Form 3160-3 (June 2015)

# **UNITED STATES**

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 201

	-				
DEPARTMENT OF THE I BUREAU OF LAND MAN.			5. Lease Serial No.		
APPLICATION FOR PERMIT TO D		FENTER	6. If Indian, Allotee	or Tribe	Name
7.1 · Ele7.11e1.1 · e1.1 · E1.11.1 · e E					
la. Type of work: DRILL R	EENTER		7. If Unit or CA Ag	reement, I	Name and No.
	ther				
	ingle Zone	Multiple Zone	8. Lease Name and	Well No.	
re. Type of Completion Hydraune Fracturing 5.	ligic Zolic	ividitiple Zolle			
2. Name of Operator			9. API Well No. 30 015 47562		
3a. Address	3b. Phone No.	(include area code)	10. Field and Pool,	or Explor	atory
4. Location of Well (Report location clearly and in accordance to	with any State re	quirements.*)	11. Sec., T. R. M. o	r Blk. and	Survey or Area
At surface					
At proposed prod. zone					
14. Distance in miles and direction from nearest town or post off	ice*		12. County or Paris	h	13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres	s in lease 17. Spa	cing Unit dedicated to t	his well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed I	Depth 20, BLI	M/BIA Bond No. in file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approxima	ate date work will start*	23. Estimated durat	ion	
	24. Attachn	ments			
The following, completed in accordance with the requirements of (as applicable)	f Onshore Oil an	d Gas Order No. 1, and the	Hydraulic Fracturing i	ule per 43	3 CFR 3162.3-3
Well plat certified by a registered surveyor.     A Drilling Plan.		4. Bond to cover the operati Item 20 above).	ons unless covered by a	n existing	bond on file (see
A Surface Use Plan (if the location is on National Forest Syste SUPO must be filed with the appropriate Forest Service Office		<ol> <li>Operator certification.</li> <li>Such other site specific int BLM.</li> </ol>	formation and/or plans as	s may be re	equested by the
25. Signature	Name (P	Printed/Typed)		Date	
Title					
Approved by (Signature)	Name (P	Printed/Typed)		Date	
Title	Office			-	
Application approval does not warrant or certify that the applicant applicant to conduct operations thereon.  Conditions of approval, if any, are attached.	nt holds legal or	equitable title to those righ	ts in the subject lease w	hich wou	ld entitle the
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, n of the United States any false, fictitious or fraudulent statements				any depar	tment or agency
			19 SW 1		

Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system

• Will require a directional survey with the C-104

SL

(Continued on page 2)

IPPROVED WITH CONDITIONS **Approval Date: 09/30/2020** 

Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string

KP 10/5/2020 GEO Review

\*(Instructions on page 2)

Entered - KMS NMOCD

District I
1625 N. French Dr., Hobbs, NM 88240
Phane: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

Phone: (5/5) 4/85-1283 Fax: (5/5) 4/85-9/20 District III 1000 Rio Braws Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

640

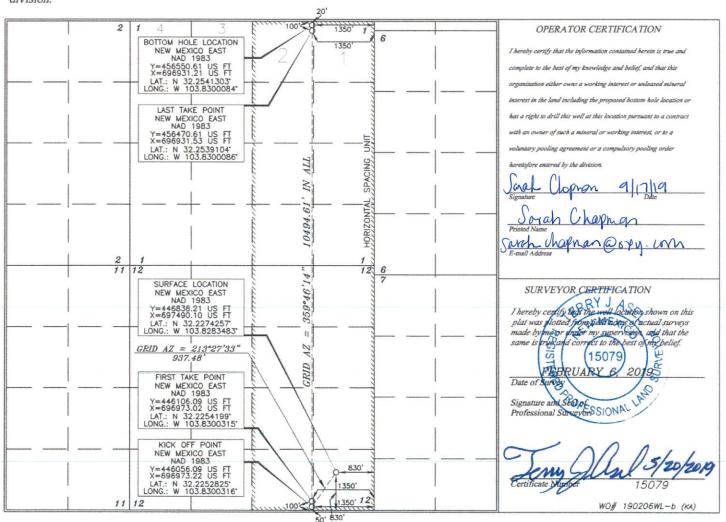
#### State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

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

☐ AMENDED REPORT

			WE	LL	<i>LOCA</i>	TIC	ON ANL	ACF	REAGE D	<b>EDICATIO</b>	NPLAT	•		
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Prope	erty Code							Property		, ,			ı	Well Number
329328				j	NIMIT.	Z I	MDP1 "	12_1	" FEDER	PAL COM				25H
OGI	RID No.							Operator	Name					Elevation
16	696						OXY	US.	INC.				3	522.5
							Surfa	ace L	ocation					
UL or lot no.	Section	Town	nship		Ran	ge		Lot Idn	Feet from the	North/South line	Feet from the	e East/We	est line	County
P	12	24 St	OUTH	30	EAST,	N. A	M. P. M.		830'	SOUTH	830'	EAS	T	EDDY
	d	***************************************		Bo	ttom I	Tole	e Locatio	on If I	Different l	From Surfac	e			
UL or lot no.	Section	Towz	nship		Rang	ge		Lot Idn	Feet from the	North/South line	Feet from the	East/We	est line	County
2	1	24 St	OUTH	30	EAST,	N. A	<i>I.P.M.</i>		20'	NORTH	1350'	EAS	T	EDDY
Dedicated		Joint or	ning Co	onsolio	lation Cod	le	Order No.	Accessoration		A		Accessor		

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.



-											*	
Intent X	As Dr	illed [										
100-10-10000												
Operator Na	ame:				Prope	rty Nam	e:					Well Number
0 x 0	1 WA I	nl.			PIMIT	2 HD	PII	2-1	Feder	rl	Com	25H
	J											
Kick Off Point	(KOP)											
UL Section	Township	Range	Lot	Feet	Fr	om N/S	Fee	t	From E	/W	County	
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Is this well the	defining w	vell for the	e Horiz	ontal Sp	acing Ur	nit? [	*	]				
s this well an i	nfill well?	[										
f infill is yes pl Spacing Unit.	ease provi	de API if a	ıvailab	le, Opera	ator Nan	ne and v	vell n	umber	for Def	inin	g well for	· Horizontal
API#												
Operator Nan	ne:		***************************************		Propert	y Name:	!	ŧ	15			Well Number
***************************************												KZ 06/29/2018

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

**OPERATOR'S NAME:** OXY USA INCORPORATED

WELL NAME & NO.: | NIMITZ MDP1 12-1 FEDERAL COM 25H

**SURFACE HOLE FOOTAGE:** 830'/S & 830'/E **BOTTOM HOLE FOOTAGE** 20'/N & 1350'/E

**LOCATION:** | Section 12, T.24 S., R.30 E., NMP

**COUNTY:** | Eddy County, New Mexico

#### COA

H2S	O Yes	⊙ No	
Potash	O None	Secretary	© R-111-P
Cave/Karst Potential	C Low	• Medium	C High
Cave/Karst Potential	Critical		
Variance	O None	• Flex Hose	Other
Wellhead	Conventional	Multibowl	O Both
Other	☐ 4 String Area	☐ Capitan Reef	□WIPP
Other	☐ Fluid Filled	▼ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	<b>▼</b> COM	□ Unit

#### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

#### **B. CASING**

#### **Casing Design:**

- 1. The 13-3/8 inch surface casing shall be set at approximately 643 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

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**Approval Date: 09/30/2020** 

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The 9-5/8 inch intermediate casing shall be set at approximately 4299 feet. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

#### **Option 1 (Single Stage):**

• Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

#### Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
  - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
    - Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- ❖ In <u>Secretary Potash Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

#### **Option 1 (Single Stage):**

• Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

#### Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
  - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

Operator has proposed to pump down 9-5/8" X 5-1/2" annulus. Operator must run a CBL from TD of the 5-1/2" casing to surface. Submit results to BLM.

#### C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

#### Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **3000** (**3M**) psi.

#### Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000** (**3M**) psi.

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

#### D. SPECIAL REQUIREMENT (S)

#### **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

#### **Offline Cementing**

• Contact the BLM prior to the commencement of any offline cementing procedure.

#### **BOP Break Testing Variance**

• BOP break testing is not permitted on this well.

#### GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

  - Lea County
     Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
     393-3612
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. 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. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

#### B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

- lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

#### C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

NMK09142020

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U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

### Application Data Report

10/05/2020

**APD ID:** 10400047542

Submission Date: 09/17/2019

Highlighted data reflects the most recent changes

Operator Name: OXY USA INCORPORATED

Well Name: NIMITZ MDP1 12-1 FEDERAL COM

Well Number: 25H

**Show Final Text** 

Well Type: OIL WELL

Well Work Type: Drill

#### **Section 1 - General**

BLM Office: CARLSBAD User: Title:

Federal/Indian APD: FED Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM082896 Lease Acres: 880

Surface access agreement in place? Allotted? Reservation:

Agreement in place? NO Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? Y

Permitting Agent? NO APD Operator: OXY USA INCORPORATED

Operator letter of designation:

#### **Operator Info**

Operator Organization Name: OXY USA INCORPORATED

Operator Address: 5 Greenway Plaza, Suite 110

**Operator PO Box:** 

Operator City: Houston State: TX

Operator Phone: (713)366-5716
Operator Internet Address:

#### **Section 2 - Well Information**

Well in Master Development Plan? EXISTING Master Development Plan name: Sand Dunes Area

Well in Master SUPO? Master SUPO name:

Well in Master Drilling Plan? Master Drilling Plan name:

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H Well API Number:

Field/Pool or Exploratory? Field and Pool Field Name: COTTON DRAW Pool Name: COTTON DRAW

BONE SPRING BONE SPRING

**Zip:** 77046

Is the proposed well in an area containing other mineral resources? USEABLE WATER, POTASH

Page 1 of 3

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

Is the proposed well in an area containing other mineral resources? USEABLE WATER, POTASH

Is the proposed well in a Helium production area? N Use Existing Well Pad? N New surface disturbance?

