Well Name: Dr Pi Fed Unit 17_8 DA

Well Location: T22S / R32E / SEC 17 / SWSE / 32.3851245 / -103.6930827

County or Parish/State: EDDY / NM

Well Number: 35H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM128362

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002548952

Well Status: Drilling Well

Operator: OXY USA INCORPORATED

Notice of Intent

Sundry ID: 2653906

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 01/26/2022

Time Sundry Submitted: 08:24

Date proposed operation will begin: 04/22/2022

Procedure Description: OXY USA Inc. respectfully requests to amend the subject well APD to update the following: - Received approval for unit agreement - New Well Name: DR PI FED UNIT 17_8 DA 35H - Horizontal spacing unit (HSU)/pool (Wolfcamp to Bone Spring) - Drill plan – casing, cement, BOP and mud program Attached for your reference/review are the following: - C102 revised well plat - Drill plan, casing data sheets and directional plan/plot - Well control plan

NOI Attachments

Procedure Description

DrPiFedUnit17_8DA_35H_OxyWellControlPlan_20220316093352.pdf

DrPiFedUnit17_8DA_35H_TMKUPTORQDQW_5.500in_20_20220316093352.00

DrPiFedUnit17_8DA_35H_TNSWedge441_5.500in_20_20220316093352.00

DrPiFedUnit17_8DA_35H_TNSWedge461_5.500in_20_20220316093352.00

DrPiFedUnit17_8DA_35H_TNSWedge425_5.500in_20_20220316093352.00

DrPiFedUnit17_8DA_35H_TMKUPDQX_5.500in_20_20220316093352.00

DrPiFedUnit17_8DA_35H_DirectPlan_20220316093343.pdf

DrPiFedUnit17_8DA_35H_13inADAPT_13.375in_7.625in_10x10_20220316093344.pdf

DrPiFedUnit17_8DA_35H_C102Sundry3.16.22_20220316093343.pdf

Well Name: Dr Pi Fed Unit 17_8 DA

Well Location: T22S / R32E / SEC 17 / SWSE / 32.3851245 / -103.6930827

County or Parish/State: EDDY / NM

Well Number: 35H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM128362

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002548952

Well Status: Drilling Well

Operator: OXY USA INCORPORATED

DrPiFedUnit17_8DA_35H_DrillPlan_20220316093343.pdf

DrPiFedUnit17_8DA_35H_DirectPlot_20220316093343.pdf

Conditions of Approval

Additional Reviews

Dr_Pi_Fed_Unit_17_8_DA_DrillingCOAs_NoPilothole_20220422171206.pdf

Operator Certification

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 submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: RONI MATHEW

Signed on: APR 22, 2022 10:11 AM

Name: OXY USA INCORPORATED

Title: REGULATORY SPECIALIST

Street Address: 5 Greenway Plaza, Suite 110

City: Houston **State:** TX

Phone: (713) 215-7827

Email address: RONI_MATHEW@OXY.COM

Field Representative

Representative Name: JIM WILSON

Street Address: 6001 DEAUVILLE BLVD.

City: MIDLAND **State:** TX **Zip:** 79710

Phone: (575)631-2442

Email address: JIM_WILSON@OXY.COM

BLM Point of Contact

BLM POC Name: Cody Layton

BLM POC Title: Assistant Field Manager Lands & Minerals

BLM POC Phone: 5752345959

BLM POC Email Address: clayton@blm.gov

Disposition: Approved

Disposition Date: 04/22/2022

Signature: Chris Walls

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

API Number	Pool Code	Pool Name
30-025-48952	97366	BILBREY BASIN; BONE SPRING, SOUTH

Property Code	Property Name	Well Number
	DR PI FED UNIT 17_8 DA	35H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3674.0'

Surface Location

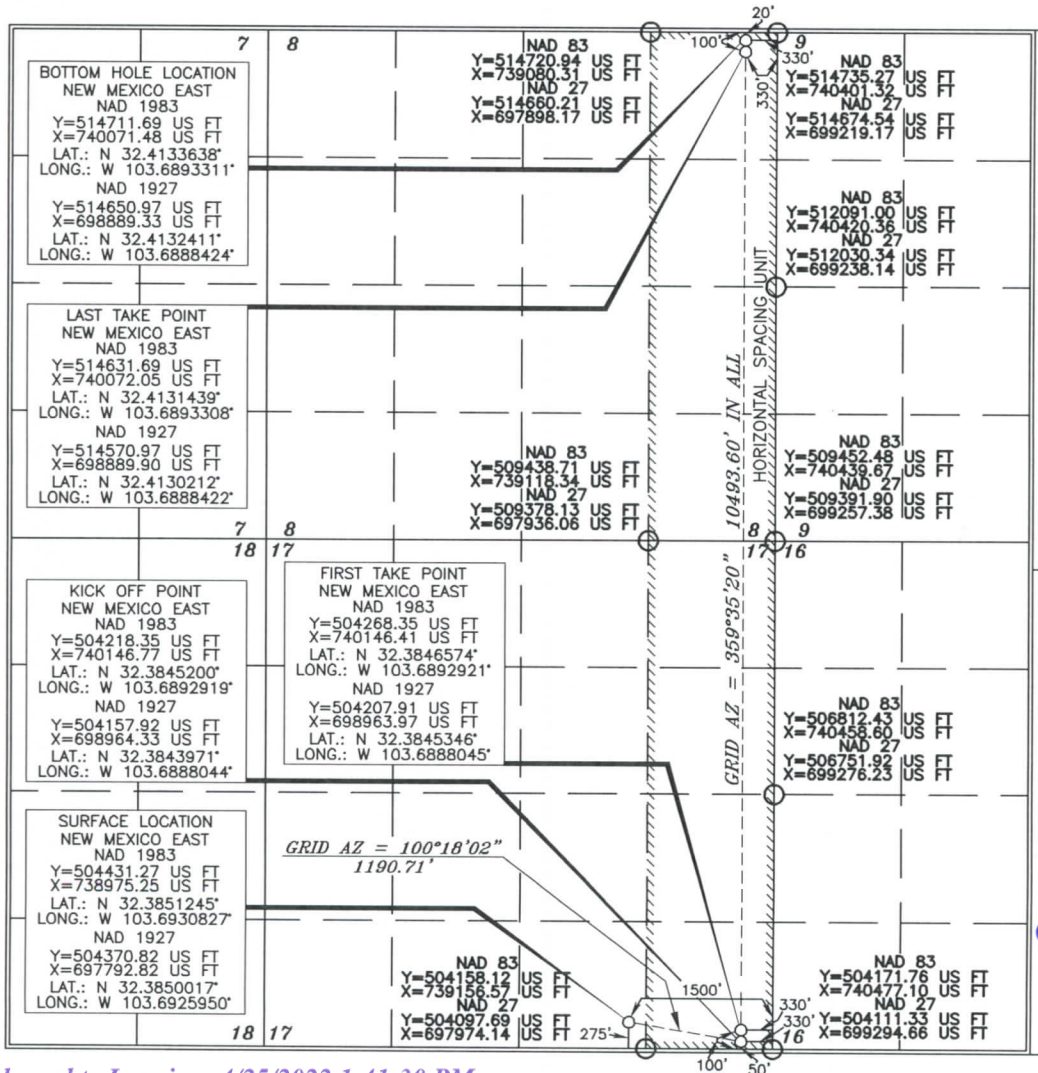
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	17	22 SOUTH	32 EAST, N.M.P.M.		275'	SOUTH	1500'	EAST	LEA

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
A	8	22 SOUTH	32 EAST, N.M.P.M.		20'	NORTH	330'	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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 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.

Roni Mathew 2/5/2022
Signature Date

Roni Mathew
Printed Name

roni_mathew@oxy.com
E-mail Address

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.

