N	89	32	59.472 W
9313.43	18.56	33.32	9300.00	94.24	77.28	10101144.89	816311.30	27	48	43.654 N	89	32	59.286 W
9419.77	21.21	32.54	9400.00	124.60	96.92	10101175.25	816330.94	27	48	43.959 N	89	32	59.074 W
9528.07	23.90	31.92	9500.00	159.74	119.06	10101210.39	816353.08	27	48	44.311 N	89	32	58.836 W
9638.67	26.66	31.41	9600.00	199.95	143.85	10101250.60	816377.87	27	48	44.714 N	89	32	58.570 W
9752.01	29.49	30.97	9700.00	245.58	171.46	10101296.23	816405.48	27	48	45.171 N	89	32	58.273 W
9868.62	32.39	30.60	9800.00	297.08	202.13	10101347.73	816436.15	27	48	45.687 N	89	32	57.943 W
9904.95	33.30	30.50	9830.52	314.05	212.15	10101364.70	816446.17	27	48	45.857 N	89	32	57.836 W
9988.07	33.30	30.50	9900.00	353.37	235.31	10101404.02	816469.33	27	48	46.251 N	89	32	57.587 W
10107.72	33.30	30.50	10000.00	409.98	268.64	10101460.63	816502.66	27	48	46.818 N	89	32	57.229 W
10227.37	33.30	30.50	10100.00	466.58	301.98	10101517.23	816536.00	27	48	47.385 N	89	32	56.871 W
10347.01	33.30	30.50	10200.00	523.18	335.31	10101573.83	816569.33	27	48	47.952 N	89	32	56.513 W
10466.66	33.30	30.50	10300.00	579.79	368.65	10101630.44	816602.67	27	48	48.519 N	89	32	56.156 W
10586.30	33.30	30.50	10400.00	636.39	401.98	10101687.04	816636.00	27	48	49.086 N	89	32	55.798 W
10705.95	33.30	30.50	10500.00	692.99	435.32	10101743.64	816669.34	27	48	49.653 N	89	32	55.440 W
10825.60	33.30	30.50	10600.00	749.60	468.65	10101800.25	816702.67	27	48	50.220 N	89	32	55.082 W
10945.24	33.30	30.50	10700.00	806.20	501.99	10101856.85	816736.01	27	48	50.787 N	89	32	54.724 W
11064.89	33.30	30.50	10800.00	862.80	535.33	10101913.45	816769.35	27	48	51.354 N	89	32	54.366 W
11184.53	33.30	30.50	10900.00	919.41	568.66	10101970.06	816802.68	27	48	51.921 N	89	32	54.008 W
11304.18	33.30	30.50	11000.00	976.01	602.00	10102026.66	816836.02	27	48	52.488 N	89	32	53.650 W
11423.83	33.30	30.50	11100.00	1032.61	635.33	10102083.26	816869.35	27	48	53.055 N	89	32	53.292 W
11543.47	33.30	30.50	11200.00	1089.22	668.67	10102139.87	816902.69	27	48	53.622 N	89	32	52.934 W
11663.12	33.30	30.50	11300.00	1145.82	702.00	10102196.47	816936.02	27	48	54.189 N	89	32	52.576 W
11782.76	33.30	30.50	11400.00	1202.42	735.34	10102253.07	816969.36	27	48	54.756 N	89	32	52.218 W
11902.41	33.30	30.50	11500.00	1259.02	768.67	10102309.67	817002.69	27	48	55.323 N	89	32	51.860 W
12022.06	33.30	30.50	11600.00	1315.63	802.01	10102366.28	817036.03	27	48	55.890 N	89	32	51.502 W
12141.70	33.30	30.50	11700.00	1372.23	835.34	10102422.88	817069.36	27	48	56.457 N	89	32	51.144 W
12261.35	33.30	30.50	11800.00	1428.83	868.68	10102479.48	817102.70	27	48	57.024 N	89	32	50.787 W
12380.99	33.30	30.50	11900.00	1485.44	902.02	10102536.09	817136.04	27	48	57.591 N	89	32	50.429 W
12500.64	33.30	30.50	12000.00	1542.04	935.35	10102592.69	817169.37	27	48	58.158 N	89	32	50.071 W
12620.29	33.30	30.50	12100.00	1598.64	968.69	10102649.29	817202.71	27	48	58.725 N	89	32	49.713 W
12739.93	33.30	30.50	12200.00	1655.25	1002.02	10102705.90	817236.04	27	48	59.292 N	89	32	49.355 W
12859.58	33.30	30.50	12300.00	1711.85	1035.36	10102762.50	817269.38	27	48	59.860 N	89	32	48.997 W
12979.22	33.30	30.50	12400.00	1768.45	1068.69	10102819.10	817302.71	27	49	0.427 N	89	32	48.639 W
13098.87	33.30	30.50	12500.00	1825.06	1102.03	10102875.71	817336.05	27	49	0.994 N	89	32	48.281 W
13218.52	33.30	30.50	12600.00	1881.66	1135.36	10102932.31	817369.38	27	49	1.561 N	89	32	47.923 W
13338.16	33.30	30.50	12700.00	1938.26	1168.70	10102988.91	817402.72	27	49	2.128 N	89	32	47.565 W
13457.81	33.30	30.50	12800.00	1994.87	1202.03	10103045.52	817436.05	27	49	2.695 N	89	32	47.207 W
13577.45	33.30	30.50	12900.00	2051.47	1235.37	10103102.12	817469.39	27	49	3.262 N	89	32	46.849 W
13697.10	33.30	30.50	13000.00	2108.07	1268.70	10103158.72	817502.72	27	49	3.829 N	89	32	46.491 W
13816.75	33.30	30.50	13100.00	2164.68	1302.04	10103215.33	817536.06	27	49	4.396 N	89	32	46.133 W
13936.39	33.30	30.50	13200.00	2221.28	1335.38	10103271.93	817569.40	27	49	4.963 N	89	32	45.775 W

Kerr-McGee Shared Services, LLC

Planning Report - Geographic

Company: WWW	Date: 05/05/2006	Time: 11:19:18	Page: 5
Field: AT 140	Co-ordinate(NE) Reference: Site: POE A Location, Grid North		
Site: POE A Location	Vertical (TVD) Reference: SITE 82.0		
Well: Well #1	Section (VS) Reference: Well (0.00N,0.00E,30.90Azi)		
Wellpath: Well #1 ST01	Plan: Original Sidetrack		

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map	Map	<--- Latitude --->			<--- Longitude --->		
						Northing ft	Easting ft	Deg	Min	Sec	Deg	Min	Sec
14056.04	33.30	30.50	13300.00	2277.88	1368.71	10103328.53	817602.73	27	49	5.530 N	89	32	45.417 W
14175.69	33.30	30.50	13400.00	2334.49	1402.05	10103385.14	817636.07	27	49	6.097 N	89	32	45.059 W
14295.33	33.30	30.50	13500.00	2391.09	1435.38	10103441.74	817669.40	27	49	6.664 N	89	32	44.701 W
14414.98	33.30	30.50	13600.00	2447.69	1468.72	10103498.34	817702.74	27	49	7.231 N	89	32	44.343 W
14534.62	33.30	30.50	13700.00	2504.29	1502.05	10103554.94	817736.07	27	49	7.798 N	89	32	43.986 W
14654.27	33.30	30.50	13800.00	2560.90	1535.39	10103611.55	817769.41	27	49	8.365 N	89	32	43.628 W
14773.92	33.30	30.50	13900.00	2617.50	1568.72	10103668.15	817802.74	27	49	8.932 N	89	32	43.270 W
14893.56	33.30	30.50	14000.00	2674.10	1602.06	10103724.75	817836.08	27	49	9.499 N	89	32	42.912 W
15013.21	33.30	30.50	14100.00	2730.71	1635.39	10103781.36	817869.41	27	49	10.066 N	89	32	42.554 W
15132.85	33.30	30.50	14200.00	2787.31	1668.73	10103837.96	817902.75	27	49	10.633 N	89	32	42.196 W
15252.50	33.30	30.50	14300.00	2843.91	1702.06	10103894.56	817936.08	27	49	11.200 N	89	32	41.838 W
15372.15	33.30	30.50	14400.00	2900.52	1735.40	10103951.17	817969.42	27	49	11.767 N	89	32	41.480 W
15491.79	33.30	30.50	14500.00	2957.12	1768.74	10104007.77	818002.76	27	49	12.334 N	89	32	41.122 W
15611.44	33.30	30.50	14600.00	3013.72	1802.07	10104064.37	818036.09	27	49	12.901 N	89	32	40.764 W
15731.08	33.30	30.50	14700.00	3070.33	1835.41	10104120.98	818069.43	27	49	13.468 N	89	32	40.406 W
15850.73	33.30	30.50	14800.00	3126.93	1868.74	10104177.58	818102.76	27	49	14.035 N	89	32	40.048 W
15970.38	33.30	30.50	14900.00	3183.53	1902.08	10104234.18	818136.10	27	49	14.602 N	89	32	39.690 W
15977.52	33.30	30.50	14905.97	3186.91	1904.07	10104237.56	818138.09	27	49	14.636 N	89	32	39.669 W
16091.94	36.16	30.66	15000.00	3243.03	1937.23	10104293.68	818171.25	27	49	15.198 N	89	32	39.312 W
16104.35	36.47	30.68	15010.00	3249.35	1940.98	10104300.00	818175.00	27	49	15.261 N	89	32	39.272 W
16216.25	36.46	30.65	15100.00	3306.55	1974.87	10104357.20	818208.89	27	49	15.834 N	89	32	38.908 W
16340.58	36.46	30.65	15200.00	3370.11	2012.53	10104420.76	818246.55	27	49	16.471 N	89	32	38.504 W
16464.91	36.46	30.65	15300.00	3433.66	2050.20	10104484.31	818284.22	27	49	17.107 N	89	32	38.099 W
16589.24	36.46	30.65	15400.00	3497.22	2087.86	10104547.87	818321.88	27	49	17.744 N	89	32	37.695 W
16713.57	36.46	30.65	15500.00	3560.77	2125.52	10104611.42	818359.54	27	49	18.381 N	89	32	37.290 W
16837.89	36.46	30.65	15600.00	3624.33	2163.18	10104674.98	818397.20	27	49	19.018 N	89	32	36.886 W
16962.22	36.46	30.65	15700.00	3687.89	2200.84	10104738.54	818434.86	27	49	19.654 N	89	32	36.481 W
17086.55	36.46	30.65	15800.00	3751.44	2238.50	10104802.09	818472.52	27	49	20.291 N	89	32	36.076 W
17210.88	36.46	30.65	15900.00	3815.00	2276.16	10104865.65	818510.18	27	49	20.928 N	89	32	35.672 W
17335.21	36.46	30.65	16000.00	3878.55	2313.82	10104929.20	818547.84	27	49	21.564 N	89	32	35.267 W
17459.54	36.46	30.65	16100.00	3942.11	2351.48	10104992.76	818585.50	27	49	22.201 N	89	32	34.863 W
17520.36	36.46	30.65	16148.92	3973.20	2369.90	10105023.85	818603.92	27	49	22.513 N	89	32	34.665 W
17571.64	37.09	32.51	16190.00	3999.35	2385.98	10105050.00	818620.00	27	49	22.775 N	89	32	34.492 W
17584.18	37.09	32.51	16200.00	4005.73	2390.04	10105056.38	818624.06	27	49	22.839 N	89	32	34.448 W
17709.54	37.09	32.51	16300.00	4069.48	2430.68	10105120.13	818664.70	27	49	23.478 N	89	32	34.011 W
17834.90	37.09	32.51	16400.00	4133.24	2471.31	10105183.89	818705.33	27	49	24.117 N	89	32	33.573 W
17960.25	37.09	32.51	16500.00	4196.98	2511.92	10105247.63	818745.94	27	49	24.756 N	89	32	33.136 W
17972.79	37.09	32.51	16510.00	4203.35	2515.98	10105254.00	818750.00	27	49	24.820 N	89	32	33.092 W
18085.61	37.09	32.51	16600.00	4260.73	2552.55	10105311.38	818786.57	27	49	25.395 N	89	32	32.698 W
18210.97	37.09	32.51	16700.00	4324.48	2593.18	10105375.13	818827.20	27	49	26.035 N	89	32	32.261 W
18336.34	37.09	32.51	16800.00	4388.24	2633.81	10105438.89	818867.83	27	49	26.674 N	89	32	31.823 W
18461.70	37.09	32.51	16900.00	4451.99	2674.44	10105502.64	818908.46	27	49	27.313 N	89	32	31.386 W
18587.06	37.09	32.51	17000.00	4515.75	2715.08	10105566.40	818949.10	27	49	27.953 N	89	32	30.948 W