Type of Well Pad: MULTIPLE WELL Multiple Well Pad Name: Nimitz Number: 14H, 26H, 14H, 25H,

Well Class: HORIZONTAL MDP1 12-1 & 13 Federal Com 26H

Number of Legs: 1

Well Work Type: Drill Well Type: OIL WELL

Describe Well Type: Well sub-Type: INFILL

Describe sub-type:

Distance to town: 16 Miles Distance to nearest well: 35 FT Distance to lease line: 20 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: NimitzMDP1\_12\_1FdCom25H\_SitePlan\_20190917111530.pdf

 $Nimitz MDP1\_12\_1Fd Com25H\_c\_102 Supplemental\_20190917111530.pdf$ 

Well work start Date: 07/01/2020 Duration: 45 DAYS

#### **Section 3 - Well Location Table**

Survey Type: RECTANGULAR

**Describe Survey Type:** 

Datum: NAD83 Vertical Datum: NAVD88

Survey number: Reference Datum: GROUND LEVEL

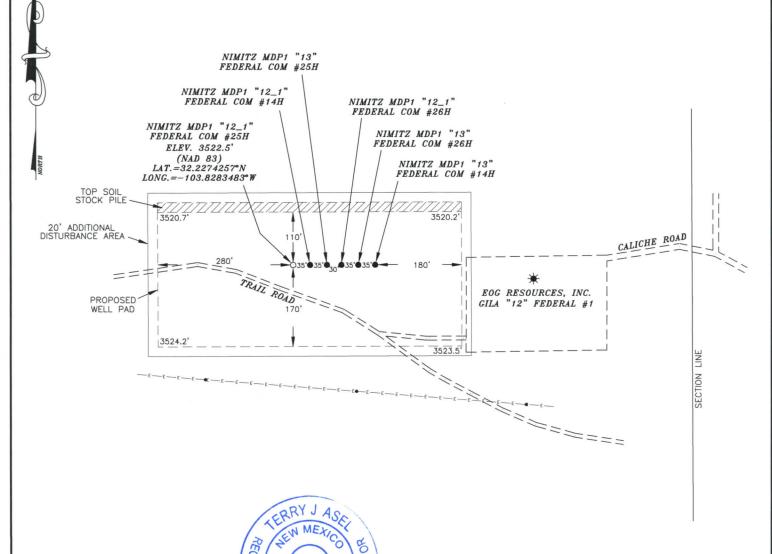
Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	830	FSL	830	FEL	24S	30E	12	Aliquot SESE		- 103.8283 483	EDD Y	NEW MEXI CO			NMNM 082896	352 3	0	0	N
KOP Leg #1	50	FSL	135 0	FEL	24S	30E	12	Aliquot SWSE		- 103.8300 316	EDD Y	NEW MEXI CO	NEW MEXI CO		NMNM 082896	- 480 0	856 1	832 3	N

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-1	100	FSL	135 0	FEL	24S	30E	12	Aliquot SWSE	32.22541 99	- 103.8300 315	EDD Y	I	NEW MEXI CO	F	NMNM 082896	- 519 6	927 7	871 9	Υ
PPP Leg #1-2	3	FSL	134 9	FEL	24S	30E	1	Aliquot SWSE	32.23966 2	- 103.8300 21	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 082896	- 523 1	145 00	875 4	Y
EXIT Leg #1	100	FNL	135 0	FEL	24S	30E	1	Aliquot NWNE	32.25391 04	- 103.8300 086	EDD Y		NEW MEXI CO	F	NMNM 097133	- 526 5	196 42	878 8	Y
BHL Leg #1	20	FNL	135 0	FEL	24S	30E	1	Aliquot NWNE	32.25413 03	- 103.8300 084	EDD Y		NEW MEXI CO	F	NMNM 097133	- 526 6	197 22	878 9	N

# OXY USA INC. NIMITZ MDP1 "12\_1" FEDERAL COM #25H SITE PLAN

FAA PERMIT: NO



#### SURVEYORS CERTIFICATE

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

N.M. R.P.L.S. No. 15079

Asel Surveying

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



DENOTES PROPOSED WELL PAD - - DENOTES PROPOSED ROAD ZZZ - DENOTES STOCK PILE AREA ★ - DENOTES EXISTING WELL

200 200' 400' FEET SCALE: 1"=200

#### OXY USA INC.

NIMITZ MDP1 "12\_1" FEDERAL COM #25H LOCATED AT 830' FSL & 830' FEL IN SECTION 12, TOWNSHIP 24 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 02/06/19	Sheet 1 of 1 Sheets
<b>W.O.</b> Number: 190206WL-b	Drawn By: KA Rev:
Date: 05/16/19	190206WL-b   Scale:1"=200'



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

### Drilling Plan Data Report

10/05/2020

APD ID: 10400047542

Submission Date: 09/17/2019

Highlighted data reflects the most recent changes

**Operator Name: OXY USA INCORPORATED** 

Well Number: 25H

**Show Final Text** 

Well Name: NIMITZ MDP1 12-1 FEDERAL COM

Well Work Type: Drill

Well Type: OIL WELL

#### **Section 1 - Geologic Formations**

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
539367	RUSTLER	3523	573	573	ANHYDRITE, DOLOMITE, SHALE	USEABLE WATER	N
539368	SALADO	2617	906	906	ANHYDRITE, DOLOMITE, HALITE, SHALE	OTHER : SALT	N
539365	CASTILE	732	2791	2791	ANHYDRITE	OTHER : salt	N
539369	LAMAR	-726	4249	4249	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	N
539370	BELL CANYON	-757	4280	4300	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER, USEABLE WATER : BRINE	N
539371	CHERRY CANYON	-1619	5142	5200	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	N
539372	BRUSHY CANYON	-2857	6380	6450	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	N
539366	BONE SPRING	-4589	8112	8200	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	N

#### **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 5M Rating Depth: 8789

Equipment: 13-5/8" 5M Annular, Blind Ram, Double Ram

Requesting Variance? YES

Variance request: Request for the use of a flexible choke line from the BOP to Choke Manifold.

Testing Procedure: Oxy will utilize a 5M annular with a 10M BOPE stack. The 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. 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. A multibowl wellhead or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system will be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. BOP Break Testing

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

Request OXY requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019. A separate sundry will be sent prior to spud that reflects the pad based break testing plan. BOP break test under the following conditions: 1. After a full BOP test is conducted 2. When skidding to drill an intermediate section where ICP is set into the third Bone Spring or shallower. 3. When skidding to drill a production section that does not penetrate into the third Bone Spring or deeper. If the kill line is broken prior to skid, two tests will be performed. 1. Wellhead flange, co-flex hose, kill line connections and upper pipe rams 2. Wellhead flange, HCR valve, check valve, upper pipe rams If the kill line is not broken prior to skid, only one test will be performed. 1. Wellhead flange, co-flex hose, check valve, upper pipe rams

#### **Choke Diagram Attachment:**

NimitzMDP1\_12\_1FdCom25H\_ChokeManifold\_20190917112602.pdf

#### **BOP Diagram Attachment:**

NimitzMDP1\_12\_1FdCom25H\_BOP5M\_20190917112612.pdf

NimitzMDP1\_12\_1FdCom25H\_FlexHoseCert\_20190917112613.pdf

#### **Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	623	0	623	3523	2900	623	J-55	54.5	BUTT	1.12 5	1.2	BUOY	1.4	BUOY	1.4
	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	4299	0	4299		-776	4299	L-80	43.5	BUTT	1.12 5	1.2	BUOY	1.4	BUOY	1.4
	PRODUCTI ON	8.5	5.5	NEW	API	N	0	19722	0	8789		-5266	19722	P- 110		L	1.12 5	1.2	BUOY	1.4	BUOY	1.4

#### **Casing Attachments**

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

#### **Casing Attachments**

Casing ID: 1 String Type: SURFACE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

NimitzMDP1\_12\_1FdCom25H\_CsgCriteria\_20200113144944.pdf

Casing ID: 2 String Type: INTERMEDIATE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

NimitzMDP1\_12\_1FdCom25H\_CsgCriteria\_20200113144934.pdf

Casing ID: 3 String Type: PRODUCTION

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

 $Nimitz MDP1\_12\_1Fd Com 25 H\_Csg Criteria\_20200113144952.pdf$ 

NimitzMDP1\_12\_1FdCom25H\_5.500in\_x\_20\_20200113144957.00

NimitzMDP1\_12\_1FdCom25H\_5.500in\_x\_20\_20200113145001.00

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

#### **Casing Attachments**

NimitzMDP1\_12\_1FdCom25H\_5.500in\_x\_20\_20200113145005.00

#### **Section 4 - Cement**

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	623	662	1.33	14.8	880	100	CIC	Accelerator

INTERMEDIATE	Lead	0	3799	994	1.73	12.9	1719	50	Pozzolan C	Retarder
INTERMEDIATE	Tail	3799	4299	155	1.33	14.8	206	20	CIC	Accelerator
PRODUCTION	Lead	6630	1972 2	2399	1.38	13.2	2291	5	CL H	Retarder, Dispersant, Salt
PRODUCTION	Tail	0	6630	938	1.87	12.9	1754	25	CIH	Accelerator

#### **Section 5 - Circulating Medium**

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements. 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.

Describe the mud monitoring system utilized: PVT/MD Totco/Visual Monitoring

#### **Circulating Medium Table**

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
4299	1972 2	OTHER: Water- Based and/or Oil-Based Mud	8	9.6							
0	623	WATER-BASED MUD	8.6	8.8							
623	4299	OTHER : Saturated Brine Based Mud	9.8	10							

#### Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

GR from TD to surface (horizontal well – vertical portion of hole). Mud Log from intermediate shoe to TD.

List of open and cased hole logs run in the well:

GAMMA RAY LOG, MUD LOG/GEOLOGIC LITHOLOGY LOG, MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No coring is planned at this time.

#### **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 4388 Anticipated Surface Pressure: 2454

Anticipated Bottom Hole Temperature(F): 151

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

**Contingency Plans geoharzards description:** 

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

NimitzMDP1\_12\_1FdCom25H\_H2S2\_20190917113148.pdf

NimitzMDP1\_12\_1FdCom25H\_EmergencyContacts\_20190917113148.pdf

NimitzMDP1\_12\_1FdCom25H\_H2S1\_20190917113149.pdf

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

#### **Section 8 - Other Information**

#### Proposed horizontal/directional/multi-lateral plan submission:

NimitzMDP1\_12\_1FdCom25H\_DirectPlan\_20190917113203.pdf

NimitzMDP1\_12\_1FdCom25H\_DirectPlot\_20190917113203.pdf

#### Other proposed operations facets description:

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 will be run in case a contingency second stage is required for cement to reach surface. If cement circulated to surface during first stage we will drop a cancelation cone and not pump the second stage.

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

OXY requests to pump a two stage cement job on the intermediate II casing string with the first stage being pumped conventionally with the calculated TOC @ the Bone Spring and the second stage performed as a bradenhead squeeze with planned cement from the Bone Spring to surface.

Annular Clearance Variance Request - As per the agreement reached in the OXY/BLM 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.

Well will be drilled with a walking/skidding operation. Plan to drill the multiple 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.

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.