JULY 24, 2019
Date of Survey

Signature and Seal of Professional Surveyor:

TERRY J. ASEL — NEW MEXICO — 15079 — REGISTERED PROFESSIONAL LAND SURVEYOR

Terry J. Asel 10/10/2019

Certificate Number 15079

WO# 190724WL-f (Rev. A) (KA)

Oxy USA Inc. - Dr Pi Fed Unit 17_8 DA 35H

Drill Plan

1. Geologic Formations

TVD of Target (ft):	11751	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	22440	Deepest Expected Fresh Water (ft):	863

Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	863	863	
Salado	1180	1180	Salt
Castile	2730	2730	Salt
Delaware	4754	4750	Oil/Gas/Brine
Bell Canyon	4838	4833	Oil/Gas/Brine
Cherry Canyon	5693	5675	Oil/Gas/Brine
Brushy Canyon	6928	6891	Losses
Bone Spring	8676	8612	Oil/Gas
Bone Spring 1st	9797	9716	Oil/Gas
Bone Spring 2nd	10484	10393	Oil/Gas
Bone Spring 3rd	11494	11384	Oil/Gas
Wolfcamp			Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

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

2. Casing Program

		MD		TVD					
Section	Hole Size (in)	From (ft)	To (ft)	From (ft)	To (ft)	Csg. OD (in)	Csg Wt. (ppf)	Grade	Conn.
Surface	17.5	0	923	0	923	13.375	54.5	J-55	BTC
Intermediate	9.875	0	11143	0	11040	7.625	26.4	L-80 HC	BTC
Production	6.75	0	22440	0	11751	5.5	20	P-110	DQX

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 3rd 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 2nd 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:	Capacities	ft^3/ft	Excess:	From	To	Sacks	Volume (ft^3)	Placement
Surface	1	Surface - Tail	OH x Csg	0.6946	100%	923	-	964	1282	Circulate
Int.	1	Intermediate 1S - Tail	OH x Csg	0.2148	5%	11,143	7,178	542	894	Circulate
Int.	2	Intermediate 2S - Tail BH	OH x Csg	0.2148	25%	7,178	923	875	1679	Bradenhead
Int.	2	Intermediate 2S - Tail BH	Csg x Csg	0.5509	0%	923	-	265	508	Bradenhead
Prod.	1	Production - Tail	OH x Csg	0.2526	20%	22,440	11,143	2481	3424	Circulate
Prod.	1	Production - Tail	Csg x Csg	0.0999	0%	11,143	10,643	36	50	Circulate

Description	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)	500psi Time (hh:mm)	Cmt. Class	Accelerator	Retarder	Dispersant	Salt
Surface - Tail	14.8	1.33	6.365	5:26	C	x			
Intermediate 1S - Tail	13.2	1.65	8.64	11:54	H	x	x	x	x
Intermediate 2S - Tail BH	12.9	1.92	10.41	23:10	C	x			
Production - Tail	13.2	1.38	6.686	3:39	H		x	x	x

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 nippled 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 nippling 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"	5M	Annular	✔	70% of working pressure	11040
		5M	Blind Ram	✔	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✔		
			Other*			
6.75" Hole	13-5/8"	5M	Annular	✔	100% of working pressure	11751
		10M	Blind Ram	✔	250 psi / 10000 psi	
			Pipe Ram			
			Double Ram	✔		
			Other*			

*Specify if additional ram is utilized

Per BLM's Memorandum No. NM-2017-008: *Decision and Rationale for a Variance Allowing the Use of a 5M Annular Preventer with a 10M BOP Stack*, Oxy requests to employ a 5M annular with a 10M BOPE stack in the pilot and lateral sections of the well and will ensure that two barriers to flow are maintained at all times. Please see attached Well Control Plan.

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

5. Mud Program

Section	Depth - MD		Depth - TVD		Type	Weight (ppg)	Viscosity	Water Loss
	From (ft)	To (ft)	From (ft)	To (ft)				
Surface	0	923	0	923	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	923	11143	923	11040	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	11143	22440	11040	11751	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	
No	CBL	
Yes	Mud log	Bone Spring – TD
No	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7639 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	175°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 4 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: 1743 bbls

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

9. Company Personnel

Name	Title	Office Phone	Mobile Phone
Garrett Granier	Drilling Engineer	713-513-6633	832-265-0581
Filip Krneta	Drilling Engineer Supervisor	713-350-4751	832-244-4980
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
Diego Tellez	Drilling Manager	713-350-4602	713-303-4932

OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)
Dr Awkward 17_8 Federal Com
Dr Pi Fed Unit 17_8 DA 35H

WB00

Plan: Permitting Plan

Standard Planning Report

09 March, 2022

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Dr Pi Fed Unit 17_8 DA 35H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3700.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3700.50ft
Site:	Dr Awkward 17_8 Federal Com	**North Reference:**	Grid
Well:	Dr Pi Fed Unit 17_8 DA 35H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	WB00		
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 Dr Awkward 17_8 Federal Com

Site Position:		**Northing:**	504,334.74 usft	**Latitude:**	32.384846
From:	Map	**Easting:**	739,795.94 usft	**Longitude:**	-103.690426
Position Uncertainty:	49.91 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.34 °

Well Dr Pi Fed Unit 17_8 DA 35H

Well Position	**+N/-S**	96.53 ft	**Northing:**	504,431.27 usft	**Latitude:**	32.385125
	+E/-W	-820.73 ft	**Easting:**	738,975.25 usft	**Longitude:**	-103.693083
Position Uncertainty		1.00 ft	**Wellhead Elevation:**	0.00 ft	**Ground Level:**	3,674.00 ft

Wellbore WB00

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	9/23/2019	6.72	60.12	48,027.80000000

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	6.09

Plan Survey Tool Program **Date** 3/9/2022

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	22,440.33	Permitting Plan (WB00)	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	
3,795.00	0.00	0.00	3,795.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,795.00	10.00	116.73	4,789.93	-39.15	77.74	1.00	1.00	0.00	116.73	
11,242.72	10.00	116.73	11,139.70	-542.75	1,077.73	0.00	0.00	0.00	0.00	
12,190.36	90.22	359.59	11,750.50	31.29	1,169.84	10.00	8.47	-12.36	-116.75	
22,440.33	90.22	359.59	11,710.50	10,280.92	1,096.28	0.00	0.00	0.00	0.00	PBHL (Dr Awkward

