

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.
NMNM45236

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
IRIDIUM MDP1 28-21 FEDERAL COM 4H9. API Well No.
30-015-45245-00-X110. Field and Pool or Exploratory Area
INGLE WELLS11. County or Parish, State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
OXY USA INCORPORATEDContact: SARAH CHAPMAN
E-Mail: SARAH_CHAPMAN@OXY.COM3a. Address
5 GREENWAY PLAZA SUITE 110
HOUSTON, TX 77046-05213b. Phone No. (include area code)
Ph: 713-350-4997

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

Sec 33 T23S R31E NENW 2474FWL
32.267498 N Lat, 103.783287 W Lon

JAN 31 2019

RECEIVED

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

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

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

OXY USA Inc. respectfully requests to amend the APD with the following changes:

1. BHL is moving 415' west from the current location; moving inside W/2 E/2 and becomes NSL 25' from the center line.

2. OXY is requesting to run a pure 4-string casing design instead of the 4-string contingency.

X See updated C-102, drill plan, drill plot, directional survey and supplemental form for more information.

Accepted For Record
NMOCD *2-19-18***Carlsbad Field Office**
OCD Artesia

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #447101 verified by the BLM Well Information System
For OXY USA INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 12/12/2018 (19PP0592SE)

Name (Printed/Typed) DAVID STEWART

Title REGULATORY ADVISOR

Signature (Electronic Submission)

Date 12/10/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USEApproved By LONG VO

Title PETROLEUM ENGINEER

Date 01/23/2019

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED *****RWP 2-12-19*

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 Blanco Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87503
Phone: (505) 476-3460 Fax: (505) 476-3462

NM OIL CONSERVATION
State of New Mexico ARTESIA DISTRICT
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

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☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-45245	Pool Code 33740	Pool Name Imple Wells Done Spring
Property Code 321632	Property Name IRIDIUM MDP1 "28-21" FEDERAL COM	Well Number 4H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3386.7'

Surface Location

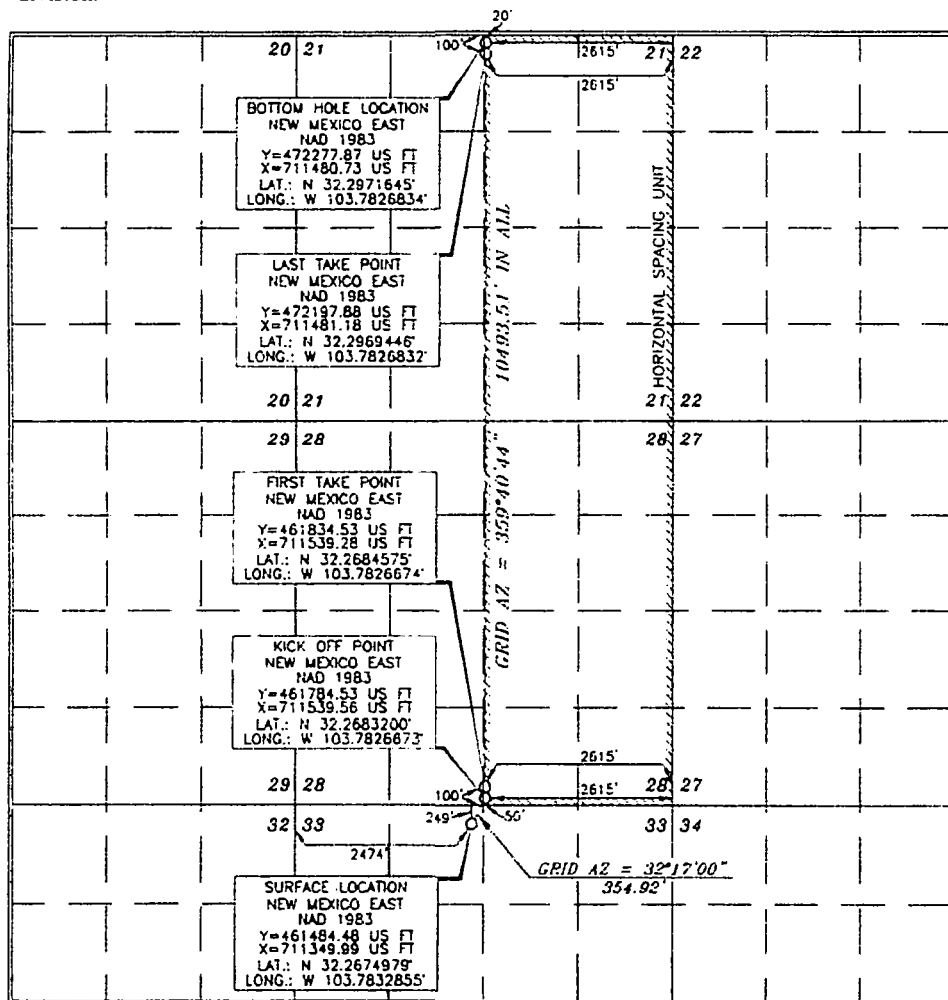
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
C	33	23 SOUTH	31 EAST, N.M.P.M.		249'	NORTH	2474'	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
B	21	23 SOUTH	31 EAST, N.M.P.M.		20'	NORTH	2615'	EAST	EDDY

Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

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

Signature required by the division

Sarah Chapman 12/10/18

Sarah Chapman

Sarah_chapman@oxy.com

SURVEYOR CERTIFICATION

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

15079
JANUARY 31, 2018

Date of Survey

Terry J. Abel
Professional Surveyor

Terry J. Abel 12/10/2018
Certificate Number **15079**

Rw 2-12-19

NM OIL CONSERVATION
ARTESIA DISTRICT

Intent ☒ As Drilled ☐

JAN 31 2019

API # 30-015-45245			Operator Name: Oxy USA Inc.			Property Name: Iridium HDPI 28-21 Fed Com			Well Number 4H		
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RECEIVED

Kick Off Point (KOP)

UL N	Section 28	Township 23S	Range 31E	Lot	Feet 50	From N/S SOUTH	Feet 2415	From E/W EAST	County ESKY
Latitude 32.2683200					Longitude -103.7826673				NAD NAD83

First Take Point (FTP)

UL N	Section 28	Township 23S	Range 31E	Lot	Feet 100	From N/S SOUTH	Feet 2415	From E/W EAST	County ESKY
Latitude 32.2684575					Longitude -103.7826674				NAD NAD83

Last Take Point (LTP)

UL B	Section 21	Township 23S	Range 31E	Lot	Feet 100	From N/S NORTH	Feet 2415	From E/W EAST	County ESKY
Latitude 32.2969446					Longitude -103.7826832				NAD NAD83

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☒

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API # 30-015-45243			Operator Name: Oxy USA Inc.			Property Name: Iridium HDPI 28-21 Fed Com			Well Number 2H		
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KZ 06/29/2018

Oxy USA Inc. - Iridium MDP1 28-21 Fed Com 4H - Amended

1. Geologic Formations

TVD of target	10159'	Pilot Hole Depth	N/A
MD at TD:	20436'	Deepest Expected fresh water:	454'

Delaware Basin

Formation	TVD - RKB	Expected Fluids
Rustler	454	
Salado	817	Brine
Castile	2,739	Brine
Lamar/Delaware	4,245	Brine
Bell Canyon	4,272	Oil/Gas
Cherry Canyon	5,145	Oil/Gas
Brushy Canyon	6,430	Losses
Bone Spring	8,045	Oil/Gas
1st Bone Spring	9,107	Oil/Gas
2nd Bone Spring	9,333	Oil/Gas

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

2. Casing Program

Hole Size (in)	Casing Interval		Csg. Size (in)	Weight (lbs)	Grade	Conn.	SF		Buoyant	
	From (ft)	To (ft)					Collapse	SF Burst	Body SF Tension	Joint SF Tension
17.5	0	505' 425	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4
12.25	0	425' 4249	9.625	43.5	L-80	BTC	1.125	1.2	1.4	1.4
8.5	0	9514	7.625	26.4	L-80 HC	SF (0 ft to 4000 ft) FJ (4000 ft to 9514 ft)	1.125	1.2	1.4	1.4
6.75	0	20436	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4
SF Values will meet or Exceed										

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

*Oxy requests the option to set casing shallower yet still below the salts if losses or hole conditions require this. Cement volumes may be adjusted if casing is set shallower and a DV tool may be run in case hole conditions merit pumping a second stage cement job to comply with permitted top of cement. If cement circulated to surface during first stage, we will drop a cancellation cone and not pump the second stage.

*Oxy requests the option to run production casing with DQX and/or SF TORQ connections to accommodate hole conditions or drilling operations.

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.

Oxy USA Inc. - Iridium MDP1 28-21 Fed Com 4H - Amended

	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?	Y
If yes, are the first three strings cemented to surface?	Y
Is 2 nd string set 100' to 600' below the base of salt?	Y
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing String	# Sk	Wt. (lb/gal)	Yld (ft3/sack)	H2O (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Surface (Tail)	613	14.8	1.33	6.365	5:26	Class C Cement, Accelerator
Intermediate (Lead)	1194	12.9	1.88	10.130	14:22	Pozzolan Cement, Retarder
Intermediate (Tail)	155	14.8	1.33	6.370	12:45	Class C Cement, Accelerator
Intermediate II 1st Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate II 1st Stage (Tail)	73	13.2	1.65	8.640	11:54	Class H Cement, Retarder, Dispersant, Salt
Intermediate II 2nd Stage (Tail Slurry) to be pumped as Bradenhead Squeeze from surface, down the Intermediate annulus						
Intermediate II 2nd Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate II 2nd Stage (Tail)	420	12.9	1.92	10.410	23:10	Class C Cement, Accelerator
Production (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Production (Tail)	838	13.2	1.38	6.686	3:49	Class H Cement, Retarder, Dispersant, Salt

to surface

to surface →

to surface →

Oxy USA Inc. - Iridium MDP1 28-21 Fed Com 4H - Amended

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	N/A	N/A	N/A
Surface (Tail)	0	504	100%
Intermediate (Lead)	0	3795	100%
Intermediate (Tail)	3795	4295	20%
Intermediate II 1st Stage (Lead)	N/A	N/A	N/A
Intermediate II 1st Stage (Tail)	8045	9514	5%
Intermediate II 2nd Stage (Lead)	N/A	N/A	N/A
Intermediate II 2nd Stage (Tail)	0	8045	25%
Production (Lead)	N/A	N/A	N/A
Production (Tail)	9014	20436	20%

to surface

to surface

to surface

500 ft tie
back

4. Pressure Control Equipment

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

ok

*Specify if additional ram is utilized.

