

Well Name: CORRAL BLUFF 11_14
FEDERAL COM

Well Location: T25S / R29E / SEC 2 /
SESW / 32.152737 / -103.956542

County or Parish/State: EDDY / NM

Well Number: 33H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM015303,
NMNM15303

Unit or CA Name:

Unit or CA Number:

US Well Number: 3001547769

Well Status: Approved Application for Permit to Drill

Operator: OXY USA
INCORPORATED

Notice of Intent

Sundry ID: 2713455

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 01/31/2023

Time Sundry Submitted: 02:57

Date proposed operation will begin: 04/28/2023

Procedure Description: The new drill plan and C-102 are attached. The old BHL was 20 FSL, 1700 FWL, Sec 14, T25S, R29E. The new BHL is 20 FSL, 1710 FWL, Sec 14, T25S, R29E.

NOI Attachments

Procedure Description

IP8627WEL02NM_C102_CORRAL_BLUFF_11_14_FED_COM_33H_FLAT_20230131145526.pdf

CorralBluff11_14FedCom33H_TNSWedge461_5.500in_20.00__P110CY_20230131145524.pdf

CorralBluff11_14FedCom33H_TNSWedge441_5.500in_20.00__P110CY_20230131145523.pdf

CorralBluff11_14FedCom33H_H2S2_20230131145516.pdf

CorralBluff11_14FedCom33H_DrillPlan_20230131145514.pdf

CorralBluff11_14FedCom33H_FlexHoseCert_20230131145516.pdf

CorralBluff11_14FedCom33H_SpudRigData_20230131145519.pdf

CorralBluff11_14FedCom33H_TNSWedge425_5.500in_20.00__P110CY_20230131145519.pdf

CorralBluff11_14FedCom33H_H2SEmerContact_20230131145516.pdf

CorralBluff11_14FedCom33H_13inADAPT_10.75in_7.625in_10x10_20230131145512.pdf

Well Name: CORRAL BLUFF 11_14 FEDERAL COM	Well Location: T25S / R29E / SEC 2 / SESW / 32.152737 / -103.956542	County or Parish/State: EDDY / NM
Well Number: 33H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM015303, NMNM15303	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001547769	Well Status: Approved Application for Permit to Drill	Operator: OXY USA INCORPORATED

CorralBluff11_14FedCom33H_BOP_20230131145511.pdf

CorralBluff11_14FedCom33H_DirectPlot_20230131145511.pdf

CorralBluff11_14FedCom33H_DirectPlan_20230131145511.pdf

CorralBluff11_14FedCom33H_ChkManifolds_20230131145511.pdf

CorralBluff11_14FedCom33H_CsgCriteria_20230131145511.pdf

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: STEPHEN JANACEK	Signed on: JAN 31, 2023 02:57 PM
Name: OXY USA INCORPORATED	
Title: Regulatory Engineer	
Street Address: 5 Greenway Plaza, Suite 110	
City: Houston	State: TX
Phone: (713) 497-2417	
Email address: stephen_janacek@oxy.com	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: KEITH P IMMATTY	BLM POC Title: ENGINEER
BLM POC Phone: 5759884722	BLM POC Email Address: KIMMATTY@BLM.GOV
Disposition: Approved	Disposition Date: 04/13/2023
Signature: KEITH IMMATTY	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 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

¹ API Number 30-015-47769	² Pool Code 98220	³ Pool Name PURPLE SAGE WOLFCAMP (GAS)
⁴ Property Code 329731	⁵ Property Name CORRAL BLUFF 11 14 FED COM	⁶ Well Number 33H
⁷ OGRID No. 16696	⁸ Operator Name OXY USA INC.	⁹ Elevation 3063.2'

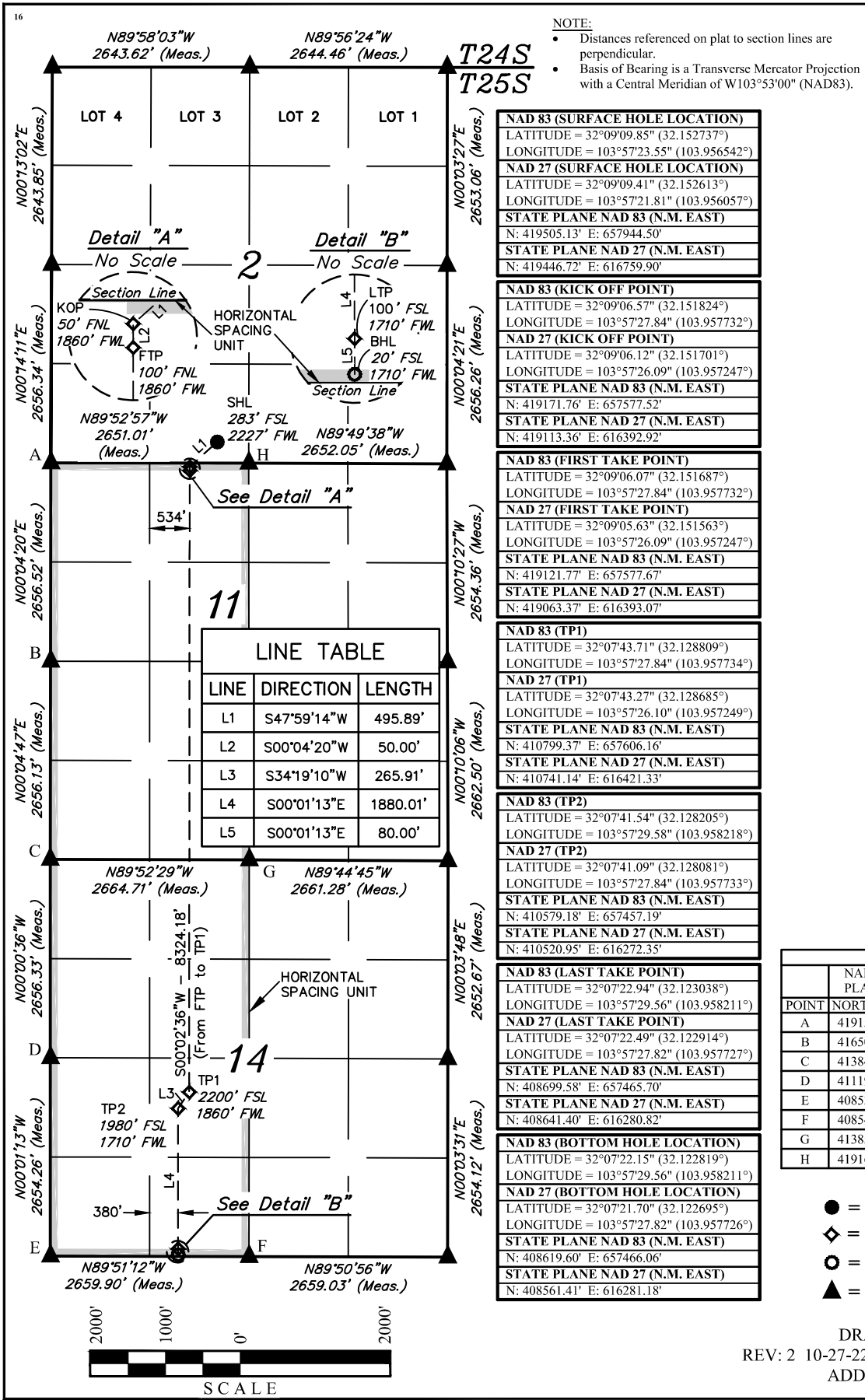
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	2	25S	29E		283	SOUTH	2227	WEST	EDDY

¹¹ 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
N	14	25S	29E		20	SOUTH	1710	WEST	EDDY
¹² Dedicated Acres 640 1280	¹³ Joint or Infill Y	¹⁴ Consolidation Code	¹⁵ 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.



¹⁷ 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 unleased 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 heretofore entered by the division.

Stephen Janacek 1/31/23

Signature Date

STEPHEN JANACEK

Printed Name

STEPHEN_JANACEK@OXY.COM

E-mail Address

¹⁸ SURVEYOR
CERTIFICATION

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

October 18, 2019

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number:

HSU COORDINATES				
	NAD 27 N.M. STATE PLANE, EAST ZONE		NAD 83 N.M. STATE PLANE, EAST ZONE	
POINT	NORTHING	EASTING	NORTHING	EASTING
A	419159.38'	614533.18'	419217.79'	655717.77'
B	416503.49'	614540.87'	416561.84'	655725.53'
C	413847.98'	614548.20'	413906.27'	655732.93'
D	411192.28'	614559.68'	411250.52'	655744.48'
E	408538.65'	614571.64'	408596.84'	655756.51'
F	408542.96'	617230.95'	408601.14'	658415.85'
G	413853.29'	617212.33'	413911.59'	658397.08'
H	419165.04'	617183.61'	419223.44'	658368.22'

- = SURFACE HOLE LOCATION
- ◆ = KICK OFF/TAKE POINTS
- = BOTTOM HOLE LOCATION
- ▲ = SECTION CORNER LOCATED

DRAWN BY: R.J. 10-26-19

REV: 2 10-27-22 L.M.W. (WELLBORE CHANGE & ADD COORDINATE TABLE)

OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)

Corral Bluff 11_14

Corral Bluff 11_14 Fed Com 33H

Wellbore #1

Plan: Permitting Plan

Standard Planning Report

06 December, 2022

OXY

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Corral Bluff 11_14 Fed Com 33H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=26.5' @ 3089.70ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=26.5' @ 3089.70ft
Site:	Corral Bluff 11_14	North Reference:	Grid
Well:	Corral Bluff 11_14 Fed Com 33H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

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		Corral Bluff 11_14			
Site Position:		Northing:	419,542.96 usft	Latitude:	32.152848
From:	Map	Easting:	657,232.81 usft	Longitude:	-103.958842
Position Uncertainty:		1.00 ft	Slot Radius:	13.200 in	

Well		Corral Bluff 11_14 Fed Com 33H				
Well Position	+N/-S	0.00 ft	Northing:	419,505.13 usf	Latitude:	32.152737
	+E/-W	0.00 ft	Easting:	657,944.50 usf	Longitude:	-103.956543
Position Uncertainty		1.00 ft	Wellhead Elevation:	ft	Ground Level:	3,063.20 ft
Grid Convergence:		0.20 °				

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	11/18/2019	6.80	59.80	47,828.30000000

Design	Permitting Plan				
Audit Notes:					
Version:		Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:		Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
		0.00	0.00	0.00	182.52

Plan Survey Tool Program	Date	12/6/2022			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	20,954.83	Permitting Plan (Wellbore #1)	B001Mb_MWD+HRGM	
				OWSG MWD + HRGM	

