

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT Sundry Print Report

Well Name: IRIDIUM MDP1 28-21

FEDERAL COM

Well Location: T23S / R31E / SEC 28 /

SESW / 32.269857 / -103.785376

County or Parish/State: EDDY /

NM

Well Number: 75H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM40659

**Unit or CA Name:** 

Unit or CA Number:

NMNM138937

**US Well Number: 3001556301** 

Operator: OXY USA INCORPORATED

### **Notice of Intent**

Sundry ID: 2854008

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 05/21/2025

Time Sundry Submitted: 07:40

Date proposed operation will begin: 05/21/2025

**Procedure Description:** OXY USA INC. respectfully requests to amend the subject AAPD to update the TVD. OLD TVD: 11457' NEW TVD: 10586' \*THERE IS NO ADDITIONAL SURFACE DISTURBANCE RELATED TO THIS SUNDRY" Attached is the updated drill plan, directional, BOP Break Testing Variance and APD Change Worksheet.

# **NOI Attachments**

# **Procedure Description**

IRIDIUMMDP128\_21FEDCOM75H\_BOPBreakTestingVariance2025\_20250521073941.pdf

IRIDIUMMDP128\_21FEDCOM75H\_DirectPlan\_20250521073928.pdf

IRIDIUMMDP128\_21FEDCOM75H\_DrillPlan\_20250521073915.pdf

IRIDIUMMDP128\_21FEDCOM75H\_APDCHGSUNDRYWORKSHEET\_20250521073903.pdf

Received by OCD: WARAGE HODEN MAN 28-21

FEDERAL COM

Well Location: T23S / R31E / SEC 28 / SESW / 32.269857 / -103.785376

County or Parish/State: EDDY /

Page 2 of 26

Well Number: 75H

Type of Well: OIL WELL

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**Unit or CA Name:** 

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**US Well Number: 3001556301** 

Operator: OXY USA INCORPORATED

# **Conditions of Approval**

### Additional

5M\_BREAK\_TESTING\_\_INTERMEDIATE\_AND\_PRODUCTION\_\_\_6\_22\_2025\_20250622184115.pdf

# **Operator**

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: MELISSA GUIDRY Signed on: MAY 21, 2025 07:40 AM

Name: OXY USA INCORPORATED

Title: Advisor Regulatory Sr.

Street Address: 5 GREENWAY PLAZA SUITE 110

City: HOUSTON State: TX

Phone: (713) 497-2481

Email address: MELISSA\_GUIDRY@OXY.COM

# **Field**

Representative Name:

Street Address:

City: State: Zip:

Phone:

Email address:

# **BLM Point of Contact**

**BLM POC Name: KEITH P IMMATTY BLM POC Title: ENGINEER** 

**BLM POC Phone:** 5759884722 BLM POC Email Address: KIMMATTY@BLM.GOV

Disposition: Approved Disposition Date: 06/22/2025

Signature: KEITH IMMATTY

Page 2 of 2

Form 3160-5

# UNITED STATES

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

(June 2019)	DEP	PARTMENT OF THE I	NTERIOR		Expires: October 31, 2021			
	BUR	EAU OF LAND MAN	AGEMENT		5. Lease Serial No.	MMM	40659	
Do no	t use this f	IOTICES AND REPO form for proposals t Use Form 3160-3 (A	to drill or to	re-enter an	6. If Indian, Allottee or Tribe	Name		
	SUBMIT IN	TRIPLICATE - Other instru	uctions on page	e 2	7. If Unit of CA/Agreement, Name and/or No.			
1. Type of Well					NMNM138937  8. Well Name and No.			
✓ Oil Well		_			IRIDIUM MDP1 28-21 FEDERAL COM/7			
2. Name of Operator O	XY USA INCC	RPORATED			9. API Well No. 300155630	1		
3a. Address P.O. BOX	( 1002, TUPM.	AN, CA 93276-1002	3b. Phone No. (661) 763-604	(include area code 16	10. Field and Pool or Explora INGLE WELLS/BONE SPRING	itory A	rea	
4. Location of Well (For SEC 28/T23S/R31E	_	R.,M., or Survey Description)	11. Country or Parish, State EDDY/NM					
	12. CHE	CK THE APPROPRIATE B	OX(ES) TO IND	DICATE NATURE	OF NOTICE, REPORT OR OT	HER D	OATA	
TYPE OF SUBM	IISSION			TY	PE OF ACTION			
Notice of Intent		Acidize Alter Casing Casing Repair	= '	en aulic Fracturing Construction	Production (Start/Resume) Reclamation Recomplete		Water Shut-Off Well Integrity Other	
Subsequent Repo	ort	Change Plans	=	and Abandon	Temporarily Abandon	_	_ Onlei	
Final Abandonm	ent Notice	Convert to Injection	Plug	Back	Water Disposal			
completed. Final Abis ready for final ins OXY USA INC. OLD TVD: 1145 NEW TVD: 1058 *THERE IS NO Attached is the u	pandonment No espection.)  respectfully red  7'  36'  ADDITIONAL  updated drill pl		all requirements ect AAPD to up CE RELATED T	date the TVD.	nation, have been completed and		must be filed once testing has been erator has detennined that the site	
MELISSA GUIDRY /	0 0	,	іптеа/Туреа)	Advisor R	egulatory Sr.			
Signature (Electro	onic Submissic	on)		Date	05/21/2	2025		
		THE SPACE	FOR FEDE	ERAL OR ST	ATE OFICE USE			
Approved by							20/22/22	
KEITH P IMMATTY	/ Ph: (575) 988	3-4722 / Approved		Title	INEER	Date	06/23/2025	
	holds legal or e	hed. Approval of this notice of equitable title to those rights duct operations thereon.			CARLSBAD			
Title 18 U.S.C Section 1	001 and Title 4	3 U.S.C Section 1212, make	it a crime for an	y person knowing	ly and willfully to make to any d	lepartm	ent 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)

### **GENERAL INSTRUCTIONS**

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

### SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

# **NOTICES**

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

# **Additional Information**

# **Location of Well**

0. SHL: SESW / 609 FSL / 1964 FWL / TWSP: 23S / RANGE: 31E / SECTION: 28 / LAT: 32.269857 / LONG: -103.785376 ( TVD: 0 feet, MD: 0 feet )

PPP: SWSW / 100 FSL / 1310 FWL / TWSP: 23S / RANGE: 31E / SECTION: 28 / LAT: 32.2684549 / LONG: -103.7870529 ( TVD: 8724 feet, MD: 9201 feet )

BHL: NWNW / 20 FNL / 2310 FWL / TWSP: 23S / RANGE: 31E / SECTION: 21 / LAT: 32.2971642 / LONG: -103.7870914 ( TVD: 8716 feet, MD: 19476 feet )

