

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**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.*5. Lease Serial No.
NMNM19199

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No.
CAL-MON 35 FEDERAL 41H2. Name of Operator
OXY USA INCORPORATEDContact: DAVID STEWART
E-Mail: david_stewart@oxy.com9. API Well No.
30-015-43140-00-X13a. Address
5 GREENWAY PLAZA SUITE 110
HOUSTON, TX 77046-05213b. Phone No. (include area code)
Ph: 432.685.571710. Field and Pool or Exploratory Area
INGLE WELLS

Cotton Draw, B.S. 13367

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 35 T23S R31E NWNW 0250FNL 0710FWL
32.267378 N Lat, 103.754341 W Lon

11. County or Parish, State

EDDY COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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 recompleate 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must 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 to complete this well in the Bone Spring as follows and attached. No additional surface disturbance will be required.

1. Set a whipstock at +/- 8956', sidetrack through 7-5/8" casing, drill to 15292'M 10342'V, set 4-1/2" production liner and complete well.

2. Production liner casing/cementing program

Production Liner
4-1/2" 13.5# P-110 DQX new csg @ 8856-15292'M 6-3/4" hole
SF Coll-1.95 SF Burst-1.21 SF Body Ten-2.27 SF Joint Tens-2.32

Previous COAs Apply

NM OIL CONSERVATION
ARTESIA DISTRICT
APR 04 2017
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14. I hereby certify that the foregoing is true and correct.

Electronic Submission #368998 verified by the BLM Well Information System

For OXY USA INCORPORATED, sent to the Carlsbad

Committed to AFMSS for processing by PRISCILLA PEREZ on 03/07/2017 (17PP0339SE)

Name (Printed/Typed) DAVID STEWART

Title REGULATORY ADVISOR

Signature (Electronic Submission)

Date 03/07/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>[Signature]</u>	Title <u>Eng</u>	Date <u>3/24/17</u>
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.		Office <u>CFO</u>

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 to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

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

RVP 4-7-2017

Additional data for EC transaction #368998 that would not fit on the form

32. Additional remarks, continued

Cement with 629sx CL H cement with retarder, disperant, salt @ 13.2ppg, 1.63 yield, circ cement to TOL @ 8856'

Oxy is requesting permission to have minimum fill of cement behind the 4-1/2" production liner and to be 100' into previous casing string. The reason for this is so that we can come back and develop shallower benches from the same 7-5/8" main wellbore in the future. Our plan is to use a whipstock for our exit through the main wellbore and based on our lateral target, we are planning a whipstock cased/hole exit so that kick-off point will allow for roughly 10deg/100? doglegs needed for the curve.

3. BOP Program and testing, see attached.

4. Mud Program, see attached.

5. Logging Program, see attached.

APR 04 2017

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0720
District II
1117 S. First St., Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6179 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-43140	Pool Code 13367	Pool Name Cotton Draw Base Springs
Property Code 314855	Property Name CAL-MON "35" FEDERAL	Well Number 41H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3456.2'

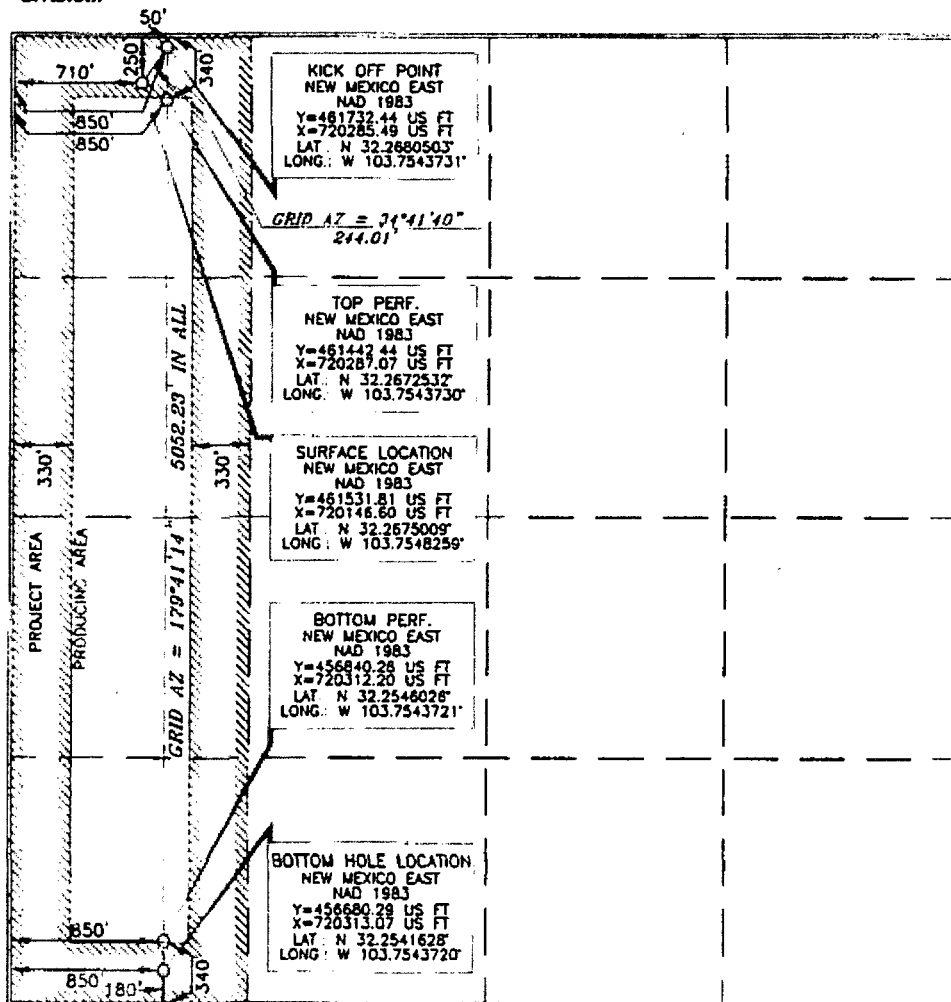
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	23 SOUTH	31 EAST, N.M.P.M.		250'	NORTH	710'	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	35	23 SOUTH	31 EAST, N.M.P.M.		180'	SOUTH	850'	WEST	EDDY
Dedicated Acres 160	Joint or Infill N	Consolidation Code	Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order hereinafter approved by the division.

Signature David Stewart Date 3/7/17
Printed Name David Stewart
E-mail Address David_Stewart@oxy.com

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from the original or actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey AUGUST 3, 2016
Signature and Seal of Professional Land Surveyor Terry J. Abel
Certificate Number 15079

OXY USA Inc. - Cal-Mon 35 Federal 41H

1. Geologic Formations

TVD of target	10342'
MD at TD:	15292'

Delaware Basin

Formation	TVD - RKB	Expected Fluids
Rustler	708	
Salado	1013	
Lamar/Delaware	4380	Oil/Gas
Bell Canyon*	4406	Water/Oil/Gas
Cherry Canyon*	5171	Oil/Gas
Lower Cherry Canyon*	6508	Oil/Gas
Brushy Canyon*	6588	Oil/Gas
Bone Spring	8225	Oil/Gas
1st Bone Spring	9335	Oil/Gas
2nd Bone Spring	9517	Oil/Gas

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

This is a re-entry plan to an existing well bore. The plan is to set a whipstock above the TOC, around 8956' and do a cased-hole side track. A 4.5" production liner will be set approximately 100' inside the previous 7-5/8" production casing.

Hole Size (in)	Casing Interval		Csg. Size (in)	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	Buoyant	Buoyant
	From (ft)	To (ft)							Body SF Tension	Joint SF Tension
6.75	8856	15292	4.5	13.5	P-110	DQX	1.95	1.21	2.27	2.32

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	

OXY USA Inc. - Cal-Mon 35 Federal 41H

Is well located in SOPA but not in R-111-P?	Y
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	Y
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing String	Top of Lead (ft)	Bottom of Lead (ft)	Top of Tail (ft)	Bottom of Tail (ft)	% Excess Lead	% Excess Tail
Production Liner	N/A	N/A	8856	15292	N/A	15%

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Production Liner	629	13.2	1.63	8.37	15:15	Class H Cement, Retarder, Dispersant, Salt

- **Cement Top and Liner Overlap**

- Oxy is requesting permission to have minimum fill of cement behind the 4-1/2" production liner to be 100 ft into previous casing string
 - The reason for this is so that we can come back and develop shallower benches from the same 7.625" mainbore in the future
- Our plan is to use a whipstock for our exit through the mainbore
 - Based on our lateral target, we are planning a whipstock cased/hole exit so that kick-off point will allow for roughly 10deg/100' doglegs needed for the curve
- Cement will be brought to the top of this liner hanger

OXY USA Inc. - Cal-Mon 35 Federal 41H

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
13.5" Intermediate	13-5/8"	5M	Annular	✓	70% of working pressure
			Blind Ram	✓	250/5000psi
			Pipe Ram		
			Double Ram	✓	
			Other*		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
Y	Are anchors required by manufacturer?
	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 upon arrival at the location and prior to drilling operations, which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
8956	15292	Oil-Based Mud	8.8-9.6	35-50	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Oxy will use a closed mud system.

OXY USA Inc. - Cal-Mon 35 Federal 41H

What will be used to monitor the loss or gain of fluid?	PVT/MD Totco/Visual Monitoring
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6. Logging and Testing Procedures

Logging, Coring and Testing.	
Yes	Will run GR from Side Track to TD (curve and lateral portion of well). Stated logs run will be in the Completion Report and submitted to the BLM.
No	Logs are planned based on well control or offset log information.
No	Drill stem test? If yes, explain
No	Coring? If yes, explain

Additional logs planned	Interval
No	Resistivity
No	Density
No	CBL
Yes	Mud log
No	PEX

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	2888 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	163°F

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H ₂ S is present
Y	H ₂ S Plan attached

OXY USA Inc. - Cal-Mon 35 Federal 41H

8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. <ul style="list-style-type: none">We plan to drill the two well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.	Yes
Will more than one drilling rig be used for drilling operations? If yes, describe.	No

Total estimated cuttings volume: 280.4 bbls.