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

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

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
Y	Are anchors required by manufacturer?
	A multibowl 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

Oxy USA Inc. - Iridium MDP1 28-21 Fed Com 4H - Amended

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

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow BOP Break Testing under the following conditions:

- After a full BOP test is conducted on the first well on the pad.
- When skidding to drill an intermediate section that does not penetrate into the Wolfcamp.
- Full BOP test will be required prior to drilling any production hole.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	504	Water-Based Mud	8.6-8.8	40-60	N/C
504	4295	Saturated Brine-Based Mud	9.8-10.0	35-45	N/C
4295	9514	Water-Based or Oil-Based Mud	8.0-9.6	38-50	N/C
9514	20436	Water-Based or Oil-Based Mud	8.0-9.6	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
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6. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5072 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	162°F

Oxy USA Inc. - Iridium MDP1 28-21 Fed Com 4H - Amended

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

Hydrogen Sulfide (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

7. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. We plan to drill the four 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: 1552.3 bbls.

8. Company Personnel

Name	Title	Office Phone	Mobile Phone
John Rodriguez	Drilling Engineer	713-513-6641	361-759-4650
Diego Tellez	Drilling Engineer Supervisor	713-350-4602	713-303-4932
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
John Willis	Drilling Manager	713-366-5556	713-259-1417



Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: IRIIDIUM MDP1 28-21 FED COM

