

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM86024
2. Name of Operator OXY USA INCORPORATED		6. If Indian, Allottee or Tribe Name
3a. Address 5 GREENWAY PLAZA STE 110 HOUSTON, TX 77046-0521		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 432.685.5717		8. Well Name and No. CYPRESS 34 FEDERAL 10H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 34 T23S R29E NWNW 210FNL 330FWL 32.267892 N Lat, 103.979625 W Lon		9. API Well No. 30-015-43076-00-X1
		10. Field and Pool, or Exploratory CEDAR CANYON
		11. County or Parish, and State EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

OXY USA Inc. respectfully requests approval for the following changes to the drilling plan:

Proposed TD - 13706'M 8849'V

1. Request casing design modification, to drill the well with smaller bit sizes:
14-3/4" surface hole w/ 10-3/4" csg, 9-7/8" intermediate hole w/ 7-5/8" csg and 6-3/4" production
hole w/ 5-1/2" & 4-1/2" csg. Details are below.

a. Surface Casing

10-3/4" 45.5# J-55 BT&C new csg @ 0-300', 14-3/4" hole w/ 8.4# mud

Coll Rating (psi)-2090 Burst Rating (psi)-3580

Accepted for record

NM OIL CONSERVATION

ARTESIA DISTRICT

AUG 10 2015

RECEIVED

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #306905 verified by the BLM Well Information System For OXY USA INCORPORATED, sent to the Carlsbad Committed to AFMSS for processing by CHRISTOPHER WALLS on 07/31/2015 (15CRW0086SE)	
Name (Printed/Typed) DAVID STEWART	Title REGULATORY ADVISOR
Signature (Electronic Submission)	Date 06/25/2015
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
APPROVED	
Approved By	Title
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Date
Office	AUG 3 2015 /s/ Chris Walls
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.	
BUREAU OF LAND MANAGEMENT CARLSBAD FIELD OFFICE	

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #306905 that would not fit on the form

32. Additional remarks, continued

SF Coll-15.99 SF Burst-1.42 SF Ten-5.96

b. Intermediate Casing

7-5/8" 26.4# J-55 BT&C new csg @ 0-3050', 9-7/8" hole w/ 10.0# mud

Coll Rating (psi)-3400 Burst Rating (psi)-6020

SF Coll-5.30 SF Burst-1.37 SF Ten-3.58

c. Production Casing

5-1/2" 20# P-110 Premium new csg @ 0-9183'M, 6-3/4" hole w/ 9.2# mud

Coll Rating (psi)-11100 Burst Rating (psi)-12600

SF Coll-2.67 SF Burst-1.26 SF Ten-2.30

4-1/2" 13.5# P-110 BT&C new csg @ 9184-13706'M, 6-3/4" hole w/ 9.2# mud

Coll Rating (psi)-10670 Burst Rating (psi)-12410

SF Coll-2.57 SF Burst-1.25 SF Ten-2.70

Collapse and burst loads calculated using Stress Check with anticipated loads, see attached for design assumptions

2. Cement program adjustment to the new bit/casing sizes. Cement program modifications detailed below.

a. Surface - Circulate cement to surface w/ 330sx PP cmt w/ 2% CaCl₂, 14.8ppg 1.35 yield 1415# 24hr CS 150% Excess.

b. Intermediate - Circulate cement to surface w/ 630sx HES light PP cmt w/ 5% Salt + .35% HR-800, 12.9ppg 1.85 yield 824# 24hs CS 125% Excess followed by 200sx PP cmt, 14.8ppg 1.33 yield 1789# 24hr CS 125% Excess.

c. Production - Circulate cement w/ 290sx Tuned Light (TM) system cmt w/ 3#/sx Kol-Seal + .125#/sx Poly-E-Flake + .8% HR-601, 10.2ppg 3.05 yield 555# 24hr CS 25% Excess followed by 530sx Super H cmt w/ 3#/sx salt + .1% HR-800 + .3% CFR-3 + .5% Halad(R)-344 + 2#/sx Kol-Seal, 13.2ppg 1.65 yield 1462# 24hr CS 25% Excess.

Description of Cement Additives: Calcium Chloride, Salt (Accelerator); CFR-3 (Dispersant); Kol-Seal, Poly-E-Flake (Lost Circulation Additive); Halad-344 (Low Fluid Loss Control); HR-601, HR-800 (Retarder)

The above cement volumes could be revised pending the caliper measurement.

3. Mud Program

Depth	Mud WT	Vis Sec	Fluid Loss	Type
0-300'	8.5-9.0	40-55	50-75cc/30min	EnerSeal Spud Mud (MMH)
300-3050'	9.8-10	28-32	NC	NaCl Brine
3050-TD	8.8-9.6	38-50	50-75cc/30min	CaSO ₄ EnerSeal (MMH)

4. The Operator will connect the BOP choke outlet to the choke manifold using a hose that meets all BLM requirements and will be inspected and approved by BLM personnel prior to spud.

PERFORMANCE DATA

TMK Ultra Premium SF™
Technical Data Sheet

5.500 in

20.00 lbs/ft

P-110

Tubular Parameters

Size	5.500	in	Minimum Yield	110,000	psi
Nominal Weight	20.00	lbs/ft	Minimum Tensile	125,000	psi
Grade	P-110		Yield Load	641,000	lbs
PE Weight	19.81	lbs/ft	Tensile Load	728,000	lbs
Wall Thickness	0.361	in	Min. Internal Yield Pressure	12,600	psi
Nominal ID	4.778	in	Collapse Pressure	11,100	psi
Drift Diameter	4.653	in			
Nom. Pipe Body Area	5.828	in ²			

Connection Parameters

Connection OD	5.646	in
Connection ID	4.734	in
Make-Up Loss	5.526	in
Critical Section Area	5.289	in ²
Tension Efficiency	90.5	%
Compression Efficiency	90.5	%
Yield Load In Tension	580,000	lbs
Min. Internal Yield Pressure	12,600	psi
Collapse Pressure	11,100	psi

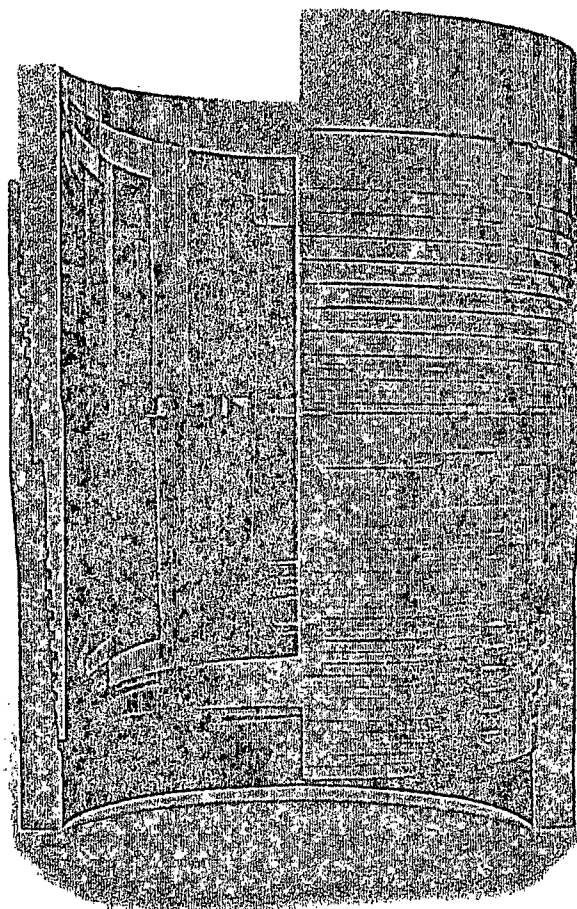
Make-Up Torques

Min. Make-Up Torque	10,100	ft-lbs
Opt. Make-Up Torque	10,600	ft-lbs
Max. Make-Up Torque	11,700	ft-lbs
Yield Torque	15,600	ft-lbs

Printed on: February-25-2014

NOTE:

The content of this Technical Data Sheet is for general information only and does not guarantee performance or imply fitness for a particular purpose, which only a competent drilling professional can determine considering the specific installation and operation parameters. Information that is printed or downloaded is no longer controlled by TMK IPSCO and might not be the latest information. Anyone using the information herein does so at their own risk. To verify that you have the latest TMK IPSCO technical information, please contact TMK IPSCO Technical Sales toll-free at 1-888-258-2000.