9. Company Personnel

<u>Name</u>	<u>Title</u>	<u>Office Phone</u>	<u>Mobile Phone</u>
Philippe Haffner	Drilling Engineer	713-985-6379	832-767-9047
Diego Tellez	Drilling Engineer Supervisor	713-350-4602	713-303-4932
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
John Willis	Drilling Manager	713-366-5556	713-259-1417

NM OIL CONSERVATION
ARTESIA DISTRICT

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ENGINEERING DESIGNS

PRD NM DIRECTIONAL PLANS (NAD 1983)

Calmon 35 Federal

Calmon 35 Federal 41 RE

WB01

Plan: S-to-Curve-Lateral

Standard Planning Report

28 February, 2017

Oxy

Planning Report

Database: HOPSPP
Company: ENGINEERING DESIGNS
Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Calmon 35 Federal
Well: Calmon 35 Federal 41 RE
Wellbore: WB01
Design: S-to-Curve-Lateral

Local Co-ordinate Reference: Well Calmon 35 Federal 41 RE
TVD Reference: Rig @ 3482.70ft
MD Reference: Rig @ 3482.70ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	PRD NM DIRECTIONAL PLANS (NAD 1983)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone	Using geodetic scale factor	

Site	Calmon 35 Federal		
Site Position:		Northing:	461,531.81 usft
From:	Map	Easting:	720,146.60 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	32° 16' 3.003202 N
		Longitude:	103° 45' 17.373393 W
		Grid Convergence:	0.31 °

Well	Calmon 35 Federal 41 RE		
Well Position	+N/-S	0.00 ft	Northing: 461,531.81 usft
	+E/-W	0.00 ft	Easting: 720,146.60 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	3,456.20 ft
		Latitude:	32° 16' 3.003202 N
		Longitude:	103° 45' 17.373393 W
		Ground Level:	3,456.20 ft

Wellbore	WB01				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	12/31/2016	6.97	60.08	48,243

Design	S-to-Curve-Lateral			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	8,956.45
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	178.03

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
8,956.45	0.34	308.28	8,956.19	-13.57	5.11	0.00	0.00	0.00	0.00	
8,970.45	1.57	146.48	8,970.19	-13.70	5.18	13.57	8.81	-1,155.68	195.00	
9,024.45	1.57	146.48	9,024.17	-14.94	6.00	0.00	0.00	0.00	0.00	
9,461.04	42.51	10.45	9,422.76	132.33	37.60	10.00	9.38	-31.16	-137.19	
10,525.50	70.00	179.69	10,292.45	-89.38	140.48	10.51	2.58	15.90	169.11	Calmon_35_41_Top
10,723.60	89.81	179.69	10,327.00	-283.44	141.54	10.00	10.00	0.00	0.00	
15,292.05	89.81	179.69	10,342.00	-4,851.79	166.48	0.00	0.00	0.00	0.00	Calmon_35_41_BH

Oxy Planning Report

Database: HOPSP
Company: ENGINEERING DESIGNS
Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Calmon 35 Federal
Well: Calmon 35 Federal 41 RE
Wellbore: WB01
Design: S-to-Curve-Lateral

Local Co-ordinate Reference: Well Calmon 35 Federal 41 RE
TVD Reference: Rig @ 3482.70ft
MD Reference: Rig @ 3482.70ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,956.45	0.34	308.28	8,956.19	-13.57	5.11	13.74	0.00	0.00	0.00
14 ft Whipstock TFO 195.00°									
8,970.45	1.57	146.48	8,970.19	-13.70	5.18	13.87	13.57	8.81	-1,155.68
40 ft Rat Hole									
9,000.00	1.57	146.48	8,999.73	-14.38	5.63	14.57	0.00	0.00	0.00
9,024.45	1.57	146.48	9,024.17	-14.94	6.00	15.14	0.00	0.00	0.00
Build and Turn DLS 10.0°									
9,100.00	6.49	18.73	9,099.57	-11.76	7.95	12.02	10.00	6.51	-169.11
9,200.00	16.43	12.91	9,197.46	7.43	12.93	-6.98	10.00	9.95	-5.82
9,300.00	26.42	11.43	9,290.43	43.11	20.52	-42.39	10.00	9.99	-1.48
9,350.96	31.51	11.02	9,335.00	67.32	25.32	-66.41	10.00	9.99	-0.80
1st Bone Spring									
9,400.00	36.41	10.73	9,375.66	94.21	30.48	-93.11	10.00	9.99	-0.60
9,461.04	42.51	10.45	9,422.76	132.33	37.60	-130.96	10.00	10.00	-0.46
Continue Build and Turn DLS 10.51°									
9,500.00	38.50	11.69	9,452.38	157.16	42.45	-155.62	10.51	-10.30	3.19
9,578.46	30.47	15.01	9,517.00	200.37	52.56	-198.45	10.51	-10.23	4.24
2nd Bone Spring									
9,600.00	28.29	16.21	9,535.77	210.55	55.41	-208.53	10.51	-10.14	5.58
9,700.00	18.37	25.18	9,627.51	247.67	68.76	-245.17	10.51	-9.92	8.97
9,800.00	9.72	51.13	9,724.51	267.29	82.08	-264.31	10.51	-8.66	25.95
9,900.00	8.41	121.79	9,823.53	268.74	94.90	-265.32	10.51	-1.31	70.66
10,000.00	16.32	156.30	9,921.25	251.97	106.79	-248.16	10.51	7.92	34.51
10,100.00	26.11	167.14	10,014.40	217.55	117.37	-213.40	10.51	9.79	10.85
10,200.00	36.28	172.27	10,099.84	166.64	126.27	-162.21	10.51	10.17	5.13
10,300.00	46.59	175.38	10,174.72	100.93	133.19	-96.30	10.51	10.31	3.10
10,400.00	56.95	177.57	10,236.52	22.64	137.91	-17.89	10.51	10.36	2.19
10,500.00	67.35	179.29	10,283.18	-65.62	140.27	70.40	10.51	10.39	1.72
10,525.50	70.00	179.69	10,292.45	-89.38	140.48	94.14	10.51	10.41	1.55
TopPerf at 70° Inc. Build 2D Curve DLS 10.0°									
10,600.00	77.45	179.69	10,313.31	-160.84	140.87	165.57	10.00	10.00	0.00
10,700.00	87.45	179.69	10,326.44	-259.84	141.41	264.54	10.00	10.00	0.00
10,723.60	89.81	179.69	10,327.00	-283.43	141.54	288.12	10.00	10.00	0.00
Hold 89.81° Inc to TD									
10,800.00	89.81	179.69	10,327.25	-359.83	141.95	364.49	0.00	0.00	0.00
10,900.00	89.81	179.69	10,327.59	-459.83	142.50	464.45	0.00	0.00	0.00
11,000.00	89.81	179.69	10,327.92	-559.83	143.05	564.41	0.00	0.00	0.00
11,100.00	89.81	179.69	10,328.25	-659.83	143.59	664.36	0.00	0.00	0.00
11,200.00	89.81	179.69	10,328.58	-759.83	144.14	764.32	0.00	0.00	0.00
11,300.00	89.81	179.69	10,328.91	-859.82	144.68	864.28	0.00	0.00	0.00
11,400.00	89.81	179.69	10,329.24	-959.82	145.23	964.24	0.00	0.00	0.00
11,500.00	89.81	179.69	10,329.57	-1,059.82	145.78	1,064.19	0.00	0.00	0.00
11,600.00	89.81	179.69	10,329.90	-1,159.82	146.32	1,164.15	0.00	0.00	0.00
11,700.00	89.81	179.69	10,330.23	-1,259.81	146.87	1,264.11	0.00	0.00	0.00
11,800.00	89.81	179.69	10,330.56	-1,359.81	147.41	1,364.07	0.00	0.00	0.00
11,900.00	89.81	179.69	10,330.89	-1,459.81	147.96	1,464.03	0.00	0.00	0.00
12,000.00	89.81	179.69	10,331.22	-1,559.81	148.51	1,563.98	0.00	0.00	0.00
12,100.00	89.81	179.69	10,331.55	-1,659.81	149.05	1,663.94	0.00	0.00	0.00
12,200.00	89.81	179.69	10,331.88	-1,759.80	149.60	1,763.90	0.00	0.00	0.00
12,300.00	89.81	179.69	10,332.21	-1,859.80	150.14	1,863.86	0.00	0.00	0.00
12,400.00	89.81	179.69	10,332.54	-1,959.80	150.69	1,963.82	0.00	0.00	0.00
12,500.00	89.81	179.69	10,332.87	-2,059.80	151.24	2,063.77	0.00	0.00	0.00
12,600.00	89.81	179.69	10,333.20	-2,159.80	151.78	2,163.73	0.00	0.00	0.00