Targets

					Map	Map	<---- Latitude ---->			<---- Longitude ---->		
Name	Description	TVD ft	+N/-S ft	+E/-W ft	Northing ft	Easting ft	Deg	Min	Sec	Deg	Min	Sec
Top of Sd "F"		16190.00	3999.35	2385.98	10105050.00	818620.00	27	49	22.775 N	89	32	34.492 W
-Circle (Radius: 500)												
-Plan hit target												
Top of Sd "C"		15010.00	3249.35	1940.98	10104300.00	818175.00	27	49	15.261 N	89	32	39.272 W
-Circle (Radius: 500)												

Kerr-McGee Shared Services, LLC

Planning Report - Geographic

Company: WWW Field: AT 140 Site: POE A Location Well: Well #1 Wellpath: Well #1 ST01	Date: 05/05/2006 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Plan:	Time: 11:19:18 Site: POE A Location, Grid North SITE 82.0 Well (0.00N,0.00E,30.90Azi) Original Sidetrack	Page: 6
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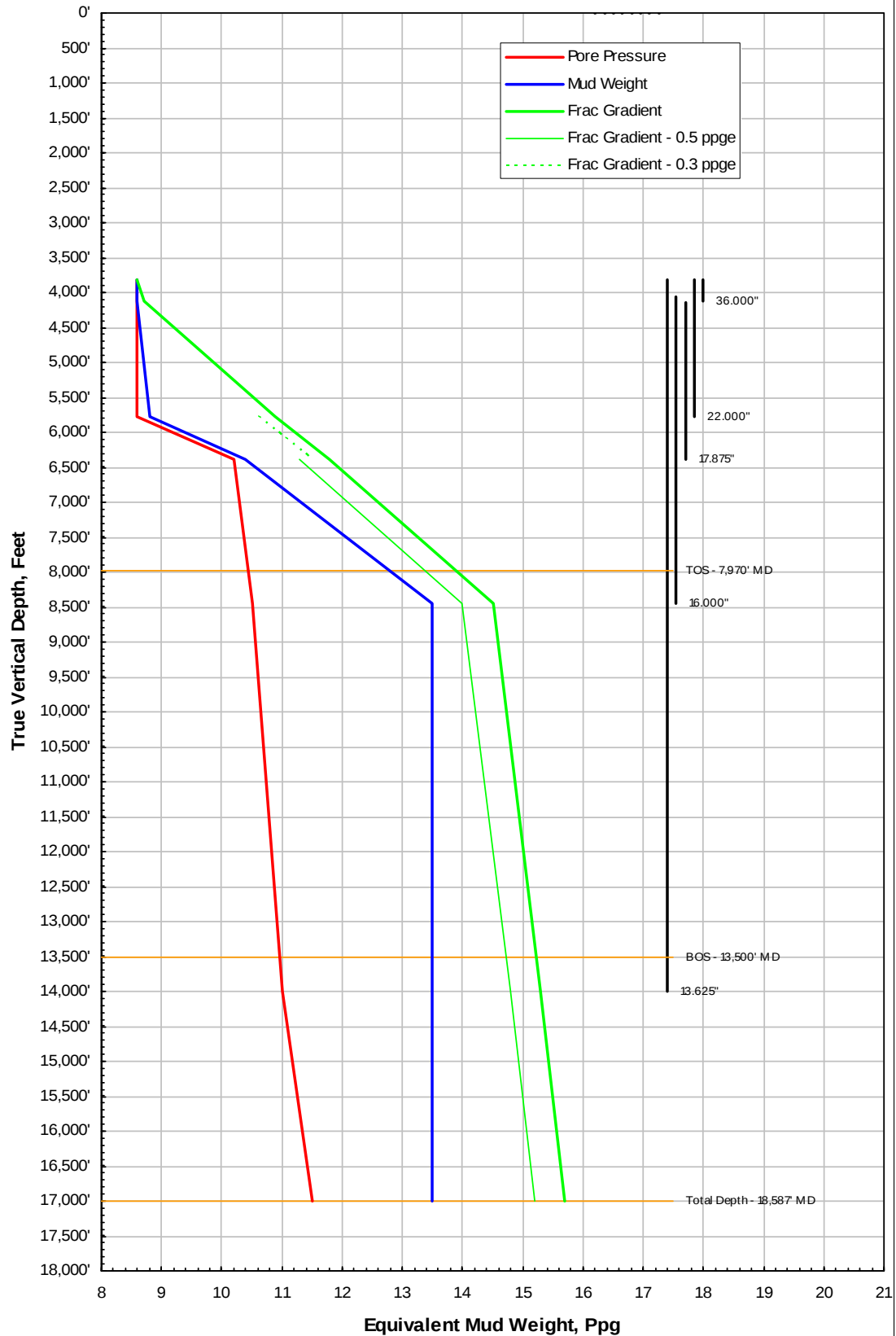
Targets

Name	Description	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<--- Longitude --->		
							Deg	Min	Sec	Deg	Min	Sec
-Plan hit target												
Base of Sd "I"		16510.00	4203.35	2515.98	10105254.00	818750.00	27	49	24.820 N	89	32	33.092 W
-Circle (Radius: 500)												
-Plan hit target												

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
5770.05	5770.00	22.000	22.000	22"
6346.08	6346.00	17.875	17.875	17-7/8"
8455.22	8455.00	16.000	16.000	16"
14893.56	14000.00	13.625	13.625	13-5/8"

AT 140 #1 ST01 - Claymore Prospect



OCS-G-16865
ATWATER VALLEY 140 #1

SUBSEA BOP STACK SYSTEM

BOP Stack Configuration:	2	18 ¾" 10M psi Schaffer Annular
	1	18 ¾" 10M psi Cameron Model HC LMRP Connector
	2	18 ¾" 15M psi Shaffer Type SLX Double Ram
		Ram Configuration Top to Bottom
		Blind / Shear Rams
		3 ½" X 5 ½" VBR Rams
		3 ½" X 5 ½" VBR Rams
		5 ½" Rams
	1	18 ¾" 15M psi Vetco H-4 Wellhead Connector
	2	3 1/16" 15M psi Shaffer Dual Block FS Kill Valves
	3	3 1/16" 15M psi Shaffer Dual Block FS Choke Valves
Diverter System	1	24" 500 psi Regan KFDS Diverter
	4	12" 300 psi Hydraulic Actuated Knife Gate Valves
	1	16" 300 psi Air Actuated Knife Gate Valve to Vent Lines

OCS-G-16865
ATWATER VALLEY 140 #1

BOP AND CASING TEST PRESSURES

Depth Interval (TVD)	System Rating	BOP Test Pressure	Last Casing Size	Max Pres (MASP)	Casing Test Pressure
ML to 4117'	NA	NA	NA	NA	NA
Jettied 36" Casing interval, no subsea BOP equipment installed					
4117' – 5900'	NA	NA	NA	NA	NA
22" Surface interval, no subsea BOP equipment installed					
5900' - 9000'	15M Ram	250 / 5000	22"	1825	200
	10M Annular	250 / 3500			w/ 8.6 ppg
	Blind Rams	200			
9000' - 13500'	15M Ram	250 / 5000	16"	2211	2419 ²
	10M Annular	250 / 3500			w/ 10.4 ppg
	Blind Rams	250 / 2425			
13500' – 21000'	15M Ram	250 / 6500	13-5/8"	5741	3371 ¹
	10M Annular	250 / 3500			w/ 13.8 ppg
	Blind Rams	250 / 3375			
21000' - 25000'	15M Ram	250 / 7500	9-7/8"	7160	2466 ³
	10M Annular	250 / 3500			w/ 14.2 ppg
	Blind Rams	250 / 2475			

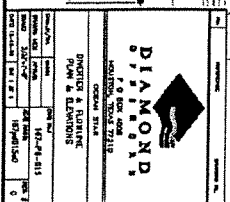
¹ Casing test pressure is based upon the lesser of: MASP + 500 psi or 70% of casing burst rating less an 8.6 ppg backup fluid. The above casing test pressures reflect the initial values prior to drilling out.

² The liner tops to be tested as per 30 CFR 250.405 (b), depending on drilling or production liner application. Test pressures shown are calculated using included anticipated conditions. Actual test pressure may be revised to actual conditions at time of testing.

See attached information for Casing Test Pressure Calculations for each casing string.

Other Notes:

1. BOP equipment will not be stump tested unless the stack is recovered to the surface. If this is done the rams will be tested to 10,000 psi, and annular BOP to be stump tested to 5,000 psi, prior to installation on the sea floor
2. The BOP to be tested at least every TWO WEEKS, (14 days), as per the above listed pressure schedule.
3. Annular BOP to be tested to a maximum pressure of 3,500 psi after installation.
4. Low pressure test values in the range of 200-300 psi will be considered acceptable, as opposed to the 250 psi midpoint value shown above.
5. Diverter system with 12" lines and valves installed when riser is installed. Function tested and flow tested on installation.
6. The Blind Rams to be tested at each casing point to a test pressure equal to the casing test pressure.
7. Casing Test pressures to be adjusted to actual mud weights at time of testing.