OXY USA Inc.

Cypress 34 Federal #10H – 30-015-43076

Casing Design Assumptions:

Burst Loads

CSG Test (Surface)

- Internal: Displacement fluid + 70% CSG Burst rating
- External: Pore Pressure from section TD to surface

CSG Test (Intermediate)

- Internal: Displacement fluid + 70% CSG Burst rating
- External: Pore Pressure from the Intermediate hole TD to Surface CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

CSG Test (Production)

- Internal: Fresh water displacement fluid + 80% CSG Burst rating
- External: Pore Pressure from the well TD the Intermediate CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

Gas Kick (Surface/Intermediate)

- Internal: Gas Kick based on Pore Pressure or Fracture Gradient @ CSG shoe with a gas 0.115psi/ft Gas gradient to surface while drilling the next hole section (e.g. Gas Kick while drilling the production hole section is a burst load used to design the intermediate CSG)
- External: Pore Pressure from section TD to previous CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

Stimulation (Production)

- Internal: Displacement fluid + Max Frac treating pressure (not to exceed 80% CSG Burst rating)
- External: Pore Pressure from the well TD to the Intermediate CSG shoe and 8.5 ppg MWE to surface

Collapse Loads

Lost Circulation (Surface/Intermediate)

- Internal: Losses experienced while drilling the next hole section (e.g. losses while drilling the production hole section are used as a collapse load to design the intermediate CSG). After losses there will be a column of mud inside the CSG with an equivalent weight to the Pore Pressure of the lost circulation zone
- External: MW of the drilling mud that was in the hole when the CSG was run

Cementing (Surface/Intermediate/Production)

- Internal: Displacement Fluid
- External: Cement Slurries to TOC, MW to surface

Full Evacuation (Production)

- Internal: Atmospheric Pressure
- External: MW of the drilling mud that was in the hole when the CSG was run

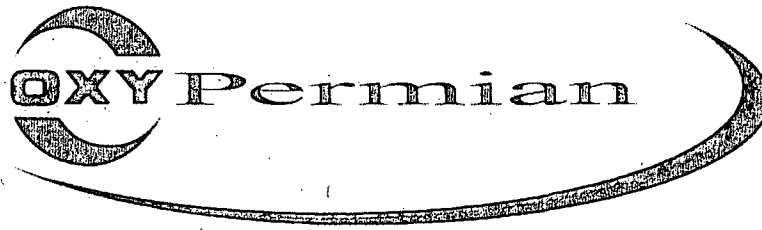
Tension Loads

Running CSG (Surface/Intermediate/Production)

- Axial load of the buoyant weight of the string plus either 100 klb over-pull or string weight in air, whichever is less

Green Cement (Surface/Intermediate/Production)

- Axial load of the buoyant weight of the string plus the cement plug bump pressure (Final displacement pressure + 500 psi)

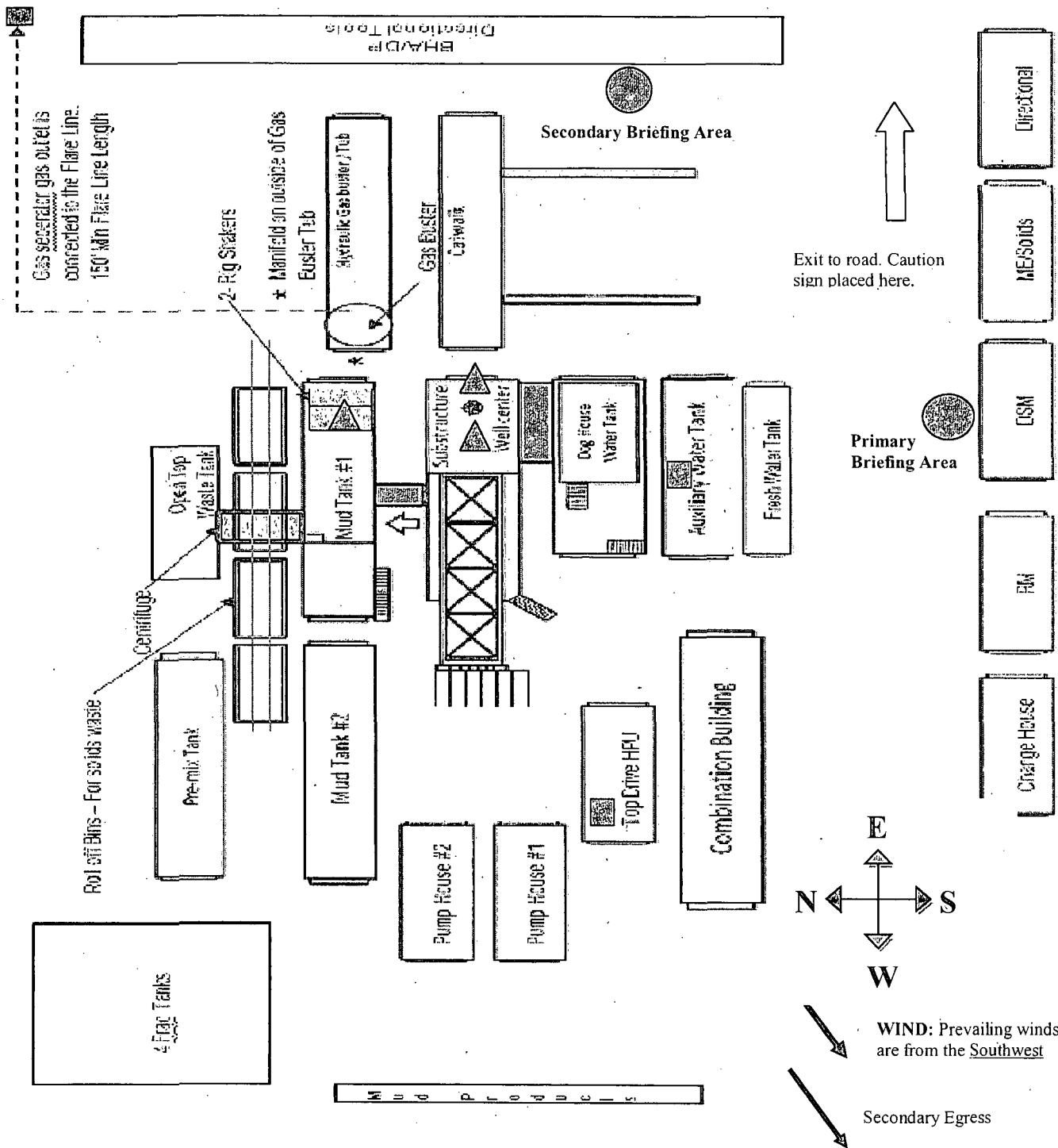


Permian Drilling Hydrogen Sulfide Drilling Operations Plan Cypress 34 Federal 10H

Open drill site. No homes or buildings are near the proposed location.