Well: IRIIDIUM MDP1 28-21 FED COM 4H

Wellbore: WB

Design: Permitting Plan

WELL DETAILS: IRIIDIUM MDP1 28-21 FED COM 4H

+N/-S
0.00

+E/-W
0.00

Northing
461484.48

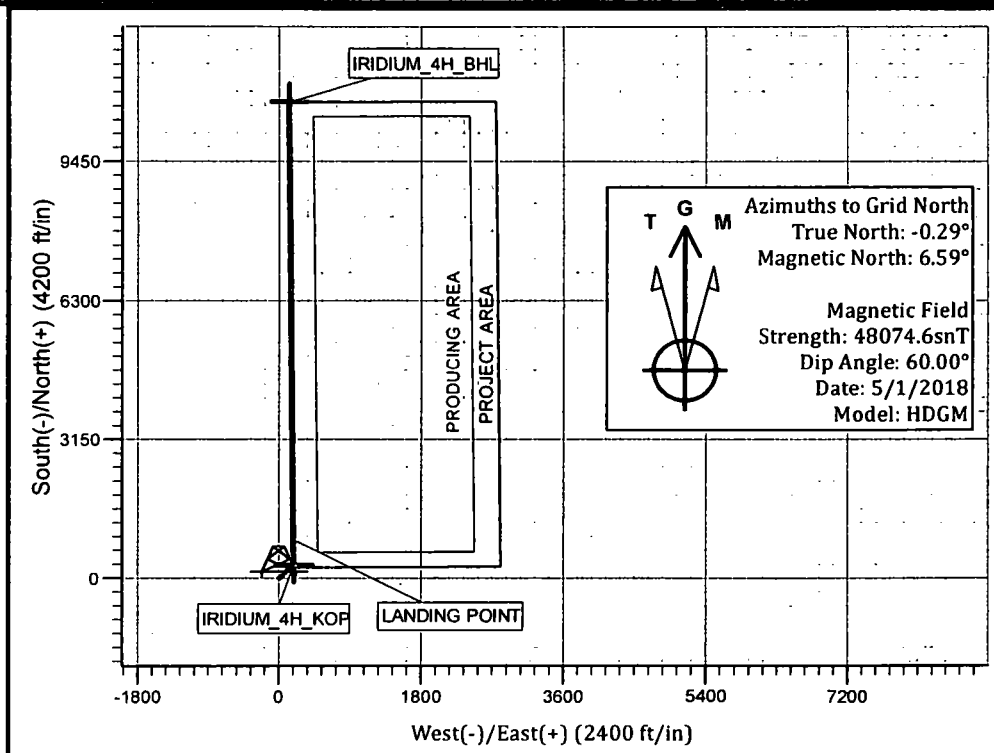
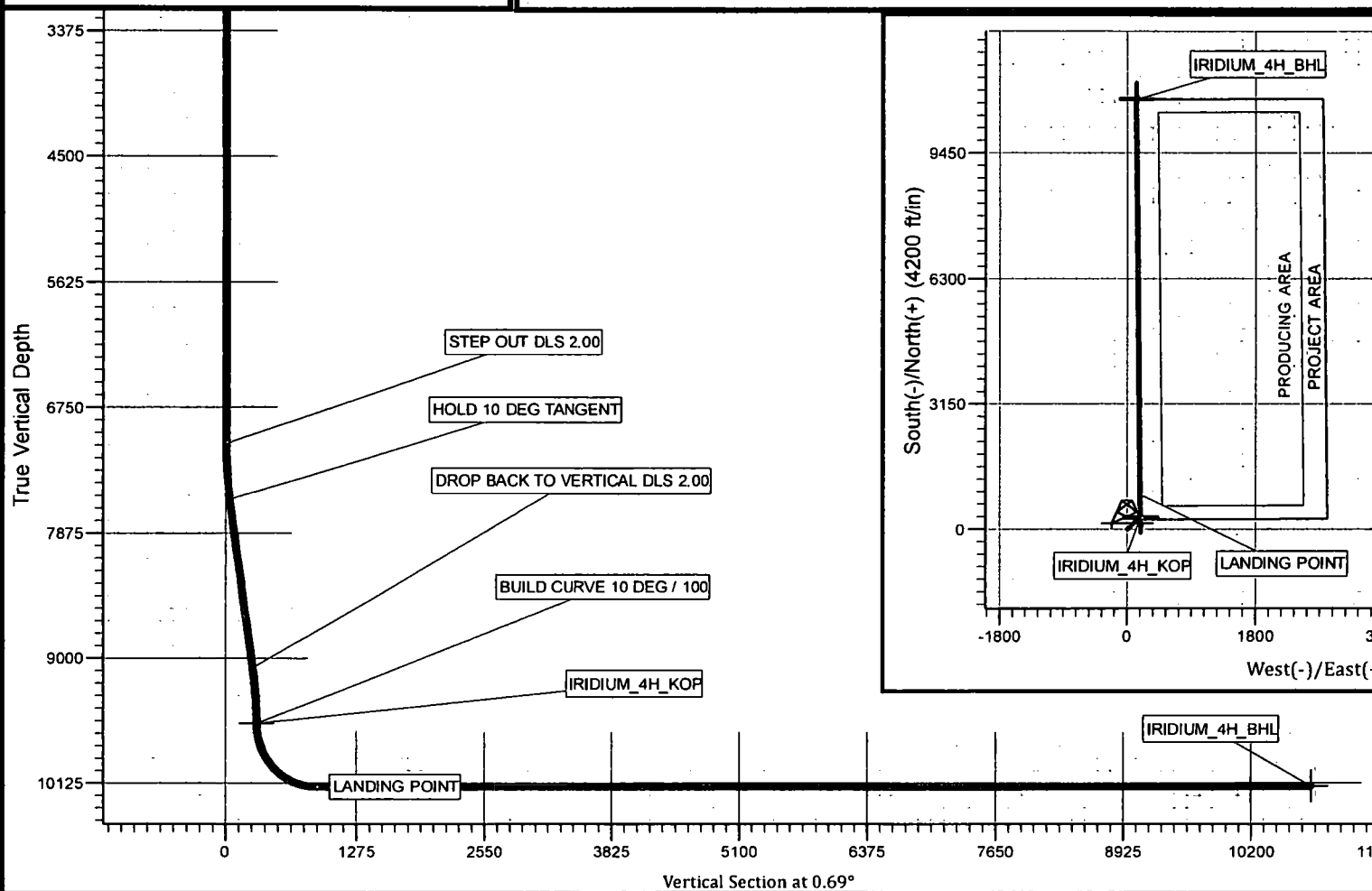
Ground Level: 3386.70

Easting
711349.99

Latitude
32° 16' 2.992542 N

Longitude
103° 46' 59.827995 W

Datum @ 3413.20ft



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

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	7075.00	0.00	0.00	7075.00	0.00	0.00	0.00	0.00	0.00		STEP OUT DLS 2.00
3	7574.85	10.00	32.29	7572.32	36.77	23.24	2.00	32.29	37.05		HOLD 10 DEG TANGENT
4	9114.63	10.00	32.29	9088.72	262.73	166.04	0.00	0.00	264.72		DROP BACK TO VERTICAL DLS 2.00
5	9614.49	0.00	359.68	9586.04	299.50	189.28	2.00	180.00	301.77		BUILD CURVE 10 DEG / 100
6	10514.49	90.00	359.68	10159.00	872.45	186.08	10.00	-0.32	874.63		LANDING POINT
7	20436.39	90.02	359.68	10157.00	10794.20	130.63	0.00	0.00	10794.99		TD at 20436.39

OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)

IRIDIUM MDP1 28-21 FED COM

IRIDIUM MDP1 28-21 FED COM 4H

WB

Plan: Permitting Plan

Standard Planning Report

06 November, 2018

Oxy

Planning Report

Database: HOPSPP
Company: ENGINEERING DESIGNS
Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: IRIIDIUM MDP1 28-21 FED COM
Well: IRIIDIUM MDP1 28-21 FED COM 4H
Wellbore: WB
Design: Permitting Plan

Local Co-ordinate Reference: Well IRIIDIUM MDP1 28-21 FED COM 4H
TVD Reference: Datum @ 3413.20ft
MD Reference: Datum @ 3413.20ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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

Site		IRIDIUM MDP1 28-21 FED COM			
Site Position:		Northing:	462,153.25 usft	Latitude:	32° 16' 9.702719 N
From:	Map	Easting:	709,519.68 usft	Longitude:	103° 47' 21.105685 W
Position Uncertainty:	50.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.29 °