DEPARTMENT OF HOMELAND SECURITY
UNITED STATES COAST GUARD

OMB Approval 2115-0504

CERTIFICATE OF COMPLIANCE

Particulars of Ship:

Name of Vessel: OCEAN STAR	IMO Number: CG051935	Flag of Vessel: MARSHALL ISLANDS
Owner: DIAMOND OFFSHORE SERVICES COMPANY 15415 KATY FREEWAY HOUSTON, TEXAS 77094	Operator Manager: DIAMOND OFFSHORE SERVICES COMPANY 15415 KATY FREEWAY HOUSTON, TEXAS 77094	
Type of Vessel: ☐ Passenger Ship ☐ Oil Tanker ☐ Chemical Tanker ☐ Gas Carrier ☒ Mobile Offshore Drilling Unit (MODU)		

For Passenger Vessels only:

☐ The maximum number of passengers is _____. The maximum allowable total persons on board is _____ total persons.

For Tank ships only:

☐ The vessel is authorized to carry into or from United States ports:

- ☐ the products listed on the Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk
- ☐ the products listed on the Certificate of Fitness for the Carriage of Liquefied Gases in Bulk subject to conditions noted on the attached USCG Subchapter O Endorsement (SOE)
- ☐ crude oil or other petroleum products
- ☐ Category C/Category D Noxious Liquid Substances as noted on the vessel's NLS Certificate of the Attachment to the IOPP Certificate

☐ This vessel meets the U.S. double-hull design standards of 33 CFR 157.10d.

☐ On _____, this vessel must meet the U.S. double-hull design standard of 33 CFR 157.10d.

☐ This vessel's vapor collection system (VCS) has been certified as meeting the requirements of Title 46, Code of Federal Regulations, part 39 and Title 33, Code of Federal Regulations, Section 155.750(b) by _____ under the authority of Title 46, Code of Federal Regulations, Section 39.10-13(d), for the collection of cargo vapors listed in the certification dated _____, and is therefore accepted for the collection of these vapors in the navigable waters of the United States.

- ☐ This vessel is equipped with (check all that apply): ☐ segregated ballast tanks ☐ dedicated clean ballast tanks ☐ crude oil washing system
- ☐ This vessel complies with the requirements of 33 CFR 157.10 (c) to operate as a (check all that apply): ☐ Crude Oil Carrier ☐ Product Carrier
- ☐ This vessel is equipped with an inert gas system that complies with the requirements of SOLAS 74 (amended) II-2/62 and 46 CFR 32.

For MODU's only:

☒ This vessel has been examined in accordance with (check one): ☐ 33 CFR 143.207(a) ☒ 33 CFR 143.207(b) ☐ 33 CFR 143.207(c)

☒ This maximum allowable number of persons on board is 100 and the minimum number of lifelines required is 04.

☒ This vessel is: ☐ Self-propelled ☒ Non Self-propelled

THIS IS TO CERTIFY:

That the ship has been examined and found to be in compliance with all applicable U.S. and international marine safety and environmental protection standards.

Patrick A. Ropp
PATRICK A. ROPP-BY DIRECTOR

Officer in Charge, Marine Inspection

FEBRUARY 03, 2004

Date Issued

MORRIS

Zone

FEBRUARY 03, 2016

Date of Expiration

Tank Ships
and MODU's

Annual Exam Due

FEB 03, 2005

Passenger Ships

Quarterly Exams Due

1. _____
2. _____
3. _____

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number.

The Coast Guard estimates that the average burden for this report is 10 minutes (or 0.17 hours). You may submit any comments concerning the accuracy of this burden estimate or any suggestions for reducing the burden to: Commandant (G-MOC), U.S. Coast Guard, 2100 2nd St., SW, Washington D.C. 20593-0001 or Office of Management and Budget, Paperwork Reduction Project (2115-0504), Washington DC 20503.

AMERICAN BUREAU OF SHIPPING

CHARTERED
1862



NUMBER
7404388

CERTIFICATE OF CLASSIFICATION

OCEAN STAR

of MAJURO, MARSHALL ISLANDS

Description COLUMN STABILIZED DRILLING UNIT

Dimensions, Length 97.4598M Breadth 80.9244M Depth 36.576M

Tonnage, Gross 19466 Net 5839

Owner DIAMOND OFFSHORE SERVICES COMPANY

Shipbuilder LITTON AVONDALE INDUSTRIES

Engine Builder

Year of Build 1974 Hull Number 2053

This is to Certify that the above has been surveyed in accordance with the Rules of this Bureau and entered in the Record with the Class

✱ A1, Column Stabilized Drilling Unit

28 October 2003

Issue Date

Chief Surveyor/Director
of Classification

28 February 2007

Expiration Date

Assistant Secretary

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. The classification certificate is a representation only that the vessel, structure, item of material, equipment or machinery or any other item covered by this certificate has met one or more of the Rules of American Bureau of Shipping. The certificate is governed by the terms and conditions on the reverse side hereof, and governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof.

AMERICAN BUREAU OF SHIPPING

OCS-G-16865
ATWATER VALLEY 140 #1

Requested Departures/Exceptions/Waivers to 30 CFR 250

- A. A departure from **30 CFR 250.447 (a)** is requested. The BOP will not be tested before the drilling out of each casing string unless the 14 day test is due, or a higher test pressure has been specified for the next drilling interval has been specified in the APD. The blind rams will be pressure tested at all casing points, but not to exceed 30 days between pressure tests.
- B. A departure from **30 CFR 250.449 (d)** is requested. The BOP stack and choke manifold will be stump tested at the surface to 10000 psi and the annular BOP's tested to 5000 psi. Upon initial installation of the BOP stack at the seafloor the choke/kill lines and choke/kill line valves will be pressure tested to 7500 psi and the pipe rams and annular BOP's to be tested to the Proposed 22" Casing Test Pressure of 200 psi. Subsequent BOP test pressures will be based upon the test pressures outlined in the "BOP and Casing Test Pressures" section of this document.
- C. A departure from **30 CFR 250.449 (h)** is requested. Blind, shear and blind/shear rams shall be actuated at least once every 14 days.
- D. A departure from **30 CFR 250.433 (b)** is requested. A full function and flow-through test on the diverter will be conducted upon initial installation of the riser. Subsequent actuation tests will be conducted not less than once every 7 days, alternating between control stations. Partial closing and subsequent opening of the diverter element shall be considered a successful function test. Actuation every 7 days may be extended to the next trip up to inside the casing if hole conditions are unstable, (i.e. lost circulation, differential sticking, etc.). An extended diverter actuation due to unstable hole conditions shall be noted as such in the IADC report.

Once the surface casing (22") is set, diverter function tests will be conducted every 7 days.

- E. A departure from **30 CFR 250.445 (g)** is requested. A safety valve with the proper connection for the casing being run will be available only if the length of casing being run exceeds the water depth.

Note: 30 CFR 250 Section references included are made to "Code of Federal Regulations Title 30 Chapter II, Revised as of July 1, 2004".

OCS-G-16865
ATWATER VALLEY 140 #1

SAFE WELDING AND BURNING AREAS

Attached is a rig layout drawing with the approved safe welding and burning areas indicated. The attached rig layout drawing will be posted on the rig.

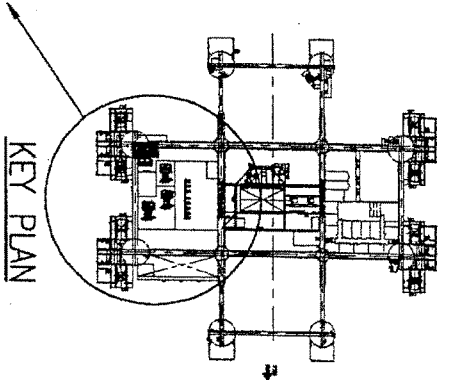
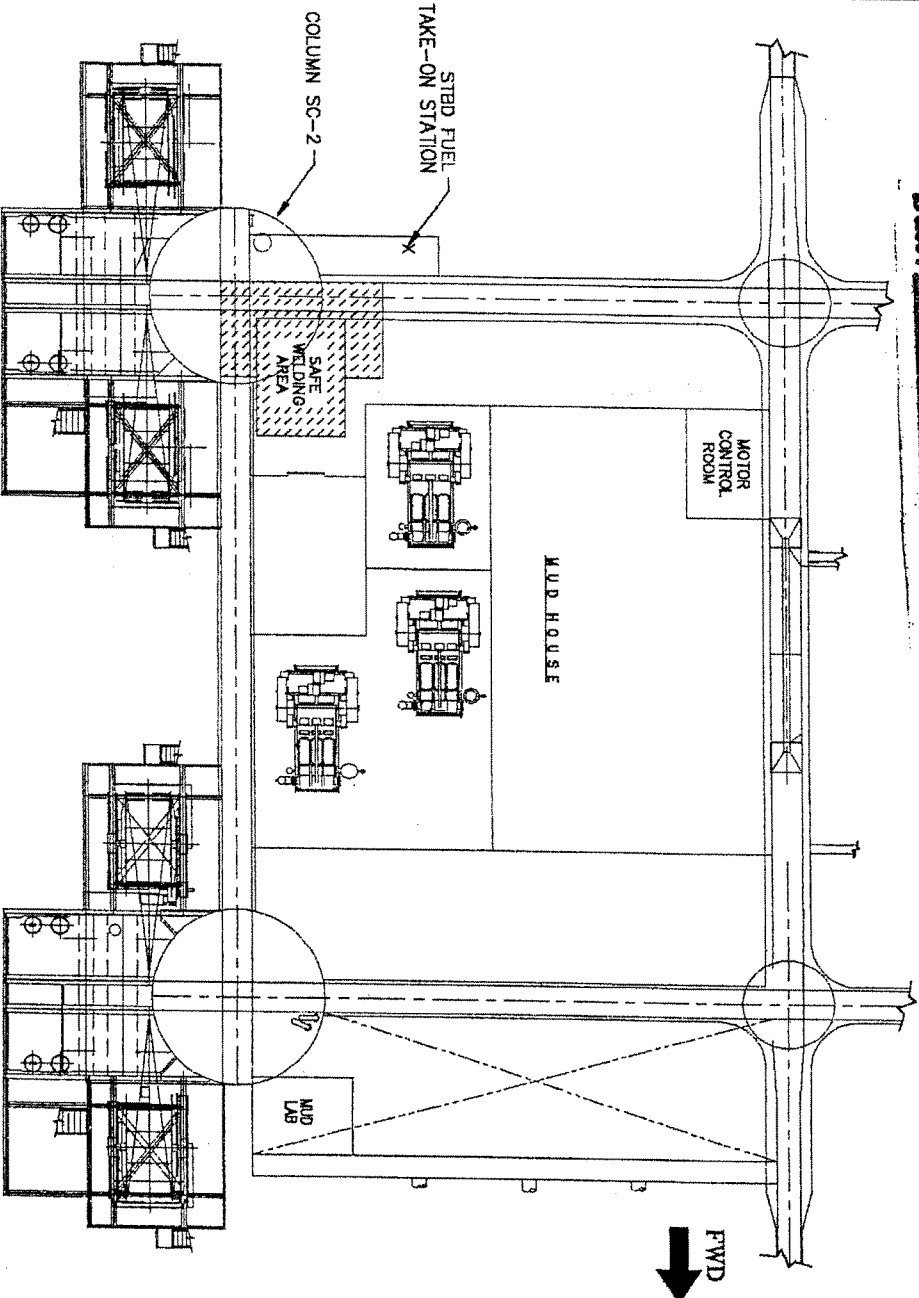
All welding and burning on the rig will be in accordance with Kerr McGee Oil & Gas' "Welding and Burning Safe Practices and Procedures Plan.