Oxy

Planning Report

Database:	HOPSP	Local Co-ordinate Reference:	Well Calmon 35 Federal 41 RE
Company:	ENGINEERING DESIGNS	TVD Reference:	Rig @ 3482.70ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	Rig @ 3482.70ft
Site:	Calmon 35 Federal	North Reference:	Grid
Well:	Calmon 35 Federal 41 RE	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB01		
Design:	S-to-Curve-Lateral		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
12,700.00	89.81	179.69	10,333.53	-2,259.79	152.33	2,263.69	0.00	0.00	0.00
12,800.00	89.81	179.69	10,333.86	-2,359.79	152.87	2,363.65	0.00	0.00	0.00
12,900.00	89.81	179.69	10,334.18	-2,459.79	153.42	2,463.60	0.00	0.00	0.00
13,000.00	89.81	179.69	10,334.51	-2,559.79	153.97	2,563.56	0.00	0.00	0.00
13,100.00	89.81	179.69	10,334.84	-2,659.79	154.51	2,663.52	0.00	0.00	0.00
13,200.00	89.81	179.69	10,335.17	-2,759.78	155.06	2,763.48	0.00	0.00	0.00
13,300.00	89.81	179.69	10,335.50	-2,859.78	155.60	2,863.44	0.00	0.00	0.00
13,400.00	89.81	179.69	10,335.82	-2,959.78	156.15	2,963.39	0.00	0.00	0.00
13,500.00	89.81	179.69	10,336.15	-3,059.78	156.70	3,063.35	0.00	0.00	0.00
13,600.00	89.81	179.69	10,336.48	-3,159.78	157.24	3,163.31	0.00	0.00	0.00
13,700.00	89.81	179.69	10,336.81	-3,259.77	157.79	3,263.27	0.00	0.00	0.00
13,800.00	89.81	179.69	10,337.13	-3,359.77	158.33	3,363.23	0.00	0.00	0.00
13,900.00	89.81	179.69	10,337.46	-3,459.77	158.88	3,463.18	0.00	0.00	0.00
14,000.00	89.81	179.69	10,337.79	-3,559.77	159.43	3,563.14	0.00	0.00	0.00
14,100.00	89.81	179.69	10,338.12	-3,659.77	159.97	3,663.10	0.00	0.00	0.00
14,200.00	89.81	179.69	10,338.44	-3,759.76	160.52	3,763.06	0.00	0.00	0.00
14,300.00	89.81	179.69	10,338.77	-3,859.76	161.06	3,863.02	0.00	0.00	0.00
14,400.00	89.81	179.69	10,339.09	-3,959.76	161.61	3,962.97	0.00	0.00	0.00
14,500.00	89.81	179.69	10,339.42	-4,059.76	162.16	4,062.93	0.00	0.00	0.00
14,600.00	89.81	179.69	10,339.75	-4,159.76	162.70	4,162.89	0.00	0.00	0.00
14,700.00	89.81	179.69	10,340.07	-4,259.75	163.25	4,262.85	0.00	0.00	0.00
14,800.00	89.81	179.69	10,340.40	-4,359.75	163.79	4,362.80	0.00	0.00	0.00
14,900.00	89.81	179.69	10,340.72	-4,459.75	164.34	4,462.76	0.00	0.00	0.00
15,000.00	89.81	179.69	10,341.05	-4,559.75	164.88	4,562.72	0.00	0.00	0.00
15,100.00	89.81	179.69	10,341.38	-4,659.75	165.43	4,662.68	0.00	0.00	0.00
15,200.00	89.81	179.69	10,341.70	-4,759.74	165.98	4,762.64	0.00	0.00	0.00
15,292.05	89.81	179.69	10,342.00	-4,851.79	166.48	4,854.65	0.00	0.00	0.00

TD at 15292.09

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Calmon_35_41_TopP - plan hits target center - Point	0.00	0.00	10,292.45	-89.38	140.48	461,442.44	720,287.07	32° 16' 2.111346 N	103° 45' 15.742996
Calmon_35_41_BHL - plan hits target center - Point	0.00	359.70	10,342.00	-4,851.79	166.48	456,680.29	720,313.07	32° 15' 14.986100 N	103° 45' 15.739343

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
9,350.96	9,335.00	1st Bone Spring			
9,578.46	9,517.00	2nd Bone Spring		0.00	

Oxy

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Calmon 35 Federal 41 RE
Company:	ENGINEERING DESIGNS	TVD Reference:	Rig @ 3482.70ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	Rig @ 3482.70ft
Site:	Calmon 35 Federal	North Reference:	Grid
Well:	Calmon 35 Federal 41 RE	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB01		
Design:	S-to-Curve-Lateral		

Plan Annotations

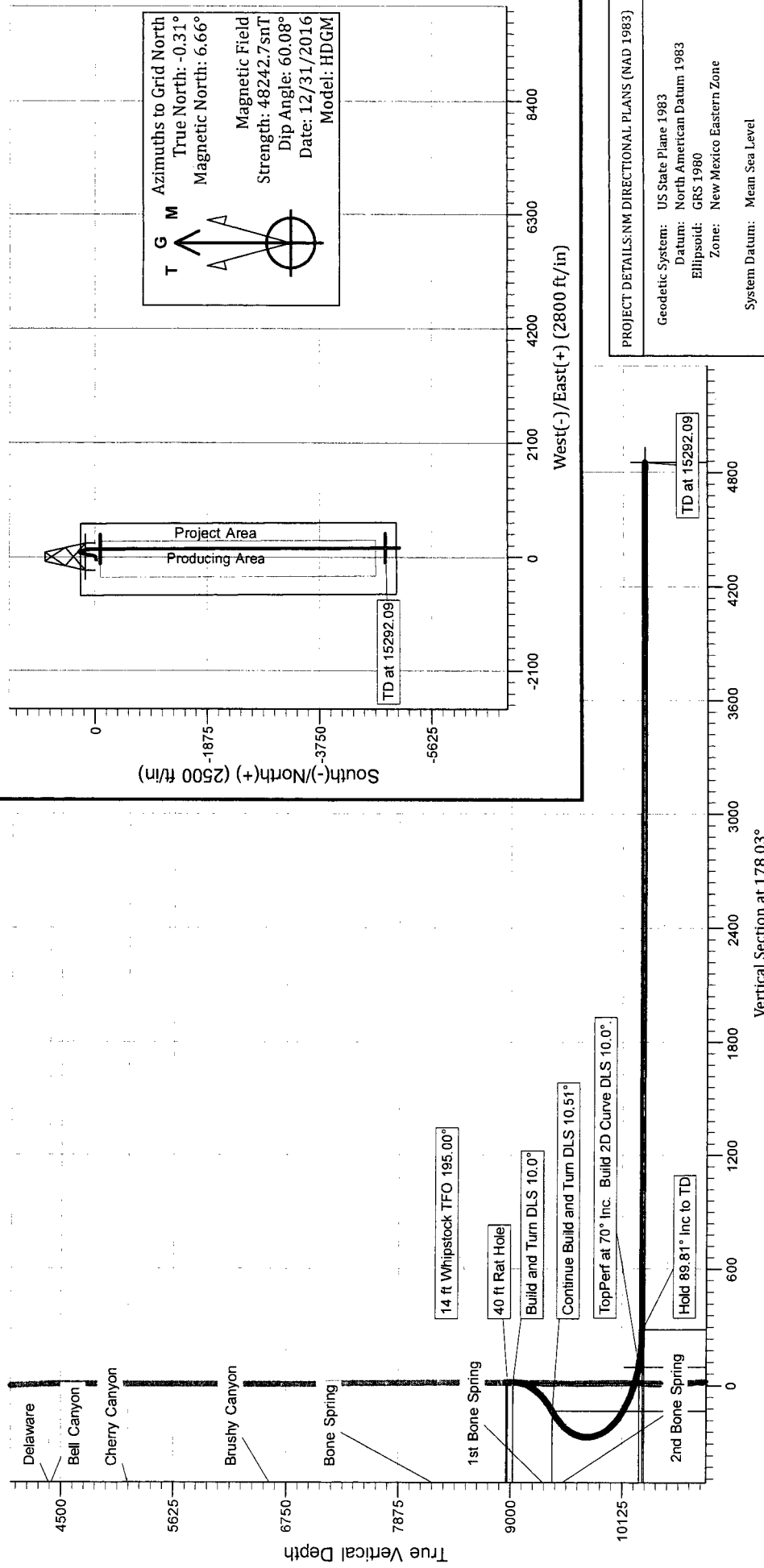
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
8,956.45	8,956.19	-13.57	5.11	14 ft Whipstock TFO 195.00°
8,970.45	8,970.19	-13.70	5.18	40 ft Rat Hole
9,024.45	9,024.17	-14.94	6.00	Build and Turn DLS 10.0°
9,461.04	9,422.76	132.33	37.60	Continue Build and Turn DLS 10.51°
10,525.50	10,292.45	-89.38	140.48	TopPerf at 70° Inc. Build 2D Curve DLS 10.0°
10,723.60	10,327.00	-283.43	141.54	Hold 89.81° Inc to TD
15,292.05	10,342.00	-4,851.79	166.48	TD at 15292.09



Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Calmon 35 Federal
Well: Calmon 35 Federal 41 RE
Wellbore: WB01
Design: Permitting Plan - Re-Entry

WELL DETAILS: Calmon 35 Federal 41 RE

Ground Level: 3456.20
+N/-S 0.00 +E/-W 0.00
Rig @ 3482.70ft
Easting 720146.60 Northing 461531.81
Latitude 32° 16' 3.003202 N Longitude 103° 45' 17.373393 W



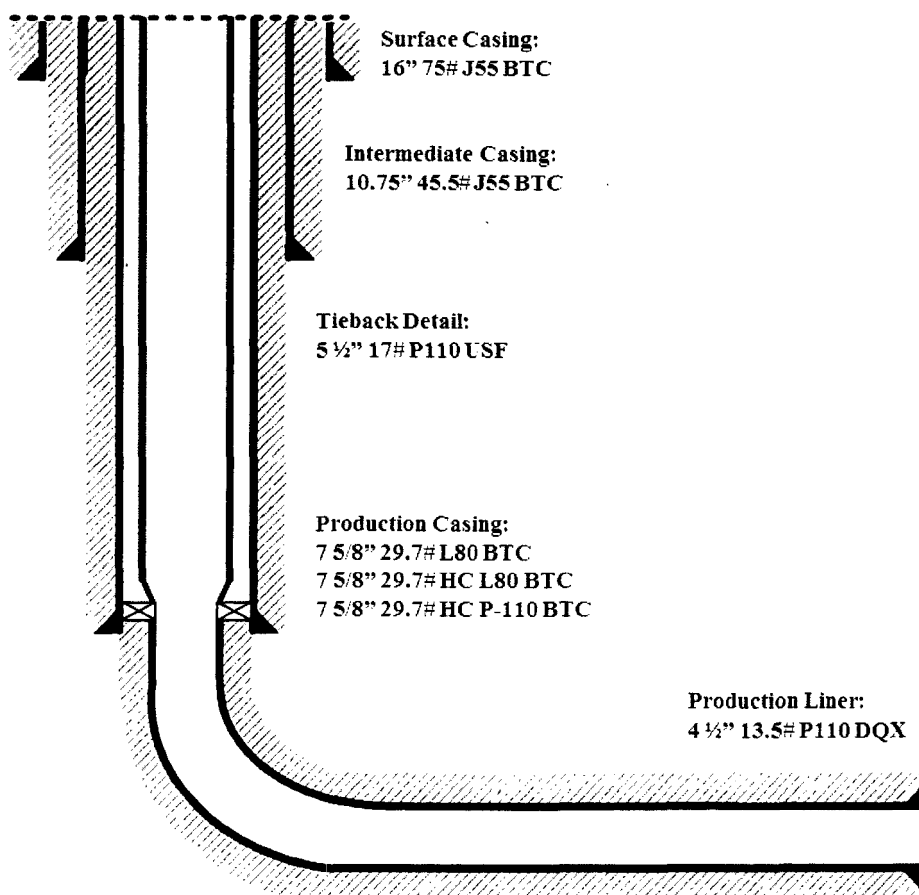
OXY USA Inc.
Cal-Mon 35 Federal #41H

Below is a summary that describes the general operational steps to drill and complete the well.