# **BOPE Break Testing Variance**

# (Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system)

- BOPE Break Testing is ONLY permitted for hole sections with 5M MASP or less.
- The break test should involve a shell test that includes testing the upper pipe rams as proposed.
- Variance only pertains to the hole-sections in and shallower than the Wolfcamp formation. Break testing is NOT allowed when planning to penetrate the Penn group.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle in accordance with API STD 53.
- Any well control event while drilling require notification to the BLM Petroleum Engineer.
- A full BOPE test is required prior to drilling the first intermediate section.
- If a hole section tends to show more background gas than normal, please notify BLM Engineer prior to proceeding with break testing on the next well.
- The BLM PET is to be contacted 4 hours prior to BOPE tests.
  - Eddy County Petroleum Engineering Inspection Staff: (575) 361-2822
  - Lea County Petroleum Engineering Inspection Staff: (575) 689-5981
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR 3172. Function test is NOT adequate when repairs are required for BOP components.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

# **BOP Break Testing Request**

Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached with OXY/BLM on April 4th, 2025.

BOPE Break Testing is ONLY permitted for 5M BOPE or less (utilizing a 10M BOPE system.)

Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.

BOP break test for the **intermediate or production** section under the following conditions:

- After a full BOP test is conducted.
- When skidding to drill an intermediate or production section which does not penetrate the deeper than the Wolf Camp formation (<5M).
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 3 CFR part 3170 Subpart 3172
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- In the event break testing is not utilized, then a full BOPE test would be conducted.
- 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
  - o 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.
  - o 1)Wellhead flange, co-flex hose, check valve, upper pipe rams

Subject: Request for a Variance Allowing Break Testing of a Blowout Preventer Stack

OXY USA Inc. (OXY) requests a variance to allow break testing of the Blowout Preventer (BOP) stack when skidding a drilling rig between wells on multi-well pads. This practice entails retesting only the connections of the **BOP** stack that have been disconnected during this operation and not a complete **BOP** test.

# **Background**

43 CFR part 3170 Subpart 3172 states that a **BOP** test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) is this requires a complete **BOP** test and not just a test of the affected component. 43 CFR part 3170 Subpart 3172, Section I.D.2. states, "Some situations may exist either on a well-by-well basis or field-wide basis whereby it is commonly accepted practice to vary a particular minimum standard(s) established in this Order. This situation can be resolved by requesting a variance...". OXY feels the practice of break testing the **BOP** stack is such a situation. Therefore, as per 43 CFR part 3170 Subpart 3172, Section IV., OXY submits this request for the variance.

# **Supporting Rationale**

43 CFR part 3170 Subpart 3172 became effective on December 19, 1988, and has remained the standard for regulating BLM onshore drilling operations for almost 30 years. During this time there have been significant changes in drilling technology. **BLM** continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since 43 CFR part 3170 Subpart 3172 was originally released. The drilling rig fleet OXY utilizes in New Mexico was built with many modern upgrades. One of which allows the rigs to skid between wells on multi-well pads. A part of this rig package is

a hydraulic winch system which safely installs and removes the BOP from the wellhead and carries it during skidding operations. This technology has made break testing a safe and reliable procldure.

American Petroleum Institute (API) standards, specifications and recommended practices are considered industry standards and are consistently utilized and referenced by the industry. 43 CFR part 3170 Subpart 3172 recognized API Recommended Practices (RP) 53 in its original development. API Standard 53, *Blowout Prevention Equipment Systems for Drilling Wells* (Fourth Edition, November 2012, Addendum 1, July 2016) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 6.5.3.4.1.b states "Pressure tests on the well control equipment shall be conducted after the disconnection or repair of any pressure containment seal in the **BOP** stack, choke line, kill line, choke manifold, or wellhead assembly but limited to the affected component."

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specifications and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations. BSEE issued new offshore regulations under 30 CFR Part 250, *Oil and Gas and Sulphur Operations in the Outer Continental Shelf - Blowout Preventer Systems and Well Control*, which became effective on July 28, 2016. Section 250.737(d.1) states "Follow the testing requirements of API Standard 53". In addition, Section 250.737(d.8) has adopted language from **API** Standard 53 as it states "Pressure test affected **BOP** components following the disconnection or repair of any well-pressure containment seal in the wellhead or **BOP** stack assembly".

Break testing has been approved by the BLM in the past. See the Appendix for a Sundry Notice that was approved in 2015 by the Farmington Field Office. This approval granted permission for the operator to break test when skidding its Aztec 1000 rig on multi-well pads.

Oxy feels break testing and our current procedures meet the intent of 43 CFR part 3170 Subpart 3172 and often exceed it. We have not seen any evidence that break testing results in more components failing tests than seen on full BOP tests. As skidding operations take place within the 30-day full BOPE test window, the BOP shell and components such as the pipe rams and check valve get tested to the full rated working pressure more often. Therefore, there are more opportunities to ensure components are in good working order. Also, Oxy's standard requires complete BOP tests more often than that of 43 CFR part 3170 Subpart 3172. In addition to function testing the annular at least weekly and the pipe and blind rams on each trip, Oxy also performs a choke drill prior to drilling out every casing shoe. As a crew's training is a vital part of well control, this procedure to simulate step one of the Driller's Method exceeds the requirements of 43 CFR part 3170 Subpart 3172.

# **Procedures**

- 1) OXY would perform BOP break testing on multi-well pads where multiple intermediate or production sections can be drilled and cased within the 21-day BOP test window
- 2) After performing a complete BOP test on the first well and drilling and casing the hole section, three breaks would be made on the BOP.
  - > Between the check valve and the kill line
  - > Between the HCR valve and the co-flex hose or the co-flex hose and the manifold
  - ➤ Between the BOP flange and the wellhead
- 3) The BOP is then lifted and removed from the wellhead by the hydraulic winch system
- 4) After skidding to the next well, the BOP is moved to the wellhead by the hydraulic winch system and installed
- 5) The choke line and kill line are reconnected
- 6) A test plug is installed in the wellhead with a joint of drill pipe and the internal parts of the check valve are removed
- 7) A shell test is performed against the upper pipe rams testing all thlee breaks
- 8) The internal parts of the check valve are reinstalled and the HCR valve is closed. A second test is performed on them
- 9) These tests consist of a 250 psi low test and a high test to the value submitted in the APD or SN (e.g., 5000 psi)
- 10) Perform a function test of components not pressure tested to include the lower pipe rams, the blind rams and the annular
- 11) If this were a three well pad, the same three breaks on the BOP would be made and steps 4 through 11 would be repeated
- 12) A second break test would only be done if the third hole section could be completed within the 21-day BOP test window
- 13) If a second break test is performed, additional components that were not tested on the initial break test will be tested on this break test

# Notes:

- a. If any parts of the BOP are changed out or any additional breaks are made during the skidding operation, these affected components would also be tested as in step 10.
- b. As the choke manifold remains stationary during the skidding operation and the only break to the manifold is tested in step 8 above, no further testing of the manifold is done until the next full BOP test.