Approved By:

Michael J. Quinn
District Supervisor
Houston District

Date:

2/12/98

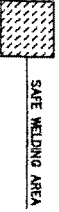


NOTES:

1. SAFE WELDING AREA IS LOCATED OUTSIDE ALL HAZARDOUS AREAS.
2. WELDING AND BURNING OPERATIONS WILL NOT BE PERFORMED WHILE DIESEL LOADING OR OFF-LOADING OPERATIONS ARE BEING PERFORMED DUE TO THE CLOSE PROXIMITY OF THE FUEL LINE.
3. A SIGN WILL BE POSTED AT THE DIESEL INTAKE POINT, INDICATING WELDING AND BURNING WILL BE SHUT DOWN IN THE SAFE WELDING AREA DURING DIESEL LOADING AND OFF-LOADING OPERATIONS.
4. MUD ROOM HATCHES (WITHIN 35 FEET) AND EMERGENCY GENERATOR HATCH MUST BE CLOSED WHEN WELDING AND BURNING OPERATIONS ARE BEING PERFORMED.
5. THE DESIGNATED SAFE WELDING AND BURNING AREA WILL BE CLEARLY MARKED AND IDENTIFIED.

SAFE WELDING AREA

See Attached Conditions
of Approval



SAFE WELDING AREA

THE DESIGNATED SAFE
WELDING AREA SHALL BE
CLEARLY MARKED AND
IDENTIFIED ON THE PLAN.

No.		REVISED		DATE	
1		1		1	
DIAMOND OIL FIELD P.O. BOX 4006 HOUSTON, TEXAS 77210 OCEAN STAR					
SAFE WELDING AREA					
DATE	CHG	DATE	CHG	DATE	CHG
10/10/97	1	10/10/97	1	10/10/97	1
10/10/97	1	10/10/97	1	10/10/97	1
10/10/97	1	10/10/97	1	10/10/97	1

GENERAL DATA

Description:	AT 140 #1 ST01
Well Options, Deviated:	Yes
Well Options, Offshore:	Yes
Well TD (MD):	18587 ft
Reference Point:	RKB
Elevation:	82 ft
Origin N:	0 ft
Origin E:	0 ft
Azimuth:	30.90 deg

OFFSHORE DATA

Well Type:	Subsea Well
Water Depth:	3739 ft

WELL SUMMARY

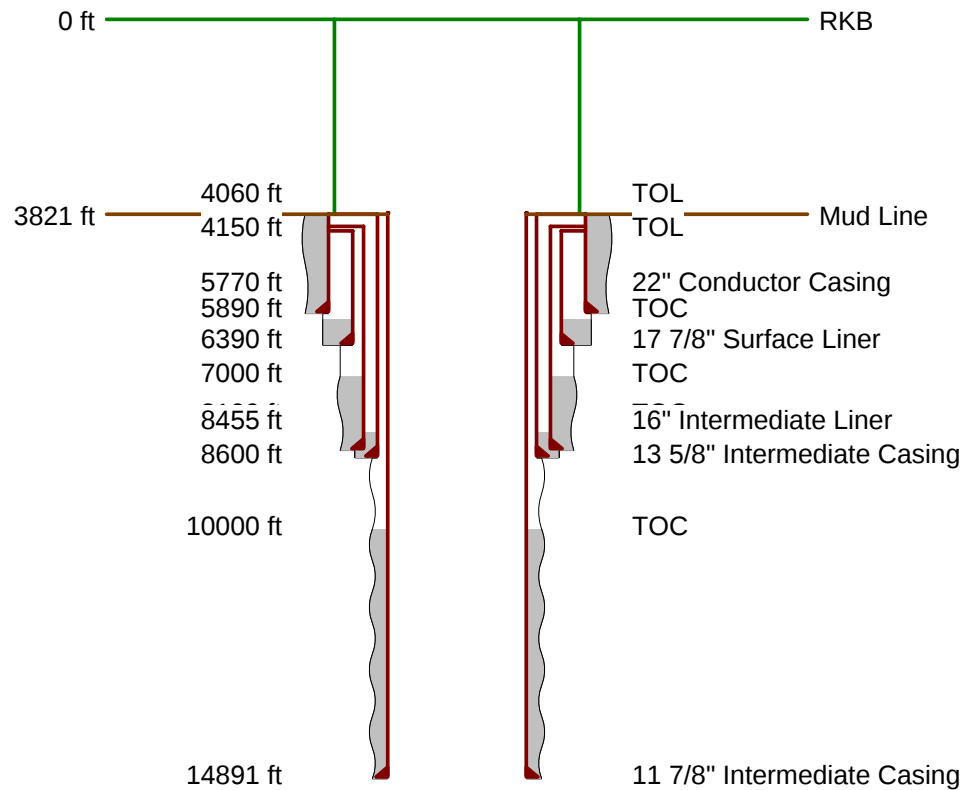
	String	OD/Weight/Grade	Connection	MD Interval (ft)	Drift Dia. (in)	Minimum Safety Factor (Abs)				Design Cost (\$)
						Burst	Collapse	Axial	Triaxial	
1	Conductor Casing	22", 224.28 lbm/ft, X-80	S90MT	3811-5770	19.813	2.88	5.78	3.24 C	3.59	418,932
2										Total = 418,932
3										
4	Surface Liner	17 7/8", 93.50 lbm/ft, N-80	HYD521	4150-6390	16.688	2.36	3.26	2.22 C	2.07	156,485
5										Total = 156,485
6										
7	Intermediate Liner	16", 109.00 lbm/ft, P-110	HYD511	4060-8455	14.501	3.29 C	1.77	3.42 C	3.87	345,564
8										Total = 345,564
9										
10	Intermediate Casing	13 5/8", 88.20 lbm/ft, HCQ-125	HYD523	3821-8600	12.250 A	3.02 C	1.56	3.45 C	3.46	390,862
11										Total = 390,862
12										
13	Intermediate Casing	11 7/8", 71.80 lbm/ft, HCQ-125	HYD 513	3795-14891	10.625 A	2.25 C	1.93	2.04 C	3.06	625,457
14										Total = 625,457
15										
16										Total = 1,937,300
17	C Conn Critical									
18	A Alternate Drift									

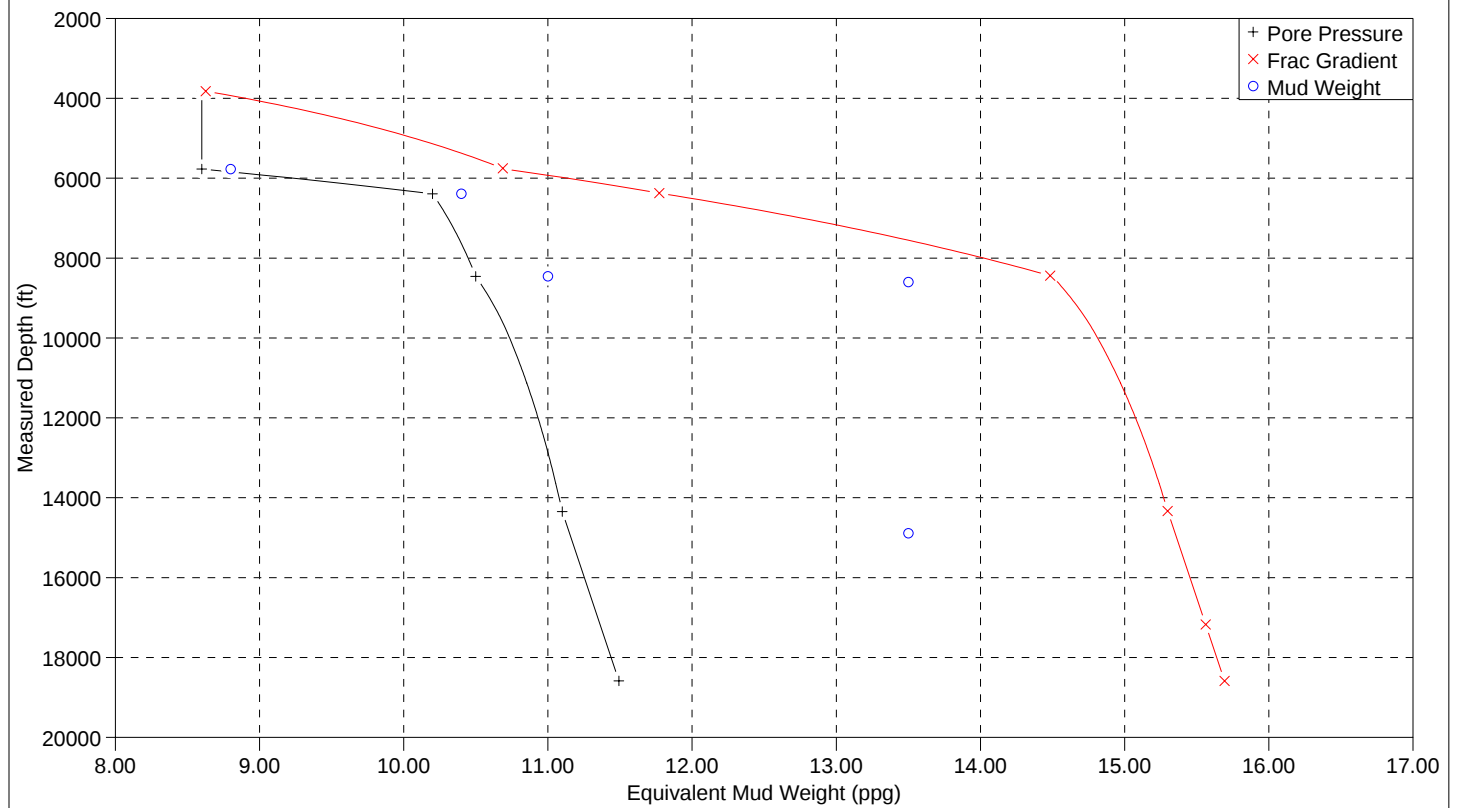
PORE PRESSURE

	Vertical Depth (ft)	Pore Pressure/EMW		Permeable Zones
		(psig)	(ppg)	
1	3805	1700	8.60	No
2	5770	2578	8.60	No
3	6390	3386	10.20	No
4	8455	4612	10.50	No
5	13500	7784	11.10	No
6	17000	10156	11.50	No

FRAC GRADIENT

	Vertical Depth (ft)	Frac Pressure/EMW		
		(psig)		(ppg)
1	3805		1700	8.60
2	5770		3207	10.70
3	6390		3917	11.80
4	8455		6369	14.50
5	13500		10730	15.30
6	17000		13865	15.70

WELL SCHEMATIC (DEPTH - MD)