OXY respectfully requests a variance to cement the 9-5/8 and/or 7-5/8 intermediate casing strings offline. The summarized operational sequence will be as follows:

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

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

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

Three string wells:

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

#### Other proposed operations facets attachment:

 $Nimitz MDP1\_12\_1Fd Com25H\_SpudRigData\_20190917113219.pdf$ 

NimitzMDP1\_12\_1FdCom25H\_DrillPlan\_20190917113220.pdf

NimitzMDP1\_12\_1FdCom25H\_GasCapPlan\_20190917113220.pdf

#### **Other Variance attachment:**

### OXY

PRD NM DIRECTIONAL PLANS (NAD 1983) Nimitz MDP1 12\_1 Nimitz MDP1 12\_1 Federal Com 25H

Wellbore #1

Plan: Permitting Plan

# **Standard Planning Report**

09 July, 2019

#### Oxy

#### Planning Report

Database: HOPSPP

**ENGINEERING DESIGNS** Company:

PRD NM DIRECTIONAL PLANS (NAD 1983) Project:

Site: Nimitz MDP1 12\_1

Well: Nimitz MDP1 12 1 Federal Com 25H

Wellbore: Wellbore #1 Design: Permitting Plan Local Co-ordinate Reference:

**TVD Reference:** MD Reference: North Reference:

**Survey Calculation Method:** 

Well Nimitz MDP1 12\_1 Federal Com 25H

RKB=26.5' @ 3549.00ft RKB=26.5' @ 3549.00ft

Grid

Minimum Curvature

Project PRD NM DIRECTIONAL PLANS (NAD 1983)

Map System: US State Plane 1983

North American Datum 1983 Geo Datum: Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Using geodetic scale factor

Site Nimitz MDP1 12\_1

Site Position: Northing: 446,271.81 usft 32° 13' 33.331024 N Latitude: From: Мар Easting: 693,055.21 usft Longitude: 103° 50' 33.713673 W 0.26°

**Position Uncertainty:** 2.00 ft Slot Radius: 13.200 in **Grid Convergence:** 

Well Nimitz MDP1 12\_1 Federal Com 25H

**Well Position** +N/-S 446,838.21 usft Latitude: 32° 13' 38.732598 N 566.44 ft Northing: 4,435.19 ft 697,490.10 usft 103° 49' 42.053718 W +E/-W Easting: Longitude:

**Position Uncertainty** 2.00 ft Wellhead Elevation: 0.00 ft **Ground Level:** 3,522.50 ft

Wellbore Wellbore #1 Declination Dip Angle Field Strength **Model Name** Sample Date Magnetics (nT) (°) (°) **HDGM** 7/9/2019 6.80 59.92 47,902

Design Permitting Plan Audit Notes: Tie On Depth: Version: Phase: **PROTOTYPE** 0.00 Depth From (TVD) +N/-S +E/-W Direction **Vertical Section:** (ft) (ft) (ft) (°) 0.00 0.00 0.00 356.71

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	
1,951.00	0.00	0.00	1,951.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,850.91	18.00	198.27	2,836.19	-133.12	-43.94	2.00	2.00	0.00	198.27	
6,785.29	18.00	198.27	6,578.04	-1,287.55	-424.96	0.00	0.00	0.00	0.00	
8,561.03	18.00	359.77	8,323.11	-1,273.24	-514.95	2.00	0.00	9.10	170.28	
9,277.19	89.62	359.77	8,719.00	-732.17	-517.11	10.00	10.00	0.00	0.00	FTP (Nimitz MDP1
19,722.71	89.62	359.77	8,789.00	9,713.03	-558.93	0.00	0.00	0.00	0.00	PBHL (Nimitz MDP1

Database: Company: HOPSPP

**ENGINEERING DESIGNS** 

PRD NM DIRECTIONAL PLANS (NAD 1983)

Project: PRD NM DIRECTION
Site: Nimitz MDP1 12\_1

Well:

Nimitz MDP1 12\_1 Federal Com 25H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Nimitz MDP1 12\_1 Federal Com 25H

RKB=26.5' @ 3549.00ft RKB=26.5' @ 3549.00ft

Grid

anned Survey									
anned 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
1,951.00	0.00	0.00	1,951.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.98	198.27	2,000.00	-0.40	-0.13	-0.39	2.00	2.00	0.00
2,100.00	2.98	198.27	2,099.93	-3.68	-1.21	-3.60	2.00	2.00	0.00
2,200.00	4.98	198.27	2,199.69	-10.27	-3.39	-10.06	2.00	2.00	0.00
2,300.00	6.98	198.27	2,299.14	-20.16	-6.65	-19.75	2.00	2.00	0.00
2,400.00	8.98	198.27	2,398.16	-33.34	-11.01	-32.66	2.00	2.00	0.00
2,500.00	10.98	198.27	2,496.65	-49.80	-16.44	-48.77	2.00	2.00	0.00
2,600.00	12.98	198.27	2,594.46	-69.51	-22.94	-68.08	2.00	2.00	0.00
2,700.00	14.98	198.27	2,691.50	-92.45	-30.51	-90.55	2.00	2.00	0.00
2,800.00	16.98	198.27	2,787.63	-118.59	-39.14	-116.15	2.00	2.00	0.00
2,850.91	18.00	198.27	2,836.19	-133.12	-43.94	-130.38	2.00	2.00	0.00
2,900.00	18.00	198.27	2,882.87	-147.53	-48.69	-144.48	0.00	0.00	0.00
3,000.00	18.00	198.27	2,977.98	-176.87	-58.38	-173.22	0.00	0.00	0.00
3,100.00	18.00	198.27	3,073.08	-206.21	-68.06	-201.96	0.00	0.00	0.00
3,200.00	18.00	198.27	3,168.19	-235.55	-77.75	-230.70	0.00	0.00	0.00
3,300.00	18.00	198.27	3,263.30	-264.89	-87.43	-259.43	0.00	0.00	0.00
3,400.00	18.00	198.27	3,358.40	-294.24	-97.11	-288.17	0.00	0.00	0.00
3,500.00	18.00	198.27	3,453.51	-323.58	-106.80	-316.91	0.00	0.00	0.00
3,600.00	18.00	198.27	3,548.62	-352.92	-116.48	-345.64	0.00	0.00	0.00
3,700.00	18.00	198.27	3,643.72	-382.26	-126.17	-374.38	0.00	0.00	0.00
3,800.00	18.00	198.27	3,738.83 3,833.94	-411.60	-135.85	-403.12	0.00	0.00	0.00
3,900.00	18.00	198.27	3,833.94 3,929.04	-440.94 470.20	-145.54	-431.86	0.00	0.00	0.00
4,000.00	18.00	198.27		-470.29 400.63	-155.22 164.01	-460.59	0.00	0.00	0.00
4,100.00 4,200.00	18.00 18.00	198.27	4,024.15	-499.63 528.07	-164.91 174.50	-489.33 518.07	0.00	0.00 0.00	0.00 0.00
4,200.00	18.00	198.27	4,119.26	-528.97	-174.59	-518.07	0.00		
4,300.00	18.00	198.27	4,214.36	-558.31	-184.28	-546.80	0.00	0.00	0.00
4,400.00	18.00	198.27	4,309.47	-587.65	-193.96	-575.54	0.00	0.00	0.00
4,500.00	18.00	198.27	4,404.58	-617.00	-203.64	-604.28	0.00	0.00	0.00
4,600.00	18.00	198.27	4,499.68	-646.34	-213.33	-633.02	0.00	0.00	0.00
4,700.00	18.00	198.27	4,594.79	-675.68	-223.01	-661.75	0.00	0.00	0.00
•									
4,800.00	18.00	198.27	4,689.90	-705.02	-232.70	-690.49	0.00	0.00	0.00
4,900.00	18.00	198.27	4,785.00	-734.36	-242.38	-719.23	0.00	0.00	0.00
5,000.00	18.00	198.27	4,880.11	-763.71	-252.07	-747.96	0.00	0.00	0.00

Database: Company: HOPSPP

**ENGINEERING DESIGNS** 

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Nimitz MDP1 12\_1

Well: Nimitz MDP1 12\_1 Federal Com 25H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Nimitz MDP1 12\_1 Federal Com 25H

RKB=26.5' @ 3549.00ft RKB=26.5' @ 3549.00ft

Grid

lanned 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)
5,200.00	18.00	198.27	5,070.32	-822.39	-271.44	-805.44	0.00	0.00	0.00
5,300.00	18.00	198.27	5,165.43	-851.73	-281.12	-834.18	0.00	0.00	0.00
5,400.00	18.00	198.27	5,260.54	-881.07	-290.80	-862.91	0.00	0.00	0.00
5,500.00	18.00	198.27	5,355.64	-910.42	-300.49	-891.65	0.00	0.00	0.00
5,600.00	18.00	198.27	5,450.75	-939.76	-310.17	-920.39	0.00	0.00	0.00
5,700.00	18.00	198.27	5,545.85	-969.10	-319.86	-949.12	0.00	0.00	0.00
5,800.00	18.00	198.27	5,640.96	-998.44	-329.54	-977.86	0.00	0.00	0.00
5,900.00	18.00	198.27	5,736.07	-1,027.78	-339.23	-1,006.60	0.00	0.00	0.00
6,000.00	18.00	198.27	5,831.17	-1,057.13	-348.91	-1,035.34	0.00	0.00	0.00
6,100.00	18.00	198.27	5,926.28	-1,086.47	-358.60	-1,064.07	0.00	0.00	0.00
6,200.00	18.00	198.27	6,021.39	-1,115.81	-368.28	-1,092.81	0.00	0.00	0.00
6,300.00	18.00	198.27	6,116.49	-1,145.15	-377.97	-1,121.55	0.00	0.00	0.00
6,400.00	18.00	198.27	6,211.60	-1,174.49	-387.65	-1,150.28	0.00	0.00	0.00
6,500.00	18.00	198.27	6,306.71	-1,203.84	-397.33	-1,179.02	0.00	0.00	0.00
6,600.00	18.00	198.27	6,401.81	-1,233.18	-407.02	-1,207.76	0.00	0.00	0.00
6,700.00	18.00	198.27	6,496.92	-1,262.52	-416.70	-1,236.50	0.00	0.00	0.00
6,785.29	18.00	198.27	6,578.04	-1,287.55	-424.96	-1,261.01	0.00	0.00	0.00
6,800.00	17.71	198.43	6,592.04	-1,291.83	-426.38	-1,265.20	2.00	-1.97	1.11
6,900.00	15.74	199.69	6,687.80	-1,319.03	-435.76	-1,291.82	2.00	-1.97	1.26
7,000.00	13.78	201.31	6,784.50	-1,342.90	-444.66	-1,315.14	2.00	-1.96	1.61
7,100.00	11.84	203.44	6,882.00	-1,363.42	-453.07	-1,335.14	2.00	-1.94	2.13
7,200.00	9.92	206.39	6,980.20	-1,380.55	-460.98	-1,351.78	2.00	-1.92	2.95
7,300.00	8.04	210.72	7,078.97	-1,394.27	-468.38	-1,365.06	2.00	-1.88	4.33
7,400.00	6.22	217.62	7,178.20	-1,404.57	-475.26	-1,374.95	2.00	-1.81	6.90
7,500.00	4.57	229.77	7,277.76	-1,411.44	-481.62	-1,381.44	2.00	-1.65	12.15
7,600.00	3.33	252.93	7,377.52	-1,414.87	-487.44	-1,384.53	2.00	-1.25	23.16
7,700.00	3.04	289.22	7,477.38	-1,414.85	-492.71	-1,384.21	2.00	-0.29	36.29
7,800.00	3.92	319.38	7,577.20	-1,411.38	-497.44	-1,380.47	2.00	0.88	30.16
7,900.00	5.43	335.71	7,676.87	-1,404.47	-501.61	-1,373.34	2.00	1.51	16.33
8,000.00	7.19	344.55	7,776.26	-1,394.13	-505.22	-1,362.80	2.00	1.75	8.84
8,100.00	9.04	349.86	7,875.26	-1,380.36	-508.27	-1,348.89	2.00	1.86	5.31
8,200.00	10.95	353.36	7,973.74	-1,363.19	-510.75	-1,331.60	2.00	1.91	3.50
8,300.00	12.88	355.82	8,071.58	-1,342.64	-512.66	-1,310.97	2.00	1.93	2.46
8,400.00	14.84	357.65	8,168.66	-1,318.73	-514.00	-1,287.02	2.00	1.95	1.83
8,500.00	16.80	359.06	8,264.87	-1,291.49	-514.76	-1,259.78	2.00	1.96	1.41
8,561.03	18.00	359.77	8,323.11	-1,273.24	-514.95	-1,241.55	2.00	1.97	1.17
8,600.00	21.90	359.77	8,359.73	-1,259.95	-515.00	-1,228.28	10.00	10.00	0.00
8,700.00	31.90	359.77	8,448.80	-1,214.77	-515.18	-1,183.16	10.00	10.00	0.00
8,800.00	41.90	359.77	8,528.67	-1,154.80	-515.42	-1,123.29	10.00	10.00	0.00
8,900.00	51.90	359.77	8,596.92	-1,081.88	-515.71	-1,050.47	10.00	10.00	0.00
9,000.00	61.90	359.77	8,651.46	-998.22	-516.05	-966.93	10.00	10.00	0.00
9,100.00	71.90	359.77	8,690.65	-906.36	-516.42	-875.20	10.00	10.00	0.00
9,200.00	81.90	359.77	8,713.29	-809.09	-516.81	-778.06	10.00	10.00	0.00
9,277.19	89.62	359.77	8,719.00	-732.17	-517.11	-701.25	10.00	10.00	0.00
9,300.00	89.62	359.77	8,719.15	-709.36	-517.20	-678.47	0.00	0.00	0.00
9,400.00	89.62	359.77	8,719.82	-609.36	-517.61	-578.62	0.00	0.00	0.00
9,500.00	89.62	359.77	8,720.49	-509.37	-518.01	-478.77	0.00	0.00	0.00
9,600.00	89.62	359.77	8,721.16	-409.37	-518.41	-378.91	0.00	0.00	0.00
9,700.00	89.62	359.77	8,721.83	-309.37	-518.81	-279.06	0.00	0.00	0.00
9,800.00	89.62	359.77	8,722.50	-209.37	-519.21	-179.20	0.00	0.00	0.00
9,900.00	89.62	359.77	8,723.17	-109.38	-519.61	-79.35	0.00	0.00	0.00
10,000.00	89.62	359.77	8,723.84	-9.38	-520.01	20.51	0.00	0.00	0.00
10,100.00	89.62	359.77	8,724.51	90.62	-520.41	120.36	0.00	0.00	0.00
10,200.00	89.62	359.77	8,725.18	190.61	-520.81	220.22	0.00	0.00	0.00