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,682.00	0.00	0.00	7,682.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,682.00	10.00	270.00	8,676.93	0.00	-87.05	1.00	1.00	0.00	270.00	
9,732.50	10.00	270.00	9,711.47	0.00	-269.46	0.00	0.00	0.00	0.00	
10,633.64	90.08	179.80	10,276.05	-574.09	-367.12	10.00	8.89	-10.01	-90.19	TP1 (Corral Bluff)
18,133.64	90.08	179.80	10,265.57	-8,074.04	-340.60	0.00	0.00	0.00	0.00	
18,889.81	90.08	191.14	10,264.52	-8,825.54	-412.55	1.50	0.00	1.50	89.99	
19,650.05	90.08	179.74	10,263.47	-9,581.10	-484.48	1.50	0.00	-1.50	-90.00	
20,955.33	90.08	179.74	10,261.70	-10,886.37	-478.48	0.00	0.00	0.00	0.00	PBHL (Corral Bluff)

OXY

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Corral Bluff 11_14 Fed Com 33H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=26.5' @ 3089.70ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=26.5' @ 3089.70ft
Site:	Corral Bluff 11_14	North Reference:	Grid
Well:	Corral Bluff 11_14 Fed Com 33H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

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)
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
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00

OXY

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Corral Bluff 11_14 Fed Com 33H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=26.5' @ 3089.70ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=26.5' @ 3089.70ft
Site:	Corral Bluff 11_14	North Reference:	Grid
Well:	Corral Bluff 11_14 Fed Com 33H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

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)
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,682.00	0.00	0.00	7,682.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.18	270.00	7,700.00	0.00	-0.03	0.00	1.00	1.00	0.00
7,800.00	1.18	270.00	7,799.99	0.00	-1.22	0.05	1.00	1.00	0.00
7,900.00	2.18	270.00	7,899.95	0.00	-4.15	0.18	1.00	1.00	0.00
8,000.00	3.18	270.00	7,999.84	0.00	-8.82	0.39	1.00	1.00	0.00
8,100.00	4.18	270.00	8,099.63	0.00	-15.24	0.67	1.00	1.00	0.00
8,200.00	5.18	270.00	8,199.29	0.00	-23.40	1.03	1.00	1.00	0.00
8,300.00	6.18	270.00	8,298.80	0.00	-33.30	1.46	1.00	1.00	0.00
8,400.00	7.18	270.00	8,398.12	0.00	-44.93	1.97	1.00	1.00	0.00
8,500.00	8.18	270.00	8,497.22	0.00	-58.29	2.56	1.00	1.00	0.00
8,600.00	9.18	270.00	8,596.08	0.00	-73.38	3.22	1.00	1.00	0.00
8,682.00	10.00	270.00	8,676.93	0.00	-87.05	3.82	1.00	1.00	0.00
8,700.00	10.00	270.00	8,694.66	0.00	-90.17	3.96	0.00	0.00	0.00
8,800.00	10.00	270.00	8,793.14	0.00	-107.54	4.72	0.00	0.00	0.00
8,900.00	10.00	270.00	8,891.62	0.00	-124.90	5.48	0.00	0.00	0.00
9,000.00	10.00	270.00	8,990.10	0.00	-142.27	6.25	0.00	0.00	0.00
9,100.00	10.00	270.00	9,088.58	0.00	-159.63	7.01	0.00	0.00	0.00
9,200.00	10.00	270.00	9,187.06	0.00	-176.99	7.77	0.00	0.00	0.00
9,300.00	10.00	270.00	9,285.54	0.00	-194.36	8.53	0.00	0.00	0.00
9,400.00	10.00	270.00	9,384.02	0.00	-211.72	9.30	0.00	0.00	0.00
9,500.00	10.00	270.00	9,482.50	0.00	-229.09	10.06	0.00	0.00	0.00
9,600.00	10.00	270.00	9,580.98	0.00	-246.45	10.82	0.00	0.00	0.00
9,700.00	10.00	270.00	9,679.47	0.00	-263.82	11.58	0.00	0.00	0.00
9,732.50	10.00	270.00	9,711.47	0.00	-269.46	11.83	0.00	0.00	0.00
9,800.00	12.03	235.66	9,777.79	-3.97	-281.14	16.31	10.00	3.00	-50.87
9,900.00	19.41	209.85	9,874.10	-24.31	-298.06	37.37	10.00	7.38	-25.82
10,000.00	28.40	198.85	9,965.48	-61.32	-314.05	75.05	10.00	8.99	-11.00
10,100.00	37.87	192.92	10,049.14	-113.87	-328.63	128.19	10.00	9.47	-5.93
10,200.00	47.53	189.10	10,122.56	-180.38	-341.35	195.19	10.00	9.66	-3.82
10,300.00	57.29	186.31	10,183.49	-258.81	-351.84	274.01	10.00	9.76	-2.78
10,400.00	67.09	184.08	10,230.10	-346.78	-359.77	362.25	10.00	9.80	-2.23
10,500.00	76.92	182.16	10,260.95	-441.63	-364.90	457.23	10.00	9.83	-1.93
10,600.00	86.77	180.38	10,275.12	-540.47	-367.07	556.07	10.00	9.84	-1.78

OXY

Planning Report

Database: HOPSPP
Company: ENGINEERING DESIGNS
Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Corral Bluff 11_14
Well: Corral Bluff 11_14 Fed Com 33H
Wellbore: Wellbore #1
Design: Permitting Plan

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Corral Bluff 11_14 Fed Com 33H
 RKB=26.5' @ 3089.70ft
 RKB=26.5' @ 3089.70ft
 Grid
 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)
10,633.64	90.08	179.80	10,276.05	-574.09	-367.12	589.66	10.00	9.85	-1.74
10,700.00	90.08	179.80	10,275.95	-640.45	-366.89	655.95	0.00	0.00	0.00
10,800.00	90.08	179.80	10,275.81	-740.45	-366.54	755.83	0.00	0.00	0.00
10,900.00	90.08	179.80	10,275.67	-840.45	-366.18	855.72	0.00	0.00	0.00
11,000.00	90.08	179.80	10,275.54	-940.45	-365.83	955.61	0.00	0.00	0.00
11,100.00	90.08	179.80	10,275.40	-1,040.45	-365.47	1,055.50	0.00	0.00	0.00
11,200.00	90.08	179.80	10,275.26	-1,140.45	-365.12	1,155.38	0.00	0.00	0.00
11,300.00	90.08	179.80	10,275.12	-1,240.45	-364.77	1,255.27	0.00	0.00	0.00
11,400.00	90.08	179.80	10,274.98	-1,340.45	-364.41	1,355.16	0.00	0.00	0.00
11,500.00	90.08	179.80	10,274.84	-1,440.45	-364.06	1,455.04	0.00	0.00	0.00
11,600.00	90.08	179.80	10,274.70	-1,540.45	-363.71	1,554.93	0.00	0.00	0.00
11,700.00	90.08	179.80	10,274.56	-1,640.45	-363.35	1,654.82	0.00	0.00	0.00
11,800.00	90.08	179.80	10,274.42	-1,740.45	-363.00	1,754.71	0.00	0.00	0.00
11,900.00	90.08	179.80	10,274.28	-1,840.45	-362.65	1,854.59	0.00	0.00	0.00
12,000.00	90.08	179.80	10,274.14	-1,940.44	-362.29	1,954.48	0.00	0.00	0.00
12,100.00	90.08	179.80	10,274.00	-2,040.44	-361.94	2,054.37	0.00	0.00	0.00
12,200.00	90.08	179.80	10,273.86	-2,140.44	-361.58	2,154.26	0.00	0.00	0.00
12,300.00	90.08	179.80	10,273.72	-2,240.44	-361.23	2,254.14	0.00	0.00	0.00
12,400.00	90.08	179.80	10,273.58	-2,340.44	-360.88	2,354.03	0.00	0.00	0.00
12,500.00	90.08	179.80	10,273.44	-2,440.44	-360.52	2,453.92	0.00	0.00	0.00
12,600.00	90.08	179.80	10,273.30	-2,540.44	-360.17	2,553.81	0.00	0.00	0.00
12,700.00	90.08	179.80	10,273.16	-2,640.44	-359.82	2,653.69	0.00	0.00	0.00
12,800.00	90.08	179.80	10,273.02	-2,740.44	-359.46	2,753.58	0.00	0.00	0.00
12,900.00	90.08	179.80	10,272.88	-2,840.44	-359.11	2,853.47	0.00	0.00	0.00
13,000.00	90.08	179.80	10,272.74	-2,940.44	-358.76	2,953.35	0.00	0.00	0.00
13,100.00	90.08	179.80	10,272.60	-3,040.44	-358.40	3,053.24	0.00	0.00	0.00
13,200.00	90.08	179.80	10,272.46	-3,140.44	-358.05	3,153.13	0.00	0.00	0.00
13,300.00	90.08	179.80	10,272.32	-3,240.44	-357.69	3,253.02	0.00	0.00	0.00
13,400.00	90.08	179.80	10,272.18	-3,340.43	-357.34	3,352.90	0.00	0.00	0.00
13,500.00	90.08	179.80	10,272.04	-3,440.43	-356.99	3,452.79	0.00	0.00	0.00
13,600.00	90.08	179.80	10,271.90	-3,540.43	-356.63	3,552.68	0.00	0.00	0.00
13,700.00	90.08	179.80	10,271.77	-3,640.43	-356.28	3,652.57	0.00	0.00	0.00
13,800.00	90.08	179.80	10,271.63	-3,740.43	-355.93	3,752.45	0.00	0.00	0.00
13,900.00	90.08	179.80	10,271.49	-3,840.43	-355.57	3,852.34	0.00	0.00	0.00
14,000.00	90.08	179.80	10,271.35	-3,940.43	-355.22	3,952.23	0.00	0.00	0.00
14,100.00	90.08	179.80	10,271.21	-4,040.43	-354.87	4,052.11	0.00	0.00	0.00
14,200.00	90.08	179.80	10,271.07	-4,140.43	-354.51	4,152.00	0.00	0.00	0.00
14,300.00	90.08	179.80	10,270.93	-4,240.43	-354.16	4,251.89	0.00	0.00	0.00
14,400.00	90.08	179.80	10,270.79	-4,340.43	-353.81	4,351.78	0.00	0.00	0.00
14,500.00	90.08	179.80	10,270.65	-4,440.43	-353.45	4,451.66	0.00	0.00	0.00
14,600.00	90.08	179.80	10,270.51	-4,540.43	-353.10	4,551.55	0.00	0.00	0.00
14,700.00	90.08	179.80	10,270.37	-4,640.43	-352.74	4,651.44	0.00	0.00	0.00
14,800.00	90.08	179.80	10,270.23	-4,740.42	-352.39	4,751.33	0.00	0.00	0.00
14,900.00	90.08	179.80	10,270.09	-4,840.42	-352.04	4,851.21	0.00	0.00	0.00
15,000.00	90.08	179.80	10,269.95	-4,940.42	-351.68	4,951.10	0.00	0.00	0.00
15,100.00	90.08	179.80	10,269.81	-5,040.42	-351.33	5,050.99	0.00	0.00	0.00
15,200.00	90.08	179.80	10,269.67	-5,140.42	-350.98	5,150.88	0.00	0.00	0.00
15,300.00	90.08	179.80	10,269.53	-5,240.42	-350.62	5,250.76	0.00	0.00	0.00
15,400.00	90.08	179.80	10,269.39	-5,340.42	-350.27	5,350.65	0.00	0.00	0.00
15,500.00	90.08	179.80	10,269.25	-5,440.42	-349.92	5,450.54	0.00	0.00	0.00
15,600.00	90.08	179.80	10,269.11	-5,540.42	-349.56	5,550.42	0.00	0.00	0.00
15,700.00	90.08	179.80	10,268.97	-5,640.42	-349.21	5,650.31	0.00	0.00	0.00
15,800.00	90.08	179.80	10,268.83	-5,740.42	-348.85	5,750.20	0.00	0.00	0.00
15,900.00	90.08	179.80	10,268.69	-5,840.42	-348.50	5,850.09	0.00	0.00	0.00
16,000.00	90.08	179.80	10,268.55	-5,940.42	-348.15	5,949.97	0.00	0.00	0.00