1. Escape

Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the SOUTHEAST side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken.



H2S Detectors. At least three detectors will be installed: bell nipple, rig floor and Shakers.

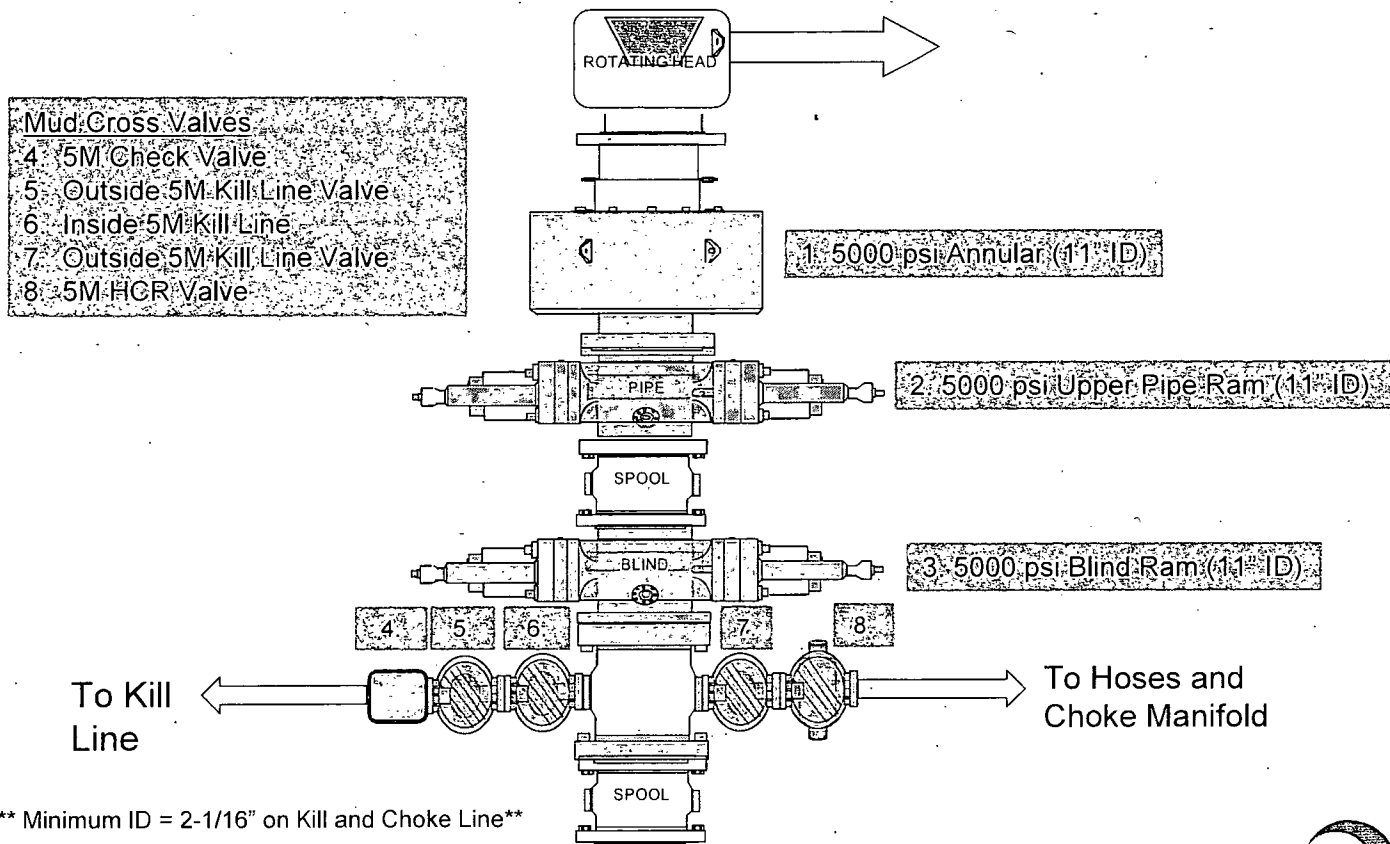
Briefing Areas. At least two briefing areas will be placed, 90 deg off.



Wind direction indicators. Visible from rig floor and from the mud pits area.

A gas buster is connected to both the choke manifold and flowline outlets.