- Drill 20" hole x 16" casing for surface section. Cement to surface.
- Drill 13-1/2" hole x 10-3/4" casing for intermediate section. Cement to surface.
- Drill 9-5/8" hole x 7-5/8" casing for production section. Cement to surface.
- Set Whipstock, drill 6-3/4" hole x 4-1/2" liner for production section. Cement to top of liner, 100' inside 7-5/8" casing.
- Release drilling rig from location.
- Move in workover rig and run a 5-1/2" 17# P110 USF tie-back frack string and seal assembly (see connection specs below). Tie into liner hanger Polished Bore Receptacle (PBR) with seal assembly.
- Pump hydraulic fracture job.
- Flowback and produce well.

When a decision is made to develop a secondary bench from this wellbore, a workover rig will be moved to location. The workover rig will then retrieve the tie-back frack string and seal assembly before temporarily abandoning the initial lateral.

General well schematic:



5 1/2" 17# P110 USF Tie-back string specifications:

PERFORMANCE DATA

TMK UP ULTRA™ SF
Technical Data Sheet

5 500 in

17.00 lbs/ft

P-110

Tubular Parameters

Spec	1	Min. Yield Strength	44,000	1
Nominal Outside Diameter	5.500	Min. Tensile Strength	50,000	1
Grade	1	Min. Yield Strength	44,000	1
End Weight	17.00	Min. Tensile Strength	50,000	1
Wall Thickness	0.375	Min. Yield Strength	44,000	1
Length	100	Min. Tensile Strength	50,000	1
End Weight	17.00	Min. Yield Strength	44,000	1
Nominal Weight	17.00	Min. Tensile Strength	50,000	1

Connection Parameters

Connection Type	1	Min. Yield Strength	44,000	1
Connection Type	1	Min. Tensile Strength	50,000	1
Connection Type	1	Min. Yield Strength	44,000	1
Connection Type	1	Min. Tensile Strength	50,000	1
Connection Type	1	Min. Yield Strength	44,000	1
Connection Type	1	Min. Tensile Strength	50,000	1
Connection Type	1	Min. Yield Strength	44,000	1
Connection Type	1	Min. Tensile Strength	50,000	1
Connection Type	1	Min. Yield Strength	44,000	1
Connection Type	1	Min. Tensile Strength	50,000	1

Make Up Torques

Min. Make Up Torque	1	Min. Yield Strength	44,000	1
Min. Make Up Torque	1	Min. Tensile Strength	50,000	1
Min. Make Up Torque	1	Min. Yield Strength	44,000	1
Min. Make Up Torque	1	Min. Tensile Strength	50,000	1

Product of TMK UP ULTRA™ SF

100%

The TMK UP ULTRA™ SF is a high strength, low alloy steel pipe and tube. It is designed for use in the oil and gas industry. The pipe and tube are made from a high strength, low alloy steel. The pipe and tube are designed to meet the requirements of the API 5L specification. The pipe and tube are made from a high strength, low alloy steel. The pipe and tube are designed to meet the requirements of the API 5L specification. The pipe and tube are made from a high strength, low alloy steel. The pipe and tube are designed to meet the requirements of the API 5L specification.



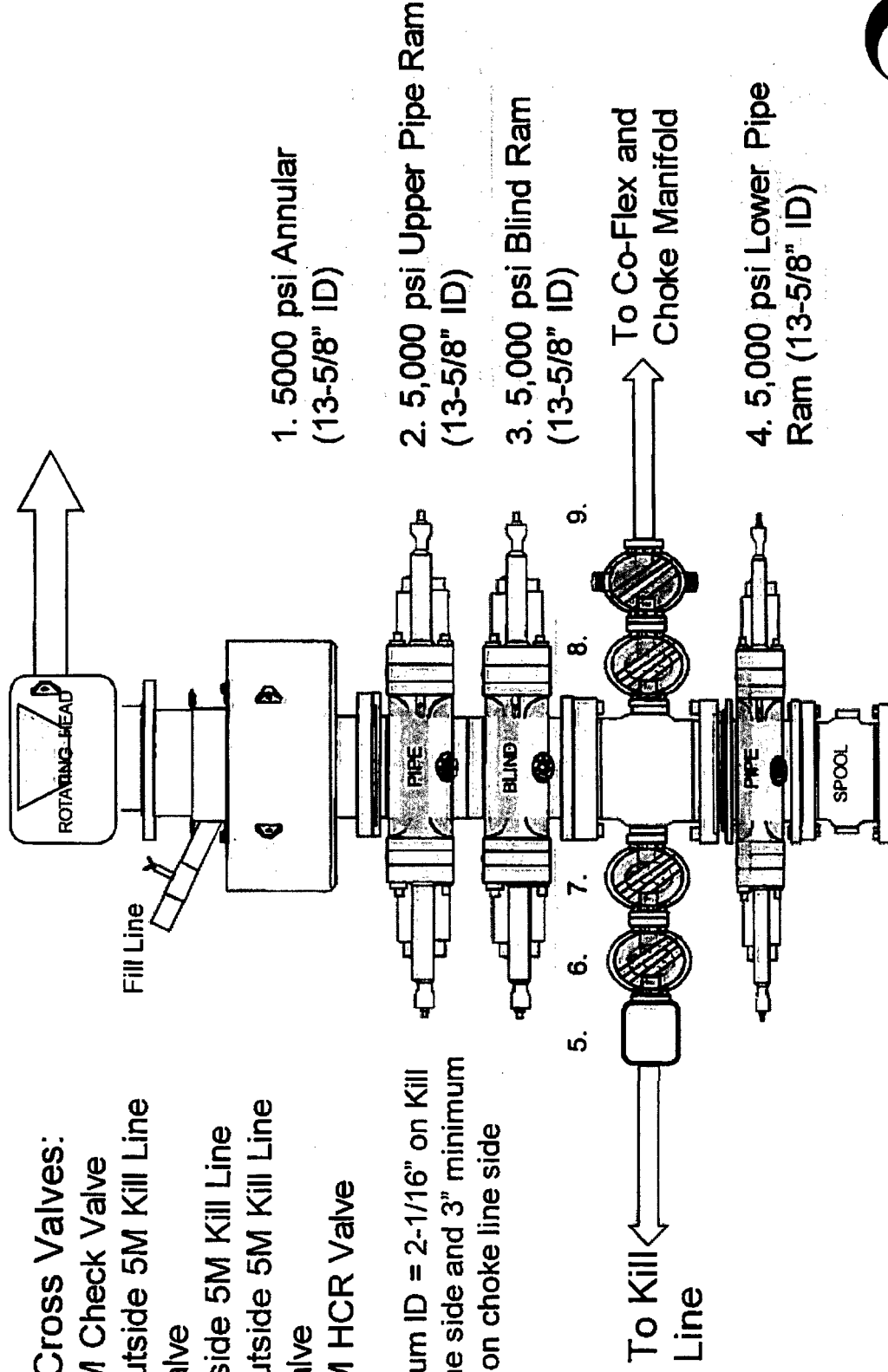
TMK

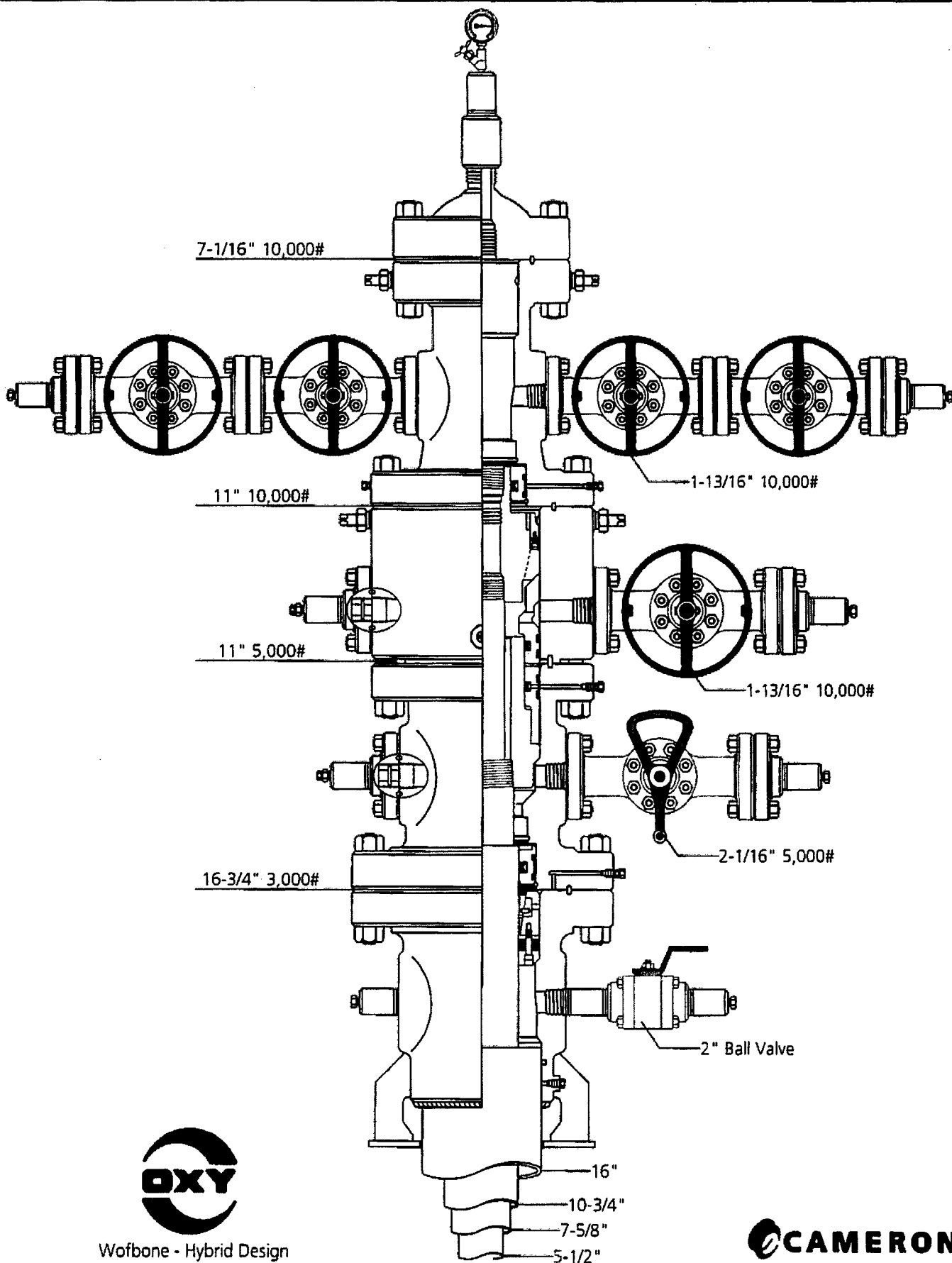
5M BOP Stack

Mud Cross Valves:

5. 5M Check Valve
6. Outside 5M Kill Line Valve
7. Inside 5M Kill Line Valve
8. Outside 5M Kill Line Valve
9. 5M HCR Valve

*Minimum ID = 2-1/16" on Kill Line side and 3" minimum ID on choke line side



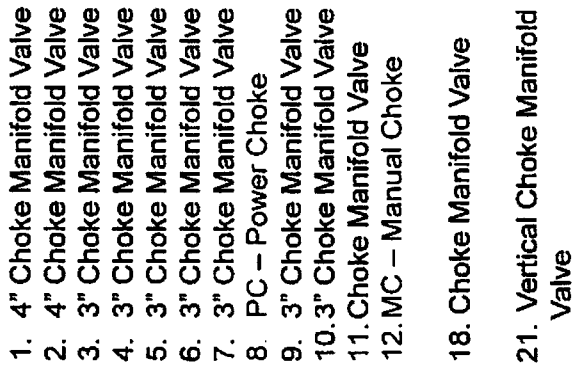


Wofbone - Hybrid Design

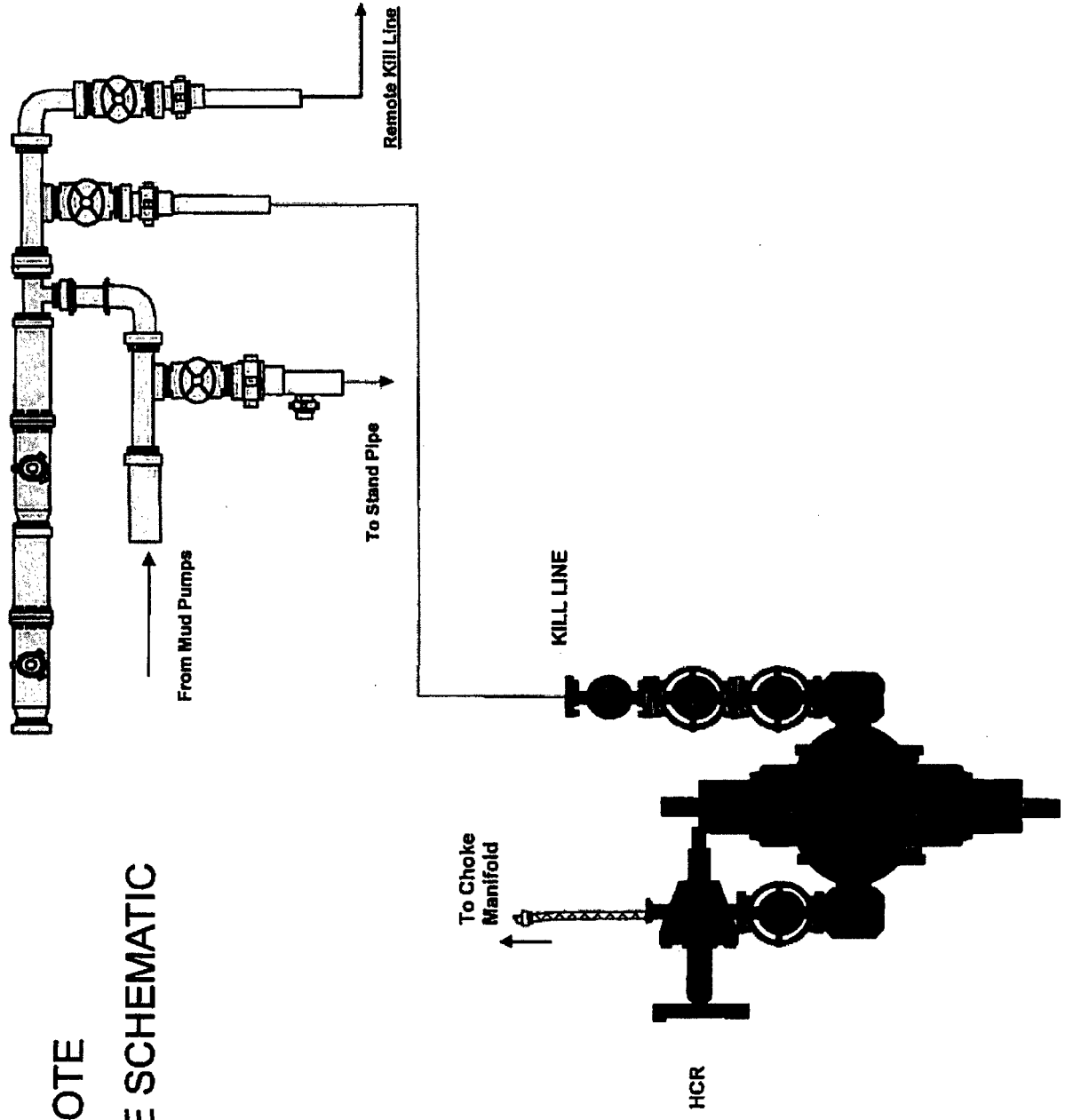


Jeanette	9-19-14	working pressure	#	1175306
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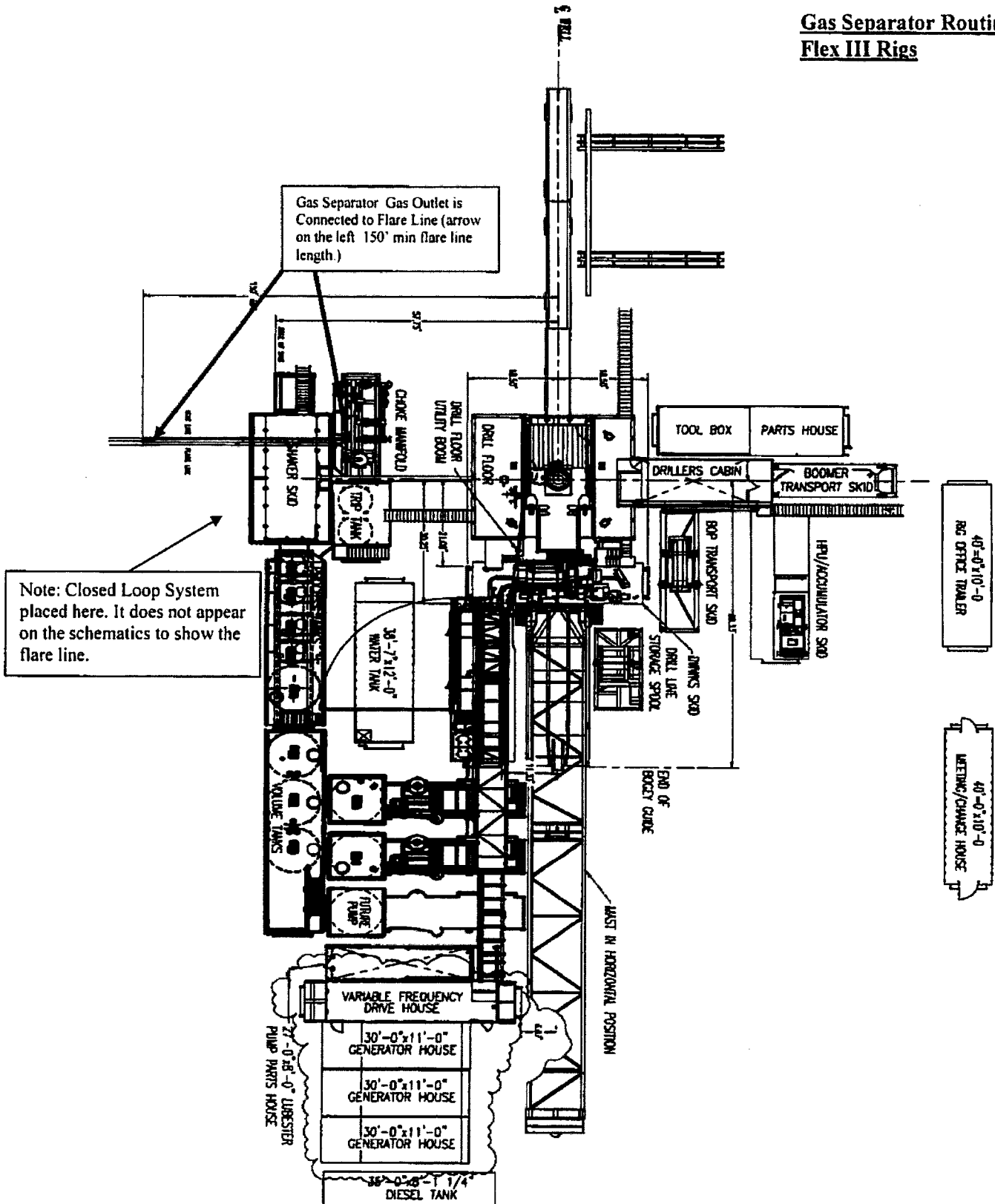
5M Choke Panel