OXY

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Corral Bluff 11_14 Fed Com 33H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=26.5' @ 3089.70ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=26.5' @ 3089.70ft
Site:	Corral Bluff 11_14	North Reference:	Grid
Well:	Corral Bluff 11_14 Fed Com 33H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

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)
16,100.00	90.08	179.80	10,268.41	-6,040.42	-347.79	6,049.86	0.00	0.00	0.00
16,200.00	90.08	179.80	10,268.27	-6,140.41	-347.44	6,149.75	0.00	0.00	0.00
16,300.00	90.08	179.80	10,268.13	-6,240.41	-347.09	6,249.64	0.00	0.00	0.00
16,400.00	90.08	179.80	10,268.00	-6,340.41	-346.73	6,349.52	0.00	0.00	0.00
16,500.00	90.08	179.80	10,267.86	-6,440.41	-346.38	6,449.41	0.00	0.00	0.00
16,600.00	90.08	179.80	10,267.72	-6,540.41	-346.03	6,549.30	0.00	0.00	0.00
16,700.00	90.08	179.80	10,267.58	-6,640.41	-345.67	6,649.18	0.00	0.00	0.00
16,800.00	90.08	179.80	10,267.44	-6,740.41	-345.32	6,749.07	0.00	0.00	0.00
16,900.00	90.08	179.80	10,267.30	-6,840.41	-344.96	6,848.96	0.00	0.00	0.00
17,000.00	90.08	179.80	10,267.16	-6,940.41	-344.61	6,948.85	0.00	0.00	0.00
17,100.00	90.08	179.80	10,267.02	-7,040.41	-344.26	7,048.73	0.00	0.00	0.00
17,200.00	90.08	179.80	10,266.88	-7,140.41	-343.90	7,148.62	0.00	0.00	0.00
17,300.00	90.08	179.80	10,266.74	-7,240.41	-343.55	7,248.51	0.00	0.00	0.00
17,400.00	90.08	179.80	10,266.60	-7,340.41	-343.20	7,348.40	0.00	0.00	0.00
17,500.00	90.08	179.80	10,266.46	-7,440.41	-342.84	7,448.28	0.00	0.00	0.00
17,600.00	90.08	179.80	10,266.32	-7,540.40	-342.49	7,548.17	0.00	0.00	0.00
17,700.00	90.08	179.80	10,266.18	-7,640.40	-342.14	7,648.06	0.00	0.00	0.00
17,800.00	90.08	179.80	10,266.04	-7,740.40	-341.78	7,747.95	0.00	0.00	0.00
17,900.00	90.08	179.80	10,265.90	-7,840.40	-341.43	7,847.83	0.00	0.00	0.00
18,000.00	90.08	179.80	10,265.76	-7,940.40	-341.08	7,947.72	0.00	0.00	0.00
18,100.00	90.08	179.80	10,265.62	-8,040.40	-340.72	8,047.61	0.00	0.00	0.00
18,133.64	90.08	179.80	10,265.57	-8,074.04	-340.60	8,081.21	0.00	0.00	0.00
18,200.00	90.08	180.79	10,265.48	-8,140.40	-340.94	8,147.52	1.50	0.00	1.50
18,300.00	90.08	182.29	10,265.34	-8,240.36	-343.64	8,247.50	1.50	0.00	1.50
18,400.00	90.08	183.79	10,265.20	-8,340.22	-348.94	8,347.49	1.50	0.00	1.50
18,500.00	90.08	185.29	10,265.06	-8,439.90	-356.86	8,447.43	1.50	0.00	1.50
18,600.00	90.08	186.79	10,264.92	-8,539.34	-367.39	8,547.24	1.50	0.00	1.50
18,700.00	90.08	188.29	10,264.78	-8,638.47	-380.52	8,646.85	1.50	0.00	1.50
18,800.00	90.08	189.79	10,264.64	-8,737.23	-396.23	8,746.20	1.50	0.00	1.50
18,889.81	90.08	191.14	10,264.52	-8,825.54	-412.55	8,835.15	1.50	0.00	1.50
18,900.00	90.08	190.99	10,264.50	-8,835.54	-414.50	8,845.22	1.50	0.00	-1.50
19,000.00	90.08	189.49	10,264.36	-8,933.95	-432.28	8,944.31	1.50	0.00	-1.50
19,100.00	90.08	187.99	10,264.22	-9,032.78	-447.47	9,043.72	1.50	0.00	-1.50
19,200.00	90.08	186.49	10,264.08	-9,131.98	-460.06	9,143.38	1.50	0.00	-1.50
19,300.00	90.08	184.99	10,263.95	-9,231.48	-470.06	9,243.22	1.50	0.00	-1.50
19,400.00	90.08	183.49	10,263.81	-9,331.20	-477.45	9,343.17	1.50	0.00	-1.50
19,500.00	90.08	181.99	10,263.67	-9,431.09	-482.22	9,443.16	1.50	0.00	-1.50
19,600.00	90.08	180.49	10,263.53	-9,531.06	-484.38	9,543.14	1.50	0.00	-1.50
19,650.05	90.08	179.74	10,263.47	-9,581.10	-484.48	9,593.14	1.50	0.00	-1.50
19,700.00	90.08	179.74	10,263.40	-9,631.06	-484.25	9,643.03	0.00	0.00	0.00
19,800.00	90.08	179.74	10,263.26	-9,731.06	-483.79	9,742.91	0.00	0.00	0.00
19,900.00	90.08	179.74	10,263.13	-9,831.06	-483.33	9,842.80	0.00	0.00	0.00
20,000.00	90.08	179.74	10,262.99	-9,931.05	-482.87	9,942.68	0.00	0.00	0.00
20,100.00	90.08	179.74	10,262.86	-10,031.05	-482.41	10,042.56	0.00	0.00	0.00
20,200.00	90.08	179.74	10,262.72	-10,131.05	-481.95	10,142.44	0.00	0.00	0.00
20,300.00	90.08	179.74	10,262.59	-10,231.05	-481.49	10,242.33	0.00	0.00	0.00
20,400.00	90.08	179.74	10,262.45	-10,331.05	-481.03	10,342.21	0.00	0.00	0.00
20,500.00	90.08	179.74	10,262.32	-10,431.05	-480.57	10,442.09	0.00	0.00	0.00
20,600.00	90.08	179.74	10,262.18	-10,531.05	-480.11	10,541.97	0.00	0.00	0.00
20,700.00	90.08	179.74	10,262.05	-10,631.05	-479.65	10,641.85	0.00	0.00	0.00
20,800.00	90.08	179.74	10,261.91	-10,731.05	-479.19	10,741.74	0.00	0.00	0.00
20,900.00	90.08	179.74	10,261.78	-10,831.04	-478.73	10,841.62	0.00	0.00	0.00
20,955.33	90.08	179.74	10,261.70	-10,886.37	-478.48	10,896.88	0.00	0.00	0.00

OXY

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Corral Bluff 11_14 Fed Com 33H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=26.5' @ 3089.70ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=26.5' @ 3089.70ft
Site:	Corral Bluff 11_14	North Reference:	Grid
Well:	Corral Bluff 11_14 Fed Com 33H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

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
TP2 (Corral Bluff - plan misses target center by 8939.93ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	-8,926.64	-487.35	410,579.18	657,457.19	32.128205	-103.958218
TP1 (Corral Bluff - plan misses target center by 8713.01ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	-8,706.43	-338.37	410,799.37	657,606.16	32.128809	-103.957734
PBHL (Corral Bluff - plan hits target center - Point	0.00	0.00	10,261.70	-10,886.37	-478.48	408,619.60	657,466.06	32.122819	-103.958211
FTP (Corral Bluff - plan misses target center by 31.13ft at 10449.59ft MD (10247.44 TVD, -393.14 N, -362.67 E) - Point	0.00	0.00	10,276.70	-383.39	-366.86	419,121.77	657,577.67	32.151687	-103.957732

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
354.70	354.70	RUSTLER				
776.70	776.70	SALADO				
1,656.70	1,656.70	CASTILE				
3,202.70	3,202.70	DELAWARE				
3,231.70	3,231.70	BELL CANYON				
4,090.70	4,090.70	CHERRY CANYON				
5,598.70	5,598.70	BRUSHY CANYON				
6,973.70	6,973.70	BONE SPRING				
7,870.73	7,870.70	BONE SPRING 1ST				
8,733.55	8,727.70	BONE SPRING 2ND				
9,896.40	9,870.70	BONE SPRING 3RD				
10,253.27	10,156.70	WOLFCAMP				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
7,682.00	7,682.00	0.00	0.00	Build 1°/100'	
8,682.00	8,676.93	0.00	-87.05	Hold 10° Tangent	
9,732.50	9,711.47	0.00	-269.46	KOP, Build & Turn 10°/100'	
10,633.64	10,276.05	-574.09	-367.12	Landing Point	
18,133.64	10,265.57	-8,074.04	-340.60	Turn 1.5°/100'	
18,889.81	10,264.52	-8,825.54	-412.55	Turn 1.5°/100'	
19,650.05	10,263.47	-9,581.10	-484.48	Hold	
20,955.33	10,261.70	-10,886.37	-478.48	TD at 20955.33' MD	



Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
 Site: Corral Bluff 11_14
 Well: Corral Bluff 11_14 Fed Com 33H
 Wellbore: Wellbore #1
 Design: Permitting Plan

PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

WELL DETAILS: Corral Bluff 11_14 Fed Com 33H

+N/-S	+E/-W	Northing	3063.20 Easting	Latitude	Longitude
0.00	0.00	419505.13	657944.50	32.152737	-103.956542