PORE, FRAC & MW PROFILE**CASING SCHEME**

	OD (in)	Name	Type	Hole Size (in)	Measured Depths (ft)			Mud at Shoe (ppg)
					Hanger	Shoe	TOC	
1	22"	Conductor	Casing	26.000	3811	5770	3811	8.80
2	17 7/8"	Surface	Liner	23.000	4150	6390	5890	10.40
3	16"	Intermediate	Liner	20.000	4060	8455	7000	11.00
4	13 5/8"	Intermediate	Casing	17.500	3821	8600	8100	13.50
5	11 7/8"	Intermediate	Casing	14.500	3795	14891	10000	13.50

BURST LOADS TABLE (22" Conductor Casing)

	Depth (MD) (ft)	Displacement To Gas (psig)	Pressure Test (psig)	Fluid Gradients w/ Pore Press (psig)
1	3811	3686	1942	1702
2	3821	3693	1947	1707
3	4703	4311	2350	2101
4	5770	4418	2837	2577

COLLAPSE LOADS TABLE (22" Conductor Casing)

	Depth (MD) (ft)	Cementing (Int) (psig)	Cementing (Ext) (psig)	Cementing (Ext) (psig)	Lost Returns (psig)
1	3811	1702	1742	1742	1458
2	3821	1707	1748	1748	1464
3	5770	2577	3014	3014	2577

AXIAL LOADS TABLE (22" Conductor Casing)

	Depth (MD) (ft)	Running in Hole (lbf)		Overpull Force (lbf)		Green Cement Pressure Test (lbf)		Service Loads (lbf)	
		Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)
1	3811	747825	736530	541568	530273	805733	794437	497473	486178
2	3821	734589	734589	528332	528332	803490	792195	496172	484877
3	4703	563382	563382	357125	357125	605745	594450	381472	370177
4	5262	410057	410057	203800	203800	428693	417398	245353	234058
5									-234058
6	5587	375790	375790	169533	169533	389123	377828	-304363	-299154
7	5770	356257	356257	150000	150000	366566	355271	-347203	-335908

MINIMUM SAFETY FACTORS (22" Conductor Casing)

	Depth (MD) (ft)	OD/Weight/Grade	Connection	Minimum Safety Factor (Abs)			
				Burst	Collapse	Axial	Triaxial
1	3811	22", 224.28 lbm/ft, X-80	S90MT	3.21 B1	9.29 C4	3.24 A5 C	3.66 A5
2	3821			3.20 B1	9.26 C4	3.25 A5 C	
3	4703			2.88 B1	7.26 C4	4.31 A5 C	
4	5769	Connection Critical Displacement to Gas Lost Returns with Mud Drop		3.46 B1	5.78 C4	7.12 A5 C	4.22 B1
5	5770						
6							
7	C	Green Cement Pressure Test(Axial)					
8	B1						
9	C4						
10	A5						

BURST LOADS TABLE (17 7/8" Surface Liner)

	Depth (MD) (ft)	Displacement To Gas (psig)	Lost Returns (psig)	Pressure Test (psig)	Fluid Gradients w/ Pore Press (psig)
1	4150	3049	2946	3449	2242
2	5513	3827	3536	4185	2978
3	5770	3853	3647	4324	3117
4	5771				
5	5890	3865	3699	4388	3181
6					2732
7	6390	3915	3915	4658	3384

COLLAPSE LOADS TABLE (17 7/8" Surface Liner)

	Depth (MD) (ft)	Cementing (Int) (psig)	Cementing (Ext) (psig)	Lost Returns (psig)	Fluid Gradients w/ Pore Press (psig)
1	4150	2242	2242	2104	2242
2	5770	3117	3117	3030	3117
3	5890	3181	3181	3098	3181
4	6390	3451	3592	3384	3451

AXIAL LOADS TABLE (17 7/8" Surface Liner)

	Depth (MD) (ft)	Running in Hole (lbf)		Overpull Force (lbf)		Green Cement Pressure Test (lbf)		Service Loads (lbf)	
		Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)
1	4150	327582	323785	330202	326405	620524	616728	245865	242068
2	5093	280774	278577	283394	281197	566873	563077	149666	153896
3									127594
4	5375	266811	265091	269431	267711	550869	547072	-143972	-127133
5	5513	216448	216448	219068	219068	493142	489346	-151887	-140041
6		196209	196209	198829	198829	469128	465332	-176459	-164055
7	5770	196207	196207	198827	198827	469126	465330	-213531	-164057
8	5771	196110	196110	198730	198730	469011	465215	-227904	-164172
9		186758	186758	189378	189378	457916	454119	-224923	-175268
10	5890	186756	186756	189377	189377	457914	454117	150713	146916
11									112787
12	6096	152593	152593	155213	155213	417384	413588	-132391	-112380
13	6231	150220	150220	152840	152840	414568	410772	-134849	-131051
14	6390	147380	147380	150000	150000	411199	407402	-156846	-153050

MINIMUM SAFETY FACTORS (17 7/8" Surface Liner)

	Depth (MD) (ft)	OD/Weight/Grade	Connection	Minimum Safety Factor (Abs)			
				Burst	Collapse	Axial	Triaxial
1	4150	17 7/8", 93.50 lbm/ft, N-80	HYD521	3.24 B5	4.26 C4	2.22 A5 C	2.07 A5
2	5513				4.25 C4	2.80 A5 C	
3	5770			3.24 B5	4.24 C4	2.94 A5 C	2.09 A5
4	5771						
5	5890			2.36 B5	3.26 C4	3.01 A5 C	2.22 A5
6	6389						
7	6390			3.07 B5	3.26 C4	3.36 A5 C	2.22 A5
8	6390						
9							
10	C	Connection Critical					
11	B5	Pressure Test					
12	C4	Lost Returns with Mud Drop					
13	A5	Green Cement Pressure Test(Axial)					

BURST LOADS TABLE (16" Intermediate Liner)

	Depth (MD) (ft)	Displacement To Gas (psig)	Lost Returns (psig)	Pressure Test (psig)	Green Cement Pres.Test (Int) (psig)	Green Cement Pres. Test (Ext) (psig)	Fluid Gradients w/ Pore Press (psig)
1	4060	4020	4464	4165	4720	2320	2320
2	6390	4369	5471	5495	6050	3650	3650
3	7000	4461	5735	5844	6399	3999	3999
4	8455	4679	6364	6674	7229	5192	4628

COLLAPSE LOADS TABLE (16" Intermediate Liner)

	Depth (MD) (ft)	Cementing (Int) (psig)	Cementing (Ext) (psig)	Lost Returns (psig)	Fluid Gradients w/ Pore Press (psig)
1	4060	2320	2320	1519	2320
2	6390	3650	3650	3152	3650
3	6392	3651	3651	3153	3651
4					3999
5	7000	3999	3999	3580	3747
6					3801
7	7092	4051	4074	3644	4972
8	8455	4829	5192	4599	6180

AXIAL LOADS TABLE (16" Intermediate Liner)

	Depth (MD) (ft)	Running in Hole (lbf)		Overpull Force (lbf)		Green Cement Pressure Test (lbf)		Service Loads (lbf)	
		Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)
1	4060	574285	570348	553526	549588	663698	659760	663698	659760
2	6390	358527	358527	337767	337767	409865	405928	409865	405928
3	6390	358525	358525	337765	337765	409863	405926	409863	405926
4	6392	358372	358372	337612	337612	409680	405743	409680	405743
5	6978	321654	321654	300894	300894	365701	361764	350412	341923
6	7000	303062	303062	282303	282303	343433	339496	343433	339496
7	7000	303061	303061	282301	282301	343431	339494	343431	339494
8	7092	294669	294669	273909	273909	333382	329444	333382	329444
9	7092	294667	294667	273907	273907	333379	329442	333379	329442
10	7574	195635	195635	174875	174875	214806	210868	280932	276995
11	7599	194922	194922	174162	174162	213952	210015	-283421	-279484
12	8251	176571	176571	155811	155811	191979	188042	-350949	-347012
13	8251	176571	176571	155811	155811	191979	188042	-350949	-347012
14	8455	170760	170760	150000	150000	185022	181084	-372151	-368214

MINIMUM SAFETY FACTORS (16" Intermediate Liner)

Depth (MD) (ft)		OD/Weight/Grade	Connection	Minimum Safety Factor (Abs)			
				Burst	Collapse	Axial	Triaxial
1	4060	16", 109.00 lbm/ft, P-110	HYD511	3.29 B12 C	3.72 C4	3.42 A5 C	3.87 B12
2	6390				4.58 C4	5.53 A5 C	4.12 B12
3	6392				4.86 C4	5.54 A5 C	4.15 B12
4	7000				7.53 C4	6.60 A5 C	4.15 B12
5	7000				7.60 C4	6.80 A5 C	4.19 B12
6	7092			3.66 B12 C	2.13 C4	8.08 B12 C	4.61 B12
7	7092			3.73 B12 C	1.83 C4	8.02 B12 C	
8	7575					8.01 B12 C	
9	7599					8.00 C4 C	
10	7600					6.52 C4 C	
11	8251			3.83 B12	1.78 C4	6.46 C4 C	4.70 B12
12	8251			3.86 B5	1.77 C4	6.10 C4 C	4.73 B12
13	8432					6.09 C4 C	
14	8454						
15	8455						
16	8455						
17	C	Connection Critical					
18	B5	Pressure Test					
19	B12	Green Cement Pressure Test(Burst)					
20	C4	Lost Returns with Mud Drop					
21	A5	Green Cement Pressure Test(Axial)					

BURST LOADS TABLE (13 5/8" Intermediate Casing)

	Depth (MD) (ft)	Displacement To Gas (psig)	Lost Returns (psig)	Pressure Test (psig)	Frac @ Shoe w/ 1/3 BHP at Surface (psig)	Green Cement Pres.Test (Int) (psig)	Green Cement Pres. Test (Ext) (psig)	Fluid Gradients w/ Pore Press (psig)
1	3821	3531	4424	6004	4382	6004	2679	2679
2	7892	6384	6185	8857	6178	8857	5532	5532
3	8100	6416	6274	9003	6270	9003	5678	5678
4	8455	6469	6428	9252	6427	9252	5969	5927
5	8600	6490	6490	9353	6490	9353	6088	6028

COLLAPSE LOADS TABLE (13 5/8" Intermediate Casing)

Depth (MD) (ft)		Lost Returns (psig)	Fluid Gradients w/ Pore Press (psig)
1	3821	0	2679
2	4648		3259
3	8100	2419	5678
4			5927
5	8455	2668	6180
6	8600	2769	6308

AXIAL LOADS TABLE (13 5/8" Intermediate Casing)

Depth (MD) (ft)		Green Cement Pressure Test (lbf)		Service Loads (lbf)	
		Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)
1	3821	661229	658523	661229	658523
2	4648	588335	585628	588335	585628
3	6786	410955	408248	399905	397198
4	7295	380485	377778	355020	352314
5					322373
6	7635	360160	357453	325080	-322373
7	7877	345667	342961	-343199	-343722
8	7892	302416	299709	-347744	-345038
9		284094	281387	-366066	-363360
10	8100	284092	281385	-341204	-338497
11	8130	255902	253195	-343104	-340397
12		252824	250118	-363972	-361266
13	8455	252823	250116	-386120	-383413
14	8600	240053	237346	-397774	-395068