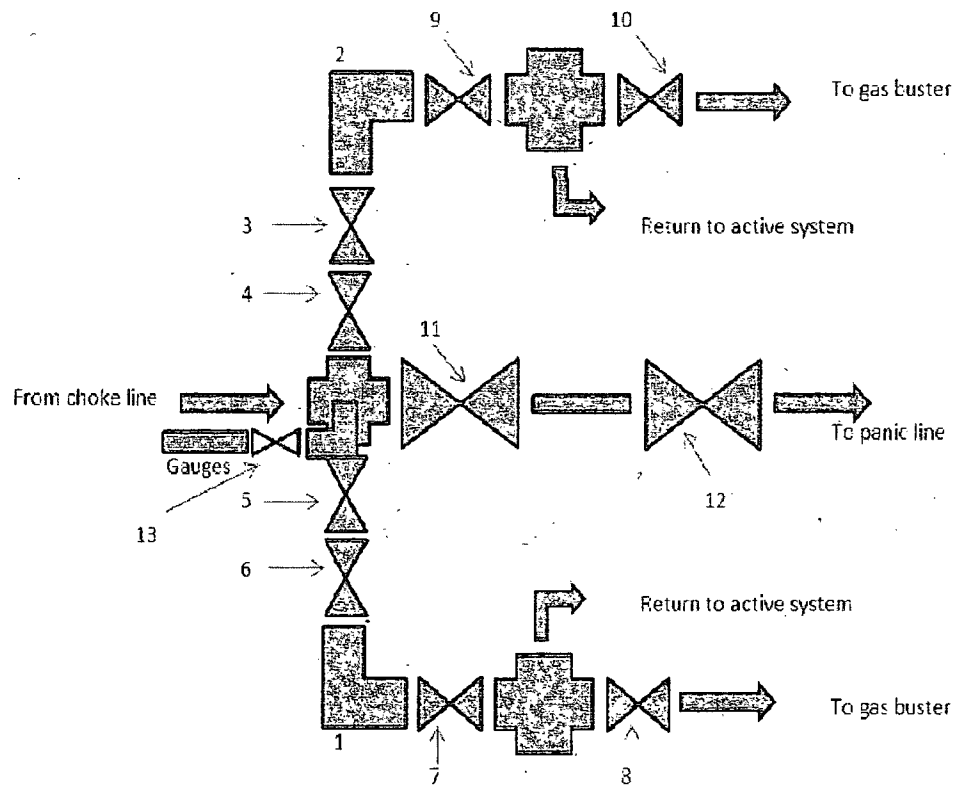
5M BOP Stack



** Minimum ID = 2-1/16" on Kill and Choke Line**

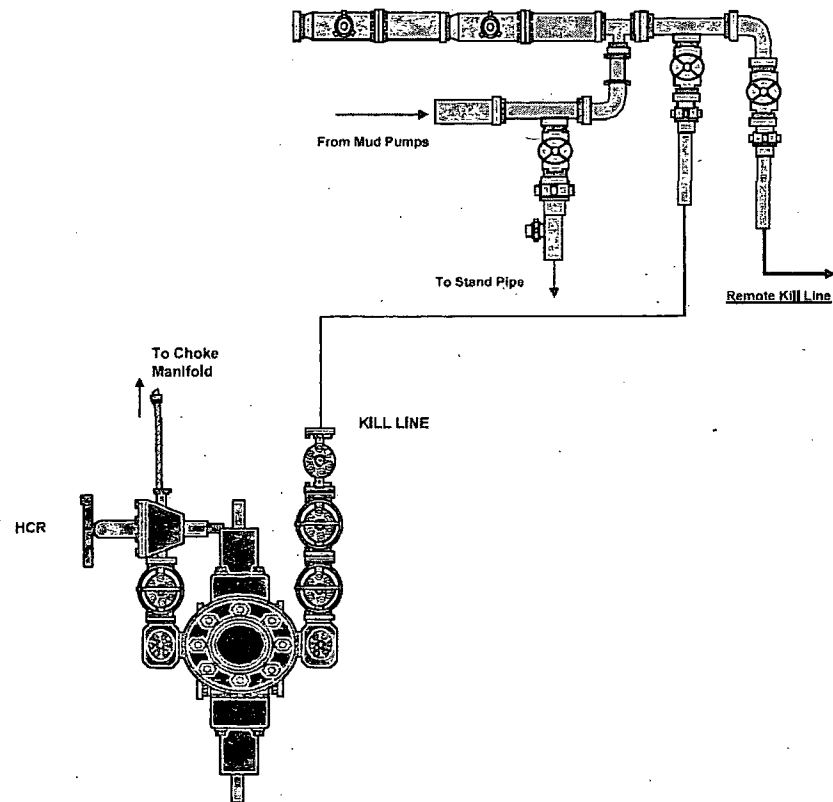


5M Choke Panel



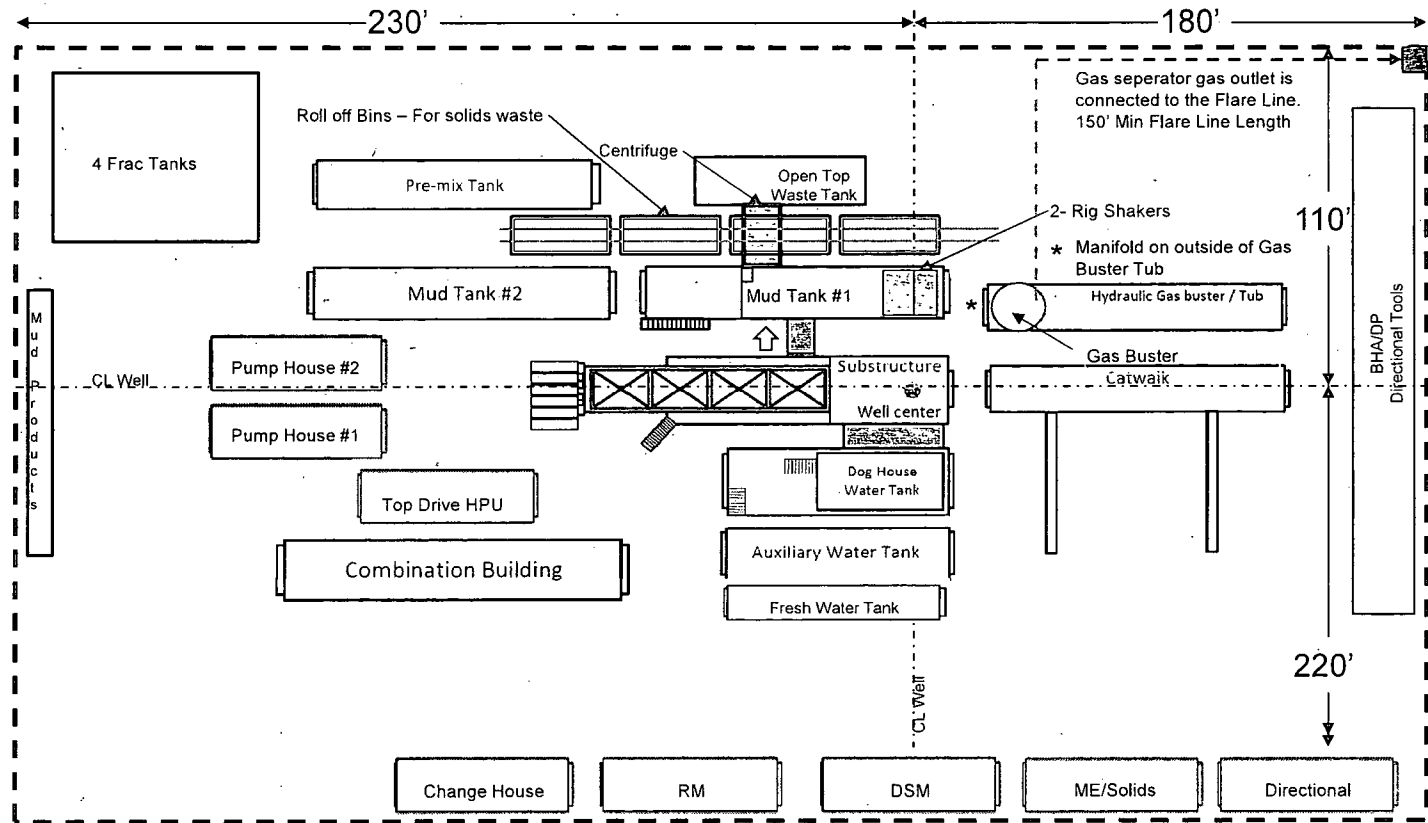
- 1- POWER CHOKE
- 2- MANUAL CHOKE
- 3- 2 1/16" CHOKEMANIFOLD VALVE
- 4- 2 1/16" CHOKEMANIFOLD VALVE
- 5- 2 1/16" CHOKEMANIFOLD VALVE
- 6- 2 1/16" CHOKEMANIFOLD VALVE
- 7- 2 1/16" CHOKEMANIFOLD VALVE
- 8- 2 1/16" CHOKEMANIFOLD VALVE
- 9- 2 1/16" CHOKEMANIFOLD VALVE
- 10- 2 1/16" CHOKEMANIFOLD VALVE
- 11- 3" CHOKEMANIFOLD VALVE
- 12- 3" CHOKEMANIFOLD VALVE
- 13- 2 1/16 CHOKE MANIFOLD VALVE

10M Remote Kill-Line Schematic



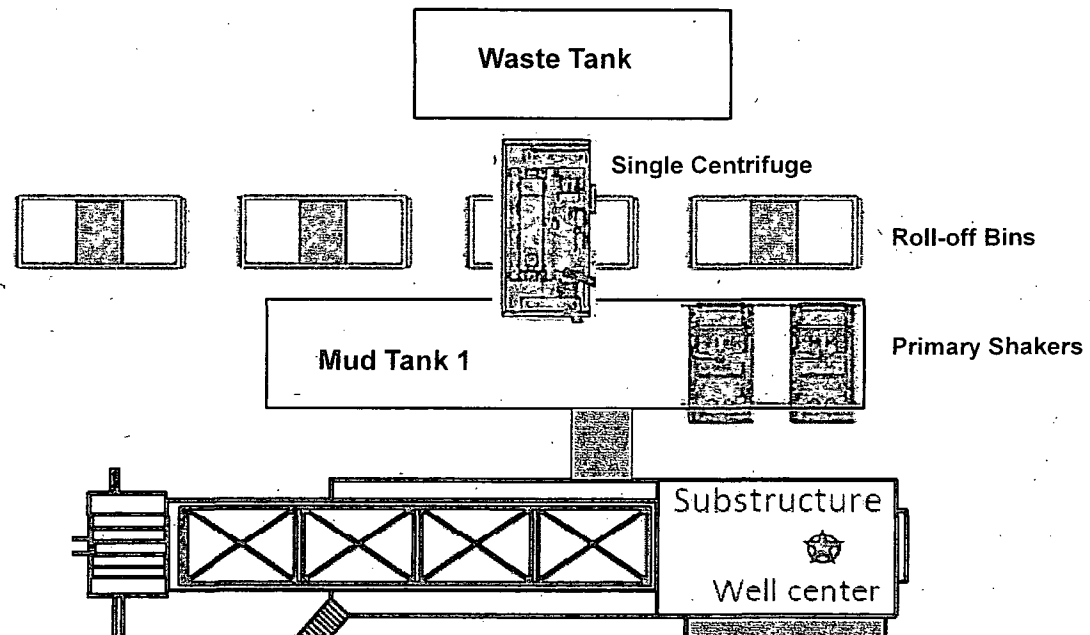
Oxy Single Centrifuge - Closed Loop System