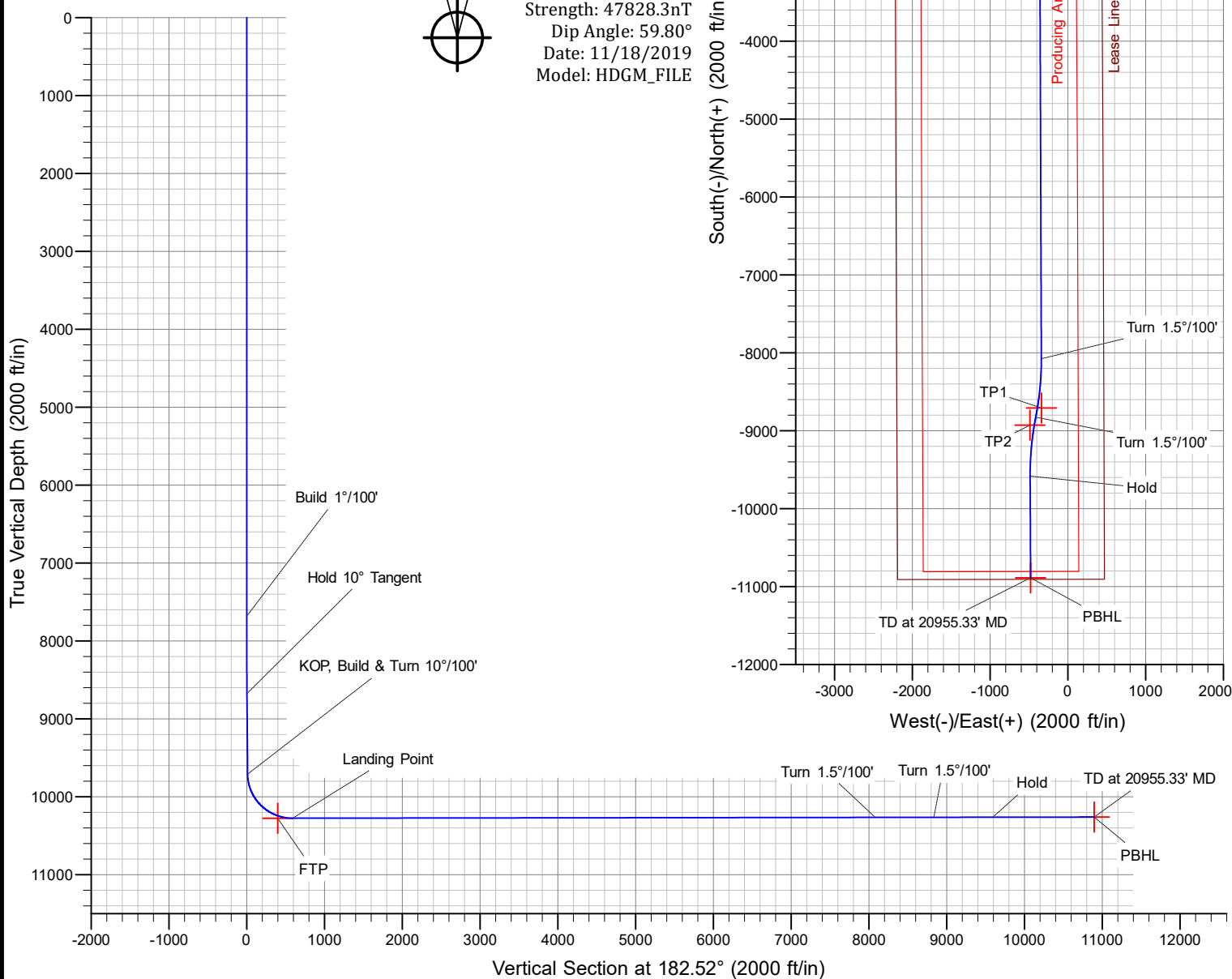
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7682.00	0.00	0.00	7682.00	0.00	0.00	0.00	0.00	0.00	Build 1°/100'
8682.00	10.00	270.00	8676.93	0.00	-87.05	1.00	270.00	3.82	Hold 10° Tangent
9732.50	10.00	270.00	9711.47	0.00	-269.46	0.00	0.00	11.83	KOP, Build & Turn 10°/100'
10633.64	90.08	179.80	10276.05	-574.09	-367.12	10.00	-90.19	589.66	Landing Point
18133.64	90.08	179.80	10265.57	-8074.04	-340.60	0.00	0.00	8081.21	Turn 1.5°/100'
18889.81	90.08	191.14	10264.52	-8825.54	-412.55	1.50	89.99	8835.14	Turn 1.5°/100'
19650.05	90.08	179.74	10263.47	-9581.10	-484.48	1.50	-90.00	9593.14	Hold
20955.33	90.08	179.74	10261.70	-10886.37	-478.48	0.00	0.00	10896.88	TD at 20955.33' MD



Azimuths to Grid North
 True North: -0.20°
 Magnetic North: 6.60°

Magnetic Field
 Strength: 47828.3nT
 Dip Angle: 59.80°
 Date: 11/18/2019
 Model: HDGM_FILE



Oxy USA Inc. - Corral Bluff 11_14 Fed Com 33H

Drill Plan

1. Geologic Formations

TVD of Target (ft):	10276	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	20955	Deepest Expected Fresh Water (ft):	355

Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	355	355	
Salado	777	777	Salt
Castile	1657	1657	Salt
Delaware	3203	3203	Oil/Gas/Brine
Bell Canyon	3232	3232	Oil/Gas/Brine
Cherry Canyon	4091	4091	Oil/Gas/Brine
Brushy Canyon	5599	5599	Losses
Bone Spring	6974	6974	Oil/Gas
Bone Spring 1st	7871	7871	Oil/Gas
Bone Spring 2nd	8734	8728	Oil/Gas
Bone Spring 3rd	9896	9871	Oil/Gas
Wolfcamp	10253	10157	Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

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

2. Casing Program

Section	Hole Size (in)	MD		TVD		Csg. OD (in)	Csg Wt. (ppf)	Grade	Conn.
		From (ft)	To (ft)	From (ft)	To (ft)				
Surface	14.75	0	717	0	717	10.75	45.5	J-55	BTC
Intermediate	9.875	0	9632	0	9611	7.625	26.4	L-80 HC	BTC
Production	6.75	0	20955	0	10276	5.5	20	P-110	Wedge 461

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

*Oxy requests the option to run production casing with DQX, TORQ DQW, Wedge 425, Wedge 461, and/or Wedge 441 connections to accommodate hole conditions or drilling operations.

All Casing SF Values will meet or exceed those below			
SF Collapse	SF Burst	Body SF Tension	Joint SF Tension
1.125	1.2	1.4	1.4

Annular Clearance Variance Request

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow deviation from the 0.422" annular clearance requirement from Onshore Order #2 under the following conditions:

1. Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casings.
2. Annular clearance less than 0.422" is acceptable for the curve and lateral portions of the production open hole section.

	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.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
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

Section	Stage	Slurry:	Sacks	Yield (ft ³ /ft)	Density (lb/gal)	Excess:	TOC	Placement	Description
Surface	1	Surface - Tail	600	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.	1	Intermediate 1S - Tail	517	1.65	13.2	5%	5,849	Circulate	Class H+Accel., Disper., Salt
Int.	2	Intermediate 2S - Tail BH	904	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	893	1.38	13.2	25%	9,132	Circulate	Class H+Ret., Disper., Salt

Offline Cementing

Oxy requests a variance to cement the 9.625" and/or 7.625" intermediate casing strings offline in accordance to the approved variance, EC Tran 461365.

The summarized operational sequence will be as follows:

Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).

Land casing.

Fill pipe with kill weight fluid, and confirm well is static.

If well Oxy requests a variance to cement the 9.625" and/or 7.625" intermediate casing strings offline in accordance to the approved variance, EC Tran 461365.

The summarized operational sequence will be as follows:

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).
2. Land casing.
3. Fill pipe with kill weight fluid, and confirm well is static.
 - a. If well is not static notify BLM and kill well.
 - b. Once well is static notify BLM with intent to proceed with nipple down and offline cementing.
4. Set and pressure test annular packoff.
5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange. If any barrier fails to test, the BOP stack will not be nipped down until after the cement job is completed.
6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange.
8. If well is not static notify BLM and kill well prior to cementing or nipping up for further remediation.
9. Install offline cement tool.
10. Rig up cement equipment.
 - a. Notify BLM prior to cement job.
11. Perform cement job.
12. Confirm well is static and floats are holding after cement job.
13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

Oxy requests permission to adjust the CBL requirement after bradenhead cement jobs, on 7-5/8" intermediate casings, as per the agreement reached in the OXY/BLM meeting on September 5, 2019.

Three string wells:

- CBL will be required on one well per pad
- If the pumped volume of cement is less than permitted in the APD, BLM will be notified and a CBL may be run
- Echometer will be used after bradenhead cement job to determine TOC before pumping top-out cement

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:	Deepest TVD Depth (ft) per Section:
9.875" Hole	13-5/8"	3M	Annular	✓	70% of working pressure	9611
		3M	Blind Ram	✓	250 psi / 3000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			
6.75" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	10276
		5M	Blind Ram	✓	250 psi / 5000 psi	
			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.

	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 or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing 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. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. See attached schematics.

BOP Break Testing Request

Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019.

BOP break test under the following conditions:

- After a full BOP test is conducted
- When skidding to drill an intermediate section where ICP is set into the third Bone Spring or shallower.

If the kill line is broken prior to skid, two tests will be performed.

- 1) Wellhead flange, co-flex hose, kill line connections and upper pipe rams
- 2) Wellhead flange, HCR valve, check valve, upper pipe rams

If the kill line is not broken prior to skid, only one test will be performed.

- 1) Wellhead flange, co-flex hose, check valve, upper pipe rams

Oxy will use Cameron ADAPT wellhead system that uses an OEC top flange connection. This connection has been fully vetted and verified by API to Spec 6A and carries an API monogram.

5. Mud Program

Section	Depth - MD		Depth - TVD		Type	Weight (ppg)	Viscosity	Water Loss
	From (ft)	To (ft)	From (ft)	To (ft)				
Surface	0	717	0	717	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	717	9632	717	9611	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	9632	20955	9611	10276	Water-Based or Oil-Based Mud	9.5 - 12.5	38-50	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.