MINIMUM SAFETY FACTORS (13 5/8" Intermediate Casing)

Depth (MD) (ft)		OD/Weight/Grade	Connection	Minimum Safety Factor (Abs)				
				Burst	Collapse	Axial	Triaxial	
1	3821	13 5/8", 88.20 lbm/ft, HCQ-125	HYD523	3.02 B5 C	2.21 C4	3.45 A5 C	3.54 B12	
2	4648				1.82 C4	3.88 A5 C	3.46 C4	
3	7635				1.73 C4	7.02 C4 C	3.69 C4	
4	7877				1.72 C4	6.59 C4 C	3.71 C4	
5	7892					6.56 C4 C	3.76 B5	
6					1.70 C4	6.23 C4 C	3.75 B5	
7	8100					6.69 C4 C		
8	8130				1.69 C4	6.65 C4 C	3.74 B5	
9						6.27 C4 C	3.73 B5	
10	8455				1.58 C4	5.91 C4 C	3.51 C4	
11	8599					1.56 C4		
12	8600						5.74 C4 C	3.49 C4
13								
14	C	Connection Critical						
15	B5	Pressure Test						
16	B12	Green Cement Pressure Test(Burst)						
17	C4	Lost Returns with Mud Drop						
18	A5	Green Cement Pressure Test(Axial)						

BURST LOADS TABLE (11 7/8" Intermediate Casing)

	Depth (MD) (ft)	Displacement To Gas (psig)	Lost Returns (psig)	Pressure Test (psig)	Frac @ Shoe w/ 1/3 BHP at Surface (psig)	Green Cement Pres. Test (Int) (psig)	Green Cement Pres. Test (Ext) (psig)	Fluid Gradients w/ Pore Press (psig)
1	3795	4578	6734	6086	5479	6086	2661	2661
2	3821	4596	6746	6104	5494	6104	2679	2679
3	8600	7945	8812	9453	8151	9453	6028	6028
4	9875	8788	9332	10296	8819	10296	6871	6871
5	10000	8861	9377	10369	8877	10369	6944	6944
6	10410	9101	9525	10609	9068	10609	7225	7184
7	14891	9656	11125	13202	11125	13202	10260	9777

COLLAPSE LOADS TABLE (11 7/8" Intermediate Casing)

	Depth (MD) (ft)	Cementing (Int) (psig)	Cementing (Ext) (psig)	Lost Returns (psig)	Fluid Gradients w/ Pore Press (psig)
1	3795	2661	2661	903	2661
2	3821	2679	2679	921	2679
3	8600	6028	6028	4270	6028
4	9875	6871	6871	5113	6308
5	10000	6944	6944	5186	7374
6	10410	9468	9897	7709	7467
7	14350	9777	10260	8019	10660
8	14891				9468
9					9777

AXIAL LOADS TABLE (11 7/8" Intermediate Casing)

	Depth (MD) (ft)	Running in Hole (lbf)		Overpull Force (lbf)		Green Cement Pressure Test (lbf)		Service Loads (lbf)	
		Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)	Apparent (w/Bending)	Actual (w/o Bending)
1	3795	733389	731481	771889	769981	783719	781811	783719	781811
2	3821	730241	730241	768741	768741	781853	779945	781853	779945
3	8600	472005	472005	510505	510505	438991	437083	438991	437083
4		472004	472004	510504	510504	570707	437082	570707	437082
5	9875	398968	398968	437468	437468	484448	350822	484448	350822
6		398967	398967	437467	437467	353350	350820	353350	350820
7	10000	391807	391807	430307	430307	345840	343311	345840	343311
8		391806	391806	430306	430306	345839	343309	345839	343309
9	10410	368315	368315	406815	406815	321238	318708	321238	318708
10	12060	206634	200119	245134	238619	147142	144613	248218	220854
11	12473	198547	191706	237047	230206	138434	135904	204165	196331
12									-195876
13	12657	194951	187965	233451	226465	134562	132032	-205873	-205046
14	13517	178124	170460	216624	208960	116443	113913	-245237	-247953
15	14158	165577	157407	204077	195907	102932	100403	-280379	-279948
16		151242	142495	189742	180995	87497	84967	-292055	-289525
17	14350	151241	142494	189741	180994	87496	84966	-226174	-223644
18	14891	120653	111500	159153	150000	55809	53279	-257861	-255331

MINIMUM SAFETY FACTORS (11 7/8" Intermediate Casing)

Depth (MD) (ft)		OD/Weight/Grade	Connection	Minimum Safety Factor (Abs)			
				Burst	Collapse	Axial	Triaxial
1	3795	11 7/8", 71.80 lbm/ft, HCQ-125	HYD 513	2.25 B2 C	3.75 C4	2.04 A5 C	3.06 B12
2	3821					2.04 B12 C	
3	4561			2.28 B2 C	3.72 C4	2.05 B12 C	3.10 B12
4						2.19 B12 C	
5	6211			2.67 B5 C	3.64 C4	2.34 B12 C	3.17 B12
6	6242					3.12 A4 C	3.18 B12
7	8600					3.30 C4	3.12 A4 C
8					2.92 C4	2.80 A5 C	3.41 B12
9	9875					3.29 A5 C	3.55 B12
10					2.60 C4	3.65 A4 C	3.77 B12
11	10000					3.71 A4 C	3.78 B12
12					10410	3.92 A4 C	3.84 B12
13	13374					2.00 C4	6.00 A4 C
14					13376		6.55 C4 C
15	13518					1.99 C4	6.39 C4 C
16					13520		6.36 C4 C
17	14158					1.97 C4	5.69 C4 C
18					14159		5.65 C4 C
19	14350		1.93 C4			5.46 C4 C	3.81 B5
20			2.85 C4		7.05 C2 C		
21	14890		2.82 C4		6.19 C2 C	3.78 B5	
22	14891						
23	C	Connection Critical					
24		B2	Lost Returns with Water				
25	B5	Pressure Test					
27	B12	Green Cement Pressure Test(Burst)					
28	C2	Cementing					
29	C4	Lost Returns with Mud Drop					
30	A4	Overpull Force					
31	A5	Green Cement Pressure Test(Axial)					

Maximum Anticipated Pressure Calculations

Field Claymore Block AT 140 OCS-G- 16685 Well #1 ST01 Rig RKB 82'
 Casing 22.000" @ 5,770' WD 3,739' TVDtd 6,390'

Fracture at casing shoe less gas column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{GG} * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>10.7</u>	ppg
GG	Gas Gradient	<u>0.10</u>	psi/ft
TVDs	TVD of Casing Shoe	<u>5,770</u>	ft

MASP 2783 psig

Notes: 1. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.

Bottom hole pressure less gas mud column

$$\text{MASP} = (\text{PP} * .052 * \text{TVDtd}) - (\% \text{Gas} * \text{GG} * \text{TVDtd}) - (\% \text{mud} * .052 * \text{MWtd} * \text{TVDtd})$$

PP	Pore pressure @ deepest depth drilled below casing	<u>10.20</u>	ppg
%Gas	Gas percentage used in Calculations	<u>70%</u>	
%Mud	Mud percentage used in Calculations	<u>30%</u>	
MWtd	Highest MW used below the referenced casing, ppg	<u>10.4</u>	ppg
TVDtd	TVD of deepest hole the casing will be exposed to	<u>6,390</u>	Feet
GG	Gas gradient, psi per ft	<u>0.100</u>	psi/ft
TVDadj	TVD adjusted to well head using water depth and RKB	<u>2569</u>	

MASP 1,905 psig

Mud/Gas Interface = 4591.7 ft

Notes: 1. For depths above 12,000' a 70% gas column will be used. Between 12,000' and 15,000' a 60% column will be used, and 50% for depths 15000' or deeper. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.
 2. MASP assumes mud over gas calculated on TVD.

Percentage of bottom hole pressure

$$\text{MASP} = (\text{PP} * 0.052 * \text{TVDtd}) * (0.45)$$

PP	Pore Pressure at Deepest Depth Drilled Below Casing	<u>10.2</u>	ppg
TVDtd	True Vertical Depth of Deepest Hole the Casing Will be Exposed To	<u>6,390</u>	feet
BHP%	Percentage of Bottom Hole Pressure at Surface During Kick / Kill	<u>45%</u>	

MASP 1,525 psig

Fracture at casing shoe less seawater column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{SW} * .052 * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>10.7</u>	ppg
TVDs	TVD of Casing Shoe	<u>5770</u>	ft
SW	Sea water density, 8.6 ppg	<u>8.6</u>	ppg

MASP 3357 psig

Maximum Anticipated Pressures

MASP= 1525 psig

Maximum Anticipated Pressure Calculations

Field Claymore Block AT 140 OCS-G- 16685 Well #1 ST01 Rig RKB 82'
 Casing 17.875" @ 6,390' WD 3,739' TVDtd 8,455'

Fracture at casing shoe less gas column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{GG} * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>11.8</u>	ppg
GG	Gas Gradient	<u>0.10</u>	psi/ft
TVDs	TVD of Casing Shoe	<u>6,390</u>	ft

MASP 3448 psig

Notes: 1. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.

Bottom hole pressure less gas mud column

$$\text{MASP} = (\text{PP} * .052 * \text{TVDtd}) - (\% \text{Gas} * \text{GG} * \text{TVDtd}) - (\% \text{mud} * .052 * \text{MWtd} * \text{TVDtd})$$

PP	Pore pressure @ deepest depth drilled below casing	<u>10.50</u>	ppg
%Gas	Gas percentage used in Calculations	<u>70%</u>	
%Mud	Mud percentage used in Calculations	<u>30%</u>	
MWtd	Highest MW used below the referenced casing, ppg	<u>10.7</u>	ppg
TVDtd	TVD of deepest hole the casing will be exposed to	<u>8,455</u>	Feet
GG	Gas gradient, psi per ft	<u>0.100</u>	psi/ft
TVDadj	TVD adjusted to well head using water depth and RKB	<u>4634</u>	

MASP 2,613 psig

Mud/Gas Interface = 5211.2 ft

Notes: 1. For depths above 12,000' a 70% gas column will be used. Between 12,000' and 15,000' a 60% column will be used, and 50% for depths 15000' or deeper. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.
 2. MASP assumes mud over gas calculated on TVD.