New Mexico - Canelson Drilling Rig



Oxy Single Centrifuge - Closed Loop System

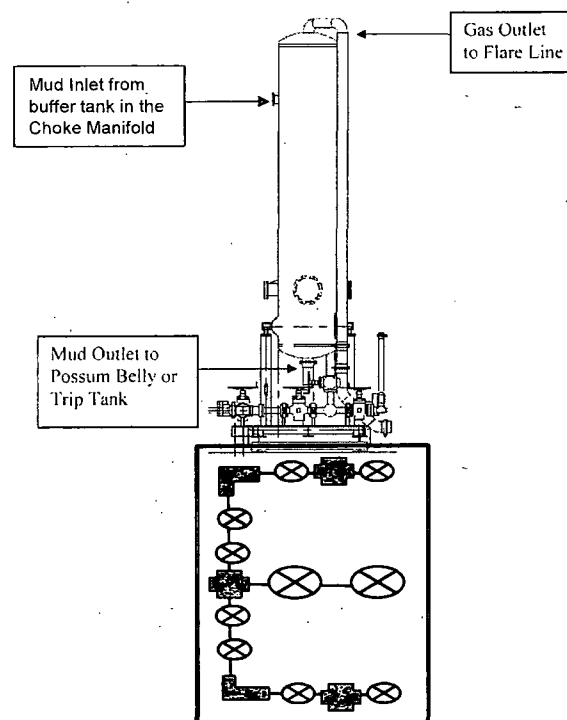
New Mexico - Canelson Drilling Rig



Choke Manifold – Gas Separator

New Mexico – Canelson Drilling Rig

Choke Manifold – Gas Separator (Side View)



OXY

Eddy County, NM (NAD 27 NME)

Cypress 34 Fed 10H

Cypress 34 Fed 10H

OH

Plan: Plan #2

Standard Planning Report

16 April, 2015



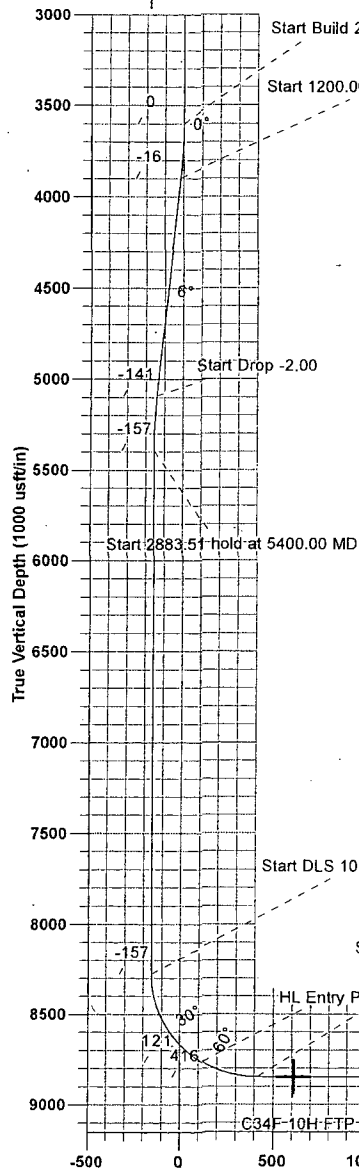
Scientific Drilling

www.scientificdrilling.com



KB @ 3074.80usft
Gr @ 3049.80

Cypress 34 Fed 10H
Eddy County, NM (NAD 27 NME)
Northing: 461357.00
Easting: 609328.10
Plan #2



WELL DETAILS Cypress 34 Fed 10H						
Ground Level: 3049.80						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	461357.00	609328.10	32° 16' 4.411 N	103° 58' 46.649 W	

SECTION DETAILS						
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg
0.00	0.00	0.00	0.00	0.00	0.00	0.00
3600.00	0.00	0.00	3600.00	0.00	0.00	0.00
3900.00	6.00	353.39	3899.45	15.59	-1.81	2.00
5100.00	6.00	353.39	5092.88	140.19	-16.25	0.00
5400.00	0.00	0.00	5392.33	155.78	-18.05	2.00
8283.51	0.00	0.00	8275.84	155.78	-18.05	0.00
9183.51	90.00	173.39	8848.80	-413.37	47.87	10.00
13706.17	90.00	173.39	8848.80	-4906.00	568.20	0.00

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	
C34F 10H BHL	8848.80	-4906.00	568.20	456451.00	609896.30	
C34F 10H FTP	8848.80	-604.90	69.70	460752.10	609397.80	
C34F 10H LTP	8848.80	-4746.00	549.70	456611.00	609877.80	

SITE DETAILS:		
Cypress 34 Fed 10H		
Site Centre Northing:	461357.00	
Easting:	609328.10	
Positional Uncertainty:	0.00	
Convergence:	0.19	
Local North:	Grid	

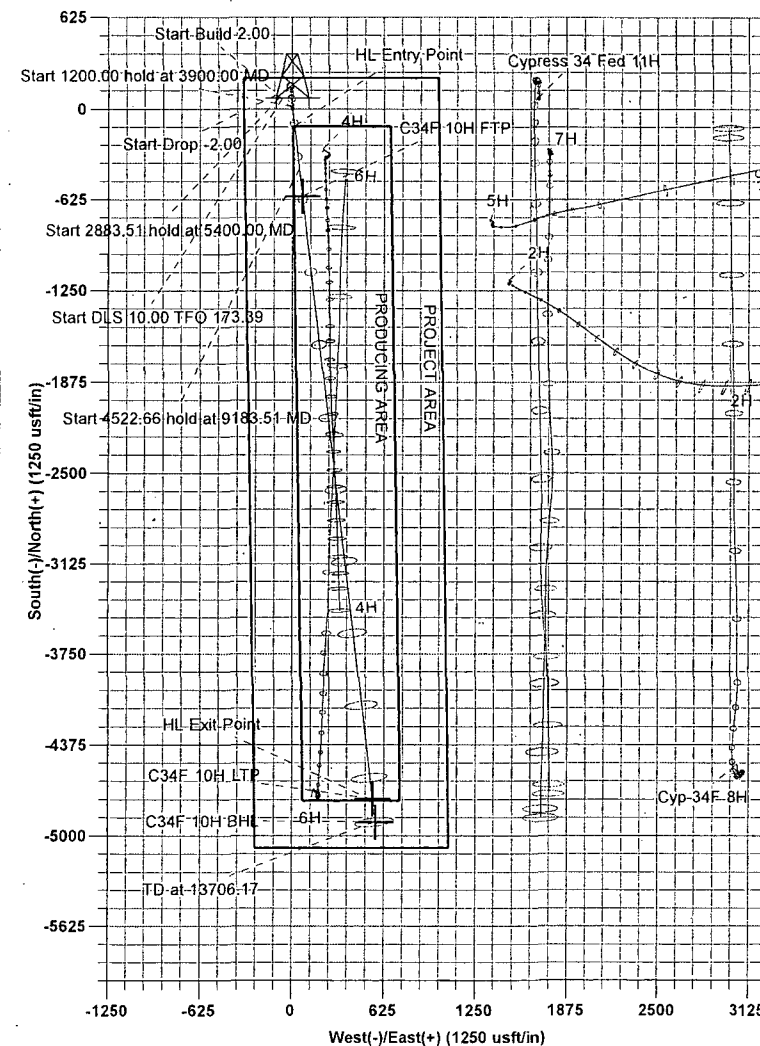
PROJECT DETAILS:		
Eddy County, NM (NAD 27 NME)		
Geodetic System:	US State Plane 1927 (Exact solution)	
Datum:	NAD 1927 (NADCON CONUS)	
Ellipsoid:	Clarke 1866	
Zone:	New Mexico East 3001	
System Datum:	Mean Sea Level	