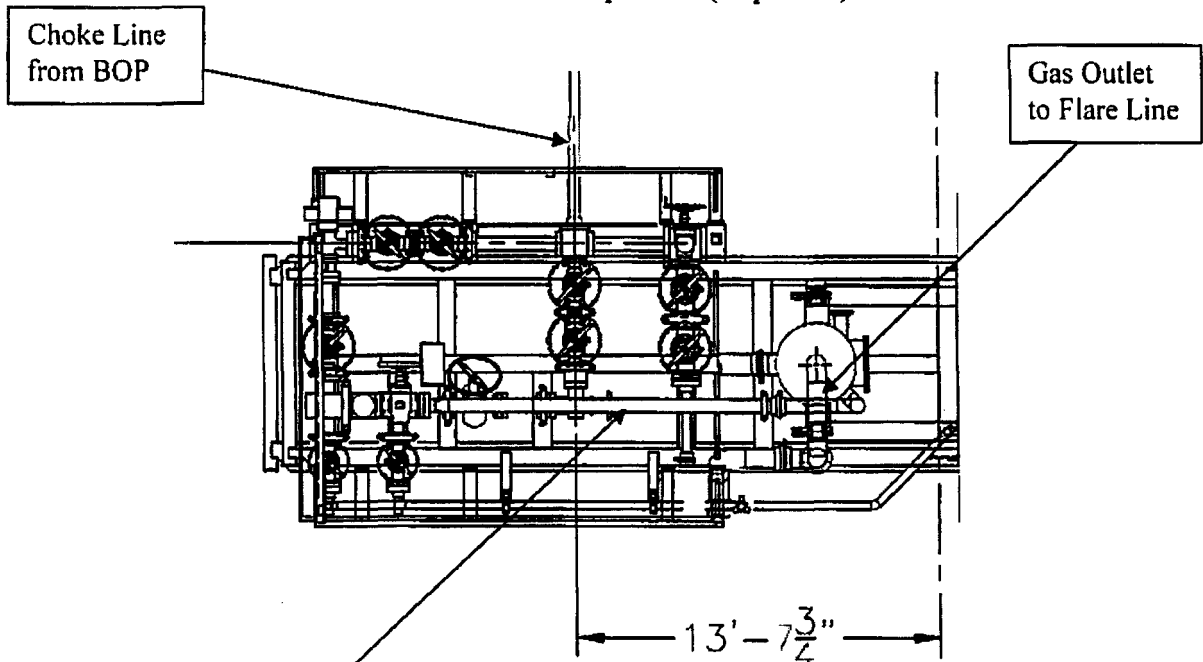
10M REMOTE KILL LINE SCHEMATIC



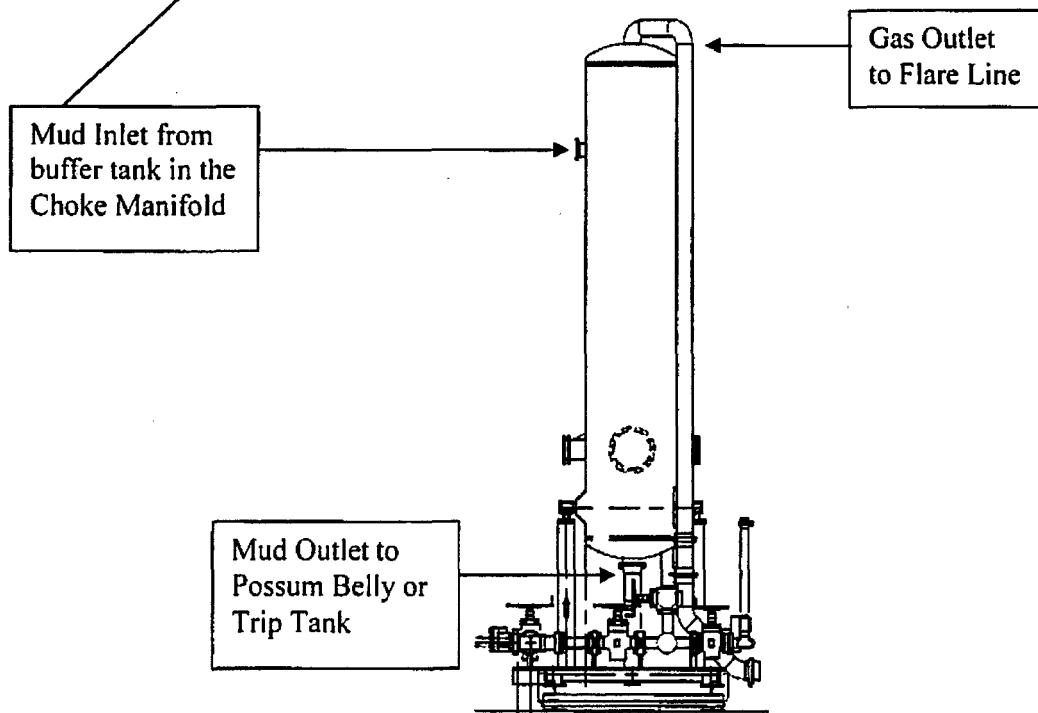
Gas Separator Routing Flex III Rigs



Choke Manifold – Gas Separator (Top View)



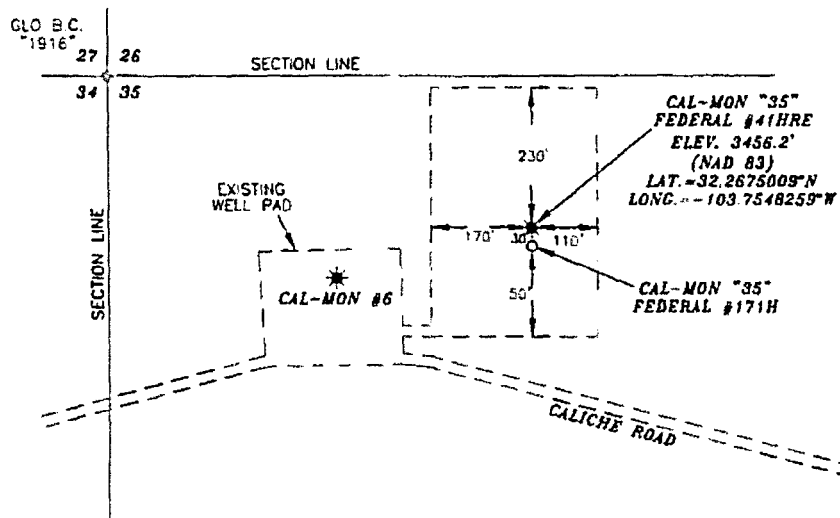
Choke Manifold – Gas Separator (Side View)



OXY USA INC.

CAL-MON "35" FEDERAL #41HRE SITE PLAN

FAA PERMIT: NO



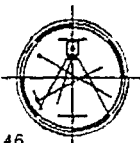
SURVEYORS CERTIFICATE

I, TERRY J. ASEF, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asef 2/22/2017
Terry J. Asef, N.M. R.P.L.S. No. 15079

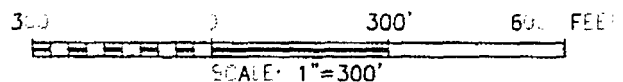
Asef Surveying

P.O. BOX 393 - 310 W TAYLOR
HOBBS, NEW MEXICO - 575-393-9146



LEGEND

* - DENOTES EXISTING WELL

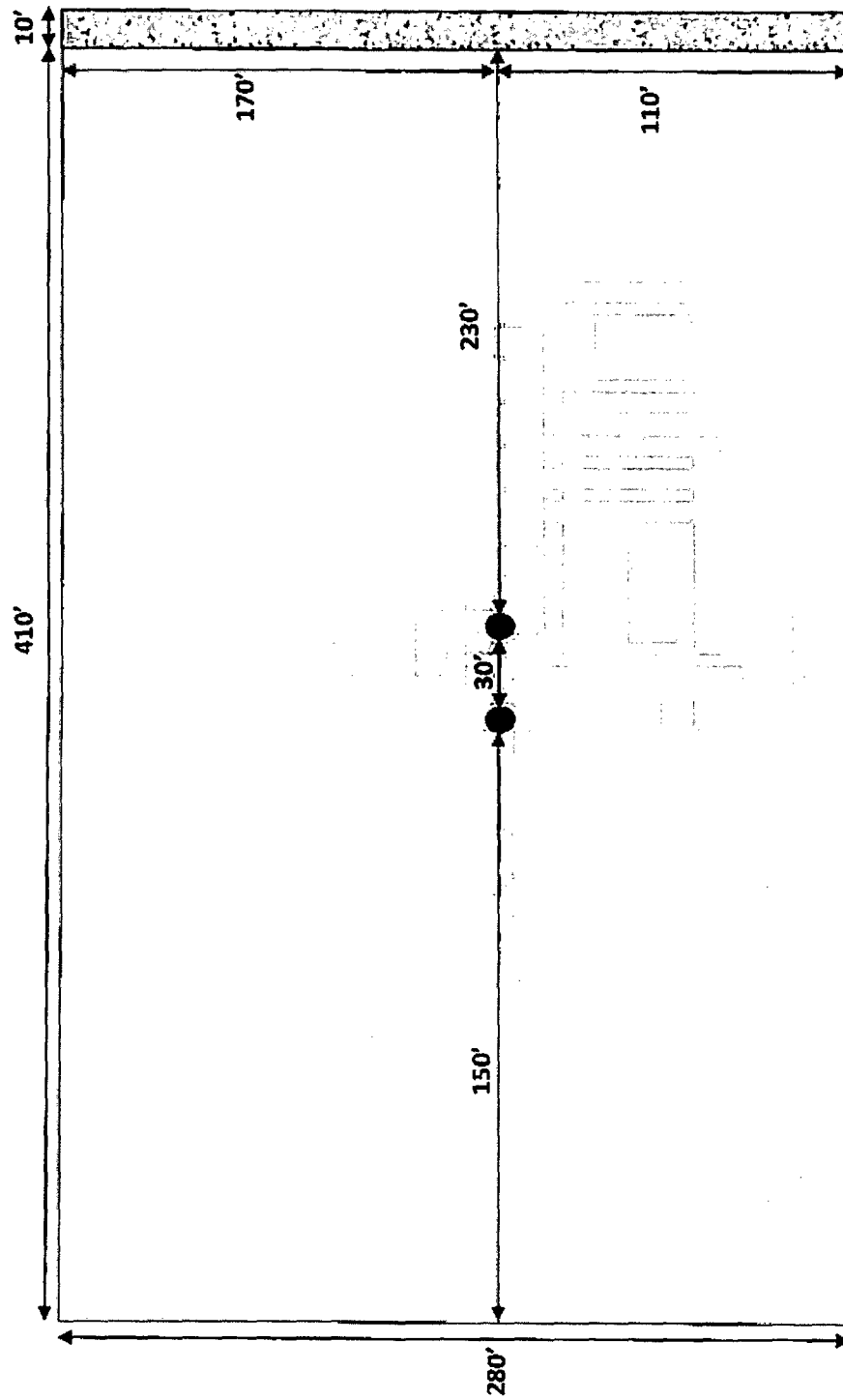


OXY USA INC.