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Dr Pi Fed Unit 17_8 DA 35H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3700.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3700.50ft
Site:	Dr Awkward 17_8 Federal Com	**North Reference:**	Grid
Well:	Dr Pi Fed Unit 17_8 DA 35H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	WB00		
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
3,795.00	0.00	0.00	3,795.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.05	116.73	3,800.00	0.00	0.00	0.00	1.00	1.00	0.00
3,900.00	1.05	116.73	3,899.99	-0.43	0.86	-0.34	1.00	1.00	0.00
4,000.00	2.05	116.73	3,999.96	-1.65	3.28	-1.29	1.00	1.00	0.00
4,100.00	3.05	116.73	4,099.86	-3.65	7.25	-2.86	1.00	1.00	0.00
4,200.00	4.05	116.73	4,199.66	-6.44	12.78	-5.04	1.00	1.00	0.00
4,300.00	5.05	116.73	4,299.35	-10.00	19.86	-7.84	1.00	1.00	0.00
4,400.00	6.05	116.73	4,398.88	-14.35	28.50	-11.25	1.00	1.00	0.00
4,500.00	7.05	116.73	4,498.22	-19.48	38.69	-15.27	1.00	1.00	0.00
4,600.00	8.05	116.73	4,597.35	-25.39	50.42	-19.90	1.00	1.00	0.00
4,700.00	9.05	116.73	4,696.24	-32.08	63.70	-25.15	1.00	1.00	0.00
4,795.00	10.00	116.73	4,789.93	-39.15	77.74	-30.69	1.00	1.00	0.00
4,800.00	10.00	116.73	4,794.85	-39.54	78.52	-30.99	0.00	0.00	0.00
4,900.00	10.00	116.73	4,893.34	-47.35	94.03	-37.12	0.00	0.00	0.00
5,000.00	10.00	116.73	4,991.82	-55.16	109.54	-43.24	0.00	0.00	0.00
5,100.00	10.00	116.73	5,090.30	-62.97	125.05	-49.36	0.00	0.00	0.00
5,200.00	10.00	116.73	5,188.78	-70.78	140.56	-55.48	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Dr Pi Fed Unit 17_8 DA 35H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3700.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3700.50ft
Site:	Dr Awkward 17_8 Federal Com	**North Reference:**	Grid
Well:	Dr Pi Fed Unit 17_8 DA 35H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	WB00		
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)
5,300.00	10.00	116.73	5,287.26	-78.59	156.06	-61.60	0.00	0.00	0.00
5,400.00	10.00	116.73	5,385.74	-86.41	171.57	-67.73	0.00	0.00	0.00
5,500.00	10.00	116.73	5,484.22	-94.22	187.08	-73.85	0.00	0.00	0.00
5,600.00	10.00	116.73	5,582.70	-102.03	202.59	-79.97	0.00	0.00	0.00
5,700.00	10.00	116.73	5,681.18	-109.84	218.10	-86.09	0.00	0.00	0.00
5,800.00	10.00	116.73	5,779.66	-117.65	233.61	-92.21	0.00	0.00	0.00
5,900.00	10.00	116.73	5,878.14	-125.46	249.12	-98.34	0.00	0.00	0.00
6,000.00	10.00	116.73	5,976.62	-133.27	264.63	-104.46	0.00	0.00	0.00
6,100.00	10.00	116.73	6,075.11	-141.08	280.14	-110.58	0.00	0.00	0.00
6,200.00	10.00	116.73	6,173.59	-148.89	295.65	-116.70	0.00	0.00	0.00
6,300.00	10.00	116.73	6,272.07	-156.70	311.16	-122.82	0.00	0.00	0.00
6,400.00	10.00	116.73	6,370.55	-164.51	326.66	-128.95	0.00	0.00	0.00
6,500.00	10.00	116.73	6,469.03	-172.32	342.17	-135.07	0.00	0.00	0.00
6,600.00	10.00	116.73	6,567.51	-180.13	357.68	-141.19	0.00	0.00	0.00
6,700.00	10.00	116.73	6,665.99	-187.94	373.19	-147.31	0.00	0.00	0.00
6,800.00	10.00	116.73	6,764.47	-195.75	388.70	-153.43	0.00	0.00	0.00
6,900.00	10.00	116.73	6,862.95	-203.56	404.21	-159.56	0.00	0.00	0.00
7,000.00	10.00	116.73	6,961.43	-211.37	419.72	-165.68	0.00	0.00	0.00
7,100.00	10.00	116.73	7,059.91	-219.18	435.23	-171.80	0.00	0.00	0.00
7,200.00	10.00	116.73	7,158.39	-226.99	450.74	-177.92	0.00	0.00	0.00
7,300.00	10.00	116.73	7,256.87	-234.80	466.25	-184.04	0.00	0.00	0.00
7,400.00	10.00	116.73	7,355.36	-242.61	481.76	-190.17	0.00	0.00	0.00
7,500.00	10.00	116.73	7,453.84	-250.42	497.27	-196.29	0.00	0.00	0.00
7,600.00	10.00	116.73	7,552.32	-258.24	512.77	-202.41	0.00	0.00	0.00
7,700.00	10.00	116.73	7,650.80	-266.05	528.28	-208.53	0.00	0.00	0.00
7,800.00	10.00	116.73	7,749.28	-273.86	543.79	-214.65	0.00	0.00	0.00
7,900.00	10.00	116.73	7,847.76	-281.67	559.30	-220.78	0.00	0.00	0.00
8,000.00	10.00	116.73	7,946.24	-289.48	574.81	-226.90	0.00	0.00	0.00
8,100.00	10.00	116.73	8,044.72	-297.29	590.32	-233.02	0.00	0.00	0.00
8,200.00	10.00	116.73	8,143.20	-305.10	605.83	-239.14	0.00	0.00	0.00
8,300.00	10.00	116.73	8,241.68	-312.91	621.34	-245.26	0.00	0.00	0.00
8,400.00	10.00	116.73	8,340.16	-320.72	636.85	-251.38	0.00	0.00	0.00
8,500.00	10.00	116.73	8,438.64	-328.53	652.36	-257.51	0.00	0.00	0.00
8,600.00	10.00	116.73	8,537.12	-336.34	667.87	-263.63	0.00	0.00	0.00
8,700.00	10.00	116.73	8,635.61	-344.15	683.38	-269.75	0.00	0.00	0.00
8,800.00	10.00	116.73	8,734.09	-351.96	698.88	-275.87	0.00	0.00	0.00
8,900.00	10.00	116.73	8,832.57	-359.77	714.39	-281.99	0.00	0.00	0.00
9,000.00	10.00	116.73	8,931.05	-367.58	729.90	-288.12	0.00	0.00	0.00
9,100.00	10.00	116.73	9,029.53	-375.39	745.41	-294.24	0.00	0.00	0.00
9,200.00	10.00	116.73	9,128.01	-383.20	760.92	-300.36	0.00	0.00	0.00
9,300.00	10.00	116.73	9,226.49	-391.01	776.43	-306.48	0.00	0.00	0.00
9,400.00	10.00	116.73	9,324.97	-398.82	791.94	-312.60	0.00	0.00	0.00
9,500.00	10.00	116.73	9,423.45	-406.63	807.45	-318.73	0.00	0.00	0.00
9,600.00	10.00	116.73	9,521.93	-414.44	822.96	-324.85	0.00	0.00	0.00
9,700.00	10.00	116.73	9,620.41	-422.26	838.47	-330.97	0.00	0.00	0.00
9,800.00	10.00	116.73	9,718.89	-430.07	853.98	-337.09	0.00	0.00	0.00
9,900.00	10.00	116.73	9,817.37	-437.88	869.48	-343.21	0.00	0.00	0.00
10,000.00	10.00	116.73	9,915.86	-445.69	884.99	-349.34	0.00	0.00	0.00
10,100.00	10.00	116.73	10,014.34	-453.50	900.50	-355.46	0.00	0.00	0.00
10,200.00	10.00	116.73	10,112.82	-461.31	916.01	-361.58	0.00	0.00	0.00
10,300.00	10.00	116.73	10,211.30	-469.12	931.52	-367.70	0.00	0.00	0.00
10,400.00	10.00	116.73	10,309.78	-476.93	947.03	-373.82	0.00	0.00	0.00
10,500.00	10.00	116.73	10,408.26	-484.74	962.54	-379.95	0.00	0.00	0.00
10,600.00	10.00	116.73	10,506.74	-492.55	978.05	-386.07	0.00	0.00	0.00
10,700.00	10.00	116.73	10,605.22	-500.36	993.56	-392.19	0.00	0.00	0.00

OXY

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Dr Pi Fed Unit 17_8 DA 35H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3700.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3700.50ft
Site:	Dr Awkward 17_8 Federal Com	**North Reference:**	Grid
Well:	Dr Pi Fed Unit 17_8 DA 35H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	WB00		
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)
10,800.00	10.00	116.73	10,703.70	-508.17	1,009.07	-398.31	0.00	0.00	0.00
10,900.00	10.00	116.73	10,802.18	-515.98	1,024.58	-404.43	0.00	0.00	0.00
11,000.00	10.00	116.73	10,900.66	-523.79	1,040.09	-410.56	0.00	0.00	0.00
11,100.00	10.00	116.73	10,999.14	-531.60	1,055.59	-416.68	0.00	0.00	0.00
11,200.00	10.00	116.73	11,097.62	-539.41	1,071.10	-422.80	0.00	0.00	0.00
11,242.72	10.00	116.73	11,139.70	-542.75	1,077.73	-425.42	0.00	0.00	0.00
11,300.00	9.00	81.99	11,196.24	-544.36	1,086.61	-426.08	10.00	-1.75	-60.64
11,400.00	14.27	37.71	11,294.33	-533.49	1,101.94	-413.65	10.00	5.28	-44.28
11,500.00	22.91	21.42	11,389.08	-505.55	1,116.63	-384.30	10.00	8.64	-16.29
11,600.00	32.32	13.99	11,477.61	-461.38	1,130.24	-338.94	10.00	9.41	-7.43
11,700.00	41.98	9.67	11,557.24	-402.33	1,142.35	-278.93	10.00	9.66	-4.32
11,800.00	51.75	6.73	11,625.55	-330.19	1,152.59	-206.11	10.00	9.77	-2.94
11,900.00	61.57	4.50	11,680.45	-247.15	1,160.67	-122.69	10.00	9.83	-2.23
12,000.00	71.43	2.65	11,720.28	-155.74	1,166.32	-31.19	10.00	9.86	-1.85
12,100.00	81.30	1.00	11,743.83	-58.73	1,169.38	65.59	10.00	9.87	-1.65
12,190.36	90.22	359.59	11,750.50	31.29	1,169.84	155.16	10.00	9.88	-1.56
12,200.00	90.22	359.59	11,750.47	40.93	1,169.77	164.73	0.00	0.00	0.00
12,300.00	90.22	359.59	11,750.08	140.93	1,169.05	264.09	0.00	0.00	0.00
12,400.00	90.22	359.59	11,749.69	240.92	1,168.33	363.44	0.00	0.00	0.00
12,500.00	90.22	359.59	11,749.30	340.92	1,167.61	462.80	0.00	0.00	0.00
12,600.00	90.22	359.59	11,748.90	440.92	1,166.90	562.16	0.00	0.00	0.00
12,700.00	90.22	359.59	11,748.51	540.91	1,166.18	661.52	0.00	0.00	0.00
12,800.00	90.22	359.59	11,748.12	640.91	1,165.46	760.87	0.00	0.00	0.00
12,900.00	90.22	359.59	11,747.73	740.91	1,164.74	860.23	0.00	0.00	0.00
13,000.00	90.22	359.59	11,747.34	840.90	1,164.03	959.59	0.00	0.00	0.00
13,100.00	90.22	359.59	11,746.95	940.90	1,163.31	1,058.94	0.00	0.00	0.00
13,200.00	90.22	359.59	11,746.56	1,040.90	1,162.59	1,158.30	0.00	0.00	0.00
13,300.00	90.22	359.59	11,746.17	1,140.89	1,161.87	1,257.66	0.00	0.00	0.00
13,400.00	90.22	359.59	11,745.78	1,240.89	1,161.16	1,357.01	0.00	0.00	0.00
13,500.00	90.22	359.59	11,745.39	1,340.89	1,160.44	1,456.37	0.00	0.00	0.00
13,600.00	90.22	359.59	11,745.00	1,440.88	1,159.72	1,555.73	0.00	0.00	0.00
13,700.00	90.22	359.59	11,744.61	1,540.88	1,159.00	1,655.08	0.00	0.00	0.00
13,800.00	90.22	359.59	11,744.22	1,640.88	1,158.29	1,754.44	0.00	0.00	0.00
13,900.00	90.22	359.59	11,743.83	1,740.87	1,157.57	1,853.80	0.00	0.00	0.00
14,000.00	90.22	359.59	11,743.44	1,840.87	1,156.85	1,953.15	0.00	0.00	0.00
14,100.00	90.22	359.59	11,743.05	1,940.87	1,156.13	2,052.51	0.00	0.00	0.00
14,200.00	90.22	359.59	11,742.66	2,040.86	1,155.42	2,151.87	0.00	0.00	0.00
14,300.00	90.22	359.59	11,742.27	2,140.86	1,154.70	2,251.23	0.00	0.00	0.00
14,400.00	90.22	359.59	11,741.88	2,240.86	1,153.98	2,350.58	0.00	0.00	0.00
14,500.00	90.22	359.59	11,741.49	2,340.85	1,153.26	2,449.94	0.00	0.00	0.00
14,600.00	90.22	359.59	11,741.10	2,440.85	1,152.54	2,549.30	0.00	0.00	0.00
14,700.00	90.22	359.59	11,740.71	2,540.85	1,151.83	2,648.65	0.00	0.00	0.00
14,800.00	90.22	359.59	11,740.32	2,640.84	1,151.11	2,748.01	0.00	0.00	0.00
14,900.00	90.22	359.59	11,739.93	2,740.84	1,150.39	2,847.37	0.00	0.00	0.00
15,000.00	90.22	359.59	11,739.54	2,840.84	1,149.67	2,946.72	0.00	0.00	0.00
15,100.00	90.22	359.59	11,739.15	2,940.83	1,148.96	3,046.08	0.00	0.00	0.00
15,200.00	90.22	359.59	11,738.76	3,040.83	1,148.24	3,145.44	0.00	0.00	0.00
15,300.00	90.22	359.59	11,738.37	3,140.83	1,147.52	3,244.79	0.00	0.00	0.00
15,400.00	90.22	359.59	11,737.98	3,240.82	1,146.80	3,344.15	0.00	0.00	0.00
15,500.00	90.22	359.59	11,737.59	3,340.82	1,146.09	3,443.51	0.00	0.00	0.00
15,600.00	90.22	359.59	11,737.20	3,440.82	1,145.37	3,542.86	0.00	0.00	0.00
15,700.00	90.22	359.59	11,736.81	3,540.81	1,144.65	3,642.22	0.00	0.00	0.00
15,800.00	90.22	359.59	11,736.42	3,640.81	1,143.93	3,741.58	0.00	0.00	0.00
15,900.00	90.22	359.59	11,736.03	3,740.81	1,143.22	3,840.94	0.00	0.00	0.00
16,000.00	90.22	359.59	11,735.64	3,840.80	1,142.50	3,940.29	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Dr Pi Fed Unit 17_8 DA 35H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3700.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3700.50ft
Site:	Dr Awkward 17_8 Federal Com	**North Reference:**	Grid
Well:	Dr Pi Fed Unit 17_8 DA 35H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	WB00		
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	90.22	359.59	11,735.25	3,940.80	1,141.78	4,039.65	0.00	0.00	0.00
16,200.00	90.22	359.59	11,734.85	4,040.80	1,141.06	4,139.01	0.00	0.00	0.00
16,300.00	90.22	359.59	11,734.46	4,140.79	1,140.35	4,238.36	0.00	0.00	0.00
16,400.00	90.22	359.59	11,734.07	4,240.79	1,139.63	4,337.72	0.00	0.00	0.00
16,500.00	90.22	359.59	11,733.68	4,340.79	1,138.91	4,437.08	0.00	0.00	0.00
16,600.00	90.22	359.59	11,733.29	4,440.78	1,138.19	4,536.43	0.00	0.00	0.00
16,700.00	90.22	359.59	11,732.90	4,540.78	1,137.48	4,635.79	0.00	0.00	0.00
16,800.00	90.22	359.59	11,732.51	4,640.78	1,136.76	4,735.15	0.00	0.00	0.00
16,900.00	90.22	359.59	11,732.12	4,740.77	1,136.04	4,834.50	0.00	0.00	0.00
17,000.00	90.22	359.59	11,731.73	4,840.77	1,135.32	4,933.86	0.00	0.00	0.00
17,100.00	90.22	359.59	11,731.34	4,940.77	1,134.60	5,033.22	0.00	0.00	0.00
17,200.00	90.22	359.59	11,730.95	5,040.76	1,133.89	5,132.57	0.00	0.00	0.00
17,300.00	90.22	359.59	11,730.56	5,140.76	1,133.17	5,231.93	0.00	0.00	0.00
17,400.00	90.22	359.59	11,730.17	5,240.76	1,132.45	5,331.29	0.00	0.00	0.00
17,500.00	90.22	359.59	11,729.78	5,340.75	1,131.73	5,430.65	0.00	0.00	0.00
17,600.00	90.22	359.59	11,729.39	5,440.75	1,131.02	5,530.00	0.00	0.00	0.00
17,700.00	90.22	359.59	11,729.00	5,540.75	1,130.30	5,629.36	0.00	0.00	0.00
17,800.00	90.22	359.59	11,728.61	5,640.74	1,129.58	5,728.72	0.00	0.00	0.00
17,900.00	90.22	359.59	11,728.22	5,740.74	1,128.86	5,828.07	0.00	0.00	0.00
18,000.00	90.22	359.59	11,727.83	5,840.74	1,128.15	5,927.43	0.00	0.00	0.00
18,100.00	90.22	359.59	11,727.44	5,940.73	1,127.43	6,026.79	0.00	0.00	0.00
18,200.00	90.22	359.59	11,727.05	6,040.73	1,126.71	6,126.14	0.00	0.00	0.00
18,300.00	90.22	359.59	11,726.66	6,140.73	1,125.99	6,225.50	0.00	0.00	0.00
18,400.00	90.22	359.59	11,726.27	6,240.72	1,125.28	6,324.86	0.00	0.00	0.00
18,500.00	90.22	359.59	11,725.88	6,340.72	1,124.56	6,424.21	0.00	0.00	0.00
18,600.00	90.22	359.59	11,725.49	6,440.72	1,123.84	6,523.57	0.00	0.00	0.00
18,700.00	90.22	359.59	11,725.10	6,540.71	1,123.12	6,622.93	0.00	0.00	0.00
18,800.00	90.22	359.59	11,724.71	6,640.71	1,122.41	6,722.28	0.00	0.00	0.00
18,900.00	90.22	359.59	11,724.32	6,740.71	1,121.69	6,821.64	0.00	0.00	0.00
19,000.00	90.22	359.59	11,723.93	6,840.70	1,120.97	6,921.00	0.00	0.00	0.00
19,100.00	90.22	359.59	11,723.54	6,940.70	1,120.25	7,020.35	0.00	0.00	0.00
19,200.00	90.22	359.59	11,723.15	7,040.70	1,119.54	7,119.71	0.00	0.00	0.00
19,300.00	90.22	359.59	11,722.76	7,140.69	1,118.82	7,219.07	0.00	0.00	0.00
19,400.00	90.22	359.59	11,722.37	7,240.69	1,118.10	7,318.43	0.00	0.00	0.00
19,500.00	90.22	359.59	11,721.98	7,340.69	1,117.38	7,417.78	0.00	0.00	0.00
19,600.00	90.22	359.59	11,721.59	7,440.68	1,116.66	7,517.14	0.00	0.00	0.00
19,700.00	90.22	359.59	11,721.20	7,540.68	1,115.95	7,616.50	0.00	0.00	0.00
19,800.00	90.22	359.59	11,720.80	7,640.68	1,115.23	7,715.85	0.00	0.00	0.00
19,900.00	90.22	359.59	11,720.41	7,740.67	1,114.51	7,815.21	0.00	0.00	0.00
20,000.00	90.22	359.59	11,720.02	7,840.67	1,113.79	7,914.57	0.00	0.00	0.00
20,100.00	90.22	359.59	11,719.63	7,940.67	1,113.08	8,013.92	0.00	0.00	0.00
20,200.00	90.22	359.59	11,719.24	8,040.66	1,112.36	8,113.28	0.00	0.00	0.00
20,300.00	90.22	359.59	11,718.85	8,140.66	1,111.64	8,212.64	0.00	0.00	0.00
20,400.00	90.22	359.59	11,718.46	8,240.66	1,110.92	8,311.99	0.00	0.00	0.00
20,500.00	90.22	359.59	11,718.07	8,340.65	1,110.21	8,411.35	0.00	0.00	0.00
20,600.00	90.22	359.59	11,717.68	8,440.65	1,109.49	8,510.71	0.00	0.00	0.00
20,700.00	90.22	359.59	11,717.29	8,540.65	1,108.77	8,610.06	0.00	0.00	0.00
20,800.00	90.22	359.59	11,716.90	8,640.64	1,108.05	8,709.42	0.00	0.00	0.00
20,900.00	90.22	359.59	11,716.51	8,740.64	1,107.34	8,808.78	0.00	0.00	0.00
21,000.00	90.22	359.59	11,716.12	8,840.64	1,106.62	8,908.14	0.00	0.00	0.00
21,100.00	90.22	359.59	11,715.73	8,940.63	1,105.90	9,007.49	0.00	0.00	0.00
21,200.00	90.22	359.59	11,715.34	9,040.63	1,105.18	9,106.85	0.00	0.00	0.00
21,300.00	90.22	359.59	11,714.95	9,140.63	1,104.47	9,206.21	0.00	0.00	0.00
21,400.00	90.22	359.59	11,714.56	9,240.62	1,103.75	9,305.56	0.00	0.00	0.00
21,500.00	90.22	359.59	11,714.17	9,340.62	1,103.03	9,404.92	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Dr Pi Fed Unit 17_8 DA 35H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3700.50ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3700.50ft
Site:	Dr Awkward 17_8 Federal Com	**North Reference:**	Grid
Well:	Dr Pi Fed Unit 17_8 DA 35H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	WB00		
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)
21,600.00	90.22	359.59	11,713.78	9,440.62	1,102.31	9,504.28	0.00	0.00	0.00
21,700.00	90.22	359.59	11,713.39	9,540.61	1,101.60	9,603.63	0.00	0.00	0.00
21,800.00	90.22	359.59	11,713.00	9,640.61	1,100.88	9,702.99	0.00	0.00	0.00
21,900.00	90.22	359.59	11,712.61	9,740.61	1,100.16	9,802.35	0.00	0.00	0.00
22,000.00	90.22	359.59	11,712.22	9,840.60	1,099.44	9,901.70	0.00	0.00	0.00
22,100.00	90.22	359.59	11,711.83	9,940.60	1,098.73	10,001.06	0.00	0.00	0.00
22,200.00	90.22	359.59	11,711.44	10,040.60	1,098.01	10,100.42	0.00	0.00	0.00
22,300.00	90.22	359.59	11,711.05	10,140.59	1,097.29	10,199.77	0.00	0.00	0.00
22,400.00	90.22	359.59	11,710.66	10,240.59	1,096.57	10,299.13	0.00	0.00	0.00
22,440.33	90.22	359.59	11,710.50	10,280.92	1,096.28	10,339.20	0.00	0.00	0.00

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
PBHL (Dr Awkward - plan hits target center - Point	0.00	0.00	11,710.50	10,280.92	1,096.28	514,711.69	740,071.48	32.413364	-103.689331
FTP (Dr Awkward - plan misses target center by 31.42ft at 12000.29ft MD (11720.37 TVD, -155.46 N, 1166.33 E) - Point	0.00	0.00	11,750.50	-162.93	1,171.22	504,268.35	740,146.41	32.384657	-103.689292

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
862.50	862.50	RUSTLER			
1,179.50	1,179.50	SALADO			
2,729.50	2,729.50	CASTILE			
4,753.97	4,749.50	DELAWARE			
4,838.23	4,832.50	BELL CANYON			
5,693.22	5,674.50	CHERRY CANYON			
6,927.97	6,890.50	BRUSHY CANYON			
8,675.52	8,611.50	BONE SPRING			
9,796.55	9,715.50	BONE SPRING 1ST			
10,484.00	10,392.50	BONE SPRING 2ND			
11,493.96	11,383.50	BONE SPRING 3RD			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
3,795.00	3,795.00	0.00	0.00	Build 1°/100'
4,795.00	4,789.93	-39.15	77.74	Hold 10° Tangent
11,242.72	11,139.70	-542.75	1,077.73	KOP, Build & Turn 10°/100'
12,190.36	11,750.50	31.29	1,169.84	Landing Point
22,440.33	11,710.50	10,280.92	1,096.28	TD at 22440.33' MD

PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Dr Awkward 17_8 Federal Com
Well: Dr Pi Fed Unit 17_8 DA 35H
Wellbore: WB00
Design: Permitting Plan

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

System Datum: Mean Sea Level

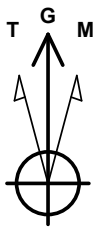
WELL DETAILS: Dr Pi Fed Unit 17_8 DA 35H

Ground Level: 3674.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	504431.27	738975.25	32.385125	-103.693083

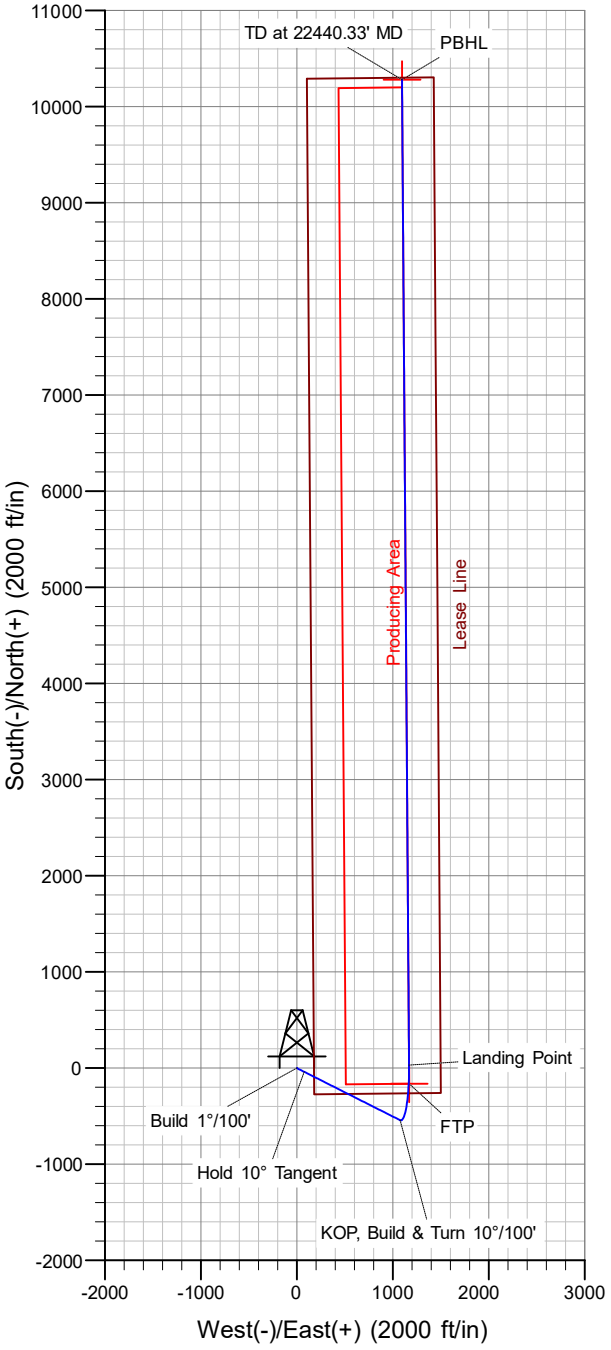
SECTION DETAILS

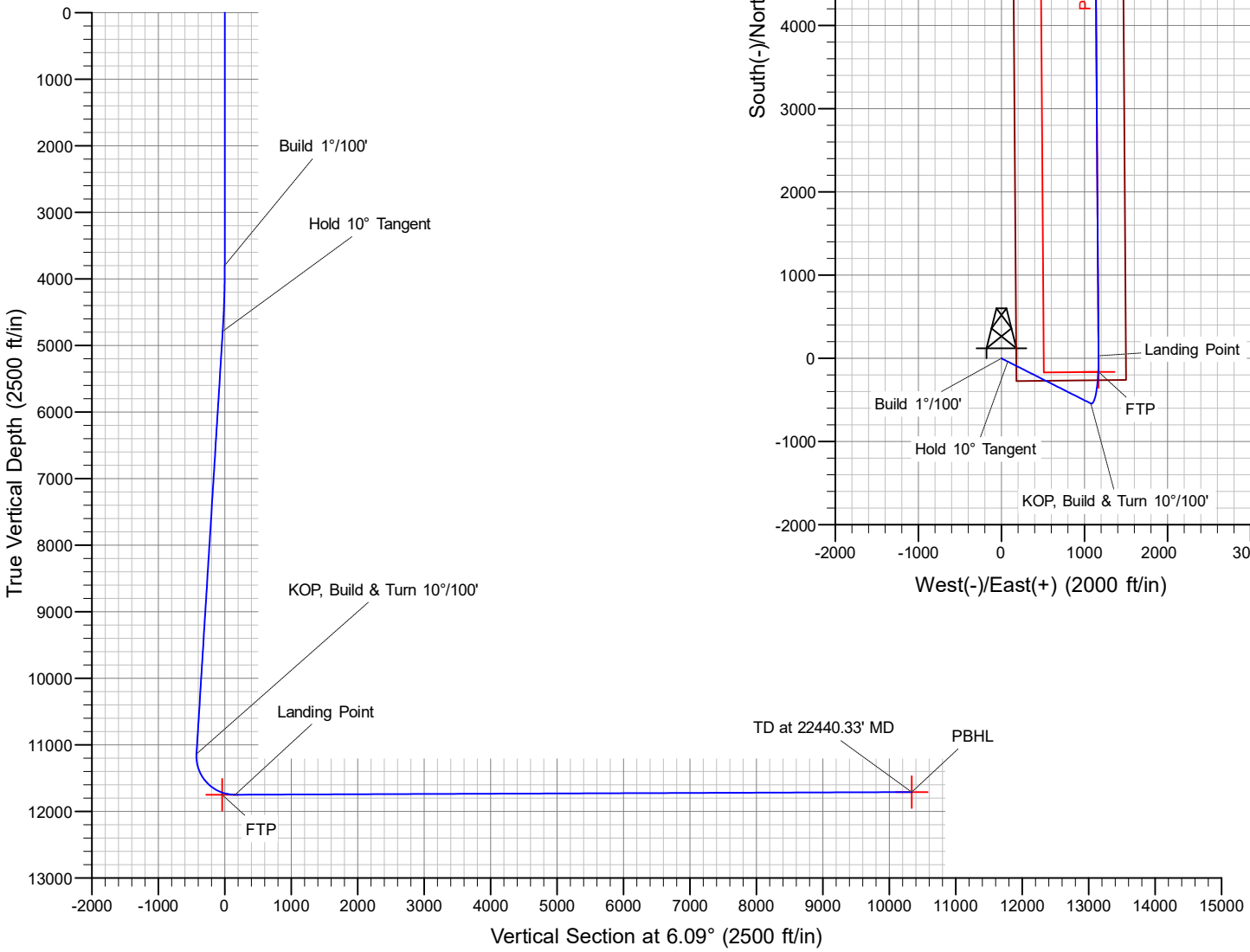
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3795.00	0.00	0.00	3795.00	0.00	0.00	0.00	0.00	0.00	Build 1°/100'
4795.00	10.00	116.73	4789.93	-39.15	77.74	1.00	116.73	-30.69	Hold 10° Tangent
11242.72	10.00	116.73	11139.70	-542.75	1077.73	0.00	0.00	-425.42	KOP, Build & Turn 10°/100'
12190.36	90.22	359.59	11750.50	31.29	1169.84	10.00	-116.75	155.16	Landing Point
22440.33	90.22	359.59	11710.50	10280.92	1096.28	0.00	0.00	10339.20	TD at 22440.33' MD