Percentage of bottom hole pressure

$$\text{MASP} = (\text{PP} * 0.052 * \text{TVDtd}) * (0.45)$$

PP	Pore Pressure at Deepest Depth Drilled Below Casing	PP=	<u>10.5</u>	ppg
TVDtd	True Vertical Depth of Deepest Hole the Casing Will be Exposed To	TVDtd=	<u>8,455</u>	feet
BHP%	Percentage of Bottom Hole Pressure at Surface During Kick / Kill	BHP%=	<u>45%</u>	

MASP 2,077 psig

Fracture at casing shoe less seawater column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{SW} * .052 * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>11.8</u>	ppg
TVDs	TVD of Casing Shoe	<u>6390</u>	ft
SW	Sea water density, 8.6 ppg	<u>8.6</u>	ppg

MASP 4083 psig

Maximum Anticipated Pressures

MASP= 2077 psig

Maximum Anticipated Pressure Calculations

Field Claymore Block AT 140 OCS-G- 16685 Well #1 ST01 Rig RKB 82'
 Casing 16.000" @ 8,455' WD 3,739' TVDtd 8,600'

Fracture at casing shoe less gas column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{GG} * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>14.5</u>	ppg
GG	Gas Gradient	<u>0.10</u>	psi/ft
TVDs	TVD of Casing Shoe	<u>8,455</u>	ft

MASP 5749 psig

Notes: 1. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.

Bottom hole pressure less gas mud column

$$\text{MASP} = (\text{PP} * .052 * \text{TVDtd}) - (\% \text{Gas} * \text{GG} * \text{TVDtd}) - (\% \text{mud} * .052 * \text{MWtd} * \text{TVDtd})$$

PP	Pore pressure @ deepest depth drilled below casing	<u>10.50</u>	ppg
%Gas	Gas percentage used in Calculations	<u>70%</u>	
%Mud	Mud percentage used in Calculations	<u>30%</u>	
MWtd	Highest MW used below the referenced casing, ppg	<u>13.5</u>	ppg
TVDtd	TVD of deepest hole the casing will be exposed to	<u>8,600</u>	Feet
GG	Gas gradient, psi per ft	<u>0.100</u>	psi/ft
TVDadj	TVD adjusted to well head using water depth and RKB	<u>4779</u>	

MASP 2,282 psig

Mud/Gas Interface = 5254.7 ft

Notes: 1. For depths above 12,000' a 70% gas column will be used. Between 12,000' and 15,000' a 60% column will be used, and 50% for depths 15000' or deeper. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.
 2. MASP assumes mud over gas calculated on TVD.

Percentage of bottom hole pressure

$$\text{MASP} = (\text{PP} * 0.052 * \text{TVDtd}) * (0.45)$$

PP	Pore Pressure at Deepest Depth Drilled Below Casing	PP=	<u>10.5</u>	ppg
TVDtd	True Vertical Depth of Deepest Hole the Casing Will be Exposed To	TVDtd=	<u>8,600</u>	feet
BHP%	Percentage of Bottom Hole Pressure at Surface During Kick / Kill	BHP%=	<u>45%</u>	

MASP 2,113 psig

Fracture at casing shoe less seawater column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{SW} * .052 * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>14.5</u>	ppg
TVDs	TVD of Casing Shoe	<u>8455</u>	ft
SW	Sea water density, 8.6 ppg	<u>8.6</u>	ppg

MASP 6591 psig

Maximum Anticipated Pressures

MASP= 2113 psig

Maximum Anticipated Pressure Calculations

Field Claymore Block AT 140 OCS-G- 16685 Well #1 ST01 Rig RKB 82'
 Casing 13.625" @ 8,600' WD 3,739' TVDtd 14,000'

Fracture at casing shoe less gas column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{GG} * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>14.5</u>	ppg
GG	Gas Gradient	<u>0.15</u>	psi/ft
TVDs	TVD of Casing Shoe	<u>8,600</u>	ft

MASP 5418 psig

Notes: 1. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.

Bottom hole pressure less gas mud column

$$\text{MASP} = (\text{PP} * .052 * \text{TVDtd}) - (\% \text{Gas} * \text{GG} * \text{TVDtd}) - (\% \text{mud} * .052 * \text{MWtd} * \text{TVDtd})$$

PP	Pore pressure @ deepest depth drilled below casing	<u>11.00</u>	ppg
%Gas	Gas percentage used in Calculations	<u>60%</u>	
%Mud	Mud percentage used in Calculations	<u>40%</u>	
MWtd	Highest MW used below the referenced casing, ppg	<u>13.5</u>	ppg
TVDtd	TVD of deepest hole the casing will be exposed to	<u>14,000</u>	Feet
GG	Gas gradient, psi per ft	<u>0.150</u>	psi/ft
TVDadj	TVD adjusted to well head using water depth and RKB	<u>10179</u>	

MASP 2,817 psig

Mud/Gas Interface = 7892.6 ft

Notes: 1. For depths above 12,000' a 70% gas column will be used. Between 12,000' and 15,000' a 60% column will be used, and 50% for depths 15000' or deeper. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.
 2. MASP assumes mud over gas calculated on TVD.

Percentage of bottom hole pressure

$$\text{MASP} = (\text{PP} * 0.052 * \text{TVDtd}) * (0.45)$$

PP	Pore Pressure at Deepest Depth Drilled Below Casing	<u>11.0</u>	ppg
TVDtd	True Vertical Depth of Deepest Hole the Casing Will be Exposed To	<u>14,000</u>	feet
BHP%	Percentage of Bottom Hole Pressure at Surface During Kick / Kill	<u>45%</u>	

MASP 3,604 psig

Fracture at casing shoe less seawater column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{SW} * .052 * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>14.5</u>	ppg
TVDs	TVD of Casing Shoe	<u>8600</u>	ft
SW	Sea water density, 8.6 ppg	<u>8.6</u>	ppg

MASP 6704 psig

Maximum Anticipated Pressures

MASP= 2817 psig

Maximum Anticipated Pressure Calculations

Field Claymore Block AT 140 OCS-G- 16685 Well #1 ST01 Rig RKB 82'
 Casing 11.875" @ 14,000' WD 3,739' TVDtd 17,000'

Fracture at casing shoe less gas column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{GG} * \text{TVDs})$$

FG	Fracture Gradient at shoe, ppg	<u>15.3</u>	ppg
GG	Gas Gradient	<u>0.15</u>	psi/ft
TVDs	TVD of Casing Shoe	<u>14,000</u>	ft

MASP 9402 psig

Notes: 1. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.

Bottom hole pressure less gas mud column

$$\text{MASP} = (\text{PP} * .052 * \text{TVDtd}) - (\% \text{Gas} * \text{GG} * \text{TVDtd}) - (\% \text{mud} * .052 * \text{MWtd} * \text{TVDtd})$$

PP	Pore pressure @ deepest depth drilled below casing	<u>11.50</u>	ppg
%Gas	Gas percentage used in Calculations	<u>50%</u>	
%Mud	Mud percentage used in Calculations	<u>50%</u>	
MWtd	Highest MW used below the referenced casing, ppg	<u>13.5</u>	ppg
TVDtd	TVD of deepest hole the casing will be exposed to	<u>17,000</u>	Feet
GG	Gas gradient, psi per ft	<u>0.150</u>	psi/ft
TVDadj	TVD adjusted to well head using water depth and RKB	<u>13179</u>	

MASP 2,924 psig

Mud/Gas Interface = 10410.5 ft

Notes: 1. For depths above 12,000' a 70% gas column will be used. Between 12,000' and 15,000' a 60% column will be used, and 50% for depths 15000' or deeper. Gas gradient will be .1 psi/ft for depths above 10,000', a gradient of .15 psi/ft will be used below 10,000'.
 2. MASP assumes mud over gas calculated on TVD.

Percentage of bottom hole pressure

$$\text{MASP} = (\text{PP} * 0.052 * \text{TVDtd}) * (0.45)$$

PP	Pore Pressure at Deepest Depth Drilled Below Casing	PP=	<u>11.5</u>	ppg
TVDtd	True Vertical Depth of Deepest Hole the Casing Will be Exposed To	TVDtd=	<u>17,000</u>	feet
BHP%	Percentage of Bottom Hole Pressure at Surface During Kick / Kill	BHP%=	<u>45%</u>	

MASP 4,575 psig

Fracture at casing shoe less seawater column

$$\text{MASP} = ((\text{FG} + .5) * .052 * \text{TVDs}) - (\text{SW} * .052 * \text{TVDs})$$

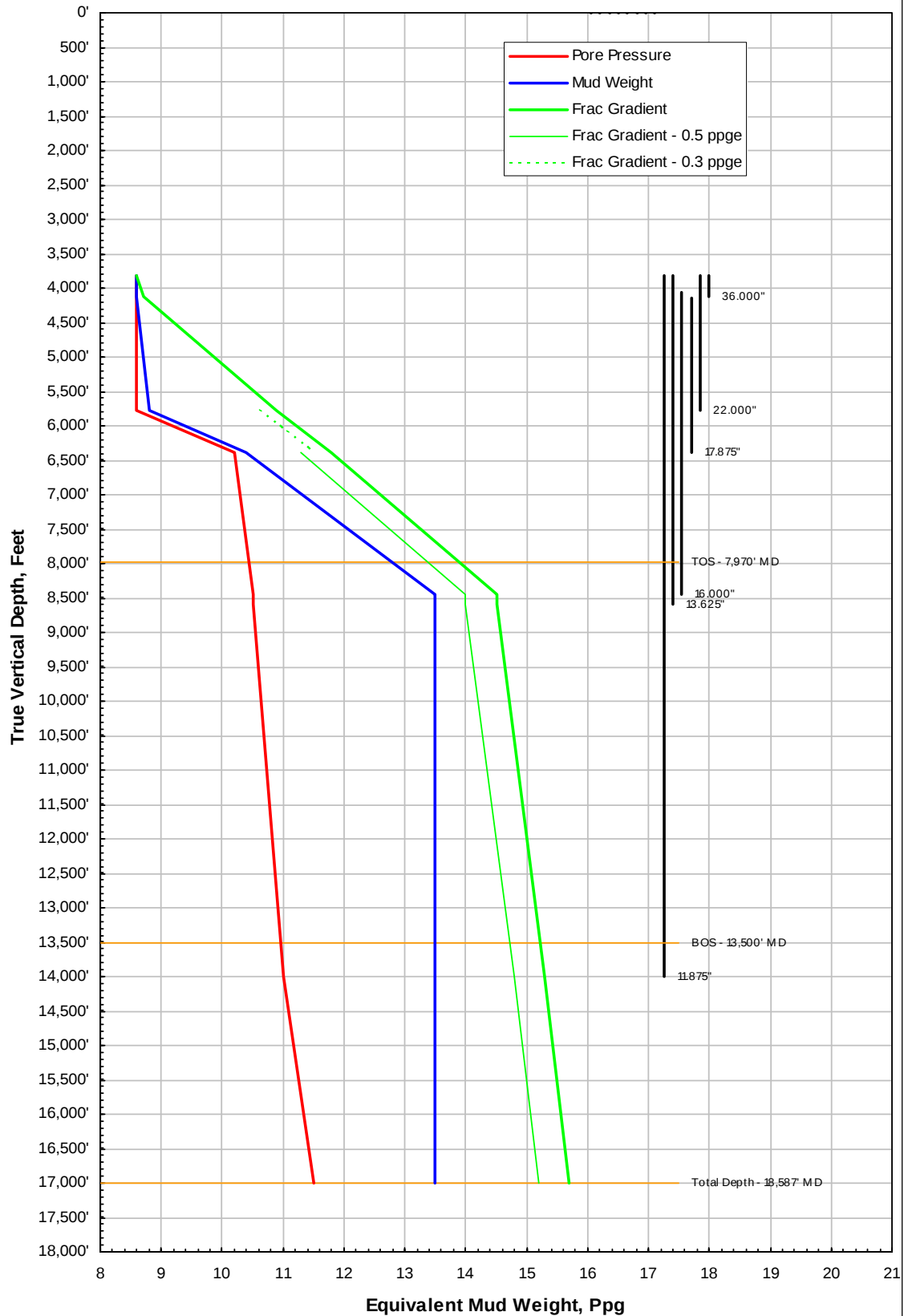
FG	Fracture Gradient at shoe, ppg	<u>15.3</u>	ppg
TVDs	TVD of Casing Shoe	<u>14000</u>	ft
SW	Sea water density, 8.6 ppg	<u>8.6</u>	ppg