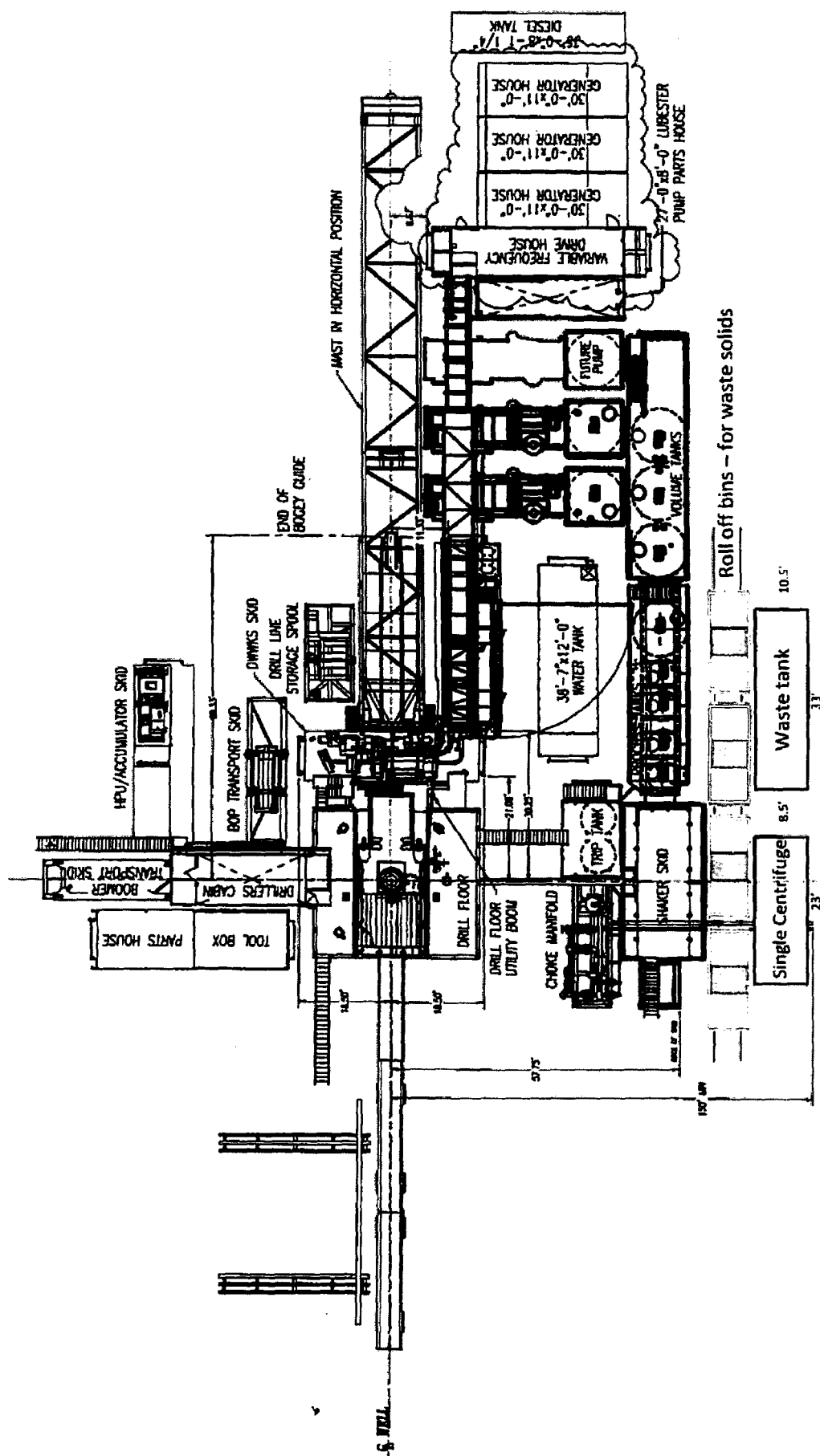
CAL-MON "35" FEDERAL #41HRE LOCATED
AT 250' FNL & 710' FWL IN SECTION 35,
TOWNSHIP 23 SOUTH, RANGE 3 EAST,
N.M.P.M. EDDY COUNTY, NEW MEXICO

Survey Date: 08/03/16	Sheet 1 of 1 Sheets
W.O. Number: 160803WL (Rev B)	Drawn By: KA Rev: 1
Date: 02/21/17	160803WL Scale: 1"=300'

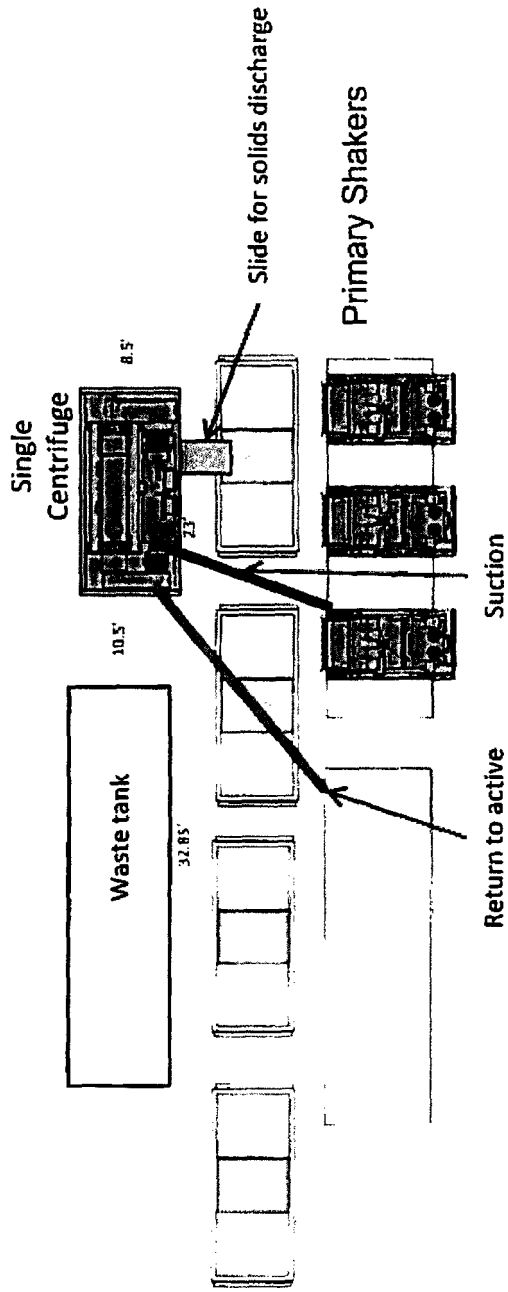
**Pad Site Overall Rig Layout
2 Well Pad Site**



May 28, 2013



Oxy



Well Head

Oxy Single Centrifuge
Closed Loop System - New
Mexico Flex III
May 28, 2013

PERFORMANCE DATA

TMK UP ULTRA™ DQX
Technical Data Sheet

4.500 in

13.50 lbs/ft

P-110

Tubular Parameters

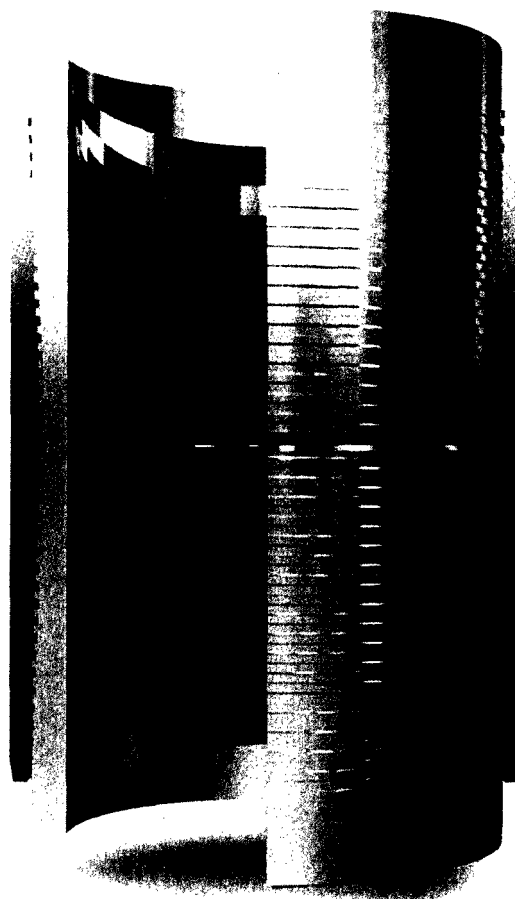
Size	4.500	in	Minimum Yield	110,000	psi
Nominal Weight	13.50	lbs/ft	Minimum Tensile	125,000	psi
Grade	P-110		Yield Load	422,000	lbs
PE Weight	13.04	lbs/ft	Tensile Load	479,000	lbs
Wall Thickness	0.290	in	Min. Internal Yield Pressure	12,400	psi
Nominal ID	3.920	in	Collapse Pressure	10,700	psi
Drift Diameter	3.795	in			
Nom. Pipe Body Area	3.836	in ²			

Connection Parameters

Connection OD	5.000	in
Connection ID	3.920	in
Make-Up Loss	3.772	in
Critical Section Area	3.836	in ²
Tension Efficiency	100.0	%
Compression Efficiency	100.0	%
Yield Load in Tension	422,000	lbs
Min. Internal Yield Pressure	12,400	psi
Collapse Pressure	10,700	psi
Uniaxial Bending	112	° 100 ft

Make-Up Torques

Min. Make-Up Torque	6,000	ft-lbs
Opt. Make-Up Torque	6,700	ft-lbs
Max. Make-Up Torque	7,300	ft-lbs
Yield Torque	10,800	ft-lbs



Printed on: October-22-2014

NOTE:

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IPSCO

OXY's Minimum Design Criteria

Burst, Collapse, and Tensile SF are calculated using Landmark's Stress Check (Casing Design) software. A sundry will be requested if any lesser grade or different size casing is substituted.