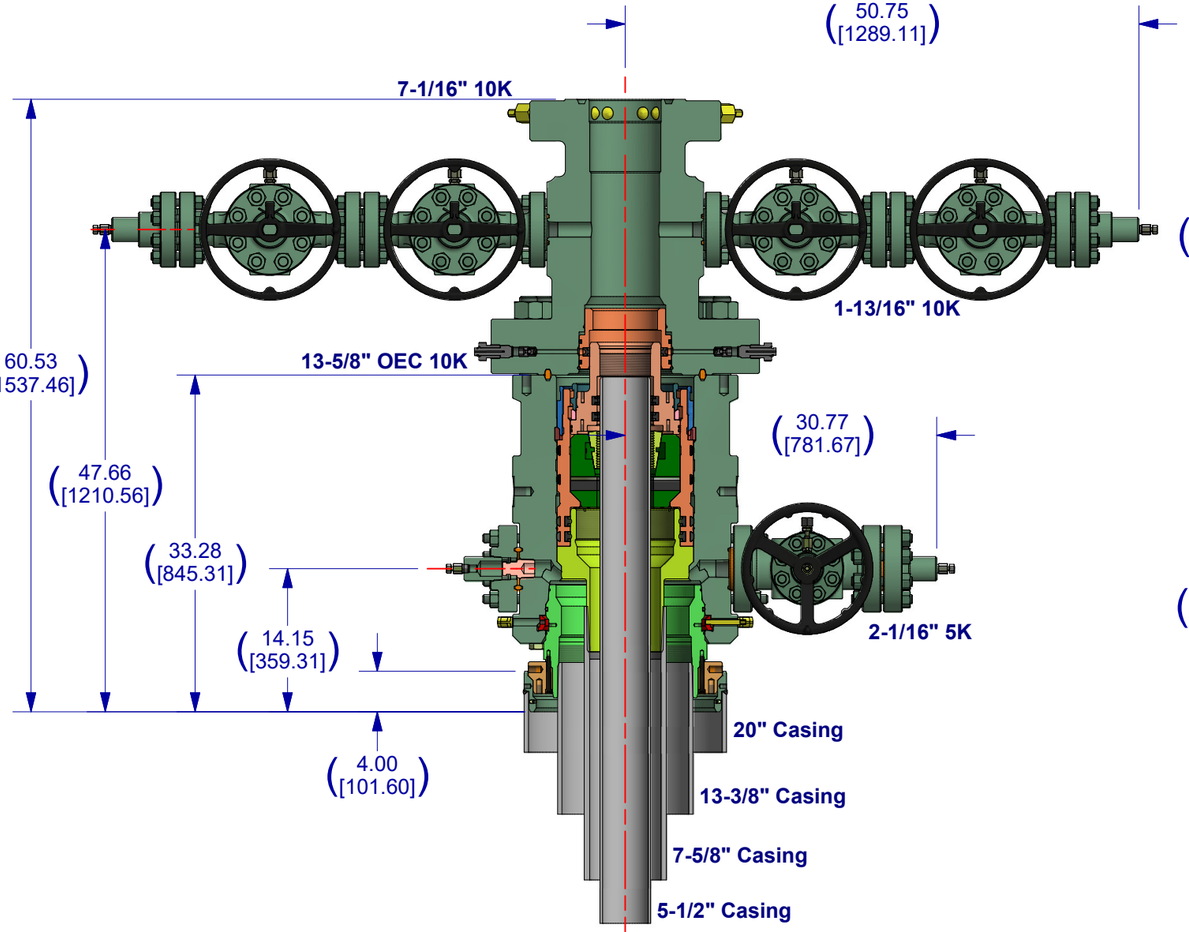


Azimuths to Grid North
True North: -0.34°
Magnetic North: 6.37°

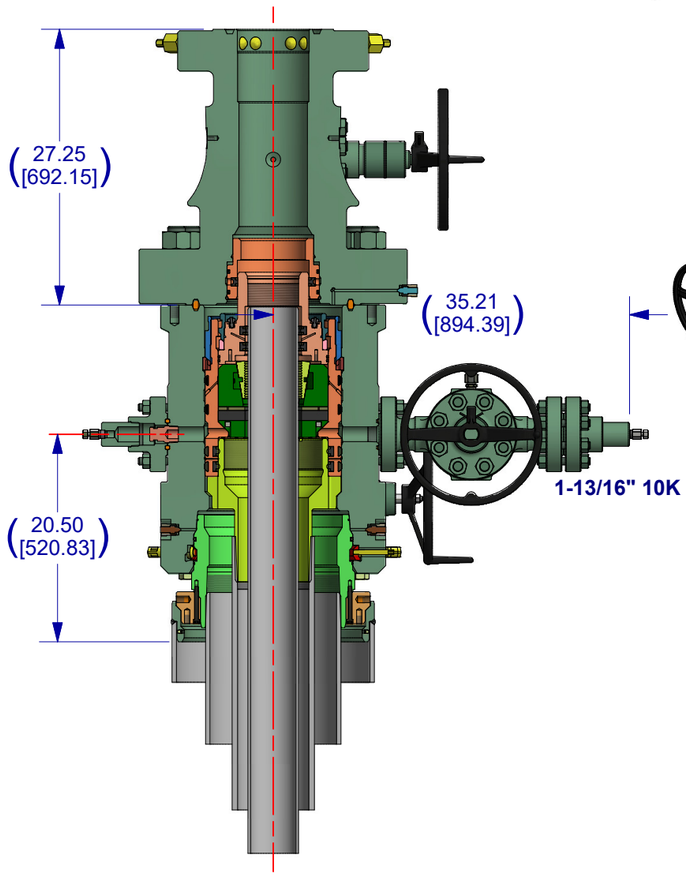
Magnetic Field
Strength: 48027.8nT
Dip Angle: 60.12°
Date: 9/23/2019
Model: HDGM_FILE



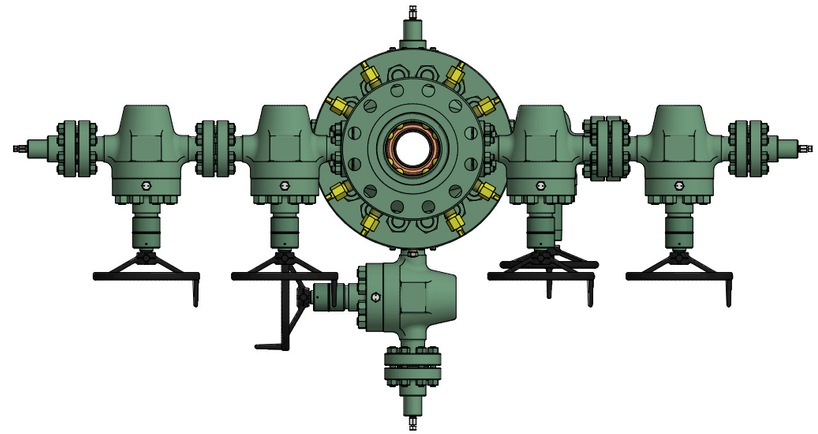




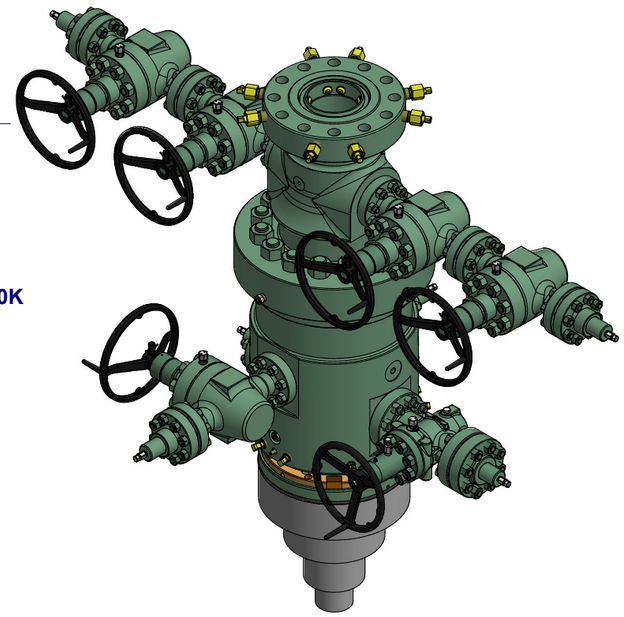
VIEW SHOWING
LOWER OUTLETS



VIEW SHOWING
UPPER OUTLETS



TOP VIEW



ISOMETRIC VIEW

NOTE: This is a proposal drawing and dimensions shown are subject to change during the final design process.