Well	IRIDIUM MDP1 28-21 FED COM 4H					
Well Position	+N/-S	-668.81 ft	Northing:	461,484.48 usft	Latitude:	32° 16' 2.992542 N
	+E/-W	1,830.42 ft	Easting:	711,349.99 usft	Longitude:	103° 46' 59.827995 W
Position Uncertainty		2.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	3,386.70 ft

Wellbore	WB					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	HDGM	5/1/2018	6.88	60.00	48,075	

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	0.69

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	
7,075.00	0.00	0.00	7,075.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,574.85	10.00	32.29	7,572.32	36.77	23.24	2.00	2.00	0.00	32.29	
9,114.63	10.00	32.29	9,088.72	262.73	166.04	0.00	0.00	0.00	0.00	
9,614.49	0.00	359.68	9,586.04	299.50	189.28	2.00	-2.00	0.00	180.00	IRIDIUM_4H_KOP
10,514.49	90.00	359.68	10,159.00	872.45	186.08	10.00	10.00	0.00	-0.32	
20,436.39	90.02	359.68	10,157.00	10,794.20	130.63	0.00	0.00	0.00	0.00	IRIDIUM_4H_BHL

Oxy

Planning Report

Database: HOPSPP
Company: ENGINEERING DESIGNS
Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: IRIDIUM MDP1 28-21 FED COM
Well: IRIDIUM MDP1 28-21 FED COM 4H
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Design: Permitting Plan

Local Co-ordinate Reference: Well IRIDIUM MDP1 28-21 FED COM 4H
TVD Reference: Datum @ 3413.20ft
MD Reference: Datum @ 3413.20ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
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

Oxy Planning Report

Database: HOPSPP
Company: ENGINEERING DESIGNS
Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: IRIDIUM MDP1 28-21 FED COM
Well: IRIDIUM MDP1 28-21 FED COM 4H
Wellbore: WB
Design: Permitting Plan

Local Co-ordinate Reference: Well IRIDIUM MDP1 28-21 FED COM 4H
TVD Reference: Datum @ 3413.20ft
MD Reference: Datum @ 3413.20ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
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
7,075.00	0.00	0.00	7,075.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.50	32.29	7,100.00	0.09	0.06	0.09	2.00	2.00	0.00
7,200.00	2.50	32.29	7,199.96	2.30	1.46	2.32	2.00	2.00	0.00
7,300.00	4.50	32.29	7,299.77	7.47	4.72	7.52	2.00	2.00	0.00
7,400.00	6.50	32.29	7,399.30	15.57	9.84	15.68	2.00	2.00	0.00
7,500.00	8.50	32.29	7,498.44	26.60	16.81	26.80	2.00	2.00	0.00
7,574.85	10.00	32.29	7,572.32	36.77	23.24	37.05	2.00	2.00	0.00
7,600.00	10.00	32.29	7,597.09	40.46	25.57	40.77	0.00	0.00	0.00
7,700.00	10.00	32.29	7,695.57	55.13	34.84	55.55	0.00	0.00	0.00
7,800.00	10.00	32.29	7,794.05	69.81	44.12	70.34	0.00	0.00	0.00
7,900.00	10.00	32.29	7,892.53	84.48	53.39	85.12	0.00	0.00	0.00
8,000.00	10.00	32.29	7,991.01	99.16	62.67	99.91	0.00	0.00	0.00
8,100.00	10.00	32.29	8,089.49	113.83	71.94	114.70	0.00	0.00	0.00
8,200.00	10.00	32.29	8,187.98	128.51	81.22	129.48	0.00	0.00	0.00
8,300.00	10.00	32.29	8,286.46	143.18	90.49	144.27	0.00	0.00	0.00
8,400.00	10.00	32.29	8,384.94	157.86	99.77	159.05	0.00	0.00	0.00
8,500.00	10.00	32.29	8,483.42	172.53	109.04	173.84	0.00	0.00	0.00
8,600.00	10.00	32.29	8,581.90	187.21	118.31	188.63	0.00	0.00	0.00
8,700.00	10.00	32.29	8,680.38	201.88	127.59	203.41	0.00	0.00	0.00
8,800.00	10.00	32.29	8,778.87	216.56	136.86	218.20	0.00	0.00	0.00
8,900.00	10.00	32.29	8,877.35	231.23	146.14	232.98	0.00	0.00	0.00
9,000.00	10.00	32.29	8,975.83	245.91	155.41	247.77	0.00	0.00	0.00
9,100.00	10.00	32.29	9,074.31	260.58	164.69	262.55	0.00	0.00	0.00
9,114.63	10.00	32.29	9,088.72	262.73	166.04	264.72	0.00	0.00	0.00
9,200.00	8.29	32.29	9,173.00	274.20	173.29	276.27	2.00	-2.00	0.00
9,300.00	6.29	32.29	9,272.19	284.92	180.07	287.08	2.00	-2.00	0.00
9,400.00	4.29	32.29	9,371.76	292.71	184.99	294.93	2.00	-2.00	0.00
9,500.00	2.29	32.29	9,471.59	297.56	188.06	299.82	2.00	-2.00	0.00
9,600.00	0.29	32.29	9,571.56	299.47	189.26	301.74	2.00	-2.00	0.00
9,614.49	0.00	359.68	9,586.04	299.50	189.28	301.77	2.00	-2.00	0.00
9,700.00	8.55	359.68	9,671.24	305.87	189.25	308.14	10.00	10.00	0.00
9,800.00	18.55	359.68	9,768.33	329.27	189.11	331.53	10.00	10.00	0.00
9,900.00	28.55	359.68	9,859.89	369.17	188.89	371.43	10.00	10.00	0.00
10,000.00	38.55	359.68	9,943.12	424.37	188.58	426.62	10.00	10.00	0.00
10,100.00	48.55	359.68	10,015.50	493.18	188.20	495.43	10.00	10.00	0.00
10,200.00	58.55	359.68	10,074.84	573.52	187.75	575.75	10.00	10.00	0.00
10,300.00	68.55	359.68	10,119.32	662.94	187.25	665.16	10.00	10.00	0.00