1) Casing Design Assumptions

a) Burst Loads

CSG Test (Surface)

- Internal: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both Onshore Oil and Gas Order No. 2 and 19.15.16 of the OCD Rules.
- External: Pore pressure in open hole.

CSG Test (Intermediate)

- Internal: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both Onshore Oil and Gas Order No. 2 and 19.15.16 of the OCD Rules.
- External: Mud Weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

CSG Test (Production)

- Internal:
 - For Drilling: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both Onshore Oil and Gas Order No. 2 and 19.15.16 of the OCD Rules.
 - For Production: The design pressure test should be the greater of (1) the planned test pressure prior to stimulation down the casing, (2) the regulatory test pressure, and (3) the expected gas lift system pressure. The design test fluid should be the fluid associated with pressure test having the greatest pressure.
- External:
 - For Drilling: Mud Weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.
 - For Production: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Gas Column (Surface)

- Internal: Assumes a full column of gas in the casing with a Gas/Oil Gradient of 0.1 psi/ft in the absence of better information. It is limited to the controlling pressure based on the fracture pressure at the shoe or the maximum expected pore pressure within the next drilling interval, whichever results in a lower surface pressure.
- External: Fluid gradient below TOC, pore pressure from the TOC to the Intermediate CSG shoe (if applicable), and MW of the drilling mud that was in the hole when the CSG was run from Intermediate CSG shoe to surface.

Bullheading (Surface / Intermediate)

- Internal: The string must be designed to withstand a pressure profile based on the fracture pressure at the casing shoe with a column of water above the shoe plus an additional surface pressure (in psi) of $0.02 \times \text{MD of the shoe}$ to account for pumping friction pressure.
- External: Mud weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Gas Kick (Intermediate)

- The string must be designed to at least a gas kick load case unless the rig is unable to detect a kick. For the gas kick load case, the internal pressure profile must be based on a minimum volume of 50 bbl or the minimum kick detection capability of the rig, whichever is greater, and a kick intensity of 2.0 ppg for Class 1, 1.0 ppg of Class 2, and 0.5 ppg for Class 3 and 4 wells.
- Internal: Influx depth of the maximum pore pressure of 0.55 "gas kick gravity" of gas to surface while drilling the next hole section.
- External: Mud weight to the TOC, cement mix water gradient below TOC, and pore pressure in open hole.

Tubing Leak Near Surface While Producing (Production)

- Internal: SITP plus a packer fluid gradient to the shoe or top of packer.
- External: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Tubing Leak Near Surface While Stimulating (Production)

- Internal: Surface pressure or pressure-relief system pressure, whichever is lower plus packer fluid gradient.
- External: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Injection / Stimulation Down Casing (Production)

- Internal: Surface pressure plus injection fluid gradient.
- External: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

b) Collapse Loads

Lost Circulation (Surface / Intermediate)

- Internal: Lost circulation at the TD of the next hole section, and the fluid level falls to a depth where the hydrostatic of the mud equals pore pressure at the depth of the lost circulation zone.
- External: MW of the drilling mud that was in the hole when the casing was run.

Cementing (Surface / Intermediate / Production)

- Internal: Displacement fluid density.
- External: Mud weight from TOC to surface and cement slurry weight from TOC to casing shoe.

Full Evacuation (Production)

- Internal: Full void pipe.
- External: MW of drilling mud in the hole when the casing was run.

c) Tension Loads

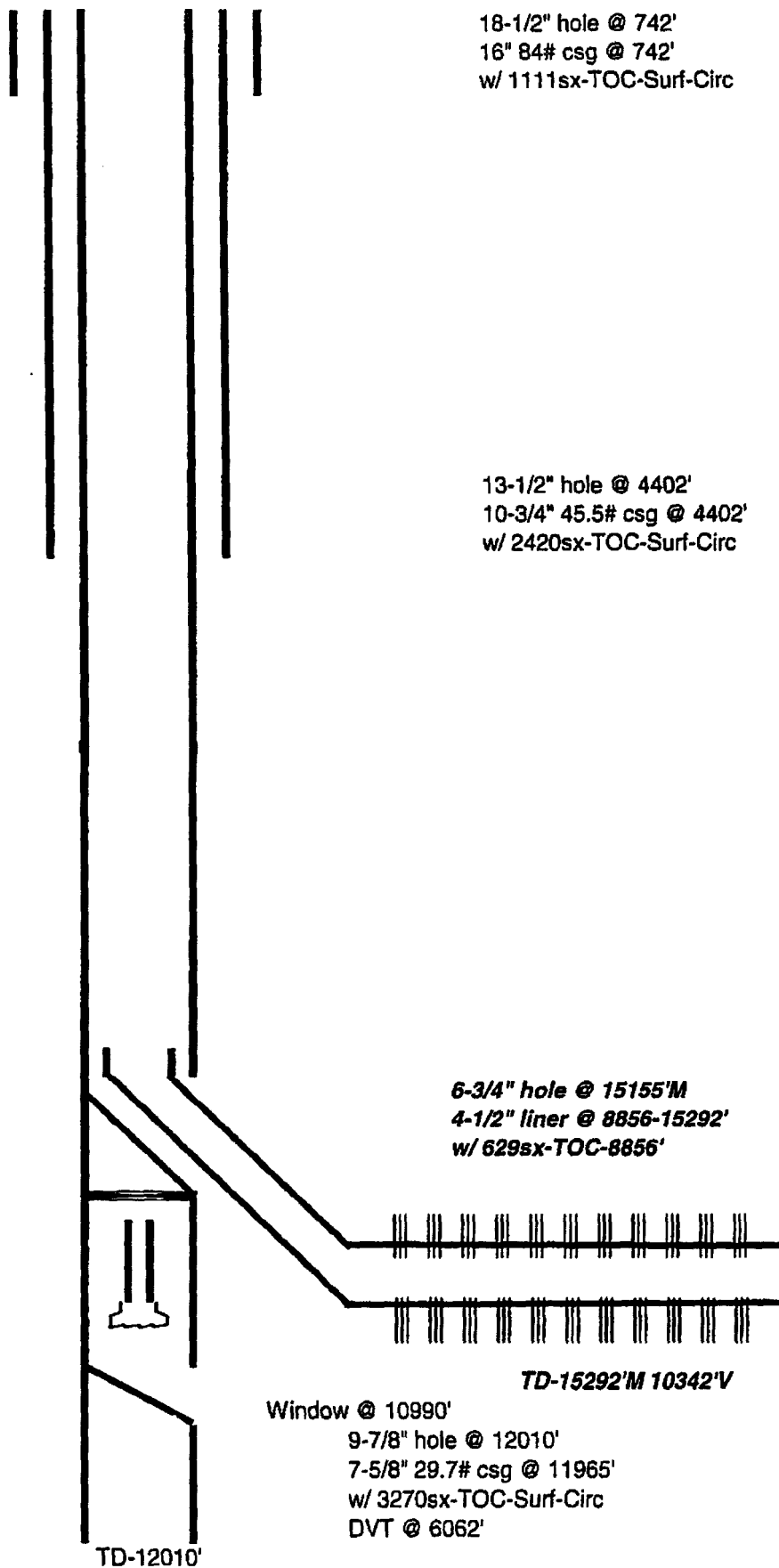
Running Casing (Surface / Intermediate / Production)

- Axial: Buoyant weight of the string plus the lesser of 100,000 lb or the string weight in air.

Green Cement (Surface / Intermediate / Production)

- Axial: Buoyant weight of the string plus cement plug bump pressure load.

OXY USA Inc. - Proposed
Cal-Mon 35 Federal #41H
API No. 30-015-43140



Whipstock @ ~8956'

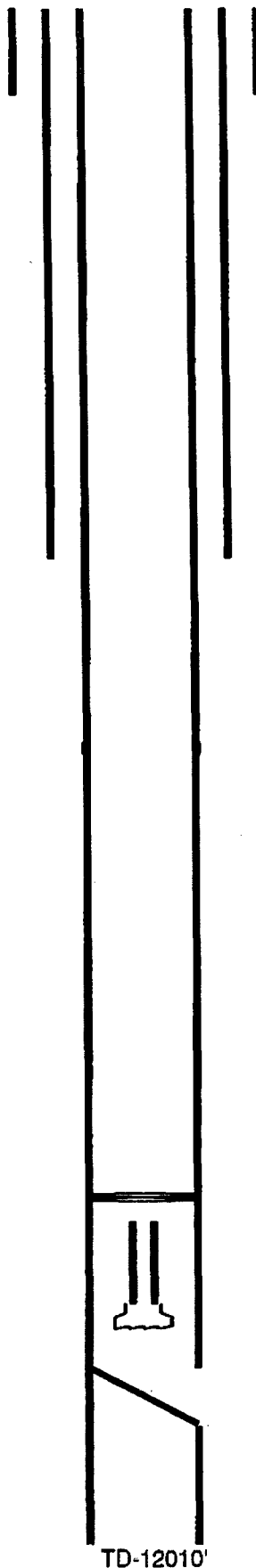
CIBP @ 9570' w/ 120sx to 9070' Tagged

Fish @ 9602-10035' consisting of
6-3/4" bit, sub, 4-3/4" drill collars

Sqz total 672sx cmt
Whipstock @ 10990-11004'

PB-11904'

OXY USA Inc. - Current
Cal-Mon 35 Federal #41H
API No. 30-015-43140



18-1/2" hole @ 742'
16" 84# csg @ 742'
w/ 1111sx-TOC-Surf-Circ

13-1/2" hole @ 4402'
10-3/4" 45.5# csg @ 4402'
w/ 2420sx-TOC-Surf-Circ

CIBP @ 9570' w/ 120sx to 9070' Tagged

Fish @ 9602-10035' consisting of
6-3/4" bit, sub, 4-3/4" drill collars

Whipstock @ 10990-11004'

PB-11904'

Sqz total 672sx cmt
Window @ 10990'

9-7/8" hole @ 12010'
7-5/8" 29.7# csg @ 11965'
w/ 3270sx-TOC-Surf-Circ
DVT @ 6062'

TD-12010'