# **Summary**

OXY requests a variance to allow break testing of the BOP stack when skidding drilling rigs between wells on multi-well pads. API standards, specifications and recommended practices are considered industry standards and are consistently utilized and referenced by the industry and the BLM. API Standard 53 recognizes break testing as an acceptable practice and BSEE adopted language from this standard into its newly created 30 CFR Part 250 which also supports break testing. Due to this, OXY feels this request meets the intent of 43 CFR part 3170

PRD NM DIRECTIONAL PLANS (NAD 1983) Iridium MDP1 28\_21 Fed Com Iridium MDP1 28\_21 Fed Com 75H

**ORIG HOLE** 

Plan: Permitting Plan

# **Standard Planning Report**

20 May, 2025

### 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 75H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well Iridium MDP1 28\_21 Fed Com 75H

RKB=25' @ 3402.00ft RKB=25' @ 3402.00ft

Grid

Minimum Curvature

Project PRD NM DIRECTIONAL PLANS (NAD 1983)

Map System: US State Plane 1983
Geo Datum: North American Datum 1983

Geo Datum: North American Datum 1983

Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Using geodetic scale factor

Site Iridium MDP1 28\_21 Fed Com

 Site Position:
 Northing:
 462,153.25 usft
 Latitude:
 32.269362

 From:
 Map
 Easting:
 709,519.68 usft
 Longitude:
 -103.789196

Position Uncertainty: 0.89 ft Slot Radius: 13.200 in

Well Iridium MDP1 28\_21 Fed Com 75H

 Well Position
 +N/-S
 0.00 ft
 Northing:
 462,339.42 usf
 Latitude:
 32.269855

 +E/-W
 0.00 ft
 Easting:
 710,834.49 usf
 Longitude:
 -103.784939

Position Uncertainty2.00 ftWellhead Elevation:ftGround Level:3,377.00 ft

Grid Convergence: 0.29 °

Wellbore ORIG HOLE

 Magnetics
 Model Name
 Sample Date (°)
 Declination (°)
 Dip Angle (°)
 Field Strength (nT)

 HDGM\_FILE
 3/2/2023
 6.43
 59.85
 47,562.60000000

Design Permitting Plan

Audit Notes:

Version: Phase: PROTOTYPE Tie On Depth: 0.00

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction

(ft) (ft) (ft) (°)
0.00 0.00 0.00 1.64

Plan Survey Tool Program Date 5/20/2025

Depth From Depth To

(ft) (ft) Survey (Wellbore) Tool Name Remarks

0.00 21,272.26 Permitting Plan (ORIG HOLE) B001Mc\_MWD+HRGM\_R5

MWD+HRGM

**Plan Sections** Vertical Measured Dogleg Build Turn Depth Inclination **Azimuth** Depth +N/-S +E/-W Rate Rate Rate **TFO** (ft) (ft) (°/100ft) (°/100ft) (°/100ft) (ft) (ft) (°) (°) (°) **Target** 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 4,480.00 0.00 4,480.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5,579.70 11.00 160.94 5,572.96 -99.44 34.36 1.00 1.00 0.00 160.94 9,998.71 160.94 9,910.83 -896.19 309.62 0.00 0.00 0.00 11.00 0.0090.00 359.64 348.18 11,002.81 10,586.00 -332.41 10.00 7.87 -16.06 -160.97 359.64 21,272.81 90.00 10,586.00 9,937.39 284.19 0.00 0.00 0.00 0.00 PBHL (Iridium

# Planning Report

Database: Company: HOPSPP

**ENGINEERING DESIGNS** 

**Project:** PRD NM DIRECTIONAL PLANS (NAD 1983)

 Site:
 Iridium MDP1 28\_21 Fed Com

 Well:
 Iridium MDP1 28\_21 Fed Com 75H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Iridium MDP1 28\_21 Fed Com 75H

RKB=25' @ 3402.00ft RKB=25' @ 3402.00ft

RKB=25 @ 340

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
2,500 <b>.</b> 00 2,600 <b>.</b> 00	0.00 0.00	0.00 0.00	2,600.00	0.00	0.00	0.00	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
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,100.00	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
•			,						
4,480.00	0.00	0.00	4,480.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 1°/100									
4,500.00	0.20	160.94	4,500.00	-0.03	0.01	-0.03	1.00	1.00	0.00
4,600.00	1.20	160.94	4,599.99	-1.19	0.41	-1.18	1.00	1.00	0.00
4,700.00	2.20	160.94	4,699.95	-3.99	1.38	-3.95	1.00	1.00	0.00
4,800.00	3.20	160.94	4,799.83	-8.44	2.92	-8.36	1.00	1.00	0.00
4,900.00	4.20	160.94	4,899.62	-14.54	5.02	-14.39	1.00	1.00	0.00
5,000.00	5.20	160.94	4,999.29	-22.29	7.70	-22.06	1.00	1.00	0.00
5,100.00	6.20	160.94	5,098.79	-31.68	10.94	-31.35	1.00	1.00	0.00
5,200.00	7.20	160.94	5,198.11	-42.70	14.75	-42.26	1.00	1.00	0.00

# Planning Report

Database: Company: Project: HOPSPP

**ENGINEERING DESIGNS** 

PRD NM DIRECTIONAL PLANS (NAD 1983)

 Site:
 Iridium MDP1 28\_21 Fed Com

 Well:
 Iridium MDP1 28\_21 Fed Com 75H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Iridium MDP1 28\_21 Fed Com 75H