To convert Magnetic North to Grid, Add 7.21°
To convert True North to Grid, Subtract 0.19°

Azimuths to Grid North
True North: -0.19°
Magnetic North: 7.21°

Magnetic Field
Strength: 48333.3snT
Dip Angle: 60.15°
Date: 4/14/2015
Model: HDGM



15:10, April 16 2015

Scientific Drilling
633 Rankin Cir
Houston, Tx 77073

Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well Cypress 34 Fed 10H
Company:	OXY	TVD Reference:	KB @ 3074.80usft
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	KB @ 3074.80usft
Site:	Cypress 34 Fed 10H	North Reference:	Grid
Well:	Cypress 34 Fed 10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Project:	Eddy County, NM (NAD 27 NME), New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site:	Cypress 34 Fed 10H		
Site Position:		Northing:	461,357.00 usft
From:	Map	Easting:	609,328.10 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 16' 4.411 N
		Longitude:	103° 58' 46.649 W
		Grid Convergence:	0.19 °

Well:	Cypress 34 Fed 10H		
Well Position	+N-S	0.00 usft	Northing:
	+E-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 16' 4.411 N
		Longitude:	103° 58' 46.649 W
		Ground Level:	3,049.80 usft

Wellbore:	OH		
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Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	4/14/2015	7.40	60.15	48,333

Design:	Plan #2		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/S	+E/W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			173.39

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/S	+E/W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(bearing)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,900.00	6.00	353.39	3,899.45	15.59	-1.81	2.00	2.00	0.00	353.39	
5,100.00	6.00	353.39	5,092.88	140.19	-16.25	0.00	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,392.33	155.78	-18.05	2.00	-2.00	0.00	180.00	
8,283.51	0.00	0.00	8,275.84	155.78	-18.05	0.00	0.00	0.00	0.00	
9,183.51	90.00	173.39	8,848.80	-413.37	47.87	10.00	10.00	19.27	173.39	
13,706.17	90.00	173.39	8,848.80	-4,906.00	568.20	0.00	0.00	0.00	0.00	C34F 10H BHL

Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well: Cypress 34 Fed 10H
Company:	OXY	TVD Reference:	KB @ 3074.80usft
Project:	Eddy County NM (NAD 27 NME)	MD Reference:	KB @ 3074.80usft
Site:	Cypress 34 Fed 10H	North Reference:	Grid
Well:	Cypress 34 Fed 10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 2.00										
3,700.00	2.00	353.39	3,699.98	1.73	-0.20	-1.75	2.00	2.00	0.00	
3,800.00	4.00	353.39	3,799.84	6.93	-0.80	-6.98	2.00	2.00	0.00	
3,900.00	6.00	353.39	3,899.45	15.59	-1.81	-15.69	2.00	2.00	0.00	
Start 1200.00 hold at 3900.00 MD										
4,000.00	6.00	353.39	3,998.90	25.97	-3.01	-26.15	0.00	0.00	0.00	
4,100.00	6.00	353.39	4,098.36	36.36	-4.21	-36.60	0.00	0.00	0.00	
4,200.00	6.00	353.39	4,197.81	46.74	-5.42	-47.05	0.00	0.00	0.00	
4,300.00	6.00	353.39	4,297.26	57.12	-6.62	-57.51	0.00	0.00	0.00	
4,400.00	6.00	353.39	4,396.71	67.51	-7.82	-67.96	0.00	0.00	0.00	
4,500.00	6.00	353.39	4,496.17	77.89	-9.03	-78.41	0.00	0.00	0.00	
4,600.00	6.00	353.39	4,595.62	88.27	-10.23	-88.86	0.00	0.00	0.00	
4,700.00	6.00	353.39	4,695.07	98.66	-11.43	-99.32	0.00	0.00	0.00	
4,800.00	6.00	353.39	4,794.52	109.04	-12.64	-109.77	0.00	0.00	0.00	
4,900.00	6.00	353.39	4,893.97	119.42	-13.84	-120.22	0.00	0.00	0.00	
5,000.00	6.00	353.39	4,993.43	129.81	-15.04	-130.67	0.00	0.00	0.00	
5,100.00	6.00	353.39	5,092.88	140.19	-16.25	-141.13	0.00	0.00	0.00	

Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well: Cypress 34 Fed 10H
Company:	OXY	TVD/Reference:	KB @ 3074.80usft
Project:	Eddy County, NM (NAD 27-NME)	MD/Reference:	KB @ 3074.80usft
Site:	Cypress 34 Fed 10H	North Reference:	Grid
Well:	Cypress 34 Fed 10H	Survey/Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	N/S (usft)	E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Start Drop -2.00									
5,200.00	4.00	353.39	5,192.49	148.85	-17.25	-149.84	2.00	-2.00	0.00
5,300.00	2.00	353.39	5,292.35	154.05	-17.85	-155.08	2.00	-2.00	0.00
5,400.00	0.00	0.00	5,392.33	155.78	-18.05	-156.82	2.00	-2.00	0.00
Start 2883.51 hold at 5400.00 MD									
5,500.00	0.00	0.00	5,492.33	155.78	-18.05	-156.82	0.00	0.00	0.00
5,600.00	0.00	0.00	5,592.33	155.78	-18.05	-156.82	0.00	0.00	0.00
5,700.00	0.00	0.00	5,692.33	155.78	-18.05	-156.82	0.00	0.00	0.00
5,800.00	0.00	0.00	5,792.33	155.78	-18.05	-156.82	0.00	0.00	0.00
5,900.00	0.00	0.00	5,892.33	155.78	-18.05	-156.82	0.00	0.00	0.00
6,000.00	0.00	0.00	5,992.33	155.78	-18.05	-156.82	0.00	0.00	0.00
6,100.00	0.00	0.00	6,092.33	155.78	-18.05	-156.82	0.00	0.00	0.00
6,200.00	0.00	0.00	6,192.33	155.78	-18.05	-156.82	0.00	0.00	0.00
6,300.00	0.00	0.00	6,292.33	155.78	-18.05	-156.82	0.00	0.00	0.00
6,400.00	0.00	0.00	6,392.33	155.78	-18.05	-156.82	0.00	0.00	0.00
6,500.00	0.00	0.00	6,492.33	155.78	-18.05	-156.82	0.00	0.00	0.00
6,600.00	0.00	0.00	6,592.33	155.78	-18.05	-156.82	0.00	0.00	0.00
6,700.00	0.00	0.00	6,692.33	155.78	-18.05	-156.82	0.00	0.00	0.00
6,800.00	0.00	0.00	6,792.33	155.78	-18.05	-156.82	0.00	0.00	0.00
6,900.00	0.00	0.00	6,892.33	155.78	-18.05	-156.82	0.00	0.00	0.00
7,000.00	0.00	0.00	6,992.33	155.78	-18.05	-156.82	0.00	0.00	0.00
7,100.00	0.00	0.00	7,092.33	155.78	-18.05	-156.82	0.00	0.00	0.00
7,200.00	0.00	0.00	7,192.33	155.78	-18.05	-156.82	0.00	0.00	0.00
7,300.00	0.00	0.00	7,292.33	155.78	-18.05	-156.82	0.00	0.00	0.00
7,400.00	0.00	0.00	7,392.33	155.78	-18.05	-156.82	0.00	0.00	0.00
7,500.00	0.00	0.00	7,492.33	155.78	-18.05	-156.82	0.00	0.00	0.00
7,600.00	0.00	0.00	7,592.33	155.78	-18.05	-156.82	0.00	0.00	0.00
7,700.00	0.00	0.00	7,692.33	155.78	-18.05	-156.82	0.00	0.00	0.00
7,800.00	0.00	0.00	7,792.33	155.78	-18.05	-156.82	0.00	0.00	0.00
7,900.00	0.00	0.00	7,892.33	155.78	-18.05	-156.82	0.00	0.00	0.00
8,000.00	0.00	0.00	7,992.33	155.78	-18.05	-156.82	0.00	0.00	0.00
8,100.00	0.00	0.00	8,092.33	155.78	-18.05	-156.82	0.00	0.00	0.00
8,200.00	0.00	0.00	8,192.33	155.78	-18.05	-156.82	0.00	0.00	0.00
8,283.51	0.00	0.00	8,275.84	155.78	-18.05	-156.82	0.00	0.00	0.00
Start DLS 10.00 TFO 173.39									
8,300.00	1.65	173.39	8,292.33	155.54	-18.02	-156.58	10.00	10.00	0.00
8,350.00	6.65	173.39	8,342.18	151.95	-17.61	-152.97	10.00	10.00	0.00
8,400.00	11.65	173.39	8,391.53	144.06	-16.69	-145.02	10.00	10.00	0.00
8,450.00	16.65	173.39	8,440.00	131.92	-15.29	-132.80	10.00	10.00	0.00
8,500.00	21.65	173.39	8,487.22	115.63	-13.40	-116.41	10.00	10.00	0.00
8,550.00	26.65	173.39	8,532.83	95.32	-11.05	-95.96	10.00	10.00	0.00
8,600.00	31.65	173.39	8,576.48	71.13	-8.25	-71.61	10.00	10.00	0.00
8,650.00	36.65	173.39	8,617.85	43.26	-5.02	-43.55	10.00	10.00	0.00
8,700.00	41.65	173.39	8,656.61	11.91	-1.39	-11.99	10.00	10.00	0.00
8,750.00	46.65	173.39	8,692.47	-22.67	2.62	22.82	10.00	10.00	0.00
8,800.00	51.65	173.39	8,725.17	-60.23	6.97	60.63	10.00	10.00	0.00
8,850.00	56.65	173.39	8,754.44	-100.47	11.63	101.14	10.00	10.00	0.00
8,873.25	58.97	173.39	8,766.83	-120.02	13.89	120.82	10.00	10.00	0.00
HL Entry Point									
8,900.00	61.65	173.39	8,780.07	-143.10	16.56	144.06	10.00	10.00	0.00
8,950.00	66.65	173.39	8,801.87	-187.78	21.74	189.04	10.00	10.00	0.00
9,000.00	71.65	173.39	8,819.66	-234.18	27.11	235.75	10.00	10.00	0.00
9,050.00	76.65	173.39	8,833.31	-281.95	32.65	283.83	10.00	10.00	0.00

Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well: Cypress 34 Fed 10H
Company:	OXY	TVD Reference:	KB @ 3074.80usft
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	KB @ 3074.80usft
Site:	Cypress 34 Fed 10H	North Reference:	Grid
Well:	Cypress 34 Fed 10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	N/S (usft)	E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,100.00	81.65	173.39	8,842.72	-330.71	38.29	332.92	10.00	10.00	0.00	
9,150.00	86.65	173.39	8,847.82	-380.11	44.01	382.65	10.00	10.00	0.00	
9,183.51	90.00	173.39	8,848.80	-413.37	47.87	416.14	10.00	10.00	0.00	
Start 4522.66 hold at 9,183.51 MD										
9,200.00	90.00	173.39	8,848.80	-429.75	49.76	432.63	0.00	0.00	0.00	
9,300.00	90.00	173.39	8,848.80	-529.09	61.27	532.63	0.00	0.00	0.00	
9,400.00	90.00	173.39	8,848.80	-628.43	72.77	632.63	0.00	0.00	0.00	
9,500.00	90.00	173.39	8,848.80	-727.76	84.28	732.63	0.00	0.00	0.00	
9,600.00	90.00	173.39	8,848.80	-827.10	95.78	832.63	0.00	0.00	0.00	
9,700.00	90.00	173.39	8,848.80	-926.43	107.29	932.63	0.00	0.00	0.00	
9,800.00	90.00	173.39	8,848.80	-1,025.77	118.79	1,032.63	0.00	0.00	0.00	
9,900.00	90.00	173.39	8,848.80	-1,125.11	130.30	1,132.63	0.00	0.00	0.00	
10,000.00	90.00	173.39	8,848.80	-1,224.44	141.80	1,232.63	0.00	0.00	0.00	
10,100.00	90.00	173.39	8,848.80	-1,323.78	153.31	1,332.63	0.00	0.00	0.00	
10,200.00	90.00	173.39	8,848.80	-1,423.11	164.81	1,432.63	0.00	0.00	0.00	
10,300.00	90.00	173.39	8,848.80	-1,522.45	176.32	1,532.63	0.00	0.00	0.00	
10,400.00	90.00	173.39	8,848.80	-1,621.79	187.82	1,632.63	0.00	0.00	0.00	
10,500.00	90.00	173.39	8,848.80	-1,721.12	199.33	1,732.63	0.00	0.00	0.00	
10,600.00	90.00	173.39	8,848.80	-1,820.46	210.83	1,832.63	0.00	0.00	0.00	
10,700.00	90.00	173.39	8,848.80	-1,919.79	222.34	1,932.63	0.00	0.00	0.00	
10,800.00	90.00	173.39	8,848.80	-2,019.13	233.84	2,032.63	0.00	0.00	0.00	
10,900.00	90.00	173.39	8,848.80	-2,118.47	245.35	2,132.63	0.00	0.00	0.00	
11,000.00	90.00	173.39	8,848.80	-2,217.80	256.85	2,232.63	0.00	0.00	0.00	
11,100.00	90.00	173.39	8,848.80	-2,317.14	268.36	2,332.63	0.00	0.00	0.00	
11,200.00	90.00	173.39	8,848.80	-2,416.47	279.86	2,432.63	0.00	0.00	0.00	
11,300.00	90.00	173.39	8,848.80	-2,515.81	291.37	2,532.63	0.00	0.00	0.00	
11,400.00	90.00	173.39	8,848.80	-2,615.15	302.87	2,632.63	0.00	0.00	0.00	
11,500.00	90.00	173.39	8,848.80	-2,714.48	314.38	2,732.63	0.00	0.00	0.00	
11,600.00	90.00	173.39	8,848.80	-2,813.82	325.88	2,832.63	0.00	0.00	0.00	
11,700.00	90.00	173.39	8,848.80	-2,913.15	337.39	2,932.63	0.00	0.00	0.00	
11,800.00	90.00	173.39	8,848.80	-3,012.49	348.89	3,032.63	0.00	0.00	0.00	
11,900.00	90.00	173.39	8,848.80	-3,111.83	360.40	3,132.63	0.00	0.00	0.00	
12,000.00	90.00	173.39	8,848.80	-3,211.16	371.91	3,232.63	0.00	0.00	0.00	
12,100.00	90.00	173.39	8,848.80	-3,310.50	383.41	3,332.63	0.00	0.00	0.00	
12,200.00	90.00	173.39	8,848.80	-3,409.83	394.92	3,432.63	0.00	0.00	0.00	
12,300.00	90.00	173.39	8,848.80	-3,509.17	406.42	3,532.63	0.00	0.00	0.00	
12,400.00	90.00	173.39	8,848.80	-3,608.51	417.93	3,632.63	0.00	0.00	0.00	
12,500.00	90.00	173.39	8,848.80	-3,707.84	429.43	3,732.63	0.00	0.00	0.00	
12,600.00	90.00	173.39	8,848.80	-3,807.18	440.94	3,832.63	0.00	0.00	0.00	
12,700.00	90.00	173.39	8,848.80	-3,906.51	452.44	3,932.63	0.00	0.00	0.00	
12,800.00	90.00	173.39	8,848.80	-4,005.85	463.95	4,032.63	0.00	0.00	0.00	
12,900.00	90.00	173.39	8,848.80	-4,105.19	475.45	4,132.63	0.00	0.00	0.00	
13,000.00	90.00	173.39	8,848.80	-4,204.52	486.96	4,232.63	0.00	0.00	0.00	
13,100.00	90.00	173.39	8,848.80	-4,303.86	498.46	4,332.63	0.00	0.00	0.00	
13,200.00	90.00	173.39	8,848.80	-4,403.19	509.97	4,432.63	0.00	0.00	0.00	
13,300.00	90.00	173.39	8,848.80	-4,502.53	521.47	4,532.63	0.00	0.00	0.00	
13,400.00	90.00	173.39	8,848.80	-4,601.87	532.98	4,632.63	0.00	0.00	0.00	
13,500.00	90.00	173.39	8,848.80	-4,701.20	544.48	4,732.63	0.00	0.00	0.00	
13,555.12	90.00	173.39	8,848.80	-4,755.96	550.82	4,787.75	0.00	0.00	0.00	
HL Exit Point										
13,600.00	90.00	173.39	8,848.80	-4,800.54	555.99	4,832.63	0.00	0.00	0.00	
13,706.17	90.00	173.39	8,848.80	-4,906.00	568.20	4,938.79	0.00	0.00	0.00	
TD at 13706.17										

Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well Cypress 34 Fed 10H
Company:	OXY	TVD Reference:	KB @ 3074.80usft
Project:	Eddy County NM (NAD 27 NME)	MD Reference:	KB @ 3074.80usft
Site:	Cypress 34 Fed 10H	North Reference:	Grid
Well:	Cypress 34 Fed 10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Design Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude Longitude
C34F 10H BHL	- plan hits target center - Point	0.00	0.00	8,848.80	-4,906.00	568.20	456,451.00	609,896.30	32° 15' 15.842 N 103° 58' 40.221 W
C34F 10H LTP	- plan misses target center by 0.03usft at 13545.10usft MD (8848.80 TVD, -4746.00 N, 549.67 E) - Point	0.00	0.00	8,848.80	-4,746.00	549.70	456,611.00	609,877.80	32° 15' 17.426 N 103° 58' 40.430 W
C34F 10H FTP	- plan misses target center by 0.35usft at 9376.28usft MD (8848.80 TVD, -604.86 N, 70.04 E) - Point	0.00	0.01	8,848.80	-604.90	69.70	460,752.10	609,397.80	32° 15' 58.423 N 103° 58' 45.860 W

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,600.00	3,600.00	0.00	0.00	Start Build 2.00
3,900.00	3,899.45	15.59	-1.81	Start 1200.00 hold at 3900.00 MD
5,100.00	5,092.88	140.19	-16.25	Start Drop -2.00
5,400.00	5,392.33	155.78	-18.05	Start 2883.51 hold at 5400.00 MD
8,283.51	8,275.84	155.78	-18.05	Start DLS 10.00 TFO 173.39
8,873.25	8,766.83	-120.02	13.89	HL Entry Point
9,183.51	8,848.80	-413.37	47.87	Start 4522.66 hold at 9183.51 MD
13,555.12	8,848.80	-4,755.96	550.82	HL Exit Point
13,706.17	8,848.80	-4,906.00	568.20	TD at 13706.17

**PECOS DISTRICT
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	OXY USA Inc
LEASE NO.:	NM86024
WELL NAME & NO.:	10H-Cypress 34 Federal
SURFACE HOLE FOOTAGE:	210'/N & 330'/W
BOTTOM HOLE FOOTAGE:	180'/S & 820'/W
LOCATION:	Section 34, T. 23 S., R. 29 E., NMPM
COUNTY:	Eddy County, New Mexico

A. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

R-111-P potash

Medium cave/karst

Possible water flows in Castile and Salado.

Possible lost circulation in Rustler, Salado and Delaware.

1. The **10 3/4** inch surface casing shall be set at approximately **300** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, the operator shall set the casing 25' above the salt.**
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Formation below the 10-3/4" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing, **which shall be set in the basal anhydrite of the Castile formation at approximately 3050', is:**

- ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and potash.

Formation below the 7-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

3. The minimum required fill of cement behind the **5-1/2 x 4-1/2** inch production casing is:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
5. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

CRW 080315

R-111-P Section: 3 strings circ, a casing seal test of 600psi(hydr) for the surface and 1000 for intermediate, <100psi drop in 30min. High Cave Karst: two casing strings, both to circulate cement to surface.

10 3/4	surface csg in a	14 3/4	inch hole.	Design Factors			SURFACE		
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	Weight	
"A"	45.50	J 55	BUTT	52.41	14.9	2.22	300	13,650	
"B"							0	0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500				Tail Cmt	does	circ to sfc.	Totals:	300 13,650	
Comparison of Proposed to Minimum Required Cement Volumes									
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
14 3/4	0.5563	330	446	192	132	9.00	945	2M	1.50

7 5/8 casing inside the 10 3/4					Design Factors		INTERMEDIATE		
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	Weight	
"A"	26.40	J 55	BUTT	5.14	1.79	0.94	3,050	80,520	
"B"							0	0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500						Totals:	3,050	80,520	
The cement volume(s) are intended to achieve a top of				0	ft from surface or a		300	overlap.	
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud/Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
9 7/8	0.2148	830	1432	669	114	10.20	2466	3M	0.69
Burst-Frac Gradient(s) for Segment(s): A, B, C, D = 1.36, b, c, d All > 0.70, OK.									

5 1/2 casing inside the 7 5/8			Design Factors			PRODUCTION			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	20.00	P 110	U F Joint	3.70	2.69	2.86	8,284	165,680	
"B"	13.50	P 110	BUTT	7.76	2.14	2.81	5,422	73,197	
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,822							Totals:	13,706 238,877	
B	Segment Design Factors would be:			55.31	2.42	if it were a vertical wellbore.			
No Pilot Hole Planned			MTD	Max VTD	Csg VD	Curve KOP	Dogleg°	Severity°	
			13706	8849	8849	8284	90	10	
								9184	
The cement volume(s) are intended to achieve a top of				0	ft from surface or a		3050	overlap.	
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
6 3/4	0.0835	820	1759	1198	47	9.60			0.63
Setting Depths for D V Tool(s):			3100	sum of sx			Σ CuFt	Σ % excess	
% excess cmt by stage:			100	330			619	-48	
Class 'H' tail cmt yld > 1.20									