Database: Company: HOPSPP

**ENGINEERING DESIGNS** 

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Nimitz MDP1 12\_1

Well: Nimitz MDP1 12\_1 Federal Com 25H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Nimitz MDP1 12\_1 Federal Com 25H

RKB=26.5' @ 3549.00ft RKB=26.5' @ 3549.00ft

Grid

anned 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)
10,300.00	89.62	359.77	8,725.85	290.61	-521.21	320.07	0.00	0.00	0.00
10,400.00	89.62	359.77	8,726.52	390.61	-521.61	419.93	0.00	0.00	0.00
10,500.00	89.62	359.77	8,727.19	490.60	-522.01	519.78	0.00	0.00	0.00
10,600.00	89.62	359.77	8,727.86	590.60	-522.41	619.64	0.00	0.00	0.00
10,700.00	89.62	359.77	8,728.54	690.60	-522.81	719.49	0.00	0.00	0.00
10,800.00	89.62	359.77	8,729.21	790.60	-523.21	819.35	0.00	0.00	0.00
10,900.00	89.62 89.62	359.77 359.77	8,729.88 8,730.55	890.59 990.59	-523.61 -524.01	919.20 1,019.06	0.00	0.00	0.00
11,100.00	89.62	359.77	8,731.22	1,090.59	-524.41	1,118.91	0.00	0.00	0.00
11,200.00	89.62	359.77	8,731.89	1,190.58	-524.81	1,218.77	0.00	0.00	0.00
11,300.00	89.62	359.77	8,732.56	1,290.58	-525.21	1,318.62	0.00	0.00	0.00
11,400.00	89.62	359.77	8,733.23	1,390.58	-525.61	1,418.48	0.00	0.00	0.00
11,500.00	89.62	359.77	8,733.90	1,490.57	-526.01	1,518.33	0.00	0.00	0.00
11,600.00	89.62	359.77	8,734.57	1,590.57	-526.41	1,618.19	0.00	0.00	0.00
11,700.00	89.62	359.77	8,735.24	1,690.57	-526.81	1,718.04	0.00	0.00	0.00
11,800.00	89.62	359.77	8,735.91	1,790.56	-527.21	1,817.90	0.00	0.00	0.00
11,900.00	89.62	359.77	8,736.58	1,890.56	-527.61	1,917.75	0.00	0.00	0.00
12,000.00	89.62	359.77	8,737.25	1,990.56	-528.01	2,017.60	0.00	0.00	0.00
12,100.00	89.62	359.77	8,737.92	2,090.56	-528.41	2,117.46	0.00	0.00	0.00
12,200.00	89.62	359.77	8,738.59	2,190.55	-528.81	2,217.31	0.00	0.00	0.00
12,300.00 12,400.00	89.62 89.62	359.77 359.77	8,739.26 8,739.93	2,290.55 2,390.55	-529.21 -529.61	2,317.17 2,417.02	0.00 0.00	0.00 0.00 0.00	0.00 0.00
12,500.00	89.62	359.77	8,740.60	2,490.54	-530.01	2,516.88	0.00	0.00	0.00
12,600.00	89.62	359.77	8,741.27	2,590.54	-530.41	2,616.73	0.00	0.00	0.00
12,700.00	89.62	359.77	8,741.94	2,690.54	-530.81	2,716.59	0.00	0.00	0.00
12,800.00 12,900.00	89.62 89.62	359.77 359.77	8,742.61 8,743.28	2,790.53 2,890.53	-531.22 -531.62	2,816.44 2,916.30	0.00	0.00	0.00 0.00
13,000.00	89.62	359.77	8,743.95	2,990.53	-532.02	3,016.15	0.00	0.00	0.00
13,100.00	89.62	359.77	8,744.62	3,090.53	-532.42	3,116.01	0.00	0.00	0.00
13,200.00	89.62	359.77	8,745.29	3,190.52	-532.82	3,215.86	0.00	0.00	0.00
13,300.00	89.62	359.77	8,745.96	3,290.52	-533.22	3,315.72	0.00	0.00	0.00
13,400.00	89.62	359.77	8,746.63	3,390.52	-533.62	3,415.57	0.00	0.00	0.00
13,500.00 13,600.00 13,700.00 13,800.00 13,900.00	89.62 89.62 89.62 89.62 89.62	359.77 359.77 359.77 359.77 359.77	8,747.30 8,747.97 8,748.64 8,749.31 8,749.98	3,490.51 3,590.51 3,690.51 3,790.50 3,890.50	-534.02 -534.42 -534.82 -535.22 -535.62	3,515.43 3,615.28 3,715.14 3,814.99 3,914.85	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
14,000.00 14,100.00 14,200.00 14,300.00	89.62 89.62 89.62 89.62	359.77 359.77 359.77 359.77	8,750.65 8,751.32 8,751.99 8,752.66	3,990.50 4,090.49 4,190.49 4,290.49	-536.02 -536.42 -536.82 -537.22	4,014.70 4,114.56 4,214.41 4,314.27	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
14,400.00	89.62	359.77	8,753.33	4,390.49	-537.62	4,414.12	0.00	0.00	0.00
14,500.00	89.62	359.77	8,754.00	4,490.48	-538.02	4,513.97	0.00	0.00	0.00
14,600.00	89.62	359.77	8,754.67	4,590.48	-538.42	4,613.83	0.00	0.00	0.00
14,700.00	89.62	359.77	8,755.34	4,690.48	-538.82	4,713.68	0.00	0.00	0.00
14,800.00	89.62	359.77	8,756.01	4,790.47	-539.22	4,813.54	0.00	0.00	0.00
14,900.00	89.62	359.77	8,756.68	4,890.47	-539.62	4,913.39	0.00	0.00	0.00
15,000.00	89.62	359.77	8,757.35	4,990.47	-540.02	5,013.25	0.00	0.00	0.00
15,100.00	89.62	359.77	8,758.02	5,090.46	-540.42	5,113.10	0.00	0.00	0.00
15,200.00	89.62	359.77	8,758.69	5,190.46	-540.82	5,212.96	0.00	0.00	0.00
15,300.00	89.62	359.77	8,759.36	5,290.46	-541.22	5,312.81	0.00	0.00	0.00
15,400.00	89.62	359.77	8,760.03	5,390.46	-541.62	5,412.67	0.00	0.00	0.00
15,500.00	89.62	359.77	8,760.70	5,490.45	-542.02	5,512.52	0.00	0.00	0.00
15,600.00	89.62	359.77	8,761.37	5,590.45	-542.42	5,612.38	0.00	0.00	0.00

Database: Company:

Project:

HOPSPP

ENGINEERING DESIGNS

PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Nimitz MDP1 12\_1

Well: Nimitz MDP1 12\_1 Federal Com 25H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Nimitz MDP1 12\_1 Federal Com 25H