Oxy

Planning Report

Database: HOPSPP
Company: ENGINEERING DESIGNS
Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: IRIDIUM MDP1 28-21 FED COM
Well: IRIDIUM MDP1 28-21 FED COM 4H
Wellbore: WB
Design: Permitting Plan

Local Co-ordinate Reference: Well IRIDIUM MDP1 28-21 FED COM 4H
TVD Reference: Datum @ 3413.20ft
MD Reference: Datum @ 3413.20ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,400.00	78.55	359.68	10,147.60	758.72	186.71	760.93	10.00	10.00	0.00
10,500.00	88.55	359.68	10,158.82	857.96	186.16	860.15	10.00	10.00	0.00
10,514.49	90.00	359.68	10,159.00	872.45	186.08	874.63	10.00	10.00	0.00
10,600.00	90.00	359.68	10,159.00	957.96	185.60	960.14	0.00	0.00	0.00
10,700.00	90.00	359.68	10,159.00	1,057.96	185.04	1,060.12	0.00	0.00	0.00
10,800.00	90.00	359.68	10,159.00	1,157.96	184.48	1,160.10	0.00	0.00	0.00
10,900.00	90.00	359.68	10,159.00	1,257.95	183.92	1,260.09	0.00	0.00	0.00
11,000.00	90.00	359.68	10,159.00	1,357.95	183.37	1,360.07	0.00	0.00	0.00
11,100.00	90.00	359.68	10,158.99	1,457.95	182.81	1,460.06	0.00	0.00	0.00
11,200.00	90.00	359.68	10,158.99	1,557.95	182.25	1,560.04	0.00	0.00	0.00
11,300.00	90.00	359.68	10,158.99	1,657.95	181.69	1,660.03	0.00	0.00	0.00
11,400.00	90.00	359.68	10,158.98	1,757.95	181.13	1,760.01	0.00	0.00	0.00
11,500.00	90.00	359.68	10,158.98	1,857.95	180.57	1,859.99	0.00	0.00	0.00
11,600.00	90.00	359.68	10,158.98	1,957.94	180.01	1,959.98	0.00	0.00	0.00
11,700.00	90.00	359.68	10,158.97	2,057.94	179.45	2,059.96	0.00	0.00	0.00
11,800.00	90.00	359.68	10,158.97	2,157.94	178.89	2,159.95	0.00	0.00	0.00
11,900.00	90.00	359.68	10,158.96	2,257.94	178.34	2,259.93	0.00	0.00	0.00
12,000.00	90.00	359.68	10,158.96	2,357.94	177.78	2,359.92	0.00	0.00	0.00
12,100.00	90.00	359.68	10,158.95	2,457.94	177.22	2,459.90	0.00	0.00	0.00
12,200.00	90.00	359.68	10,158.94	2,557.93	176.66	2,559.88	0.00	0.00	0.00
12,300.00	90.00	359.68	10,158.94	2,657.93	176.10	2,659.87	0.00	0.00	0.00
12,400.00	90.00	359.68	10,158.93	2,757.93	175.54	2,759.85	0.00	0.00	0.00
12,500.00	90.00	359.68	10,158.92	2,857.93	174.98	2,859.84	0.00	0.00	0.00
12,600.00	90.00	359.68	10,158.91	2,957.93	174.42	2,959.82	0.00	0.00	0.00
12,700.00	90.01	359.68	10,158.90	3,057.93	173.86	3,059.81	0.00	0.00	0.00
12,800.00	90.01	359.68	10,158.89	3,157.93	173.31	3,159.79	0.00	0.00	0.00
12,900.00	90.01	359.68	10,158.88	3,257.92	172.75	3,259.78	0.00	0.00	0.00
13,000.00	90.01	359.68	10,158.87	3,357.92	172.19	3,359.76	0.00	0.00	0.00
13,100.00	90.01	359.68	10,158.86	3,457.92	171.63	3,459.74	0.00	0.00	0.00
13,200.00	90.01	359.68	10,158.85	3,557.92	171.07	3,559.73	0.00	0.00	0.00
13,300.00	90.01	359.68	10,158.84	3,657.92	170.51	3,659.71	0.00	0.00	0.00
13,400.00	90.01	359.68	10,158.83	3,757.92	169.95	3,759.70	0.00	0.00	0.00
13,500.00	90.01	359.68	10,158.82	3,857.91	169.39	3,859.68	0.00	0.00	0.00
13,600.00	90.01	359.68	10,158.81	3,957.91	168.83	3,959.67	0.00	0.00	0.00
13,700.00	90.01	359.68	10,158.79	4,057.91	168.28	4,059.65	0.00	0.00	0.00
13,800.00	90.01	359.68	10,158.78	4,157.91	167.72	4,159.63	0.00	0.00	0.00
13,900.00	90.01	359.68	10,158.77	4,257.91	167.16	4,259.62	0.00	0.00	0.00
14,000.00	90.01	359.68	10,158.75	4,357.91	166.60	4,359.60	0.00	0.00	0.00
14,100.00	90.01	359.68	10,158.74	4,457.90	166.04	4,459.59	0.00	0.00	0.00
14,200.00	90.01	359.68	10,158.72	4,557.90	165.48	4,559.57	0.00	0.00	0.00
14,300.00	90.01	359.68	10,158.71	4,657.90	164.92	4,659.56	0.00	0.00	0.00
14,400.00	90.01	359.68	10,158.69	4,757.90	164.36	4,759.54	0.00	0.00	0.00
14,500.00	90.01	359.68	10,158.68	4,857.90	163.81	4,859.53	0.00	0.00	0.00
14,600.00	90.01	359.68	10,158.66	4,957.90	163.25	4,959.51	0.00	0.00	0.00
14,700.00	90.01	359.68	10,158.64	5,057.90	162.69	5,059.49	0.00	0.00	0.00
14,800.00	90.01	359.68	10,158.63	5,157.89	162.13	5,159.48	0.00	0.00	0.00
14,900.00	90.01	359.68	10,158.61	5,257.89	161.57	5,259.46	0.00	0.00	0.00
15,000.00	90.01	359.68	10,158.59	5,357.89	161.01	5,359.45	0.00	0.00	0.00
15,100.00	90.01	359.68	10,158.57	5,457.89	160.45	5,459.43	0.00	0.00	0.00
15,200.00	90.01	359.68	10,158.55	5,557.89	159.89	5,559.42	0.00	0.00	0.00
15,300.00	90.01	359.68	10,158.53	5,657.89	159.33	5,659.40	0.00	0.00	0.00
15,400.00	90.01	359.68	10,158.52	5,757.88	158.78	5,759.38	0.00	0.00	0.00
15,500.00	90.01	359.68	10,158.50	5,857.88	158.22	5,859.37	0.00	0.00	0.00
15,600.00	90.01	359.68	10,158.47	5,957.88	157.66	5,959.35	0.00	0.00	0.00