What will be used to monitor the loss or gain of fluid?	PVT/MD Totco/Visual Monitoring
---	--------------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole).
	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
Yes	CBL
Yes	Mud log
No	PEX

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6680 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

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S 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	H2S is present
Y	H2S Plan attached

8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. We plan to drill the 3 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. Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes

Total Estimated Cuttings Volume: 1498 bbls

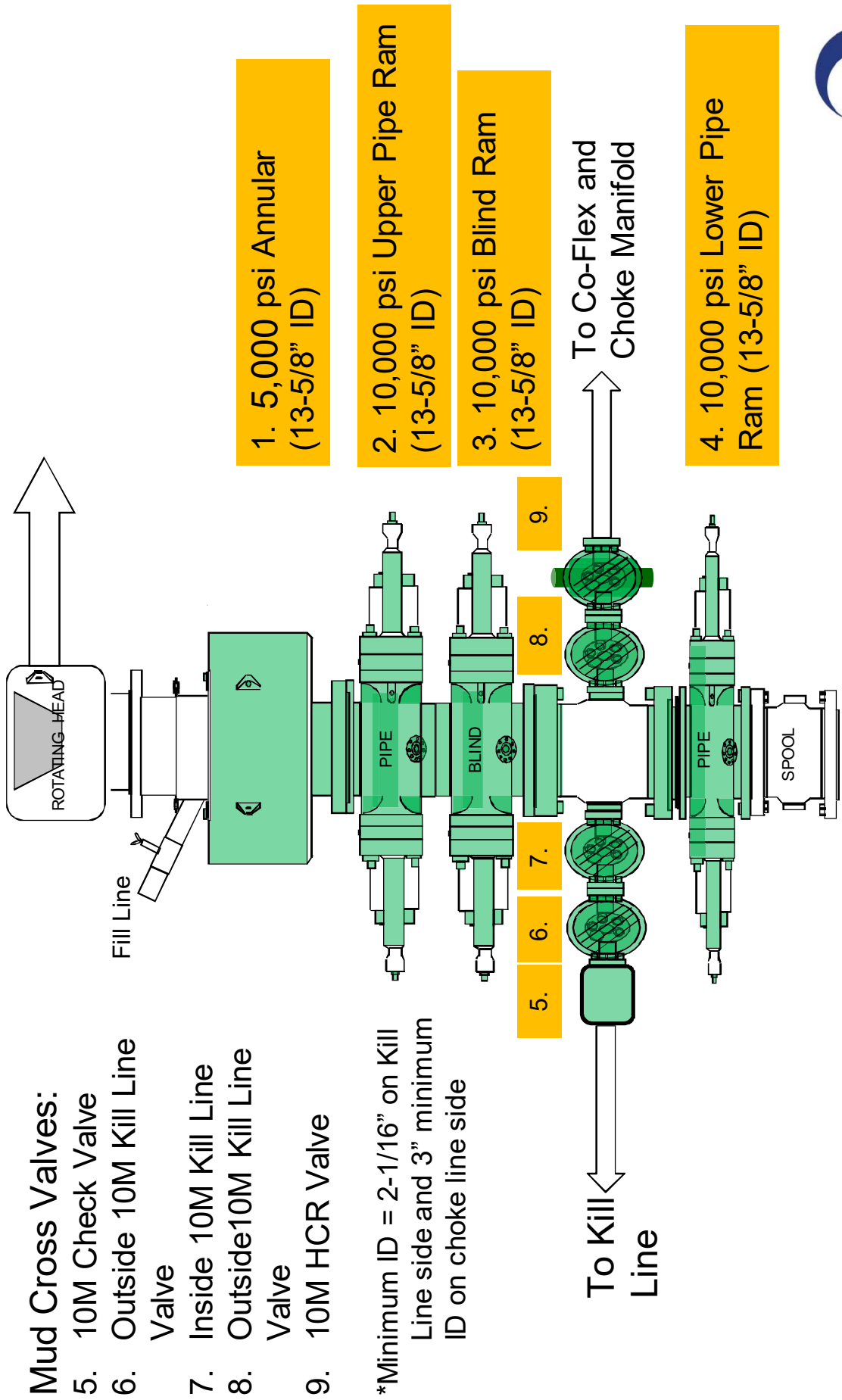
Attachments

- ☒ Directional Plan
- ☒ H2S Contingency Plan
- ☒ Flex III Attachments
- ☒ Spudder Rig Attachment
- ☒ Premium Connection Specs

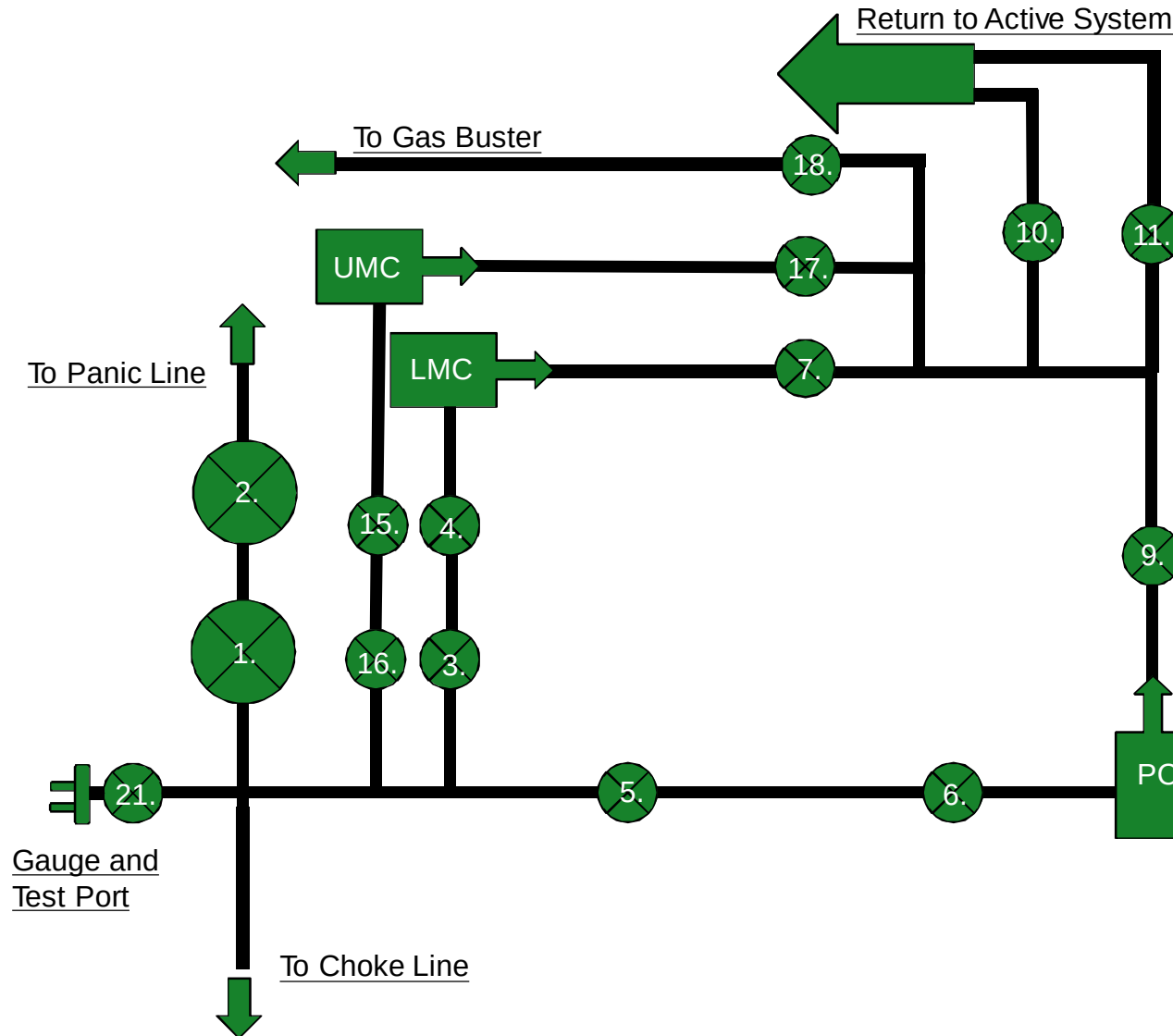
9. Company Personnel

Name	Title	Office Phone	Mobile Phone
Garrett Granier	Drilling Engineer	713-513-6633	832-265-0581
Derek Adam	Drilling Engineer Supervisor	713-366-5170	916-802-8873
Casey Martin	Drilling Superintendent	713-497-2530	337-764-4278
Kevin Threadgill	Drilling Manager	713-366-5958	361-815-0788

5/10M BOP Stack



10M Choke Panel

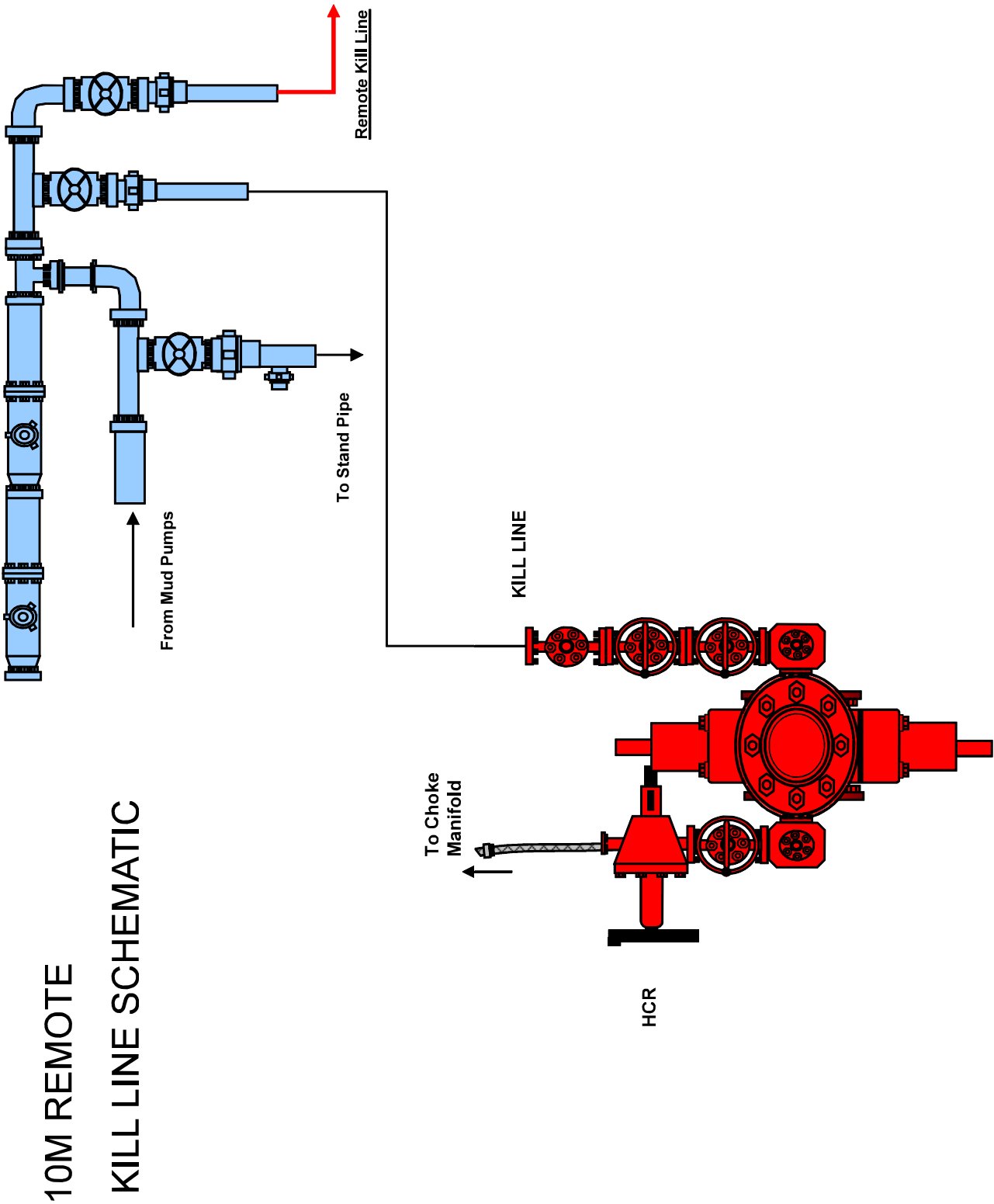


1. Choke Manifold Valve
2. Choke Manifold Valve
3. Choke Manifold Valve
4. Choke Manifold Valve
5. Choke Manifold Valve
6. Choke Manifold Valve
7. Choke Manifold Valve
8. PC – Power Choke
9. Choke Manifold Valve
10. Choke Manifold Valve
11. Choke Manifold Valve
12. LMC – Lower Manual Choke
13. UMC – Upper manual choke

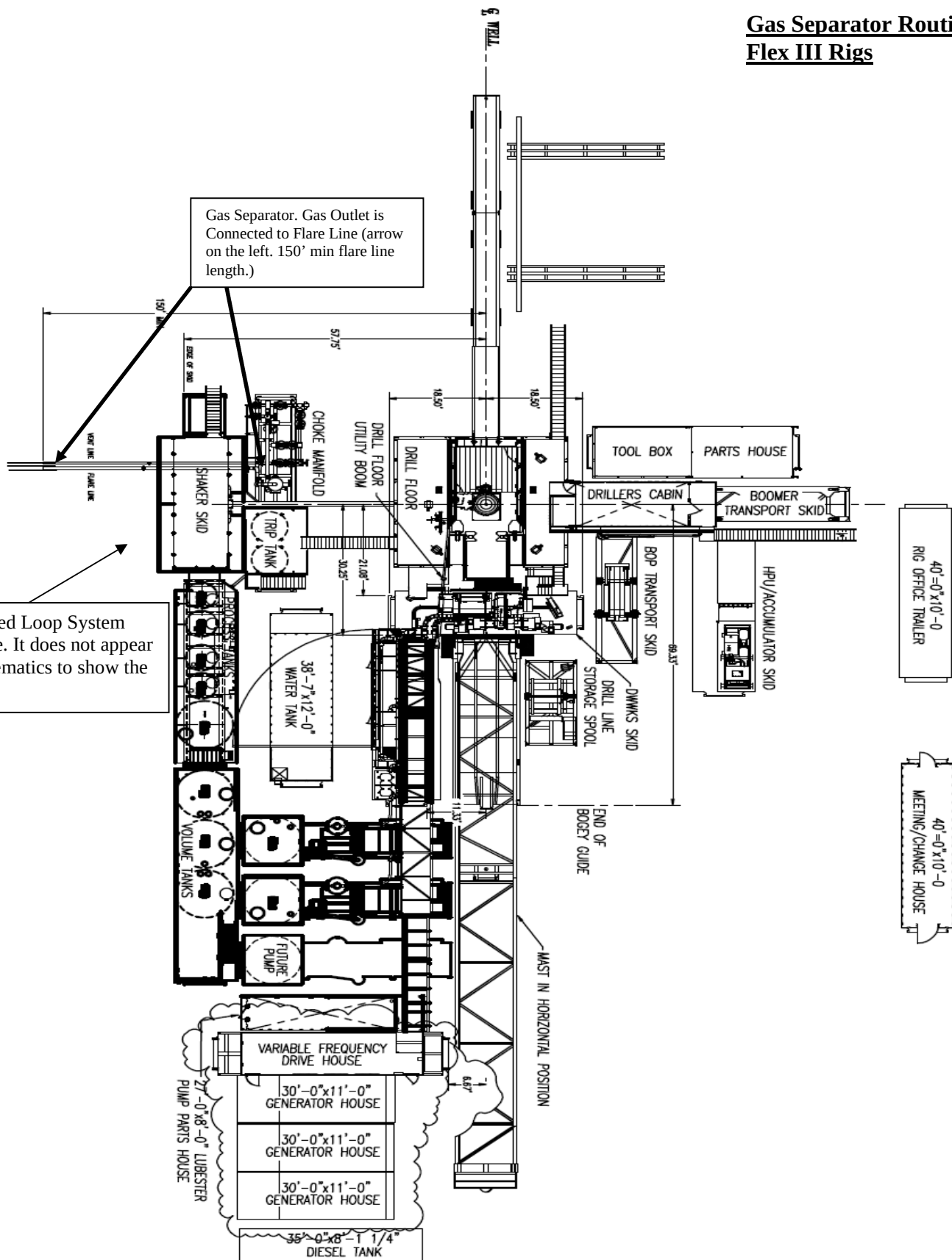
15. Choke Manifold Valve
16. Choke Manifold Valve
17. Choke Manifold Valve
18. Choke Manifold Valve

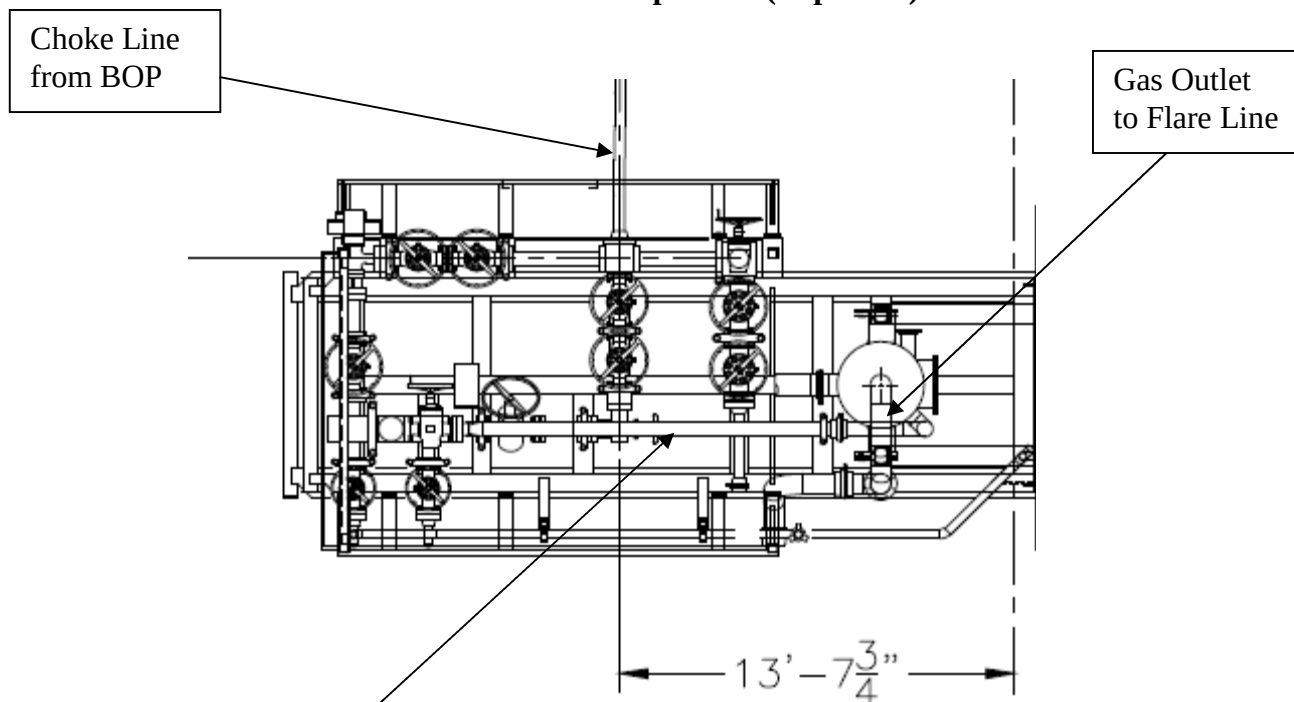
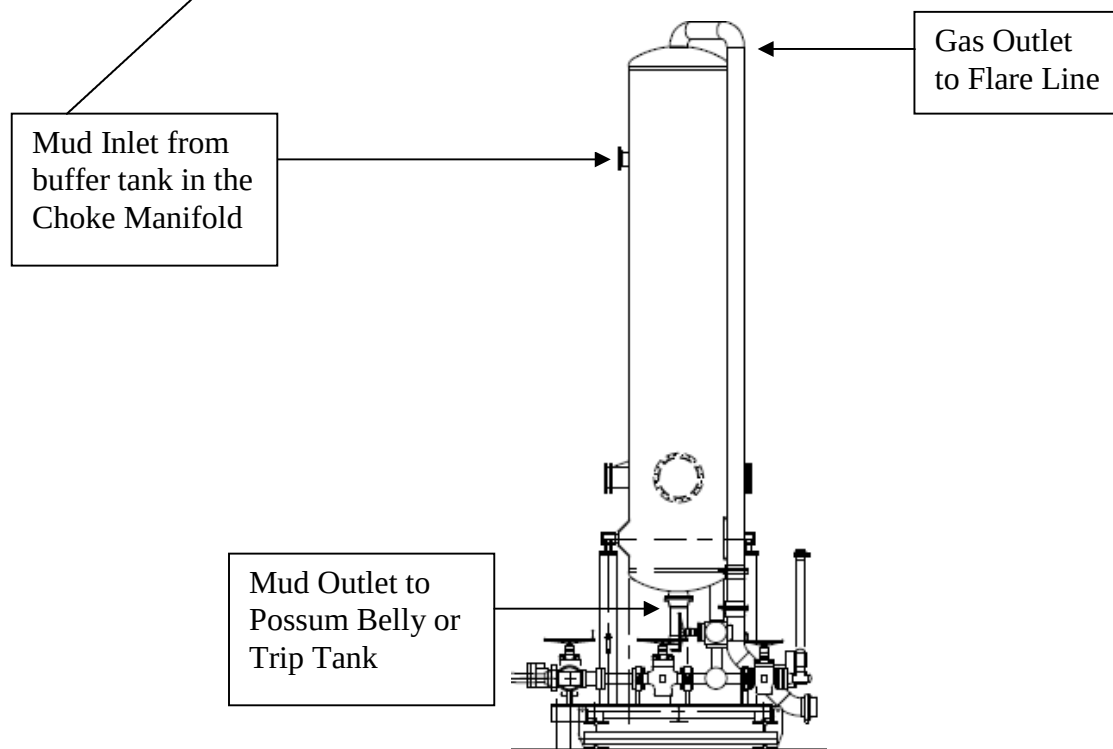
21. Vertical Choke Manifold Valve

***All Valves 3" minimum**



Gas Separator Routing Flex III Rigs



Choke Manifold – Gas Separator (Top View)**Choke Manifold – Gas Separator (Side View)**

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.



Fluid Technology

Quality Document

CERTIFICATE OF CONFORMITY

Supplier : CONTITECH RUBBER INDUSTRIAL KFT.
Equipment : 6 pcs. Choke and Kill Hose with installed couplings
Type : 3" x 10,67 m WP: 10000 psi
Supplier File Number : 412638
Date of Shipment : April. 2008
Customer : Phoenix Beattie Co.
Customer P.o. : 002491
Referenced Standards
/ Codes / Specifications : API Spec 16 C
Serial No.: 52754,52755,52776,52777,52778,52782

STATEMENT OF CONFORMITY

We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

COUNTRY OF ORIGIN HUNGARY/EU

Signed :

A handwritten signature in black ink, appearing to read "Jack G. G.", written over a dotted line.

ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(1)

Date: 04. April. 2008

Position: Q.C. Manager

Page: 1/1

3200
ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(2)

◆ PHOENIX Beattie

Material Identification Certificate

[illegible]

We hereby certify that these goods have been inspected by our Quality Management System, and to the best of our knowledge are found to conform to relevant industry standards within the requirements of the purchase order as issued to Phoenix Beattie Corporation.

05/23/08

Coflex Hose Certification

Form No 100/12

**Phoenix Beattie Corp**

11535 Brittmoore Park Drive
Houston, TX 77041
Tel: (832) 327-0141
Fax: (832) 327-0148
E-mail mail@phoenixbeattie.com
www.phoenixbeattie.com

Delivery Note

Customer Order Number	370-369-001	Delivery Note Number	003078	Page	1
Customer / Invoice Address HELMERICH & PAYNE INT'L DRILLING CO 1437 SOUTH BOULDER TULSA, OK 74119		Delivery / Address HELMERICH & PAYNE IDC ATTN: JOE STEPHENSON - RIG 370 13609 INDUSTRIAL ROAD HOUSTON, TX 77015			

Customer Acc No	Phoenix Beattie Contract Manager	Phoenix Beattie Reference	Date
H01	JJL	006330	05/23/2008

Item No	Beattie Part Number / Description	Qty Ordered	Qty Sent	Qty To Follow
1	HP10CK3A-35-4F1 3" 10K 16C C&K HOSE x 35ft OAL CW 4.1/16" API SPEC FLANGE E/ End 1: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange End 2: 4.1/16" 10Kpsi API Spec 6A Type 6BX Flange c/w BX155 Standard ring groove at each end Suitable for H2S Service Working pressure: 10,000psi Test pressure: 15,000psi Standard: API 16C Full specification Armor Guarding: Included Fire Rating: Not Included Temperature rating: -20 Deg C to +100 Deg C	1	1	0
2	SECK3-HPF3 LIFTING & SAFETY EQUIPMENT TO SUIT HP10CK3-35-F1 2 x 160mm ID Safety Clamps 2 x 244mm ID Lifting Collars & element C's 2 x 7ft Stainless Steel wire rope 3/4" OD 4 x 7.75t Shackles	1	1	0
3	SC725-200CS SAFETY CLAMP 200MM 7.25T C/S GALVANISED	1	1	0

Continued...

All goods remain the property of Phoenix Beattie until paid for in full. Any damage or shortage on this delivery must be advised within 5 days.
Returns may be subject to a handling charge.

Coflex Hose Certification

Fluid Technology

Quality Document

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 746	
PURCHASER: Phoenix Beattie Co.				P.O. N°: 002491	
CONTITECH ORDER N°: 412638		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 52777		NOMINAL / ACTUAL LENGTH: 10,67 m			
W.P. 68,96 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 ~ min.	
Pressure test with water at ambient temperature See attachment. (1 page)					
↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS					
Type		Serial N°		Quality	
3" coupling with 4 1/16" Flange end		917 913		AISI 4130 AISI 4130	
				Heat N° T7998A 26984	
INFOCHIP INSTALLED				API Spec 16 C Temperature rate: "B"	
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
Date: 04. April. 2008		Inspector		Quality Control ContiTech Rubber Industrial Kft. Quality Control Dept. (1)	

Coflex Hose Certification

Form No 100/12

**Phoenix Beattie Corp**

11535 Brittmoore Park Drive
Houston, TX 77041
Tel: (832) 327-0141
Fax: (832) 327-0148
E-mail mail@phoenixbeattie.com
www.phoenixbeattie.com

Delivery Note

Customer Order Number	370-369-001	Delivery Note Number	003078	Page	2
Customer / Invoice Address HELMERICH & PAYNE INT'L DRILLING CO 1437 SOUTH BOULDER TULSA, OK 74119		Delivery / Address HELMERICH & PAYNE IDC ATTN: JOE STEPHENSON - RIG 370 13609 INDUSTRIAL ROAD HOUSTON, TX 77015			

Customer Acc No	Phoenix Beattie Contract Manager	Phoenix Beattie Reference	Date
H01	JJL	006330	05/23/2008

Item No	Beattie Part Number / Description	Qty Ordered	Qty Sent	Qty To Follow
4	SC725-132CS SAFETY CLAMP 132MM 7.25T C/S GALVANIZED C/W BOLTS	1	1	0
5	00CERT-HYDRO HYDROSTATIC PRESSURE TEST CERTIFICATE	1	1	0
6	00CERT-LOAD LOAD TEST CERTIFICATES	1	1	0
7	00FREIGHT INBOUND / OUTBOUND FREIGHT PRE-PAY & ADD TO FINAL INVOICE NOTE: MATERIAL MUST BE ACCOMPANIED BY PAPERWORK INCLUDING THE PURCHASE ORDER, RIG NUMBER TO ENSURE PROPER PAYMENT	1	1	0

Phoenix Beattie Inspection Signature :

Received In Good Condition : Signature

Print Name

Date

All goods remain the property of Phoenix Beattie until paid for in full. Any damage or shortage on this delivery must be advised within 5 days.
Returns may be subject to a handling charge.

OXY USA Inc
APD ATTACHMENT: SPUDDER RIG DATA

OPERATOR NAME / NUMBER: OXY USA Inc

1. SUMMARY OF REQUEST:

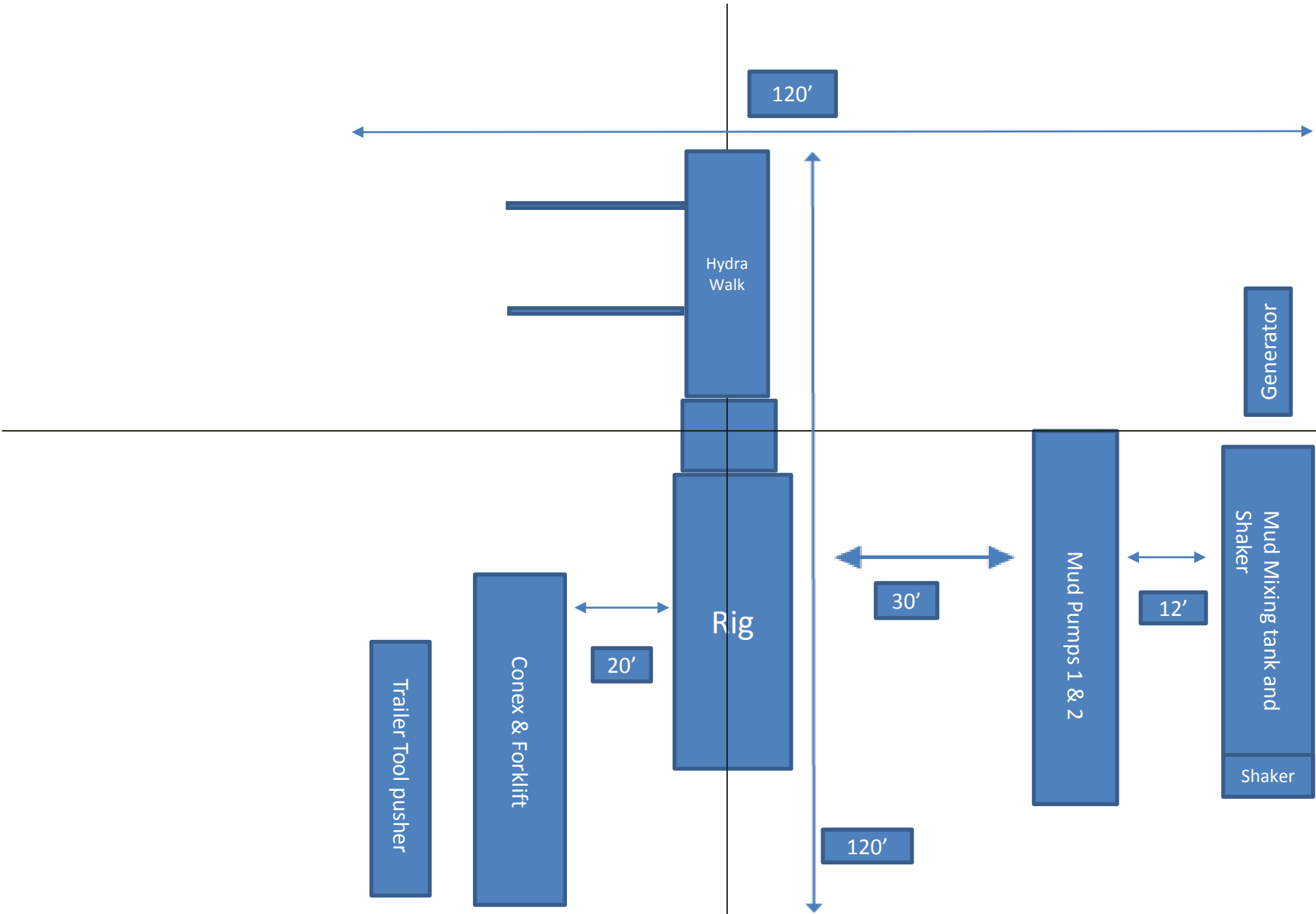
Oxy USA respectfully requests approval for the following operations for the surface hole in the drill plan:

1. Utilize a spudder rig to pre-set surface casing for time and cost savings.

2. Description of Operations

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
 - a. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
 - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
2. The wellhead will be installed and tested as soon as the surface casing is cut off and the WOC time has been reached.
3. A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wingvalves.
 - a. A means for intervention will be maintained while the drilling rig is not over the well.
4. Spudder rig operations are expected to take 2-3 days per well on the pad.
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
6. Drilling operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nipped up and tested on the wellhead before drilling operations resume on each well.
 - a. The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
 - b. The BLM will be contacted / notified 24 hours before the larger rig moves back on the pre-set locations.
7. Oxy will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
8. Once the rig is removed, Oxy will secure the wellhead area by placing a guard rail around the cellar area.

Spudder Rig Layout





TenarisHydril Wedge 425®



Coupling	Pipe Body
Grade: P110-CY	Grade: P110-CY
Body: White	1st Band: White
1st Band: Grey	2nd Band: Grey
2nd Band: -	3rd Band: -
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	5.500 in.	Wall Thickness	0.361 in.	Grade	P110-CY
Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Type	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	Wall Thickness	0.361 in.	Body Yield Strength	641 x1000 lb
Nominal Weight	20 lb/ft	Plain End Weight	19.83 lb/ft	Min. Internal Yield Pressure	12,640 psi
Drift	4.653 in.	OD Tolerance	API	SMYS	110,000 psi
Nominal ID	4.778 in.			Collapse Pressure	11,100 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	5.777 in.	Tension Efficiency	90 %	Minimum	15,700 ft-lb
Connection ID	4.734 in.	Joint Yield Strength	577 x1000 lb	Optimum	19,600 ft-lb
Make-up Loss	5.823 in.	Internal Pressure Capacity	12,640 psi	Maximum	21,600 ft-lb
Threads per inch	3.77	Compression Efficiency	90 %	Operation Limit Torques	
Connection OD Option	Regular	Compression Strength	577 x1000 lb	Operating Torque	29,000 ft-lb
		Max. Allowable Bending	82 °/100 ft	Yield Torque	36,000 ft-lb
		External Pressure Capacity	11,100 psi		

Notes

This connection is fully interchangeable with:
TORQ® SFW™ - 5.5 in. - 0.361 in.
Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

For the latest performance data, always visit our website: www.tenaris.com

Tenaris has issued this document for general information only, and the information in this document, including, without limitation, any pictures, drawings or designs ("Information") is not intended to constitute professional or any other type of advice or recommendation and is provided on an "as is" basis. No warranty is given. Tenaris has not independently verified any information –if any- provided by the user in connection with, or for the purpose of, the Information contained hereunder. The use of the Information is at user's own risk and Tenaris does not assume any responsibility or liability of any kind for any loss, damage or injury resulting from, or in connection with any Information contained hereunder or any use thereof. The Information in this document is subject to change or modification without notice. Tenaris's products and services are subject to Tenaris's standard terms and conditions or otherwise to the terms resulting from the respective contracts of sale or services, as the case may be, between petitioner and Tenaris. For more complete information please contact a Tenaris's representative or visit our website at www.tenaris.com . ©Tenaris 2021. All rights reserved.



TenarisHydril Wedge 441®



Coupling	Pipe Body
Grade: P110-CY	Grade: P110-CY
Body: White	1st Band: White
1st Band: Grey	2nd Band: Grey
2nd Band: -	3rd Band: -
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	5.500 in.	Wall Thickness	0.361 in.	Grade	P110-CY
Min. Wall Thickness	87.50 %	Drift	API Standard	Type	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	Wall Thickness	0.361 in.	Body Yield Strength	641 x1000 lb
Nominal Weight	20 lb/ft	Plain End Weight	19.83 lb/ft	Min. Internal Yield Pressure	12,640 psi
Drift	4.653 in.	OD Tolerance	API	SMYS	110,000 psi
Nominal ID	4.778 in.			Collapse Pressure	11,100 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	5.852 in.	Tension Efficiency	81.50 %	Minimum	15,000 ft-lb
Coupling Length	8.714 in.	Joint Yield Strength	522 x1000 lb	Optimum	16,000 ft-lb
Connection ID	4.778 in.	Internal Pressure Capacity	12,640 psi	Maximum	19,200 ft-lb
Make-up Loss	3.780 in.	Compression Efficiency	81.50 %	Operation Limit Torques	
Threads per inch	3.40	Compression Strength	522 x1000 lb	Operating Torque	32,000 ft-lb
Connection OD Option	Regular	Max. Allowable Bending	71 °/100 ft	Yield Torque	38,000 ft-lb
		External Pressure Capacity	11,100 psi	Buck-On	
				Minimum	19,200 ft-lb
				Maximum	20,700 ft-lb

Notes

This connection is fully interchangeable with:
Wedge 441® - 5.5 in. - 0.304 in.
Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

For the latest performance data, always visit our website: www.tenaris.com

Tenaris has issued this document for general information only, and the information in this document, including, without limitation, any pictures, drawings or designs ("Information") is not intended to constitute professional or any other type of advice or recommendation and is provided on an "as is" basis. No warranty is given. Tenaris has not independently verified any information –if any- provided by the user in connection with, or for the purpose of, the Information contained hereunder. The use of the Information is at user's own risk and Tenaris does not assume any responsibility or liability of any kind for any loss, damage or injury resulting from, or in connection with any Information contained hereunder or any use thereof. The Information in this document is subject to change or modification without notice. Tenaris's products and services are subject to Tenaris's standard terms and conditions or otherwise to the terms resulting from the respective contracts of sale or services, as the case may be, between petitioner and Tenaris. For more complete information please contact a Tenaris's representative or visit our website at www.tenaris.com . ©Tenaris 2021. All rights reserved.



5.500" 20.00 lb/ft P110-CY
TenarisHydril Wedge 461™ Matched
Strength



Special Data Sheet
TH DS-20.0359
12 August 2020
Rev 00

Nominal OD	5.500 in.	Wall Thickness	0.361 in.	Grade	P110-CY
Min Wall Thickness	87.5%	Type	CASING	Connection OD Option	MATCHED STRENGTH

Pipe Body Data

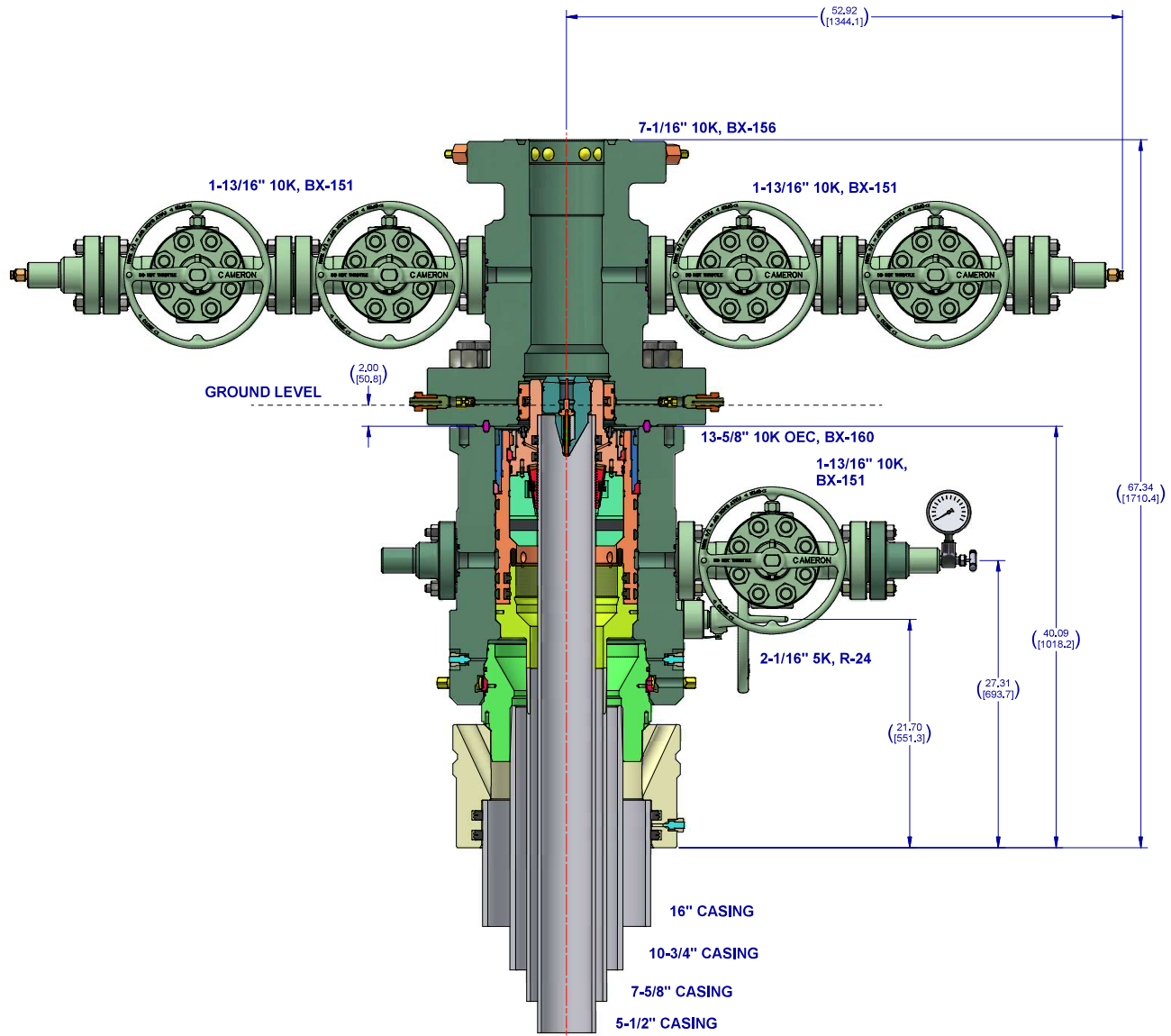
Geometry			Performance		
Nominal OD	5.500 in.	Nominal ID	4.778 in.	Body Yield Strength	641 x 1000 lbs
Nominal Weight	20.00 lbs/ft	Wall Thickness	0.361 in.	Internal Yield	12640 psi
Standard Drift Diameter	4.653 in.	Plain End Weight	19.83 lbs/ft	SMYS	110000 psi
Special Drift Diameter	N/A	OD Tolerance	API	Collapse Pressure	11110 psi

Connection Data

Geometry		Performance		Make-up Torques	
Matched Strength OD	6.050 in.	Tension Efficiency	100%	Minimum	17000 ft-lbs
Make-up Loss	3.775 in.	Joint Yield Strength	641 x 1000 lbs	Optimum	18000 ft-lbs
Threads per in.	3.40	Internal Yield	12640 psi	Maximum	21600 ft-lbs
Connection OD Option	MATCHED STRENGTH	Compression Efficiency	100%	Operational Limit Torques	
Coupling Length	7.714 in.	Compression Strength	641 x 1000 lbs	Operating Torque	32000 ft-lbs
		Bending	92 °/100 ft	Yield Torque	38000 ft-lbs
		Collapse	11110 psi	Buck-On Torques	
				Minimum	21600 ft-lbs
				Maximum	23100 ft-lbs

Notes

*If you need to use torque values that are higher than the maximum indicated, please contact a local Tenaris technical sales representative



Notes:

1. THIS IS A PROPOSAL DRAWING AND DIMENSIONS SHOWN ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PROCESS.

2. DIGITALLY ENABLED SOLUTIONS, CHOKES AND ESD'S AVAILABLE ON REQUEST

CONFIDENTIAL					
SURFACE TREATMENT		DO NOT SCALE	 A Schlumberger Company	SURFACE SYSTEMS	
DRAWN BY		DATE			
D. GOTTUNG		2 Dec 21			
CHECKED BY		DATE			
D. GOTTUNG		2 Dec 21			
APPROVED BY		DATE			
D. GOTTUNG		2 Dec 21			
ESTIMATED WEIGHT:		6515.617 LBS 2955.434 KG			
INTERNAL USE BOM		SD-053434-94-05			
SHEET		4 of 4	REV: 01		

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 216012

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 216012
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	NSL required	6/14/2023