CAMERON CONFIDENTIAL INFORMATION			
DO NOT SCALE		CAMERON A Schlumberger Company	SURFACE SYSTEMS
DRAWN BY: L.FERRER	DATE: 01/14/2022		
CHECKED BY: C.OATES	DATE: 01/14/2022	13-5/8" 10K 'ADAPT-NST' WELLHEAD	
DRAWING NO: QD-06-00092	REV: 02		

Oxy Well Control Plan

A. Component and Preventer Compatibility Table

The table below, which covers the drilling and casing of the >5M MASP portion of the well, outlines the tubulars and the compatible preventers in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

Pilot hole and Lateral sections, 10M requirement

Component	OD	Preventer	RWP
Drillpipe	4-1/2"-5"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
HWDP	4-1/2"-5"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
Drill collars and MWD tools	4-3/4" – 5-1/2"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
Mud Motor	4-3/4"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
Production casing	5-1/2"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
ALL	0" - 13-5/8"	Annular	5M
Open-hole	6-3/4"	Blind Rams	10M

VBR = Variable Bore Ram. Compatible range listed in chart.
HWDP = Heavy Weight Drill Pipe
MWD = Measurement While Drilling

B. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the Bottom Hole Assembly (BHA) through the Blowout Preventers (BOP). The pressure at which control is swapped from the annular to another compatible ram will occur when the anticipated pressure is approaching or envisioned to exceed 70% of the 5M annular Rated Working Pressure (RWP) or 3500 PSI.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. The Hydraulic Control Remote (HCR) valve and choke will already be in the closed position).
5. Confirm shut-in
6. Notify tool pusher/company representative

7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or expected to reach 70% of the annular RWP during kill operations, crew will reconfirm spacing and swap to the upper pipe ram

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. The HCR and choke will already be in the closed position)
5. Confirm shut-in
6. Notify tool pusher/company representative
7. Read and record the following
    a. SIDPP and SICP
    b. Pit gain
    c. Time
    d. Regroup and identify forward plan
    e. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram

General Procedure While Running Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. The HCR and choke will already be in the closed position).
5. Confirm shut-in
6. Notify tool pusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
    d. Regroup and identify forward plan.
    e. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to compatible pipe ram.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams or BSR. (The HCR and choke will already be in the closed position)
3. Confirm shut-in
4. Notify tool pusher/company representative

5. Read and record the following:
    a. SICP
    b. Pit gain
    c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA thru Stack

1. PRIOR to pulling last joint of drill pipe thru the stack.
    a. Perform flow check, if flowing:
    b. Sound alarm (alert crew)
    c. Stab full opening safety valve and close
    d. Space out drill string with tool joint just beneath the upper pipe ram
    e. Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position)
    f. Confirm shut-in
    g. Notify tool pusher/company representative
    h. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
        iv. Regroup and identify forward plan

2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
    a. Sound alarm (alert crew)
    b. Stab crossover and full opening safety valve and close
    c. Space out drill string with upset just beneath the compatible pipe ram
    d. Shut-in using compatible pipe ram. (The HCR and choke will already be in the closed position.)
    e. Confirm shut-in
    f. Notify tool pusher/company representative
    g. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
        iv. Regroup and identify forward plan

3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
    a. Sound alarm (alert crew)
    b. If possible to pick up high enough, pull string clear of the stack and follow “Open Hole” scenario
    c. If impossible to pick up high enough to pull the string clear of the stack
    d. Stab crossover, make up one joint/stand of drill pipe, and full opening safety valve and close
    e. Space out drill string with tool joint just beneath the upper pipe ram

f. Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position)
g. Confirm shut-in
h. Notify tool pusher/company representative
i. Read and record the following:
    i. SIDPP and SICP
    ii. Pit gain
    iii. Time

j. Regroup and identify forward plan

PERFORMANCE DATA

TMK UP DQX **5.500 in** **20.00 lbs/ft** **P-110**
Technical Data Sheet

Tubular Parameters

Size	5.500	in	Minimum Yield	110,000	psi
Nominal Weight	20.00	lbs/ft	Minimum Tensile	125,000	psi
Grade	P-110		Yield Load	641,000	lbs
PE Weight	19.81	lbs/ft	Tensile Load	729,000	lbs
Wall Thickness	0.361	in	Min. Internal Yield Pressure	12,600	psi
Nominal ID	4.778	in	Collapse Pressure	11,100	psi
Drift Diameter	4.653	in			
Nom. Pipe Body Area	5.828	in²			

Connection Parameters

Connection OD	6.050	in
Connection ID	4.778	in
Make-Up Loss	4.122	in
Critical Section Area	5.828	in²
Tension Efficiency	100.0	%
Compression Efficiency	100.0	%
Yield Load In Tension	641,000	lbs
Min. Internal Yield Pressure	12,600	psi
Collapse Pressure	11,100	psi

Make-Up Torques

Min. Make-Up Torque	11,600	ft-lbs
Opt. Make-Up Torque	12,900	ft-lbs
Max. Make-Up Torque	14,100	ft-lbs
Yield Torque	20,600	ft-lbs

Printed on: July-29-2014

PERFORMANCE DATA

TMK UP TORQ™ DQW **5.500 in** **20.00 lbs/ft** **P110 CY**

Technical Data Sheet

Tubular Parameters

Size	5.500	in	Minimum Yield	110,000	psi
Nominal Weight	20.00	lbs/ft	Minimum Tensile	125,000	psi
Grade	P110 CY		Yield Load	641,000	lbs
PE Weight	19.81	lbs/ft	Tensile Load	729,000	lbs
Wall Thickness	0.361	in	Min. Internal Yield Pressure	12,640	psi
Nominal ID	4.778	in	Collapse Pressure	11,110	psi
Drift Diameter	4.653	in			
Nom. Pipe Body Area	5.828	in²			

Connection Parameters

Connection OD	6.050	in
Connection ID	4.778	in
Make-Up Loss	4.324	in
Critical Section Area	5.828	in²
Tension Efficiency	100.0	%
Compression Efficiency	100.0	%
Yield Load In Tension	641,000	lbs
Min. Internal Yield Pressure	12,640	psi
Collapse Pressure	11,110	psi
Uniaxial Bending	92	°/ 100 ft

Make-Up Torques

Min. Make-Up Torque	14,000	ft-lbs
Opt. Make-Up Torque	16,000	ft-lbs
Max. Make-Up Torque	18,000	ft-lbs
Operating Torque	36,800	ft-lbs
Yield Torque	46,000	ft-lbs

Printed on: March-05-2019

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

TMK IPSCO

Tenaris

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 %		
Connection OD Option	Regular	**Compression Strength**	577 x1000 lb	**Operation Limit Torques**	
		Max. Allowable Bending	82 °/100 ft	**Operating Torque**	29,000 ft-lb
		External Pressure Capacity	11,100 psi	**Yield Torque**	36,000 ft-lb

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 lastest performance data, always visit our website: www.tenaris.com

Tenaris

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 %		
Threads per inch	3.40	**Compression Strength**	522 x1000 lb	**Operation Limit Torques**	
Connection OD Option	Regular	**Max. Allowable Bending**	71 °/100 ft	**Operating Torque**	32,000 ft-lb
		External Pressure Capacity	11,100 psi	**Yield Torque**	38,000 ft-lb
				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 lastest performance data, always visit our website: www.tenaris.com

TenarisHydril

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

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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 101063

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 101063
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	PREVIOUS COA'S APPLY	4/25/2022