MASP 11499 psig

Maximum Anticipated Pressures

MASP= 2924 psig

AT 140 #1 ST01 - Claymore Prospect



DRILLING SCHEMATIC
24-May-06
Claymore Prospect
Ocean Star

Well: AT 140 #1 ST01
Lease: OCS-G-16865
Surf Loc: 7445' FEL & 4869' FNL

Water Depth (ft): 3739'
KB to MSL (ft): 82'
KB to Mud Line (ft): 3811'

Total Depth: 18587'
TD Loc: 4730' FEL & 354' FNL

EVALUATION	GEOLOGY/ COMMENTS	4060	HOLE SIZE CASING	CEMENT	MUD (Est LOT)	DIRECTIONAL BHA
		16" TOL 4146 17-7/8" TOL	Jetted 36" Drive Pipe @ 4131'			
GR/LWD/PWD		5770 [5770]	26"Hole TOC: 3807	Spud 8.6 - 8.8 ppg Spotted 13.0 ppg mud in open hole		Straight Hole Pendulum
GR/LWD/PWD		6346 [6346]	22"Cond, 224#, X-80, S-60 MT	(10.7ppg LOT)		
GR/LWD/PWD		8455 [8455]	23"Hole TOC: 5846	Synthetic 9.2 - 10.4 ppg		Straight Hole Pendulum
GR/LWD/PWD	TOS @ 7970'	8600 [8600]	17.875" Liner, 93.5#, N-80., HY-521	(11.5ppg LOT)		
GR/LWD/PWD			20"Hole TOC: 7000	Synthetic 10.4 - 11.0 ppg		Straight Hole Pendulum
			16" Liner, 97#, P-110 HC, HY-511	(14.5ppg FIT)		
			13.625" Csg, 88.2#, Q-125 HC, HY-523	(14.5ppg FIT)		
			17"Hole TOC: 10000	Synthetic 13.5. ppg		Build and Hold Rotary Steerable
GR/RES/PWD	BOS @ 13500	14893 [14000]	11.875" Csg, 71.8#, Q-125 HC, HY-513	(15.3 ppg LOT)		
GR/RES/DEN/NEUTRON/PWD		18587 [17000]	10.625"Hole	Synthetic 13.5. ppg		Hold Rotary Steerable
			Open Hole			



AT 140 #1 ST01
OCS-G 16685
Sidetrack Procedure
Revision 1

May 24, 2006

Existing Casing

22" @ 5,770' MD / TVD LOT=10.7 emw
17-7/8" @ 6,346' MD / TVD LOT=11.5 emw
16" @ 8,455' MD / TVD FIT=14.5 emw
13-5/8" @ 8,600' MD / TVD FIT=14.5 emw

Planned Casing

11-7/8" @ 14,893' MD / 14,000' TVD LOT=15.3 emw
10-5/8" open hole to 18,587' MD 17,000' TVD
TD MW 13.5 ppg

1. Attempted to cut and pull the 13-5/8" casing at 9003' and 8760' without success. Run and set an EZSV at $\pm 8604'$ and squeeze 465 ft³ of cement below the retainer. Test the 13-5/8" casing to 3325 psi for 30 minutes using 13.5 ppg mud.
2. Run and set a 13-5/8" whipstock on top of the retainer. Mill a window in the 13-5/8" casing and sidetrack using a 12-14" bit and motor assembly. Drill sufficient footage to insure the well is kicked off and POOH with motor assembly.
3. Pick up a 14.5" x 17" rotary steerable and concentric reamer assembly.
4. TIH and drill out the 16" shoe to sufficiently bury the BHA or until 10' of formation is drilled.
5. After drilling 10' of formation spot a viscous pill and test the 16" casing shoe to 14.5 ppg emw.
6. Kickoff and build angle to 33° at 2.5 °/100' along an azimuth of 30.5°. Planned base of build at 9,905' MD / 9,830' TVD. Hold angle and azimuth to the planned 13-5/8" casing point at $\pm 14893'$ MD / 14,000' TVD.
7. Run and cement 13-5/8" casing. Test casing shoe to leakoff (expect 15.3 ppg emw).
8. Drill 12-1/4" hole to a total depth of $\pm 18,587'$ MD / 17,000' TVD with a maximum angle of 37° and azimuth of 32.5°.
9. Run open hole logs as needed.
10. Plans will be submitted for future operations after evaluation of the well.

Supplemental APD Information Sheet

1. OPERATOR NAME Kerr-McGee Oil & Gas				5. WELL NAME (PROPOSED) Atwater Valley 140 #1				6. TYPE OF WELL ☒ EXPLORATION ☐ DEVELOPMENT				11. WATER DEPTH 3739		12. ELEVATION AT KB 82					
2. API WELL NO. (PROPOSED) (12 digits) 608184005901				3. BOTTOM LEASE NO. (PROPOSED) OCS-G-16865				7. SIDETRACK NO. (PROPOSED) 1				8. BYPASS NO. (PROPOSED) 0				13. H ₂ S DESIGNATION ☐ KNOWN ☐ UNKNOWN ☒ ABSENT			
4. TOTAL DEPTH (PROPOSED) MD: 18,587' TVD: 17,000'				9. RIG NAME Ocean Star				10. RIG TYPE Semi Submersible				14. H ₂ S ACTIVATION PLAN DEPTH FT (TVD)							

15. ENGINEERING DATA

Hole Size (In)	Casing (<i>Indicate if liner</i>)	Casing Size (In)	Weight (#/ft)	Burst Rating (<i>psi</i>)	Type of Connection	MASP (<i>psi</i>)	Safety Factors			Top of Liner	Casing Depth (<i>ft</i>)	Casing Shoe (<i>ppg</i>)			Wellhead Rating (<i>psi</i>)	BOP Size (<i>in</i>)	Rated BOP Working Pressure	Test Pressures			Cement (<i>ft.³</i>)	Drilling Fluid Type (<i>Oil Base, Water Base, Synthetic</i>)
			Grade	Collapse Rating (<i>psi</i>)			B	C	T	MD	TVD	PP	MW	FG			Annular / Diverter (<i>psi</i>)	Annular / Diverter (<i>psi</i>)	Casing Test (<i>psi</i>)	Casing Shoe (<i>ppg</i>)		
Jetted	Drive / Structural	36."	553	4,080	D60-MT						3,927											Sea water, Gel
			X-56	2,690							3,927											
		36."	374	2,720	D60-MT						4,117											
			X-56	1,060							4,117											
26."	Conductor	22."	224.8	6,360	S90-MT	1,525	2.38	5.78	3.24		5,770	8.6	8.8	10.7	15,000	18.75"	10,000	250 / 3500	1475	10.9	6,187	Sea water, Gel
			X-80	3,870							5,770						15,000	250 / 5000	8.6			
22."	Surface	17.875"	93.5	3,920	HY 521	2,077	2.36	3.26	2.22	4,150'	6,390	10.2	10.4	11.8	15,000	18.75"	10,000	250 / 3500	965	11.8	609	Synthetic Drlg Fluid
			N-80	1,090							6,390						15,000	250 / 5000	10.4			
20."	Intermediate	16."	97	6,920	HY 511	2,113	3.29	1.77	3.42	4,060'	8,455	10.5	10.7	14.5	15,000	18.75"	10,000	250 / 3500	940	14.5	1,386	Synthetic Drlg Fluid
			P-110	2,340							8,455						15,000	250 / 5000	13.5			
17.5"	Intermediate	13.625"	88.2	10,030	HY 523	2,817	3.02	1.56	3.45		8,600	10.5	13.5	14.5	15,000	18.75"	10,000	250 / 3500	3325	14.5	465	Synthetic Drlg Fluid
			Q-125 HC	5,930							8,600						15,000	250 / 5000	13.5			
14.5"	Intermediate	11.875"	71.8	10,720	HY 513	2,924	2.25	1.93	2.04		14,893	11.0	13.5	15.3	15,000	18.75"	10,000	250 / 3500	3424	15.3	1,850	Synthetic Drlg Fluid
			Q-125 HC	7,190							14,000						15,000	250 / 7500	13.5			
10.625"	Open Hole										18,587	11.5	13.5	15.7	15,000	18.75"	10,000	250 / 3500				Synthetic Drlg Fluid
											17,000						15,000	250 / 7500				
Existing Casing																						

16. CONTACT NAME: Cary Bradford				17. CONTACT PHONE NO.: 281/ 673-6338								18. CONTACT E-MAIL ADDRESS: cbradford@kmg.com							
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19. Will you maintain quantities of mud and mud material (including weight materials and additives) sufficient to raise the entire system mud weight ½ ppg or more? ☒ YES ☐ NO

20. REMARKS:
All hydrocarbon and/or fresh water zones will be protected by casing and/or cement. EPA guidelines for mud toxicity and mud/cuttings discharge will be observed.

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 well status, well and casing test, and well casing configuration data. MMS uses this information to have accurate data and information on all wells under its jurisdiction and to ensure compliance with approved plans. Responses are mandatory (43 U.S.C. 1334). Proprietary data are covered under 30 CFR 250.196. 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 this form is estimated to average 1½ hour per response, including 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, Mail Stop 4230, Minerals Management Service, 1849 C Street, N.W.,

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			Grade	Collapse Rating (psi)			B	C	T	MD	TVD	PP	MW	FG			Annular / Diverter (psi)	Annular / Diverter (psi)	Casing Test (psi)	Casing Shoe (ppg)			
																	Ram (psi)	Rams (psi)	MW Used for Test (ppg)				
Jetted	Drive / Structural	36."	553	4,080	D60-MT						3,927											Sea water, Gel	
			X-56	2,690																			
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			P-110	2,340																			
17."	Intermediate	13.625"	88.2	10,030	HY 523	2,924	1.40	1.62	1.76		14,891	11	13.5	15.3	15,000	18.75"	10,000	250 / 3500	3425	15.3	2,750	Synthetic Drlg Fluid	
			Q-125 HC	5,930																			
12.25"	Open Hole		62.8	13,840							18,587	11.5	13.5	15.7	15,000	18.75"	10,000	250 / 3500				Synthetic Drlg Fluid	
			Q-125 HC	11,140																			
Existing Casing																							
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