Oxy

Planning Report

Database: HOPSPP
Company: ENGINEERING DESIGNS
Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: IRIDIUM MDP1 28-21 FED COM
Well: IRIDIUM MDP1 28-21 FED COM 4H
Wellbore: WB
Design: Permitting Plan

Local Co-ordinate Reference: Well IRIDIUM MDP1 28-21 FED COM 4H
TVD Reference: Datum @ 3413.20ft
MD Reference: Datum @ 3413.20ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,700.00	90.01	359.68	10,158.45	6,057.88	157.10	6,059.34	0.00	0.00	0.00
15,800.00	90.01	359.68	10,158.43	6,157.88	156.54	6,159.32	0.00	0.00	0.00
15,900.00	90.01	359.68	10,158.41	6,257.88	155.98	6,259.31	0.00	0.00	0.00
16,000.00	90.01	359.68	10,158.39	6,357.88	155.42	6,359.29	0.00	0.00	0.00
16,100.00	90.01	359.68	10,158.37	6,457.87	154.86	6,459.27	0.00	0.00	0.00
16,200.00	90.01	359.68	10,158.34	6,557.87	154.30	6,559.26	0.00	0.00	0.00
16,300.00	90.01	359.68	10,158.32	6,657.87	153.75	6,659.24	0.00	0.00	0.00
16,400.00	90.01	359.68	10,158.30	6,757.87	153.19	6,759.23	0.00	0.00	0.00
16,500.00	90.01	359.68	10,158.27	6,857.87	152.63	6,859.21	0.00	0.00	0.00
16,600.00	90.01	359.68	10,158.25	6,957.87	152.07	6,959.20	0.00	0.00	0.00
16,700.00	90.01	359.68	10,158.22	7,057.86	151.51	7,059.18	0.00	0.00	0.00
16,800.00	90.01	359.68	10,158.20	7,157.86	150.95	7,159.17	0.00	0.00	0.00
16,900.00	90.01	359.68	10,158.17	7,257.86	150.39	7,259.15	0.00	0.00	0.00
17,000.00	90.02	359.68	10,158.15	7,357.86	149.83	7,359.13	0.00	0.00	0.00
17,100.00	90.02	359.68	10,158.12	7,457.86	149.27	7,459.12	0.00	0.00	0.00
17,200.00	90.02	359.68	10,158.09	7,557.86	148.72	7,559.10	0.00	0.00	0.00
17,300.00	90.02	359.68	10,158.06	7,657.85	148.16	7,659.09	0.00	0.00	0.00
17,400.00	90.02	359.68	10,158.04	7,757.85	147.60	7,759.07	0.00	0.00	0.00
17,500.00	90.02	359.68	10,158.01	7,857.85	147.04	7,859.06	0.00	0.00	0.00
17,600.00	90.02	359.68	10,157.98	7,957.85	146.48	7,959.04	0.00	0.00	0.00
17,700.00	90.02	359.68	10,157.95	8,057.85	145.92	8,059.02	0.00	0.00	0.00
17,800.00	90.02	359.68	10,157.92	8,157.85	145.36	8,159.01	0.00	0.00	0.00
17,900.00	90.02	359.68	10,157.89	8,257.85	144.80	8,258.99	0.00	0.00	0.00
18,000.00	90.02	359.68	10,157.86	8,357.84	144.24	8,358.98	0.00	0.00	0.00
18,100.00	90.02	359.68	10,157.83	8,457.84	143.69	8,458.96	0.00	0.00	0.00
18,200.00	90.02	359.68	10,157.80	8,557.84	143.13	8,558.95	0.00	0.00	0.00
18,300.00	90.02	359.68	10,157.77	8,657.84	142.57	8,658.93	0.00	0.00	0.00
18,400.00	90.02	359.68	10,157.74	8,757.84	142.01	8,758.91	0.00	0.00	0.00
18,500.00	90.02	359.68	10,157.70	8,857.84	141.45	8,858.90	0.00	0.00	0.00
18,600.00	90.02	359.68	10,157.67	8,957.83	140.89	8,958.88	0.00	0.00	0.00
18,700.00	90.02	359.68	10,157.64	9,057.83	140.33	9,058.87	0.00	0.00	0.00
18,800.00	90.02	359.68	10,157.61	9,157.83	139.77	9,158.85	0.00	0.00	0.00
18,900.00	90.02	359.68	10,157.57	9,257.83	139.21	9,258.84	0.00	0.00	0.00
19,000.00	90.02	359.68	10,157.54	9,357.83	138.66	9,358.82	0.00	0.00	0.00
19,100.00	90.02	359.68	10,157.50	9,457.83	138.10	9,458.81	0.00	0.00	0.00
19,200.00	90.02	359.68	10,157.47	9,557.83	137.54	9,558.79	0.00	0.00	0.00
19,300.00	90.02	359.68	10,157.43	9,657.82	136.98	9,658.77	0.00	0.00	0.00
19,400.00	90.02	359.68	10,157.40	9,757.82	136.42	9,758.76	0.00	0.00	0.00
19,500.00	90.02	359.68	10,157.36	9,857.82	135.86	9,858.74	0.00	0.00	0.00
19,600.00	90.02	359.68	10,157.32	9,957.82	135.30	9,958.73	0.00	0.00	0.00
19,700.00	90.02	359.68	10,157.29	10,057.82	134.74	10,058.71	0.00	0.00	0.00
19,800.00	90.02	359.68	10,157.25	10,157.82	134.18	10,158.70	0.00	0.00	0.00
19,900.00	90.02	359.68	10,157.21	10,257.81	133.63	10,258.68	0.00	0.00	0.00
20,000.00	90.02	359.68	10,157.17	10,357.81	133.07	10,358.66	0.00	0.00	0.00
20,100.00	90.02	359.68	10,157.13	10,457.81	132.51	10,458.65	0.00	0.00	0.00
20,200.00	90.02	359.68	10,157.09	10,557.81	131.95	10,558.63	0.00	0.00	0.00
20,300.00	90.02	359.68	10,157.05	10,657.81	131.39	10,658.62	0.00	0.00	0.00
20,400.00	90.02	359.68	10,157.01	10,757.81	130.83	10,758.60	0.00	0.00	0.00
20,436.39	90.02	359.68	10,157.00	10,794.20	130.63	10,794.99	0.00	0.00	0.00

Oxy Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well IRIDIUM MDP1 28-21 FED COM 4H
Company:	ENGINEERING DESIGNS	TVD Reference:	Datum @ 3413.20ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	Datum @ 3413.20ft
Site:	IRIDIUM MDP1 28-21 FED COM	North Reference:	Grid
Well:	IRIDIUM MDP1 28-21 FED COM 4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB		
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
IRIDIUM_4H_KOP - plan hits target center - Point	0.00	0.00	9,586.04	299.50	189.28	461,783.96	711,539.26	32° 16' 5.946452 N	103° 46' 57.605717
IRIDIUM_4H_BHL - plan hits target center - Point	0.00	0.00	10,157.00	10,794.20	130.63	472,278.03	711,480.61	32° 17' 49.793653 N	103° 46' 57.661412

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,075.00	7,075.00	0.00	0.00	STEP OUT DLS 2.00
7,574.85	7,572.32	36.77	23.24	HOLD 10 DEG TANGENT
9,114.63	9,088.72	262.73	166.04	DROP BACK TO VERTICAL DLS 2.00
9,614.49	9,586.04	299.50	189.28	BUILD CURVE 10 DEG / 100
10,514.49	10,159.00	872.45	186.08	LANDING POINT
20,436.39	10,157.00	10,794.20	130.63	TD at 20436.39