RKB=26.5' @ 3549.00ft RKB=26.5' @ 3549.00ft

Grid

anned 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	89.62	359.77	8,762.04	5,690.45	-542.82	5,712.23	0.00	0.00	0.00
15,800.00	89.62	359.77	8,762.71	5,790.44	-543.22	5,812.09	0.00	0.00	0.00
15,900.00	89.62	359.77	8,763.38	5,890.44	-543.62	5,911.94	0.00	0.00	0.00
16,000.00	89.62	359.77	8,764.05	5,990.44	-544.02	6,011.80	0.00	0.00	0.00
16,100.00	89.62	359.77	8,764.72	6,090.43	-544.42	6,111.65	0.00	0.00	0.00
16,200.00	89.62	359.77	8,765.39	6,190.43	-544.83	6,211.51	0.00	0.00	0.00
16,300.00	89.62	359.77	8,766.06	6,290.43	-545.23	6,311.36	0.00	0.00	0.00
16,400.00	89.62	359.77	8,766.73	6,390.42	-545.63	6,411.22	0.00	0.00	0.00
16,500.00	89.62	359.77	8,767.40	6,490.42	-546.03	6,511.07	0.00	0.00	0.00
16,600.00	89.62	359.77	8,768.07	6,590.42	-546.43	6,610.93	0.00	0.00	0.00
16,700.00	89.62	359.77	8,768.74	6,690.42	-546.83	6,710.78	0.00	0.00	0.00
16,800.00	89.62	359.77	8,769.41	6,790.41	-547.23	6,810.64	0.00	0.00	0.00
16,900.00	89.62	359.77	8,770.08	6,890.41	-547.63	6,910.49	0.00	0.00	0.00
17,000.00	89.62	359.77	8,770.75	6,990.41	-548.03	7,010.35	0.00	0.00	0.00
17,100.00	89.62	359.77	8,771.42	7,090.40	-548.43	7,110.20	0.00	0.00	0.00
17,200.00	89.62	359.77	8,772.09	7,190.40	-548.83	7,210.05	0.00	0.00	0.00
17,300.00	89.62	359.77	8,772.76	7,290.40	-549.23	7,309.91	0.00	0.00	0.00
17,400.00	89.62	359.77	8,773.43	7,390.39	-549.63	7,409.76	0.00	0.00	0.00
17,500.00	89.62	359.77	8,774.10	7,490.39	-550.03	7,509.62	0.00	0.00	0.00
17,600.00	89.62	359.77	8,774.77	7,590.39	-550.43	7,609.47	0.00	0.00	0.00
17,700.00	89.62	359.77	8,775.45	7,690.39	-550.83	7,709.33	0.00	0.00	0.00
17,800.00	89.62	359.77	8,776.12	7,790.38	-551.23	7,809.18	0.00	0.00	0.00
17,900.00	89.62	359.77	8,776.79	7,890.38	-551.63	7,909.04	0.00	0.00	0.00
18,000.00	89.62	359.77	8,777.46	7,990.38	-552.03	8,008.89	0.00	0.00	0.00
18,100.00	89.62	359.77	8,778.13	8,090.37	-552.43	8,108.75	0.00	0.00	0.00
18,200.00	89.62	359.77	8,778.80	8,190.37	-552.83	8,208.60	0.00	0.00	0.00
18,300.00	89.62	359.77	8,779.47	8,290.37	-553.23	8,308.46	0.00	0.00	0.00
18,400.00	89.62	359.77	8,780.14	8,390.36	-553.63	8,408.31	0.00	0.00	0.00
18,500.00	89.62	359.77	8,780.81	8,490.36	-554.03	8,508.17	0.00	0.00	0.00
18,600.00	89.62	359.77	8,781.48	8,590.36	-554.43	8,608.02	0.00	0.00	0.00
18,700.00	89.62	359.77	8,782.15	8,690.35	-554.83	8,707.88	0.00	0.00	0.00
18,800.00	89.62	359.77	8,782.82	8,790.35	-555.23	8,807.73	0.00	0.00	0.00
18,900.00	89.62	359.77	8,783.49	8,890.35	-555.63	8,907.59	0.00	0.00	0.00
19,000.00	89.62	359.77	8,784.16	8,990.35	-556.03	9,007.44	0.00	0.00	0.00
19,100.00	89.62	359.77	8,784.83	9,090.34	-556.43	9,107.30	0.00	0.00	0.00
19,200.00	89.62	359.77	8,785.50	9,190.34	-556.83	9,207.15	0.00	0.00	0.00
19,300.00	89.62	359.77	8,786.17	9,290.34	-557.23	9,307.01	0.00	0.00	0.00
19,400.00	89.62	359.77	8,786.84	9,390.33	-557.63	9,406.86	0.00	0.00	0.00
19,500.00	89.62	359.77	8,787.51	9,490.33	-558.03	9,506.72	0.00	0.00	0.00
19,600.00	89.62	359.77	8,788.18	9,590.33	-558.44	9,606.57	0.00	0.00	0.00
19,700.00	89.62	359.77	8,788.85	9,690.32	-558.84	9,706.42	0.00	0.00	0.00
19,722.71	89.62	359.77	8,789.00	9,713.03	-558.93	9,729.10	0.00	0.00	0.00

Database: HOPSPP

Company: ENGINEERING DESIGNS

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Nimitz MDP1 12\_1

Well: Nimitz MDP1 12\_1 Federal Com 25H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Nimitz MDP1 12\_1 Federal Com 25H

RKB=26.5' @ 3549.00ft RKB=26.5' @ 3549.00ft

Grid

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
FTP (Nimitz MDP1 - plan hits target cer - Point	0.00 nter	0.00	8,719.00	-732.17	-517.11	446,106.09	696,973.02	32° 13' 31.511785 N	103° 49' 48.113348
PBHL (Nimitz MDP1 - plan hits target cer - Point	0.00 nter	0.00	8,789.00	9,713.03	-558.93	456,550.61	696,931.21	32° 15' 14.869115 N	103° 49' 48.030258

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coor +N/-S (ft)	dinates +E/-W (ft)	Comment	
1,951.00 2,850.91 6,785.29 8,561.03 9,277.19 19,722.71	1,951.00 2,836.19 6,578.04 8,323.11 8,719.00 8,789.00	0.00 -133.12 -1,287.55 -1,273.24 -732.17 9,713.03	0.00 -43.94 -424.96 -514.95 -517.11 -558.93	Build 2.00°/100' Hold 18.00° Tangent Turn 2.00°/100' KOP, Build 10.00°/100' Landing Point TD at 19722.71' MD	



Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Nimitz MDP1 12\_1

Well: Nimitz MDP1 12\_1 Federal Com 25H

Wellbore: Wellbore #1 Design: Permitting Plan

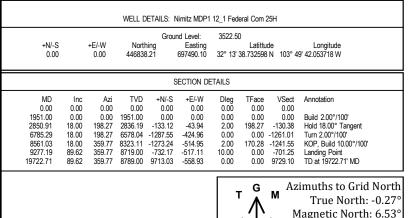
#### PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)

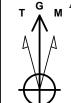
Geodetic System: US State Plane 1983 Datum: North American Datum 1983

Ellipsoid: GRS 1980

Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level





Magnetic North: 6.53°

Magnetic Field Strength: 47902.0snT Dip Angle: 59.92° Date: 7/9/2019 Model: HDGM

4000

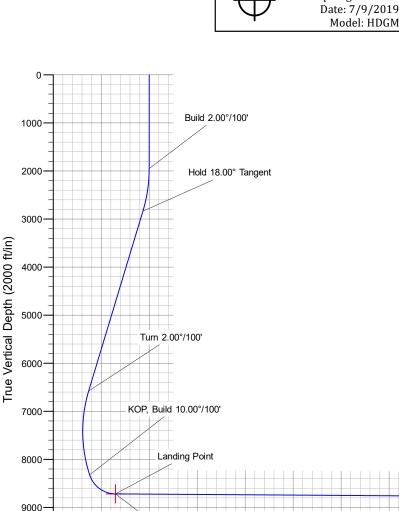
5000

Vertical Section at 356.71° (2000 ft/in)

6000

7000

8000



FTP

0

1000

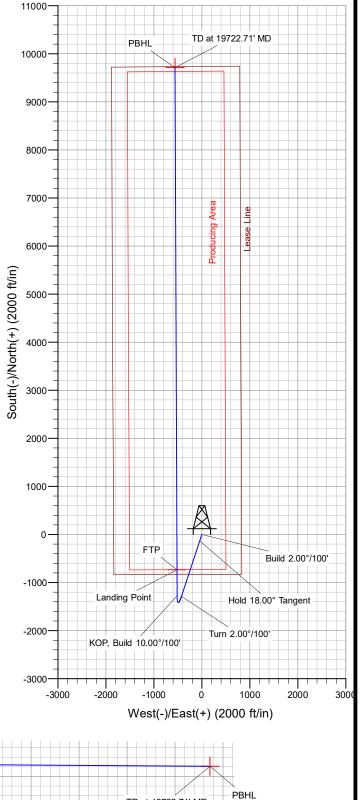
2000

3000

10000

-2000

-1000



TD at 19722.71' MD

9000

10000

11000

12000

#### 1. Geologic Formations

TVD of target	8789'	Pilot Hole Depth	N/A
MD at TD:	19722'	Deepest Expected fresh water:	573'

#### **Delaware Basin**

Formation	TVD - RKB	<b>Expected Fluids</b>
Rustler	573	
Salado	906	Salt
Castile	2,791	Salt
Lamar/Delaware	4,249	Oil/Gas
Bell Canyon	4,280	Oil/Gas
Cherry Canyon	5,142	Oil/Gas
Brushy Canyon	6,380	Losses
<b>Bone Spring</b>	8,112	Oil/Gas

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

#### 2. Casing Program

									Buoyant	Buoyant
II-1- C! (!)	Casing	Casing Interval			Grade	G	SF	CE D	Body SF	Joint SF
Hole Size (in)	From (ft)	To (ft)	(in)	(lbs)	Grade	Conn.	Collapse	SF Burst	Tension	Tension
17.5	0	623	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4
12.25	0	4299	9.625	43.5	L-80	BTC	1.125	1.2	1.4	1.4
8.5	0	19722	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 cancelation cone and not pump the second stage.

\*Oxy requests the option to run production casing with DQX, SF TORQ, and/or DQW 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.

	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?	Y
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	Y
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

### 3. Cementing Program

Casing String	# Sks	Wt. (lb/gal)	Yld (ft3/sack)	H20 (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Surface (Tail)	662	14.8	1.33	6.365	5:26	Class C Cement, Accelerator
Intermediate (Lead)	994	12.9	1.73	8.784	15:26	Pozzolan Cement, Retarder
Intermediate (Tail)	155	14.8	1.33	6.368	7:11	Class C Cement, Accelerator
Production 1st Stage (Lead)	259	13.2	1.38	6.692	17:50	Class H Cement, Retarder, Dispersant, Salt
Production 1st Stage (Tail)	2032	13.2	1.38	6.686	3:49	Class H Cement, Retarder, Dispersant, Salt
2nd Stage Production Lead Slurry to be pumped as Bradenhead Squeeze from surface, down the Production annulus.						
Production 2nd Stage (Tail)	938	12.9	1.872	10.11	21:54	Class C Cement, Accelerator

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	N/A	N/A	N/A
Surface (Tail)	0	623	100%
Intermediate (Lead)	0	3799	50%
Intermediate (Tail)	3799	4299	20%
Production 1st Stage (Lead)	6630	8112	5%
Production 1st Stage (Tail)	8112	19722	5%
Production 2nd Stage (Tail)	0	6630	25%

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

The summarized operational sequence will be as follows:

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

#### 4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		✓	Tested to:
12.25" Hole	13-5/8"	3M	Annular		✓	70% of working pressure
			Blind Ram		✓	250 psi / 3000 psi
		214	Pipe Ram			
		3M	Double Ram		✓	
			Other*			
8.5" Hole	13-5/8"	3M	Annula	ar	✓	70% of working pressure
		3-5/8" 3M	Blind Ram		✓	
			Pipe Ram			250 psi / 3000 psi
			Double Ram		✓	
			Other*			

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

Oxy will utilize a 5M annular with a 10M BOPE stack. The 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 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 the casing point is either shallower than the 3<sup>rd</sup> Bone Spring or 10000 TVD.
- Full BOP test will be required prior to drilling any production hole.

#### 5. Mud Program

Depth		Tour	Weight (nng)	<b>V</b> 7: a a a a:4	XX7-4 T
From (ft)	To (ft)	Туре	Weight (ppg)	Viscosity	Water Loss
0	623	Water-Based Mud	8.6-8.8	40-60	N/C
623	4299	Saturated Brine-Based Mud	9.8-10.0	35-45	N/C
4299	19722	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
---	--------------------------------

#### **6.** Logging and Testing Procedures

Logging, Coring and Testing.					
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole). Stated logs				
	run will be in the Completion Report and submitted to the BLM.				
No	Logs are planned based on well control or offset log information.				
No	Drill stem test? If yes, explain				
No	Coring? If yes, explain				
Additional logs planned Interval					
No	Resistivity				
No	Density				
No	CBL				
Yes	Mud log	ICP - TD			
No	PFX				

#### Oxy USA Inc. - Nimitz MDP1 12\_1 Federal Com 25H

#### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4388 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	151°F

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

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N	H2S is present
Y	H2S Plan attached

## 8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe.	Yes
• 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.	
Will more than one drilling rig be used for drilling operations? If yes, describe.	Yes
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.	