RKB=25' @ 3402.00ft RKB=25' @ 3402.00ft

Grid

sign:	Permitting Pla	an							
nned 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	8.20	160.94	5,297.20	-55.37	19.13	-54.80	1.00	1.00	0.00
5,400.00 5,500.00 5,579.70	9.20 10.20 11.00	160.94 160.94 160.94	5,396.05 5,494.62 5,572.96	-69.66 -85.59 -99.44	24.07 29.57 34.36	-68.95 -84.71 -98.42	1.00 1.00 1.00	1.00 1.00 1.00	0.00 0.00 0.00
Hold 11° Ta	•								
5,600.00 5,700.00	11.00 11.00	160.94 160.94	5,592.89 5,691.05	-103.10 -121.13	35.62 41.85	-102.04 -119.89	0.00 0.00	0.00 0.00	0.00 0.00
5,800.00	11.00	160.94	5,789.22	-139.16	48.08	-137.73	0.00	0.00	0.00
5,900.00	11.00	160.94	5,887.38	-157.19	54.31	-155.58	0.00	0.00	0.00
6,000.00	11.00	160.94	5,985.54	-175.22	60.54	-173.42	0.00	0.00	0.00
6,100 <b>.</b> 00 6,200 <b>.</b> 00	11.00	160.94 160.94	6,083.71 6,181.87	-193.25 211.28	66.77 73.00	-191.27 -209.11	0.00 0.00	0.00 0.00	0.00 0.00
	11.00			-211.28					
6,300.00	11.00	160.94	6,280.03	-229.31	79 <b>.</b> 22	-226.96	0.00	0.00	0.00
6,400.00	11.00	160.94	6,378.20	-247.34	85.45	-244.80	0.00	0.00	0.00
6,500 <b>.</b> 00 6,600 <b>.</b> 00	11.00 11.00	160.94 160.94	6,476.36 6,574.53	-265.37 -283.40	91.68 97.91	-262.64 -280.49	0.00 0.00	0.00 0.00	0.00 0.00
6,700.00	11.00	160.94	6,574.53 6,672.69	-283.40 -301.43	104.14	-280.49 -298.33	0.00	0.00	0.00
6,800.00	11.00	160.94	6,770.85	-319.46	110.37	-316.18	0.00	0.00	0.00
6,900 <b>.</b> 00 7,000 <b>.</b> 00	11.00 11.00	160.94 160.94	6,869.02 6,967.18	-337.49 -355.52	116.60 122.83	-334.02 -351.87	0.00 0.00	0.00 0.00	0.00 0.00
7,000.00	11.00	160.94 160.94	6,967.18 7,065.34	-355.52 -373.55	122.83	-351.87 -369.71	0.00	0.00	0.00
7,100.00	11.00	160.94	7,065.54 7,163.51	-373.55 -391.58	135.29	-387.56	0.00	0.00	0.00
•									
7,300.00	11.00	160.94	7,261.67	-409.61	141.52	-405.40	0.00	0.00	0.00
7,400.00	11.00	160.94	7,359.83	-427.64	147.75	-423.25	0.00	0.00	0.00
7,500.00	11.00 11.00	160.94 160.94	7,458.00 7,556.16	-445.67 -463.70	153.97 160.20	-441.09 -458.94	0.00 0.00	0.00 0.00	0.00 0.00
7,600.00 7,700.00	11.00	160.94 160.94	7,556.16 7,654.33	-463.70 -481.73	160.20	-458.94 -476.78	0.00	0.00	0.00
7,800.00	11.00	160.94	7,752.49	-499.76	172.66	-494.62	0.00	0.00	0.00
7,900.00 8,000.00	11.00 11.00	160.94 160.94	7,850.65 7,948.82	-517.79 -535.82	178.89 185.12	-512.47 -530.31	0.00 0.00	0.00 0.00	0.00 0.00
8,100.00	11.00	160.94	7,948.82 8,046.98	-535.82 -553.85	185.12	-530.31 -548.16	0.00	0.00	0.00
8,200.00	11.00	160.94	8,145.14	-553.65 -571.88	197.58	-546.10 -566.00	0.00	0.00	0.00
8,300.00	11.00	160.94	8,243.31	-589.91	203.81	-583.85	0.00	0.00	0.00
8,400.00	11.00	160.94	8,243.31 8,341.47	-589.91 -607.94	210.04	-583.85 -601.69	0.00	0.00	0.00
8,500.00	11.00	160.94	8,439.64	-625.97	216.04	-619.54	0.00	0.00	0.00
8,600.00	11.00	160.94	8,537.80	-644.00	222.49	-637.38	0.00	0.00	0.00
8,700.00	11.00	160.94	8,635.96	-662.03	228.72	-655.23	0.00	0.00	0.00
8,800.00	11.00	160.94	8,734.13	-680.06	234.95	-673.07	0.00	0.00	0.00
8,900.00	11.00	160.94	8,832.29	-698.09	241.18	-690.92	0.00	0.00	0.00
9,000.00	11.00	160.94	8,930.45	-716.12	247.41	-708.76	0.00	0.00	0.00
9,100.00	11.00	160.94	9,028.62	-734.16	253.64	-726.60	0.00	0.00	0.00
9,200.00	11.00	160.94	9,126.78	-752.19	259.87	-744.45	0.00	0.00	0.00
9,300.00	11.00	160.94	9,224.95	-770.22	266.10	-762.29	0.00	0.00	0.00
9,400.00	11.00	160.94	9,323.11	-788.25	272.33	-780.14	0.00	0.00	0.00
9,500.00	11.00	160.94	9,421.27	-806.28	278.56	-797.98	0.00	0.00	0.00
9,600.00	11.00	160.94	9,519.44	-824.31	284.79	-815.83	0.00	0.00	0.00
9,700.00	11.00	160.94	9,617.60	-842.34	291.02	-833.67	0.00	0.00	0.00
9,800.00	11.00	160.94	9,715.76	-860.37	297.24	-851.52	0.00	0.00	0.00
9,900.00	11.00	160.94	9,813.93	-878.40	303.47	-869.36	0.00	0.00	0.00
9,998.71	11.00	160.94	9,910.83	-896.19	309.62	-886.98	0.00	0.00	0.00
	l & Turn 10°/100								
10,000.00	10.88	160.72	9,912.09	-896.42	309.70	-887.20	10.00	-9.45	-17.28
10,100.00	3.58	94.15	10,011.35	-905.58	315.94	-896.18	10.00	-7.30	-66.57
10,200.00	10.35	19.60	10,110.69	-897.32	322.08	-887.75	10.00	6.77	-74.55
10,300.00	20.03	9.49	10,207.10	-871.91	327.93	-862.18	10.00	9.68	-10.11

# Planning Report

Database: Company: HOPSPP

**ENGINEERING DESIGNS** 

**Project:** PRD NM DIRECTIONAL PLANS (NAD 1983)

 Site:
 Iridium MDP1 28\_21 Fed Com

 Well:
 Iridium MDP1 28\_21 Fed Com 75H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Iridium MDP1 28\_21 Fed Com 75H

RKB=25' @ 3402.00ft RKB=25' @ 3402.00ft

Grid

Design:	Permitting Pla	an							
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	29.91	5.86	10,297.65	-830.11	333.31	-820.24	10.00	9.89	-3.63
10,500.00	39.85	3.92	10,379.58	-773.20	338.06	-763.22	10.00	9.94	-1.94
10,600.00	49.81	2.66	10,450.41	-702.90	342.04	-692.83	10.00	9.96	-1.26
10,700.00	59.78	1.72	10,507.98	-621.35	345.12	-611.23	10.00	9.97	-0.94
10,716.47	61.43	1.59	10,516.06	-607.00	345.53	-596.88	10.00	9.97	-0.82
PPP-1 Cross 10,800.00 10,900.00 11,000.00	69.76 79.74 89.72	0.96 0.29 359.66	10,550.55 10,576.82 10,585.99	-531.02 -434.67 -335.22	347.21 348.25 348.20	-520.88 -424.54 -325.13	10.00 10.00 10.00	9.98 9.98 9.98	-0.75 -0.67 -0.63
11,002.81 Landing Poi		359.64	10,586.00	-332.41	348.18	-322.33	10.00	9.98	-0.62
11,100.00	90.00	359.64	10,586.00	-235.22	347.57	-225.19	0.00	0.00	0.00
11,200.00	90.00	359.64	10,586.00	-135.23	346.95	-125.25	0.00	0.00	0.00
11,300.00	90.00	359.64	10,586.00	-35.23	346.33	-25.31	0.00	0.00	0.00
11,400.00	90.00	359.64	10,586.00	64.77	345.71	74.63	0.00	0.00	0.00
11,500.00	90.00	359.64	10,586.00	164.77	345.08	174.56	0.00	0.00	0.00
11,600.00	90.00	359.64	10,586.00	264.77	344.46	274.50	0.00	0.00	0.00
11,700.00	90.00	359.64	10,586.00	364.76	343.84	374.44	0.00	0.00	0.00
11,800.00	90.00	359.64	10,586.00	464.76	343.21	474.38	0.00	0.00	0.00
11,900.00	90.00	359.64	10,586.00	564.76	342.59	574.32	0.00	0.00	0.00
12,000.00	90.00	359.64	10,586.00	664.76	341.97	674.26	0.00	0.00	0.00
12,100.00	90.00	359.64	10,586.00	764.76	341.34	774.20	0.00	0.00	0.00
12,200.00	90.00	359.64	10,586.00	864.75	340.72	874.14	0.00	0.00	0.00
12,300.00	90.00	359.64	10,586.00	964.75	340.10	974.08	0.00	0.00	0.00
12,400.00	90.00	359.64	10,586.00	1,064.75	339.47	1,074.02	0.00	0.00	0.00
12,500.00	90.00	359.64	10,586.00	1,164.75	338.85	1,173.96	0.00	0.00	0.00
12,600.00	90.00	359.64	10,586.00	1,264.75	338.23	1,273.90	0.00	0.00	0.00
12,700.00	90.00	359.64	10,586.00	1,364.74	337.61	1,373.84	0.00	0.00	0.00
12,800.00	90.00	359.64	10,586.00	1,464.74	336.98	1,473.78	0.00	0.00	0.00
12,900.00	90.00	359.64	10,586.00	1,564.74	336.36	1,573.72	0.00	0.00	0.00
13,000.00	90.00	359.64	10,586.00	1,664.74	335.74	1,673.66	0.00	0.00	0.00
13,100.00	90.00	359.64	10,586.00	1,764.74	335.11	1,773.59	0.00	0.00	0.00
13,200.00	90.00	359.64	10,586.00	1,864.73	334.49	1,873.53	0.00	0.00	0.00
13,300.00	90.00	359.64	10,586.00	1,964.73	333.87	1,973.47	0.00	0.00	0.00
13,400.00	90.00	359.64	10,586.00	2,064.73	333.24	2,073.41	0.00	0.00	0.00
13,500.00	90.00	359.64	10,586.00	2,164.73	332.62	2,173.35	0.00	0.00	0.00
13,600.00	90.00	359.64	10,586.00	2,264.73	332.00	2,273.29	0.00	0.00	0.00
13,700.00	90.00	359.64	10,586.00	2,364.73	331.37	2,373.23	0.00	0.00	0.00
13,800.00	90.00	359.64	10,586.00	2,464.72	330.75	2,473.17	0.00	0.00	0.00
13,900.00	90.00	359.64	10,586.00	2,564.72	330.13	2,573.11	0.00	0.00	0.00
14,000.00	90.00	359.64	10,586.00	2,664.72	329.50	2,673.05	0.00	0.00	0.00
14,100.00	90.00	359.64	10,586.00	2,764.72	328.88	2,772.99	0.00	0.00	0.00
14,200.00	90.00	359.64	10,586.00	2,864.72	328.26	2,872.93	0.00	0.00	0.00
14,300.00	90.00	359.64	10,586.00	2,964.71	327.64	2,972.87	0.00	0.00	0.00
14,400.00	90.00	359.64	10,586.00	3,064.71	327.01	3,072.81	0.00	0.00	0.00
14,500.00	90.00	359.64	10,586.00	3,164.71	326.39	3,172.75	0.00	0.00	0.00
14,600.00	90.00	359.64	10,586.00	3,264.71	325.77	3,272.69	0.00	0.00	0.00
14,700.00	90.00	359.64	10,586.00	3,364.71	325.14	3,372.62	0.00	0.00	0.00
14,800.00	90.00	359.64	10,586.00	3,464.70	324.52	3,472.56	0.00	0.00	0.00
14,900.00	90.00	359.64	10,586.00	3,564.70	323.90	3,572.50	0.00	0.00	0.00
15,000.00	90.00	359.64	10,586,00	3,664.70	323,27	3,672.44	0.00	0.00	0.00
15,100.00	90.00	359.64	10,586,00	3,764.70	322,65	3,772.38	0.00	0.00	0.00
15,200.00	90.00	359.64	10,586,00	3,864.70	322,03	3,872.32	0.00	0.00	0.00
15,300.00	90.00	359.64	10,586,00	3,964.69	321,40	3,972.26	0.00	0.00	0.00
15,400.00	90.00	359.64	10,586,00	4,064.69	320,78	4,072.20	0.00	0.00	0.00

# Planning Report

Database: Company: Project: HOPSPP

**ENGINEERING DESIGNS** 

PRD NM DIRECTIONAL PLANS (NAD 1983)

 Site:
 Iridium MDP1 28\_21 Fed Com

 Well:
 Iridium MDP1 28\_21 Fed Com 75H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Iridium MDP1 28\_21 Fed Com 75H

RKB=25' @ 3402.00ft RKB=25' @ 3402.00ft

Grid

Design:	Permitting Pla	an							
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)
15,500.00	90.00	359.64	10,586.00	4,164.69	320.16	4,172.14	0.00	0.00	0.00
15,600.00	90.00	359.64	10,586.00	4,264.69	319.53	4,272.08	0.00	0.00	0.00
15,700.00	90.00	359.64	10,586.00	4,364.69	318.91	4,372.02	0.00	0.00	0.00
15,800.00	90.00	359.64	10,586.00	4,464.68	318.29	4,471.96	0.00	0.00	0.00
15,900.00	90.00	359.64	10,586.00	4,564.68	317.67	4,571.90	0.00	0.00	0.00
16,000.00	90.00	359.64	10,586.00	4,664.68	317.04	4,671.84	0.00	0.00	0.00
16,008.32	90.00	359.64	10,586.00	4,673.00	316.99	4,680.15	0.00	0.00	0.00
PPP-2 Cross									
16,100.00	90.00	359.64	10,586.00	4,764.68	316.42	4,771.78	0.00	0.00	0.00
16,200.00	90.00	359.64	10,586.00	4,864.68	315.80	4,871.72	0.00	0.00	0.00
16,300.00	90.00	359.64	10,586.00	4,964.67	315.17	4,971.66	0.00	0.00	0.00
16,400.00	90.00	359.64	10,586.00	5,064.67	314.55	5,071.59	0.00	0.00	0.00
16,500.00	90.00	359.64	10,586.00	5,164.67	313.93	5,171.53	0.00	0.00	0.00
16,600.00	90.00	359.64	10,586.00	5,264.67	313.30	5,271.47	0.00	0.00	0.00
16,700.00	90.00	359.64	10,586.00	5,364.67	312.68	5,371.41	0.00	0.00	0.00
16,800.00	90.00	359.64	10,586.00	5,464.66	312.06	5,471.35	0.00	0.00	0.00
16,900.00	90.00	359.64	10,586.00	5,564.66	311.43	5,571.29	0.00	0.00	0.00
17,000.00	90.00	359.64	10,586.00	5,664.66	310.81	5,671.23	0.00	0.00	0.00
17,100.00	90.00	359.64	10,586.00	5,764.66	310.19	5,771.17	0.00	0.00	0.00
17,200.00	90.00	359.64	10,586.00	5,864.66	309.57	5,871.11	0.00	0.00	0.00
17,300.00 17,400.00 17,500.00	90.00 90.00 90.00 90.00	359.64 359.64 359.64 359.64	10,586.00 10,586.00 10,586.00 10,586.00	5,964.66 6,064.65 6,164.65	308.94 308.32 307.70 307.07	5,971.05 6,070.99 6,170.93	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
17,600.00 17,700.00 17,800.00 17,900.00	90.00 90.00 90.00	359.64 359.64 359.64	10,586.00 10,586.00 10,586.00	6,264.65 6,364.65 6,464.65 6,564.64	306.45 305.83 305.20	6,270.87 6,370.81 6,470.75 6,570.69	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
18,000.00	90.00	359.64	10,586.00	6,664.64	304.58	6,670.62	0.00	0.00	0.00
18,100.00	90.00	359.64	10,586.00	6,764.64	303.96	6,770.56	0.00	0.00	0.00
18,200.00	90.00	359.64	10,586.00	6,864.64	303.33	6,870.50	0.00	0.00	0.00
18,300.00	90.00	359.64	10,586.00	6,964.64	302.71	6,970.44	0.00	0.00	0.00
18,400.00	90.00	359.64	10,586.00	7,064.63	302.09	7,070.38	0.00	0.00	0.00
18,500.00	90.00	359.64	10,586.00	7,164.63	301.46	7,170.32	0.00	0.00	0.00
18,600.00	90.00	359.64	10,586.00	7,264.63	300.84	7,270.26	0.00	0.00	0.00
18,700.00 18,800.00 18,900.00	90.00 90.00 90.00	359.64 359.64	10,586.00 10,586.00 10,586.00	7,364.63 7,464.63 7,564.62	300.22 299.60 298.97	7,370.20 7,470.14 7,570.08	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
19,000.00	90.00	359.64	10,586.00	7,664.62	298.35	7,670.02	0.00	0.00	0.00
19,100.00	90.00	359.64	10,586.00	7,764.62	297.73	7,769.96	0.00	0.00	0.00
19,200.00	90.00	359.64	10,586.00	7,864.62	297.10	7,869.90	0.00	0.00	0.00
19,300.00	90.00	359.64	10,586.00	7,964.62	296.48	7,969.84	0.00	0.00	0.00
19,400.00	90.00	359.64	10,586.00	8,064.61	295.86	8,069.78	0.00	0.00	0.00
19,500.00	90.00	359.64	10,586.00	8,164.61	295.23	8,169.72	0.00	0.00	0.00
19,600.00	90.00	359.64	10,586.00	8,264.61	294.61	8,269.65	0.00	0.00	0.00
19,700.00	90.00	359.64	10,586.00	8,364.61	293.99	8,369.59	0.00	0.00	0.00
19,800.00	90.00	359.64	10,586.00	8,464.61	293.36	8,469.53	0.00	0.00	0.00
19,900.00	90.00	359.64	10,586.00	8,564.60	292.74	8,569.47	0.00	0.00	0.00
20,000.00	90.00	359.64	10,586.00	8,664.60	292.12	8,669.41	0.00	0.00	0.00
20,100.00	90.00	359.64	10,586.00	8,764.60	291.49	8,769.35	0.00	0.00	0.00
20,200.00	90.00	359.64	10,586.00	8,864.60	290.87	8,869.29	0.00	0.00	0.00
20,300.00	90.00	359.64	10,586.00	8,964.60	290.25	8,969.23	0.00	0.00	0.00
20,400.00	90.00	359.64	10,586.00	9,064.60	289.63	9,069.17	0.00	0.00	0.00
20,500.00	90.00	359.64	10,586.00	9,164.59	289.00	9,169.11	0.00	0.00	0.00
20,600.00	90.00	359.64	10,586.00	9,264.59	288.38	9,269.05	0.00	0.00	0.00
20,700.00	90.00	359.64	10,586.00	9,364.59	287.76	9,368.99	0.00	0.00	0.00

# 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 75H

Wellbore: ORIG HOLE

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Iridium MDP1 28\_21 Fed Com 75H

RKB=25' @ 3402.00ft RKB=25' @ 3402.00ft

Grid

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)
20,800.00	90.00	359.64	10,586.00	9,464.59	287.13	9,468.93	0.00	0.00	0.00
20,900.00	90.00	359.64	10,586.00	9,564.59	286.51	9,568.87	0.00	0.00	0.00
21,000.00	90.00	359.64	10,586.00	9,664.58	285.89	9,668.81	0.00	0.00	0.00
21,100.00	90.00	359.64	10,586.00	9,764.58	285.26	9,768.75	0.00	0.00	0.00
21,200.00	90.00	359.64	10,586.00	9,864.58	284.64	9,868.69	0.00	0.00	0.00
21,272.81	90.00	359.64	10,586.00	9,937.39	284.19	9,941.45	0.00	0.00	0.00
TD at 21272	2.81' MD								

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
KOP (Iridium MDP1 - plan misses targe - Point	0.00 t center by 97	0.00 3.21ft at 0.0	0.00 Ooft MD (0.0	-907.41 0 TVD, 0.00 N	351.75 N, 0.00 E)	461,432.06	711,186.22	32.267356	-103.783817
PBHL (Iridium MDP1 - plan hits target ce - Point	0.00 nter	0.00	10,586.00	9,937.39	284.19	472,276.21	711,118.66	32.297165	-103.783855
FTP (Iridium MDP1 - plan misses targe - Point	0.00 t center by 26		10,586.00 32.18ft MD (	-507.40 (10560.83 TV	349.27 'D, -500.54 N	461,832.05 , 347.66 E)	711,183.74	32.268456	-103.783818

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	450.00	450.00	RUSTLER				
	828.00	828.00	SALADO				
	2,734.00	2,734.00	CASTILE				
	4,231.00	4,231.00	DELAWARE				
	4,259.00	4,259.00	BELL CANYON				
	5,133.42	5,132.00	CHERRY CANYON				
	6,439.53	6,417.00	BRUSHY CANYON				
	8,085.76	8,033.00	BONE SPRING				
	9,169.66	9,097.00	BONE SPRING 1ST				
	9,836.91	9,752.00	BONE SPRING 2ND				

Plan Annotations					
Mea	sured	Vertical	Local Coordinates		
	epth ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
1	480.00 579.70	4,480.00 5.572.96	0.00 -99.44	0.00 34.36	Build 1°/100'
1	998.71	9,910.83	-896.19	309.62	Hold 11° Tangent KOP, Build & Turn 10°/100'
1	716.47 002.81	10,516.06 10.586.00	-607.00 -332.41	345.53 348.18	PPP-1 Cross Landing Point
16,	008.32 272.81	10,586.00 10,586.00	4,673.00 9.937.39	316.99 284.19	PPP-2 Cross TD at 21272.81' MD

# Oxy USA Inc. - IRIDIUM MDP1 28\_21 FED COM 75H Drill Plan

# 1. Geologic Formations

TVD of Target (ft):	10586	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	21273	Deepest Expected Fresh Water (ft):	450

# **Delaware Basin**

Formation	MD-RKB (ft)	TVD-RKB (ft)	<b>Expected Fluids</b>
Rustler	450	450	
Salado	828	828	Salt
Marker Bed 126			Salt
Castile	2734	2734	Salt
Delaware	4231	4231	Oil/Gas/Brine
Bell Canyon	4259	4259	Oil/Gas/Brine
Cherry Canyon	5133	5132	Oil/Gas/Brine
Brushy Canyon	6440	6417	Losses
Bone Spring	8086	8033	Oil/Gas
Bone Spring 1st	9170	9097	Oil/Gas
Bone Spring 2nd	9837	9752	Oil/Gas
Bone Spring 3rd			Oil/Gas
Wolfcamp			Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

<sup>\*</sup>H2S, water flows, loss of circulation, abnormal pressures, etc.

# 2. Casing Program

		N	1D	T	/D				
	Hole	From	То	From	То	Csg.	Csg Wt.		
Section	Size (in)	(ft)	(ft)	(ft)	(ft)	OD (in)	(ppf)	Grade	Conn.
Surface	17.5	0	510	0	510	13.375	54.5	J-55	втс
Salt	12.25	0	4231	0	4231	10.75	45.5	L-80 HC	BTC-SC
Intermediate	9.875	0	11003	0	10586	7.625	26.4	L-80 HC	втс
Production	6.75	0	21273	0	10586	5.5	20	P-110	Sprint-SF

All casing strings will be tested in accordance with 43 CFR part 3170 Subpart 3172  $\,$ 

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

	Y or N
Is casing new? If used, attach certification as required in 43 CFR 3160	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?	Y
If not provide justification (loading assumptions, casing design criteria).	1
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching	37
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-Q?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back	
500' into previous casing?	
Is well located in R-111-Q and SOPA?	Y
If yes, are the first three strings cemented to surface?	Y
Is 2 <sup>nd</sup> 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?	
7 411 41 41 41 41 41 41	1
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (lb/gal)	Excess:	тос	Placement	Description
Surface	1	Surface - Tail	533	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.1	1	Intermediate - Tail	85	1.33	14.8	20%	3,731	Circulate	Class C+Accel.
Int.1	1	Intermediate - Lead	596	1.73	12.9	50%	-	Circulate	Class Pozz+Ret.
Int. 2	1	Intermediate 1S - Tail	579	1.68	13.2	5%	6,690	Circulate	Class C+Ret., Disper.
Int. 2	2	Intermediate 2S - Tail BH	451	1.71	13.3	25%	3,731	Bradenhead Post-Frac	Class C+Accel.
Prod.	1	Production - Tail	610	1.84	13.3	25%	10,503	Circulate	Class C+Ret.

# **Offline Cementing Request**

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. Please see Offline Cementing Variance attachment for further details.

# **Bradenhead CBL Request**

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. Please see Bradenhead CBL Variance attachment for further details.

4. Pressure Control Equipment

BOP installed and		Min.					TVD Depth				
tested before drilling	Size?	Required		Туре	✓	Tested to:	(ft) per				
which hole?		WP					Section:				
		5M		Annular	<b>✓</b>	70% of working pressure					
				Blind Ram	✓						
12.25" Hole	13-5/8"	5M		Pipe Ram		250 psi / 5000 psi	4231				
		SIVI		Double Ram	✓	230 psi / 3000 psi					
			Other*								
	13-5/8"	5M		Annular	✓	70% of working pressure					
		,     5M		Blind Ram	✓						
9.875" Ho <b>l</b> e			Pipe Ram			250 psi / 5000 psi	10586				
		Sivi		Double Ram	✓	230 psi / 3000 psi					
			Other*								
						5M		Annular	<b>✓</b>	100% of working pressure	
6.75" Hole			Blind Ram		✓						
	13-5/8"	3-5/8" 10M		Pipe Ram		250 psi / 10000 psi	10586				
				Double Ram	<b>✓</b>	250 psi / 10000 psi					
			Other*								

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR part 3170 Subpart 3172 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.

# **5M Annular BOP Request**

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 Annular BOP Variance attachment for further details.

<sup>\*</sup>Specify if additional ram is utilized

Created On: 5/20/2025 at 12:51 PM

Occidental - Permian New Mexico

Formation integrity test will be performed per 43 CFR part 3170 Subpart 3172.

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 43 CFR part 3170 Subpart 3172.

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.

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 43 CFR part 3170 Subpart 3172 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 (intermediate and production) requirements as per the agreement reached in the OXY/BLM meeting on April 4th, 2025. Please see BOP Break Testing Variance attachment for further details.

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

5. Mud Program

	Depth		Depth - TVD			Waight		Water
Section	From (ft)	To (ft)	From (ft)	To (ft)	Туре	Weight (ppg)	Viscosity	Loss
Surface	0	510	0	510	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate 1	510	4231	510	4231	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Intermediate 2	4231	11003	4231	10586	Water-Based or Oil- Based Mud	8.0 - 10.0	38-50	N/C
Production	11003	21273	10586	10586	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	PVT/MD Totco/Visual Monitoring
loss or gain of fluid?	FVI/IVID TOLCO/VISUAL IVIOLITIONING

**6. Logging and Testing Procedures** 

Loggi	Logging, Coring and Testing.					
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole).					
res	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					

Addit	ional logs planned	Interval
No	Resistivity	
No	Density	
Yes	CBL	Production string
Yes	Mud log	Bone Spring – TD
No	PEX	

# 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6881 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	165°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 43 CFR part 3170 Subpart 3172. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N	H2S is present
Υ	H2S Plan attached

# 8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe.  We plan to drill the 3 well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.	Yes
Will more than one drilling rig be used for drilling operations? If yes, describe.  Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes

Total Estimated Cuttings Volume: 1791 bbls

		ADCOC-CAD-OC																	
_	ESTIMATED SPUD DATE			_															
	ITEM			APD	APD BASE LINE (For Regulatory to Complete)	or Regulator	to Complet	(=						SUNDRY PLAN	SUNDRY PLAN (Groups to complete the latest plan)	te the latest plar	•		
٦		Date APD/BASE LINE APPROVED: 04/19/25	APROVED: 04/19/25								DATE Sundry Worksheet: 9/3/2024	/2024							
	NAME	IRIDIUM MDP1 28 21 FEDERAL COM #075H	EDERAL COM #075H								IRIDIUM MDP1 28 21 FEDERAL COM #075H	. COM #075H							
	NSL	ON									ON								
	SH	609' FSL & 1964' FWL									609' FSL & 1964' FWL								
uue	PAD	SNDDNS T23R31E 28 03	03								SNDDNS T23R31E 28 03								
	ВН	20' FNL & 2310' FWL									20' FNL & 2310' FWL								
	HSU SIZE, ACRES	640									640								
	POOL	INGLE WELLS; BONESPRING	RING								INGLE WELLS; BONESPRING								
	DVT	11457									10586'								
	TARGET FORMATION	BONESPRING									BONESPRING								
Г					AP	APD BASE LINE									SUNDRY PLAN				
	iAs	Section	Hole Size (in.)	MD	П	Csg OD	Csg WT G	Grade	Conn.	'n.	Section	Hole Size (in.)	MD	DVT	Csg OD (in)	Csg WT (ppf)	Grade	Conn.	
	H90	Surface	17.5	499	499		54.5	1-55	18	BTC	Surface	17.5	510	510	13.375	54.5	J-55	BTC	
	ова	Int	12.25	4217	4217	10.75	45.5	1-80 HC	BTC	BTC-SC	Int	12.25	4231	4231	10.75	45.5	1-80 HC	BTC-SC	30
	ЯĒ	Int2	9.875	11866	11457	7.625	26.4	T-80 HC	BI	BTC	Int2	9.875	11003	10586	7.625	26.4	T-80 HC	BTC	
	iisv	Prod	6.75	22136	11457	5.5	20 P	P-110	SPRIN	SPRINT-SF	Prod	6.75	21273	10586	5.5	20	P-110	SPRINT-SF	-SF
	n	Liner									Liner								
					AP	APD BASE LINE									SUNDRY PLAN				
	M	Section/Stage	Slurry	Sacks	ield (ft^3/fansity (lb/g Excess	lity (Ib/g	L	700	Placement	Description	Section/Stage	Slurry	Sacks	Yield (ft^3/ft)	t) Density (lb/gal)	II) Excess	T0C	Placement	Description
	Va	Surf	SURFACE - TAIL	521	1.33	14.8	3000	0	CIRC	CLASS C+ACCEL	Surf	SURFACE - TAIL	233	1.33	14.8	100%	0	CIRC	CLASS C + ACCEL
_	901	Int	INTERM - TAIL	85	1.33	14.8	Н	3717	CIRC	CLASS C+ACCEL	Int	INTERM - TAIL	58	1.33	14.8	50%	3731	CIRC	CLASS C + ACCEL
	dd.	Int	INTERM - LEAD	594	1.73	12.9	20%	0	CIRC	CLASS POZZ + RET	Int	INTERM - LEAD	296	1.73	12.9	20%		CIRC	CLASS POZZ + RET
lha	LN	Int2	INTERM 15 - TAIL	669	1.68	13.2	-	6662	CIRC	CLASS C + RET, DISPER	Int2	INTERM 15 - TAIL	579	1.68	13.2	2%	6690	CIRC	CLASS C + RET, DISP
	IIV)	Int2	INTERM 25 - TAIL BH	449	1.71	13.3	25% 3	3717 BR	BRADENHEAD POST FRAC	CLASS C + ACCEL	Int2	INTERM 25 - TAIL BH	451	1.71	13.3	25%	3731	BRADENHEAD POST FRAC	CLASS C + ACCEL
	33	Prod	PRODUCTION - TAIL	610	1.84	13.3	Н	11366	CIRC	CLASS C + RET	Prod	PRODUCTION - TAIL	610	1.84	13.3	25%	10503	CIRC	CLASS C + RET
					AP	APD BASE LINE									SUNDRY PLAN				
		BOP Break Tesing Variance	ance	*							BOP Break Tesing Variance - Updated	pdated	٨						
	\$33	5M Annular BOP Variance	nce	٨							5M Annular BOP Variance		Å						
	ONI	Bradenhead CBL Variance	nce	*							Bradenhead CBL Variance		٨						
	<b>≠</b> 181	Offline Cementing Variance	iance	٨							Offline Cementing Variance		Å						
	#/∧	Production Annular Clearance Variance	earance Variance								Production Annular Clearance Variance	Variance							
		Flexible Choke Line Variance	riance								Flexible Choke Line Variance								
		(Pilot Hole, Logs etc.)									(Pilot Hole, Logs etc.)								
		(Pilot Hoie, Logs etc.)										[(Pilot Hole, Logs etc.)	(Plot Hole, Logs etc.)	[Pilot Hole, Logs etc.]	[Piot Hole, Logs etc.]	[Pilot Hole, Logs etc.]	[Prior Hole, Logs etc.)	[Pilot Hole, Logs etc.)	I princt Hole, Logs etc.)

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OXY APD CHANGE SUNDRY LIST FORM

Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

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

CONDITIONS

Action 477800

### **CONDITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	477800
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

# CONDITIONS

	Created By	Condition	Condition Date
Ī	matthew.gomez	Any previous COA's not addressed within the updated COA's still apply.	8/6/2025