Total estimated cuttings volume: 1803.7 bbls.

#### Attachments

- x Directional Plan
- \_x\_\_ H2S Contingency Plan
- \_x\_\_ Flex III Attachments
- \_x\_\_ Spudder Rig Attachment
- \_x\_\_ Premium Connection Specs

## Oxy USA Inc. - Nimitz MDP1 12\_1 Federal Com 25H

# 9. Company Personnel

<u>Name</u>	<u>Title</u>	Office Phone	Mobile Phone	
Linsay Earle	Drilling Engineer	713-350-4921	832-596-5507	
Margaret Giltner	Drilling Engineer Supervisor	713-366-5026	210-683-8480	
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897	
Diego Tellez	Drilling Manager	713-350-4602	713-303-4932	

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

Date: 07-18-2019

## State of New Mexico Energy, Minerals and Natural Resources Department

Submit Original to Appropriate District Office

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

#### **GAS CAPTURE PLAN**

$\square$	Original	Operator & OCRID No : OVV US A INC. 16606
	Original	Operator & OGRID No.: OXY USA INC 16696
П	Amended - Reason for Amendment	

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

## Well(s)/Production Facility - Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared orVent	Comments
Nimitz MDP1 12_1 FED COM 11H	Pending	D-13-T24S-R30E	826' FNL 287' FWL	2,500	0	
Nimitz MDP1 12_1 FED COM 12H	Pending	N-12-T24S-R30E	615' FSL 1703'FWL	2,500	0	
Nimitz MDP1 12_1 FED COM 13H	Pending	C-13-T24S-R30E	498' FNL 2405' FWL	2,500	0	
Nimitz MDP1 12_1 FED COM 14H	Pending	P-12-T24S-R30E	830' FSL 795' FEL	2,500	0	
Nimitz MDP1 12_1 FED COM 21H	Pending	D-13-T24S-R30E	798' FNL 276' FWL	5,500	0	
Nimitz MDP1 12_1 FED COM 22H	Pending	D-13-T24S-R30E	892' FNL 311' FWL	5,500	0	
Nimitz MDP1 12_1 FED COM 23H	Pending	N-12-T24S-R30E	644' FSL 1766' FWL	5,500	0	
Nimitz MDP1 12_1 FED COM 24H	Pending	C-13-T24S-R30E	428' FNL 2405' FWL	5,500	0	
Nimitz MDP1 12_1 FED COM 25H	Pending	P-12-T24S-R30E	830'FSL 1350' FEL	5,500	0	
Nimitz MDP1 12_1 FED COM 26H	Pending	P-12-T24S-R30E	830' FSL 730' FEL	5,500	0	
Nimitz MDP1 12_1 FED COM 41H	Pending	D-13-T24S-R30E	986' FNL 345' FWL	7,200	0	
Nimitz MDP1 12_1 FED COM 42H	Pending	D-13-T24S-R30E	1047' FNL 368' FWL	7,200	0	
Nimitz MDP1 12_1 FED COM 43H	Pending	N-12-T24S-R30E	674' FSL 1830' FWL	7,200	0	
Nimitz MDP1 12_1 FED COM 44H	Pending	N-12-T24S-R30E	716' FSL 1921' FWL	7,200	0	
Nimitz MDP1 12_1 FED COM 45H	Pending	P-12-T24S-R30E	439' FSL 1138' FEL	7,200	0	
Nimitz MDP1 12_1 FED COM 46H	Pending	P-12-T24S-R30E	115' FSL 140' FEL	7,200	0	

Nimitz MDP1 12_1 FED COM 171H	Pending	M-12-T24S-R30E	275' FSL 67' FWL	4,200	0
Nimitz MDP1 12_1 FED COM 172H	Pending	N-12-T24S-R30E	585' FSL 1639' FWL	4,200	0
Nimitz MDP1 12_1 FED COM 173H	Pending	C-13-T24S-R30E	363' FNL 2405' FWL	4,200	0
Nimitz MDP1 12_1 FED COM 174H	Pending	C-13-T24S-R30E	293' FNL 2405' FWL	4,200	0
Nimitz MDP1 12_1 FED COM 175H	Pending	P-12-T24S-R30E	439' FSL 1068' FEL	4,200	0
Nimitz MDP1 12_1 FED COM 176H	Pending	P-12-T24S-R30E	439' FSL 968' FEL	4,200	0
Nimitz MDP1 13 FED COM 11H	Pending	D-13-T24S-R30E	953' FNL 333' FWL	1,700	0
Nimitz MDP1 13 FED COM 12H	Pending	N-12-T24S-R30E	630' FSL 1734' FWL	1,700	0
Nimitz MDP1 13 FED COM 13H	Pending	C-13-T24S-R30E	533' FNL 2405' FWL	1,700	0
Nimitz MDP1 13 FED COM 14H	Pending	P-12-T24S-R30E	830' FSL 660' FEL	1,700	0
Nimitz MDP1 13 FED COM 21H	Pending	D-13-T24S-R30E	859' FNL 299' FWL	3,700	0
Nimitz MDP1 13 FED COM 22H	Pending	D-13-T24S-R30E	925' FNL 323' FWL	3,700	0
Nimitz MDP1 13 FED COM 23H	Pending	N-12-T24S-R30E	659' FSL 1798' FWL	3,700	0
Nimitz MDP1 13 FED COM 24H	Pending	C-13-T24S-R30E	463' FNL 2405' FWL	3,700	0
Nimitz MDP1 13 FED COM 25H	Pending	P-12-T24S-R30E	830' FSL 760' FEL	3,700	0
Nimitz MDP1 13 FED COM 26H	Pending	P-12-T24S-R30E	830' FSL 695' FEL	3,700	0
Nimitz MDP1 13 FED COM 41H	Pending	D-13-T24S-R30E	1014' FNL 356' FWL	5,000	0
Nimitz MDP1 13 FED COM 42H	Pending	D-13-T24S-R30E	1080' FNL 380' FWL	5,000	0
Nimitz MDP1 13 FED COM 43H	Pending	N-12-T24S-R30E	689' FSL 1862' FWL	5,000	0
Nimitz MDP1 13 FED COM 44H	Pending	N-12-T24S-R30E	704' FSL 1893' FWL	5,000	0
Nimitz MDP1 13 FED COM 45H	Pending	P-12-T24S-R30E	439' FSL 1103' FEL	5,000	0
Nimitz MDP1 13 FED COM 46H	Pending	P-12-T24S-R30E	80' FSL 140' FEL	5,000	0
Nimitz MDP1 13 FED COM 171H	Pending	M-12-T24S-R30E	275' FSL 32' FWL	2,800	0
Nimitz MDP1 13 FED COM 172H	Pending	N-12-T24S-R30E	600' FSL 1671' FWL	2,800	0
Nimitz MDP1 13 FED COM 173H	Pending	C-13-T24S-R30E	328' FNL 2405' FWL	2,800	0
Nimitz MDP1 13 FED COM 174H	Pending	C-13-T24S-R30E	393' FNL 2405' FWL	2,800	0

Nimitz MDP1 13 FED COM 175H	Pending	P-12-T24S-R30E	439' FSL 1033' FEL	2,800	0	
Nimitz MDP1 13 FED COM 176H	Pending	P-12-T24S-R30E	439' FSL 998' FEL	2,800	0	

#### **Gathering System and Pipeline Notification**

Well(s) will be connected to a production facility after flowback operations are complete, where a gas transporter system is in place. The gas produced from production facility is dedicated to <a href="Enterprise Field Services">Enterprise ("Enterprise")</a> and is connected to <a href="Enterprise">Enterprise</a> low/high pressure gathering system located in Eddy County, New Mexico. <a href="OXY USA INC.("OXY")</a> provides (periodically) to <a href="Enterprise">Enterprise</a> a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, <a href="OXY">OXY</a> and <a href="Enterprise">Enterprise</a> have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Enterprise's Processing Plant located in Sec. 36, Twn. 24S, Rng. 30E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

#### Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on <u>Enterprise</u> system at that time. Based on current information, it is OXY's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

#### **Alternatives to Reduce Flaring**

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas On lease
  - o Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal On lease
  - o Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT SUPO Data Report

10/05/2020

**APD ID**: 10400047542

Well Type: OIL WELL

**Submission Date:** 09/17/2019

**Operator Name: OXY USA INCORPORATED** 

Well Number: 25H

reflects the most recent changes

Highlighted data

Well Name: NIMITZ MDP1 12-1 FEDERAL COM

Well Work Type: Drill

**Show Final Text** 

## **Section 1 - Existing Roads**

Will existing roads be used? YES

**Existing Road Map:** 

NimitzMDP1\_12\_1FdCom25H\_ExistRoads\_20190917113257.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

**Existing Road Improvement Description:** 

**Existing Road Improvement Attachment:** 

#### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

**New Road Map:** 

NimitzMDP1\_12\_1FdCom25H\_NewRoad\_CGL\_20190917113311.pdf

New road type: LOCAL

Length: 1598 Feet Width (ft.): 30

**Max slope (%):** 0 **Max grade (%):** 0

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 15

New road access erosion control: Watershed Diversion every 200' if needed.

New road access plan or profile prepared? Y

New road access plan attachment:

NimitzMDP1\_12\_1FdCom25H\_NewRoad\_CGL\_20190917113320.pdf

Access road engineering design? N

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

#### Access road engineering design attachment:

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 0

Offsite topsoil source description:

Onsite topsoil removal process: If available

Access other construction information: None

Access miscellaneous information: A new access road to the well pad will be built. The access road will run 63.6 west through pasture to the northeast corner of the pad. A new access road to the Sand Dunes S.C. CGL #8 pad will run 89.9 (0.017mi) in length crossing USA land in Section 8, T24S, R31E, NMPM, Eddy County, NM and being 15 left and 15 right of the centerline survey, see attached. (2) new access roads to Sand Dunes S.C. CGL #7 pad will run (1) - 96.9 (0.018mi) in length crossing USA land in Section 7, T24S, R31E, NMPM, Eddy County, NM and being 15 left and 15 right of centerline survey, see attached, and (2) will run 739.8 (0.14mi) in length crossing northwest quarter of the northwest quarter Section 7, T24S, R31E, NMPM, Eddy County, NM and being more particularly described in survey attached. A new access road to the Sand Dunes S.C. CGL #12 pad will be 30 wide and 608.2 (0.115) in length crossing USA land in Section 12, T24S, R31E, NMPM, Eddy County, NM, and being 15 left and 15 right of the centerline survey, see attached.

Number of access turnouts:

Access turnout map:

## **Drainage Control**

New road drainage crossing: CULVERT

Drainage Control comments: Watershed Diversion every 200' if needed.

Road Drainage Control Structures (DCS) description: Watershed Diversion every 200' if needed.

**Road Drainage Control Structures (DCS) attachment:** 

## **Access Additional Attachments**

## **Section 3 - Location of Existing Wells**

**Existing Wells Map?** YES

Attach Well map:

NimitzMDP1\_12\_1FdCom25H\_ExistWells\_20190917113402.pdf

## Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

**Production Facilities description:** a. In the event the well is found productive, the Sand Dunes S.C CGL #8, Sand Dunes S.C. CGL #7 and/or the Sand Dunes S.C CGL #12 would be utilized and the necessary production equipment will be installed at the well site. See proposed facilities layout diagrams. b. All flow lines will adhere to API standards. They will consist of (3)

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

surface 4 composite flowlines per well operating 75% MAWP, lines to follow surveyed route. Survey of a strip of land 30 wide and 16,473.7(3.120 mi) in length crossing USA Land in Sections 7, T24S R31E, NMPM Lea County, NM, and being 15 left and 15 right of the centerline survey, see attached. (2) buried 8 steel gas lift lines operating 1500psig and (2) 20 steel gas sales lines operating 250 psig, all lines to follow surveyed route. Survey of a strip of land 30 wide and 18,542.6 (3.512mi) in length crossing USA land in Sections 7 & 8, T24S, R30E, NMPM, Eddy County, NM and being 15 left and 15 right of the centerline survey, see attached. All well pads have (2) 6 steel gas injection lines operating at 75% MAWP from the (2) 8 gas injection trunk lines to the wells, lines to follow surveyed route. Survey of a strip of land 30 wide and 6838.8 (1.295mi) in length crossing USA land in Sections 12& 13, T24S, R30E, NMPM, Eddy County, NM and Sections 7, 17 & 18, T24S, R31E, NMPM, Eddy County, NM, and being 15 left and 15 right of the centerline survey, see attached. c. Electric line (overhead) will follow a route approved by the BLM. Survey of a strip of land 30 wide and 582.4 (0.11mi) in length crossing USA land in Sections 13, T24S R30E NMPM, Eddy County, NM and being 15 left and 15 right of the centerline survey, see attached. An electric line to the Sand Dunes S.C. CGL #7 pad will run 121.2 (0.229mi) in length crossing Section 7 T24S R31E, NMPM, Eddy County, NM and being more particularly described in the attached survey (#19110083). An electric line to the Sand Dunes S.C. CGL #8 pad will be 30 wide and run 60.1 (0.011mi) in length crossing USA land in Section 8, T24S, R31E, NMPM, Eddy County, NM and being 15 left and 15 right of the centerline survey, see attached (#19110082). An electric line to the Sand Dunes S.C. CGL #12 pad will be 30 wide and run 1137.1 (0.215mi) in length crossing USA land in Section 12, T24S, R30E, NMPM, Eddy County, NM and being 15 left and 15 right of the centerline survey, see attached (#19110068). d. The Sand Dunes S.C. CGL #7 proposed pad is attached. This pad will contain (2) 8 buried steel gas lift lines operating 1500psig and (2) 20 buried steel gas sales lines operating 250psig, all lines to follow surveyed route. Survey for a gas pipeline crossing Section 7 T24S R31E, NMPM, Eddy County, NM and being more particularly described in the attached (#19110342). The Sand Dunes S.C. CGL #8 proposed pad is attached. The Sand Dunes S.C. CGL #12 proposed pad is attached.

#### **Production Facilities map:**

NimitzMDP1\_12\_1FdCom25H\_LeaseFacilityInfo\_20190917113421.pdf NimitzMDP1\_12\_1FdCom25H\_FacilityPLEL\_20190917113426.pdf

## Section 5 - Location and Types of Water Supply

## **Water Source Table**

Water source type: GW WELL

Water source use type: INTERMEDIATE/PRODUCTION

CASING

SURFACE CASING

OTHER Describe use type: This well will be drilled using a com

will be obtained from commercial water stations (Grego and will be hauled to location by transport truck using ex-

Source latitude: Source longitude:

Source datum:

Water source permit type: WATER WELL

Water source transport method: TRUCKING

**PIPELINE** 

Source land ownership: COMMERCIAL

Source transportation land ownership: COMMERCIAL

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

Water source volume (barrels): 2000 Source volume (acre-feet): 0.25778618

Source volume (gal): 84000

#### Water source and transportation map:

NimitzMDP1\_12\_1FdCom25H\_GRRWtrSrc\_20190917113510.pdf NimitzMDP1\_12\_1FdCom25H\_MesqWtrSrc\_20190917113510.pdf

**Water source comments:** This well will be drilled using a combination of water mud systems. It will be obtained from commercial water stations (Gregory Rockhouse, Mesquite) in the area and will be hauled to location by transport truck using existing and proposed roads.

New water well? N

## **New Water Well Info**

Well latitude: Well Longitude: Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft): Est thickness of aquifer:

**Aquifer comments:** 

Aquifer documentation:

Well depth (ft): Well casing type:

Well casing outside diameter (in.): Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method: Drill material:

Grout material: Grout depth:

Casing length (ft.): Casing top depth (ft.):

Well Production type: Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

## **Section 6 - Construction Materials**

Using any construction materials: YES

Construction Materials description: Primary - All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM/State/Fee approved pit or from prevailing deposits found on the location. Will use BLM recommended extra caliche from other locations close by for roads, if available. Secondary - The secondary way of obtaining caliche to build locations and roads will be by "turning over" the location. This means, caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cubic yards is max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel: a. The top 6" of topsoil is pushed off and stockpiled along the side of the location. b. An approximate 120' X 120' area is used within the proposed well site to remove caliche. c. Subsoil is removed and piled alongside the 120' X 120' within the pad site. d. When caliche is found, material will be stockpiled within the pad site to build the location and road. e. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road. f. Once the well is drilled

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

the stockpiled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the edge of the pad. Caliche will be provided from a pit located in Section 7 T24S R31E. Water will be provided from a frac pond located in Sections 7 T24S R31E.

**Construction Materials source location attachment:** 

## **Section 7 - Methods for Handling Waste**

Waste type: DRILLING

Waste content description: Water-Based Cuttings, Water-Based Mud, Oil-Based Cuttings, Oil-Based Mud, Produced Water

Amount of waste: 1803.7 barrels

Waste disposal frequency: Daily

Safe containment description: Haul-Off Bins

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL

**FACILITY** 

Disposal type description:

**Disposal location description:** An approved facility that can process drill cuttings, drill fluids, flowback water, produced water, contaminated soils, and other non-hazardous wastes.

#### **Reserve Pit**

Reserve Pit being used? N

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

#### **Cuttings Area**

Cuttings Area being used? NO

Are you storing cuttings on location? Y

**Description of cuttings location** A closed loop system will be utilized consisting of above ground steel tanks and haul-off bins. Disposal of liquids, drilling fluids and cuttings will be disposed of at an approved facility.

Cuttings area length (ft.) Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

#### Cuttings area liner specifications and installation description

## **Section 8 - Ancillary Facilities**

Are you requesting any Ancillary Facilities?: N

**Ancillary Facilities attachment:** 

#### Comments:

## **Section 9 - Well Site Layout**

**Well Site Layout Diagram:** 

NimitzMDP1\_12\_1FdCom25H\_WellSiteCL\_20190917113953.pdf

Comments: V-Door-East - CL Tanks - North - 280' X 630' 6 Well Pad

## **Section 10 - Plans for Surface Reclamation**

Type of disturbance: New Surface Disturbance Multiple Well Pad Name: Nimitz MDP1 12-1 & 13 Federal Com

Multiple Well Pad Number: 14H, 26H, 14H, 25H, 26H

Recontouring attachment:

Drainage/Erosion control construction: Reclamation to be wind rowed as needed to control erosion Drainage/Erosion control reclamation: Reclamation to be wind rowed as needed to control erosion

Well pad proposed disturbance

(acres): 4.05

Road proposed disturbance (acres):

1.1

Powerline proposed disturbance

(acres): 1.31

Pipeline proposed disturbance

(acres): 29.17

Other proposed disturbance (acres): 0

Total proposed disturbance: 35.63

Well pad interim reclamation (acres): Well pad long term disturbance

1.3

Powerline interim reclamation (acres):

1.31

Pipeline interim reclamation (acres):

19.45

Other interim reclamation (acres): 0

Total interim reclamation: 22.65

(acres): 2.75

Road interim reclamation (acres): 0.59 Road long term disturbance (acres):

Powerline long term disturbance

(acres): 0

Pipeline long term disturbance

(acres): 9.72

Other long term disturbance (acres): 0

Total long term disturbance: 12.98

Disturbance Comments: See Below

Reconstruction method: If the well is deemed commercially productive, caliche from the areas of the pad site not required for operations will be reclaimed. The original topsoil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original topsoil will again be returned to the pad and contoured, as close as possible, to the original topography, and the area will be seeded with

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

an approved BLM mixture to re-establish vegetation.

**Topsoil redistribution:** The original topsoil will be returned to the area of the drill pad not necessary to operate the well.

**Soil treatment:** To be determined by the BLM.

Existing Vegetation at the well pad: To be determined by the BLM at Onsite.

**Existing Vegetation at the well pad attachment:** 

Existing Vegetation Community at the road: To be determined by the BLM at Onsite.

**Existing Vegetation Community at the road attachment:** 

Existing Vegetation Community at the pipeline: To be determined by the BLM at Onsite.

**Existing Vegetation Community at the pipeline attachment:** 

**Existing Vegetation Community at other disturbances:** To be determined by the BLM at Onsite.

**Existing Vegetation Community at other disturbances attachment:** 

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

**Seed Management** 

**Seed Table** 

Seed Summary
Seed Type Pounds/Acre

Total pounds/Acre:

Seed reclamation attachment:

**Operator Contact/Responsible Official Contact Info** 

**Operator Name: OXY USA INCORPORATED** Well Number: 25H Well Name: NIMITZ MDP1 12-1 FEDERAL COM First Name: **Last Name:** Email: Phone: Seedbed prep: Seed BMP: Seed method: Existing invasive species? N Existing invasive species treatment description: **Existing invasive species treatment attachment:** Weed treatment plan description: To be determined by the BLM. Weed treatment plan attachment: Monitoring plan description: To be determined by the BLM. Monitoring plan attachment: Success standards: To be determined by the BLM. Pit closure description: NA Pit closure attachment: **Section 11 - Surface Ownership** Disturbance type: WELL PAD Describe: Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: **BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: Military Local Office: USFWS Local Office: Other Local Office:** 

**USFS** Region:

**USFS Forest/Grassland:** 

Page 8 of 11

**USFS Ranger District:** 

**Operator Name: OXY USA INCORPORATED** Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H Disturbance type: PIPELINE Describe: Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: **BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: Military Local Office: USFWS Local Office: Other Local Office: USFS** Region: **USFS Forest/Grassland: USFS Ranger District:** Disturbance type: OTHER Describe: Electric Line Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: **BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: Military Local Office: USFWS Local Office: Other Local Office: USFS** Region: **USFS Forest/Grassland: USFS Ranger District:** 

**Operator Name: OXY USA INCORPORATED** Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H Disturbance type: NEW ACCESS ROAD Describe: Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: **BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: Military Local Office: USFWS Local Office: Other Local Office: USFS** Region: **USFS Forest/Grassland: USFS Ranger District:** Disturbance type: OTHER Describe: CGLs Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: **BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: Military Local Office: USFWS Local Office: Other Local Office: USFS** Region: **USFS Forest/Grassland: USFS Ranger District:** 

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

## **Section 12 - Other Information**

#### Right of Way needed? Y

#### Use APD as ROW? Y

**ROW Type(s):** 281001 ROW - ROADS,285003 ROW - POWER TRANS,288100 ROW - O&G Pipeline,288101 ROW - O&G Facility Sites,289001 ROW- O&G Well Pad

**ROW Applications** 

**SUPO Additional Information:** Permian Basin MOA - To be submitted after APD acceptance. GIS Shapefiles available for BLM download from shared FTP site after APD submittal. **Use a previously conducted onsite?** N

#### **Previous Onsite information:**

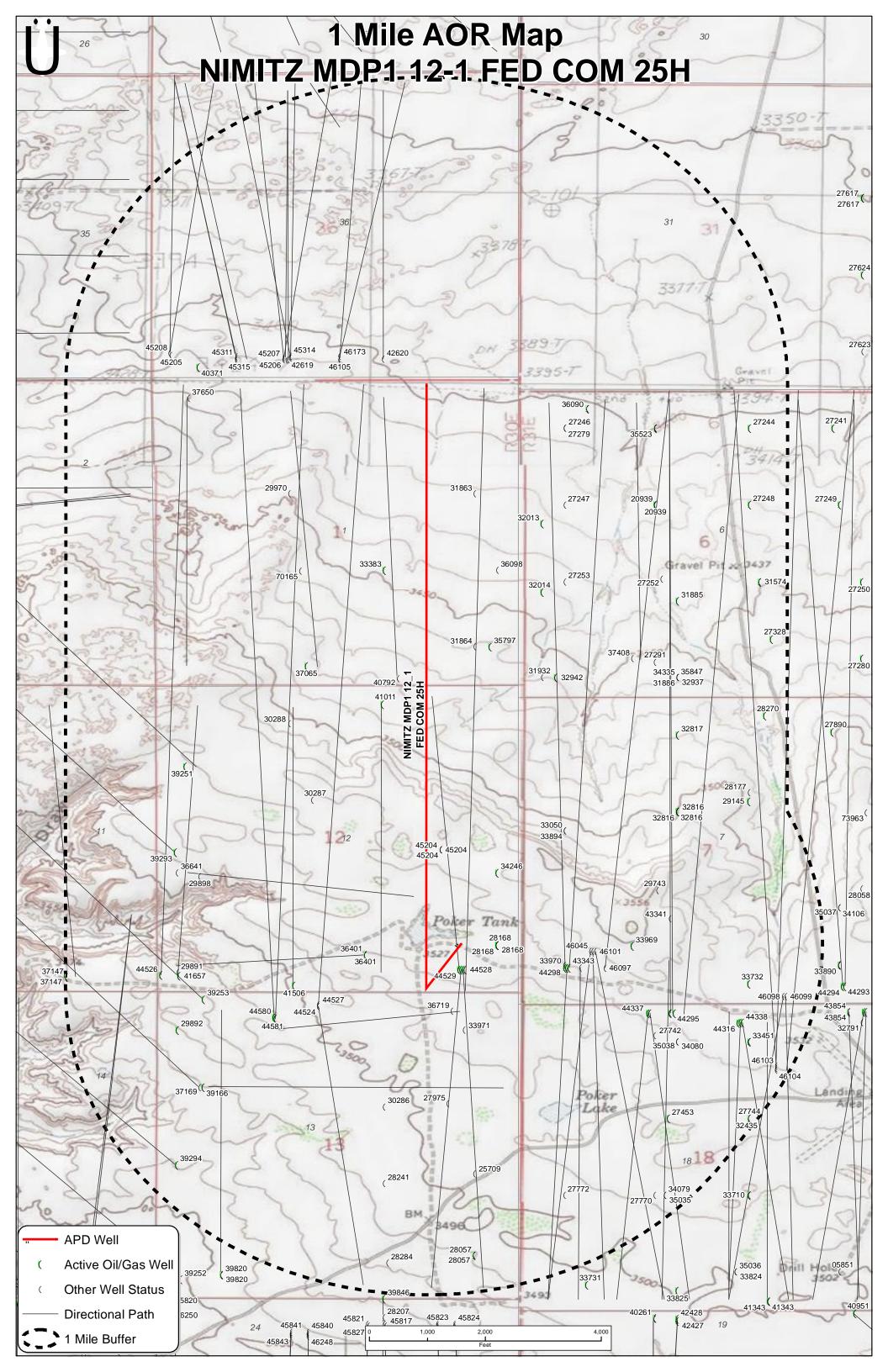
## **Other SUPO Attachment**

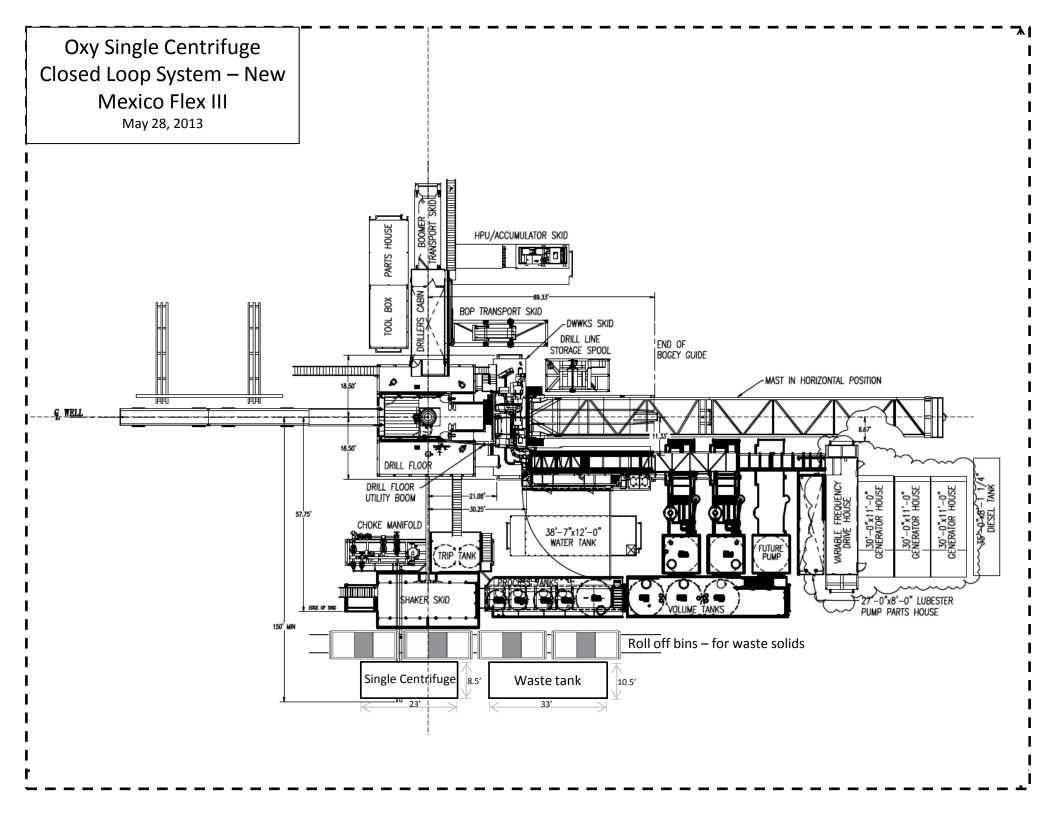
NimitzMDP1\_12\_1FdCom25H\_GasCapPlan\_20190917114128.pdf

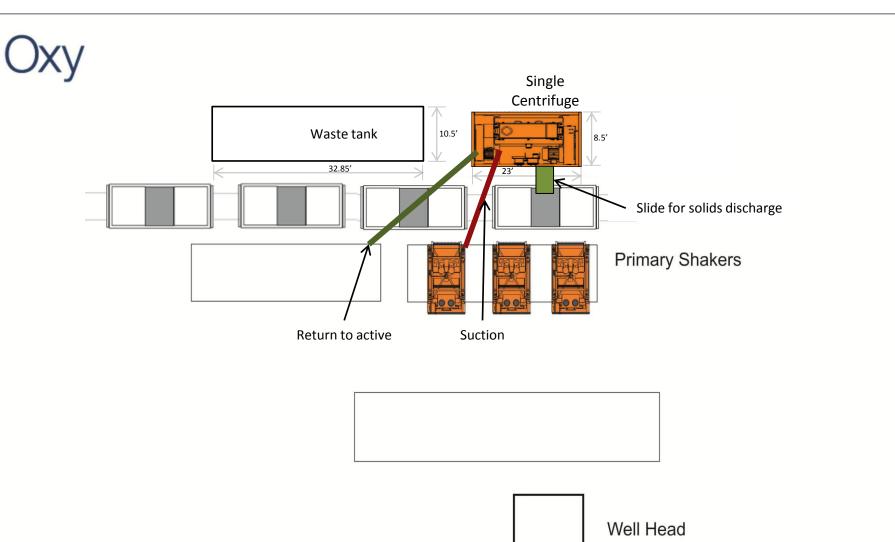
NimitzMDP1\_12\_1FdCom25H\_SUPO\_20190917114128.pdf

NimitzMDP1\_12\_1FdCom25H\_StakeForm\_20190917114128.pdf

NimitzMDP1\_12\_1FdCom25H\_MiscSvyPlats\_20190917114129.pdf







Well He

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



#### U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# PWD Data Report

**APD ID:** 10400047542 **Submission Date:** 09/17/2019

**Operator Name: OXY USA INCORPORATED** 

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

Well Type: OIL WELL Well Work Type: Drill

#### **Section 1 - General**

Would you like to address long-term produced water disposal? NO

## **Section 2 - Lined Pits**

Would you like to utilize Lined Pit PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD surface owner: PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

**Lined pit Monitor description:** 

**Lined pit Monitor attachment:** 

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

## **Section 3 - Unlined Pits**

Would you like to utilize Unlined Pit PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD disturbance (acres): PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

**Unlined pit Monitor attachment:** 

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

**TDS lab results:** 

Geologic and hydrologic evidence:

State authorization:

**Unlined Produced Water Pit Estimated percolation:** 

Unlined pit: do you have a reclamation bond for the pit?

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

**Section 4 - Injection** 

Would you like to utilize Injection PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD surface owner: PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: Injection well name:

Assigned injection well API number? Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

**Underground Injection Control (UIC) Permit?** 

**UIC Permit attachment:** 

**Section 5 - Surface Discharge** 

Would you like to utilize Surface Discharge PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD surface owner: PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

**Surface Discharge NPDES Permit?** 

**Surface Discharge NPDES Permit attachment:** 

Surface Discharge site facilities information:

Surface discharge site facilities map:

**Section 6 - Other** 

Would you like to utilize Other PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD surface owner: PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Well Name: NIMITZ MDP1 12-1 FEDERAL COM Well Number: 25H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# Bond Info Data Report

10/05/2020

**APD ID:** 10400047542

Operator Name: OXY USA INCORPORATED

Well Name: NIMITZ MDP1 12-1 FEDERAL COM

Well Type: OIL WELL

**Submission Date:** 09/17/2019

Highlighted data reflects the most recent changes

**Show Final Text** 

Well Work Type: Drill

Well Number: 25H

## **Bond Information**

Federal/Indian APD: FED

**BLM Bond number: ESB000226** 

**BIA Bond number:** 

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

**BLM** reclamation bond number:

Forest Service reclamation bond number:

**Forest Service reclamation bond attachment:** 

**Reclamation bond number:** 

**Reclamation bond amount:** 

**Reclamation bond rider amount:** 

Additional reclamation bond information attachment: