Received by UCD: 3/14/2023 1:46:06 PM U.S. Department of the Interior BUREAU OF LAND MANAGEMENT		Sundry Print Reports 03/14/2023
Well Name: NIMITZ MDP1 13_1 FEDERAL COM	Well Location: T24S / R30E / SEC 13 / SWSW / 32.212834 / -103.840151	County or Parish/State: EDDY / NM
Well Number: 171H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM120897	Unit or CA Name:	Unit or CA Number:
<b>US Well Number:</b> 3001548578	Well Status: Drilling Well	<b>Operator:</b> OXY USA INCORPORATED

### **Notice of Intent**

Sundry ID: 2706261

Type of Submission: Notice of Intent

Date Sundry Submitted: 12/07/2022

Date proposed operation will begin: 04/01/2023

Type of Action: APD Change Time Sundry Submitted: 08:55

**Procedure Description:** OXY USA Inc. respectfully requests approval to amend the subject well AAPD. See the below new BHL, the attached well plat with the updated HSU and the attached updated drill plan for reference. OLD BHL: 20' FNL 500' FWL Lot 4-Sec 1-T24S-R30E NEW BHL: 20' FNL 330' FWL Lot 4-Sec 1-T24S-R30E

**NOI Attachments** 

### **Procedure Description**

NimitzMDP113\_1FedCom171H\_DrillPlan\_20221219070856.pdf

NimitzMDP113\_1FedCom171H\_SpudRigData\_20221207085439.pdf

SPECSHEETS\_20221207085344.pdf

NimitzMDP113\_1FedCom171H\_13inADAPT\_10.75in\_7.625in\_10x10\_20221207085256.pdf

NimitzMDP113\_1FedCom171H\_DirectPlan\_20221207085211.pdf

IP8689WEL01NM\_C102\_171H\_20221207084806.pdf

eceived by OCD: 3/14/2023 1:46:06 PM Well Name: NIMITZ MDP1 13_1 FEDERAL COM	Well Location: T24S / R30E / SEC 13 / SWSW / 32.212834 / -103.840151	County or Parish/State: EDBY 7 of 34
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### **Conditions of Approval**

### Additional

NIMITZ\_MDP1\_13\_1\_FEDERAL\_COM\_171H\_\_\_SUNDRY\_COA\_20230314112116.pdf

### **Operator**

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

**Operator Electronic Signature:** LESLIE REEVES

Name: OXY USA INCORPORATED

Title: Advisor Regulatory

Street Address: 5 GREENWAY PLAZA, SUITE 110

City: HOUSTON

Phone: (713) 497-2492

Email address: LESLIE\_REEVES@OXY.COM

Field

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

State:

State: TX

### **BLM Point of Contact**

BLM POC Name: KEITH P IMMATTY BLM POC Phone: 5759884722 Disposition: Approved Signature: Keith Immatty BLM POC Title: ENGINEER

Zip:

BLM POC Email Address: KIMMATTY@BLM.GOV

Signed on: DEC 19, 2022 07:08 AM

Disposition Date: 03/14/2023

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA INCORPORATED
WELL NAME & NO.:	NIMITZ MDP1 13_1 FEDERAL COM / 171H
SURFACE HOLE FOOTAGE:	800'/S & 870'/W
BOTTOM HOLE FOOTAGE	20'/N & 330'/W
LOCATION:	Section 13, T.24 S., R.30 E.
COUNTY:	Eddy County, New Mexico

# COA

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

"OXY USA Inc. respectfully request approval to amend the subject well AAPD. See the below new BHL, the attached well plat with the new pool and HSU, and the updated drill plan for reference." – UPDATED CASING, CEMENTING AND MUD PROGRAM REVIEWED AND IS OK. COA REFLECTS THESE CHANGES. ALL PREVIOUS COAs STILL APPLY

## A. CASING

### Alternate Casing Design:

- 1. The **10-3/4** inch surface casing shall be set at approximately **783** 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.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of

<u>24 hours in the Potash Area</u> 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 **7-5/8** inch intermediate casing shall be set at approximately **11,056** feet. **KEEP CASING MINIMUM HALF FULL DURING RUN FOR COLLAPSE SF.** The minimum required fill of cement behind the **7-5/8** 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 <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.

Operator has proposed to pump down 10-3/4" X 9-5/8" annulus. <u>Operator must top</u> <u>out cement after the bradenhead squeeze and verify cement to surface. Operator</u> <u>can also check TOC with Echo-meter. CBL must be run from TD of the 9-5/8"</u> <u>casing to surface if confidence is lacking on the quality of the bradenhead squeeze</u> <u>cement job. Submit results to BLM.</u> 3. The **5-1**/2 inch production casing shall be set at approximately **27,654** feet. 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.

# **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)

Eddy County Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

Lea County Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

- 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.
- <u>Wait on cement (WOC) for Potash Areas:</u> 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 <u>24 hours</u>. 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.
- <u>Wait on cement (WOC) for Water Basin:</u> 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 <u>8 hours</u>. 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 cement), 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
  - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. 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.

### KPI-3/14/2023

1625 N. French Dr., Hobbs, NM 88240

811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

Phone: (575) 393-6161 Fax: (575) 393-0720

1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

District I

District II

District III

District IV

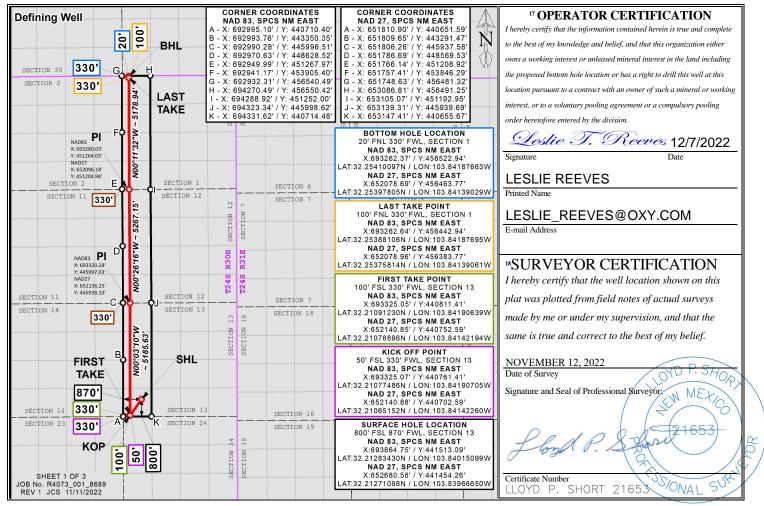
State of New Mexico	
Energy, Minerals & Natural Resources Department	
OIL CONSERVATION DIVISION	S
1220 South St. Francis Dr.	
Santa Fe, NM 87505	

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

AMENDED REPORT

	WELL LOCATION AND ACREAGE DEDICATION PLAT										
<sup>1</sup> A	<sup>1</sup> API Number <sup>2</sup> Pool Code <sup>3</sup> Pool Name										
30-015-48	578		9822	0	PL	JRPLE SAGE	WOLFCAN	IP			
<sup>4</sup> Property C	Code								<sup>6</sup> V	Vell Number	
331061				NIMI	TZ MDP1	13_1 FED COM	[			171H	
<sup>7</sup> OGRID N	No.				<sup>8</sup> Operate	or Name			9	'Elevation	
16696	5				OXY US	SA INC.				3452'	
					<sup>10</sup> Surface	e Location					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from t	he North/South line	Feet from the	East	/West line	County	
М	13	24S	30E		800	SOUTH	870	WE	ST	EDDY	
			<sup>п</sup> Во	ttom Ho	le Location	If Different From	n Surface				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from t	he North/South line	Feet from the	East	/West line	County	
L 4	1	24S 30E 20 NORTH 330 WES'							ST	EDDY	
<sup>12</sup> Dedicated Acres 479.91	<sup>13</sup> Joint of	r Infill <sup>14</sup>									

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.



Distances/areas relative to NAD 83 Combined Scale Factor: 0.99977392 Convergence Angle: 00°15'56.81002"

# Oxy USA Inc. - Nimitz MDP1 13\_1 Fed Com 171H Drill Plan

## **1. Geologic Formations**

TVD of Target (ft):	11737	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	27654	Deepest Expected Fresh Water (ft):	483

## **Delaware Basin**

Formation	MD-RKB (ft)	TVD-RKB (ft)	<b>Expected Fluids</b>
Rustler	483	483	
Salado	843	843	Salt
Castile	2667	2667	Salt
Delaware	4106	4106	Oil/Gas/Brine
Bell Canyon	4137	4137	Oil/Gas/Brine
Cherry Canyon	5053	5053	Oil/Gas/Brine
Brushy Canyon	6296	6277	Losses
Bone Spring	8026	7976	Oil/Gas
Bone Spring 1st	8988	8920	Oil/Gas
Bone Spring 2nd	9753	9671	Oil/Gas
Bone Spring 3rd	10971	10866	Oil/Gas
Wolfcamp	11430	11318	Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

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

## 2. Casing Program

		N	1D	Τ\	/D				
	Hole	From	То	From	То	Csg.	Csg Wt.		
Section	Size (in)	(ft)	(ft)	(ft)	(ft)	OD (in)	(ppf)	Grade	Conn.
Surface	14.75	0	783	0	783	10.75	45.5	J-55	BTC
Intermediate	9.875	0	11056	0	10947	7.625	26.4	L-80 HC	BTC
Production	6.75	0	27654	0	11737	5.5	20	P-110	Wedge 461

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

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

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

## **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?	Y
If not provide justification (loading assumptions, casing design criteria).	I
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching	Y
the collapse pressure rating of the casing?	I
Is well located within Capitan Reef?	Ν
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	Y
500' into previous casing?	1
Is well located in R-111-P and SOPA?	Ν
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?	Ν
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?	Ν
If yes, are there three strings cemented to surface?	

# 3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (Ib/gal)	Excess:	тос	Placement	Description
Surface	1	Surface - Tail	655	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.	1	Intermediate 1S - Tail	616	1.65	13.2	5%	6,546	Circulate	Class H+Accel., Disper., Salt
Int.	2	Intermediate 2S - Tail BH	1012	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	1292	1.38	13.2	25%	10,556	Circulate	Class H+Ret., Disper., Salt

## **Offline Cementing**

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

The summarized operational sequence will be as follows:

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

Land casing.

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

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

The summarized operational sequence will be as follows:

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

a. Notify BLM prior to cement job.

- 11. Perform cement job.
- 12. Confirm well is static and floats are holding after cement job.
- 13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

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

### Three string wells:

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

## 4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP		Туре	~	Tested to:	Deepest TVD Depth (ft) per Section:
		5M		Annular	<b>\</b>	70% of working pressure	
				Blind Ram	✓		
9.875" Hole	13-5/8"	5M		Pipe Ram		250 poi / 5000 poi	10947
		IVIC	Double Ram		<	250 psi / 5000 psi	
			Other*				
		5M	Annular		✓	100% of working pressure	
				Blind Ram 🖌			
6.75" Hole	13-5/8"	1014		Pipe Ram		250 mai / 10000 mai	11737
		10M		Double Ram	✓	250 psi / 10000 psi	
			Other*				

### \*Specify if additional ram is utilized

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

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

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

Formation integrity test will be performed per Onshore Order #2.

On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.

A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.

Are anchors required by manufacturer?

A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015.

See attached schematics.

### **BOP Break Testing Request**

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

BOP break test under the following conditions:

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

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

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

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

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

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

## 5. Mud Program

Section	Depth - MD		Depth - TVD		Trme	Weight	Viscosity	Water	
Section	From (ft)	To (ft)	From (ft)	To (ft)	Туре	(ppg)	viscosity	Loss	
Surface	0	783	0	783	Water-Based Mud	8.6 - 8.8	40-60	N/C	
Intermediate	783	11056	783	10947	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C	
Production	11056	27654	10947	11737	Water-Based or Oil- Based Mud	9.5 - 12.5	38-50	N/C	

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Oxy will use a closed mud system.

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

## 6. Logging and Testing Procedures

Loggi	ng, Coring and Testing.
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole).
res	Stated logs run will be in the Completion Report and submitted to the BLM.
No	Logs are planned based on well control or offset log information.
No	Drill stem test? If yes, explain
No	Coring? If yes, explain

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

# 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7630 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	174°F

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

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

Ν	H2S is present
Y	H2S Plan attached

## 8. Other facets of operation

	Yes/No
<ul><li>Will the well be drilled with a walking/skidding operation? If yes, describe.</li><li>We plan to drill the 3 well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.</li></ul>	Yes
<ul><li>Will more than one drilling rig be used for drilling operations? If yes, describe.</li><li>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.</li></ul>	Yes

## Total Estimated Cuttings Volume: 1874 bbls

Attachments

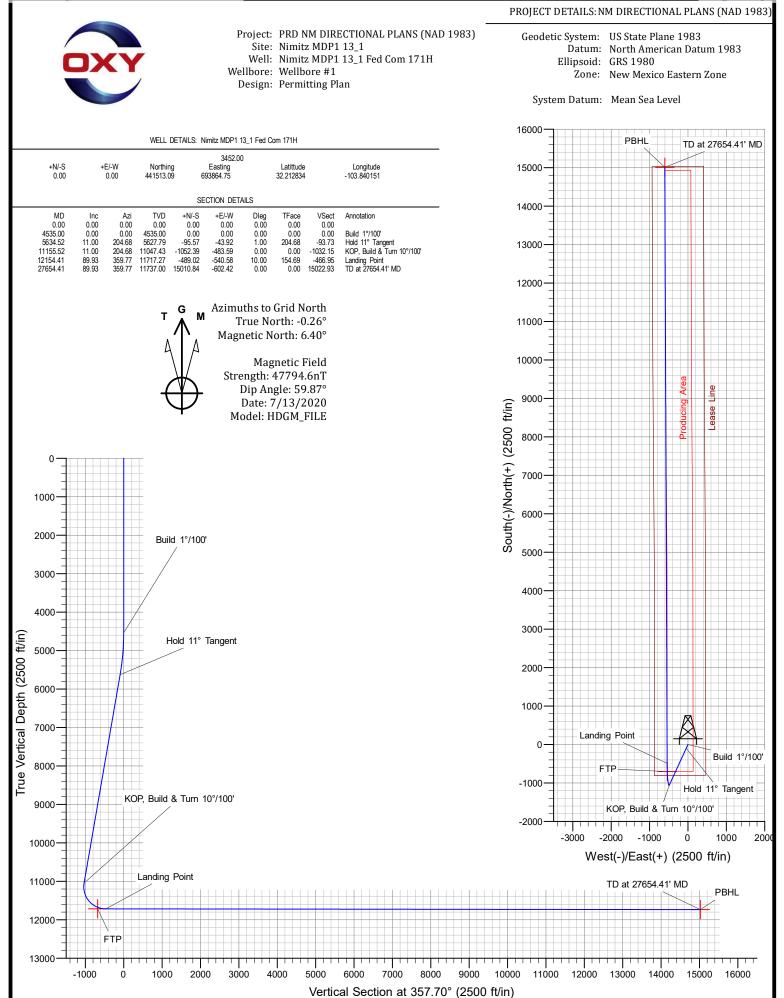
- \_x\_\_ Directional Plan
- \_x\_\_ H2S Contingency Plan
- \_x\_\_ Flex III Attachments
- \_x\_\_ Spudder Rig Attachment
- \_x\_\_ Premium Connection Specs

## 9. Company Personnel

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



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# OXY

PRD NM DIRECTIONAL PLANS (NAD 1983) Nimitz MDP1 13\_1 Nimitz MDP1 13\_1 Fed Com 171H

Wellbore #1

**Plan: Permitting Plan** 

# **Standard Planning Report**

01 December, 2022

## **OXY** Planning Report

Database: Company: Project: Site: Well: Well: Wellbore: Design:	ENGIN PRD N Nimitz Nimitz Wellbo	HOPSPP ENGINEERING DESIGNS PRD NM DIRECTIONAL PLANS (NAD 1983) Nimitz MDP1 13_1 Nimitz MDP1 13_1 Fed Com 171H Wellbore #1 Permitting Plan			Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:			Well Nimitz MDP1 13_1 Fed Com 171H RKB=25' @ 3477.00ft RKB=25' @ 3477.00ft Grid Minimum Curvature		
Project	PRD NM	I DIRECTION	NAL PLANS (I	NAD 1983)						
Map System: Geo Datum: Map Zone:	North Am	US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone				tum:		ean Sea Level sing geodetic sc	ale factor	
Site	Nimitz N	IDP1 13_1								
Site Position: From: Position Uncerta	Map inty:	0.00 f	North Eastin ft Slot F	-	695,9	030.39 usft 031.15 usft 3.200 in	Latitude: Longitude:			32.211206 -103.833479
Well	Nimitz M	IDP1 13_1 Fe	ed Com 171H							
Well Position Position Uncerta Grid Convergenc	•	0.0 2.0	00 ft Ea	orthing: asting: ellhead Elev	ation:	441,513.09 693,864.75	usf Loi	iitude: ngitude: ound Level:		32.21283 -103.84015 3,452.00 ft
Wellbore	Wellbor	re #1								
Magnetics	Mod	el Name	Sampl	e Date	Declina (°)	tion	Dip # ('	Angle °)	Field Stro (nT)	
	ł	HDGM_FILE		7/13/2020		6.67		59.87	47,794	6000000
Design	Permitti	ng Plan								
Audit Notes:										
Version:			Phas	e:	PROTOTYPE	Tie	e On Depth:		0.00	
Vertical Section:		Depth From (TVD) (ft) -1.50		+N/-S +E/-W (ft) (ft) 0.00 0.00		ft)	Direction (°) 357.70			
Plan Survey Too Depth From (ft) 1 0.0	Depth (ft)	To Survey	12/1/2022 7 <b>(Wellbore)</b> ing Plan (Well	lbore #1)	Tool Name B001Mb_MWI OWSG MWD		Remarks			
Plan Sections										
Measured Depth Ind (ft)	clination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00 4,535.00 5,634.52	0.00 0.00 11.00	0.00 0.00 204.68	0.00 4,535.00 5,627.79	0.00 0.00 -95.57	0.00 0.00 -43.92	0.00 0.00 1.00	0.00 0.00 1.00	0.00	0.00 0.00 204.68	
11,155.52	11.00 11.00	204.68 204.68	11,047.43	-95.57 -1,052.39 -489.02	-43.92 -483.59 -540.58	1.00 0.00 10.00	1.00 0.00 7.90	0.00	204.68 0.00 154.69	
12,154.41	89.93	359.77	11,717.27	-409.02	-340.30	10.00	7.50	15.55	10-1.03	

.

Database:	HOPSPP	Local Co-ordinate Reference:	Well Nimitz MDP1 13_1 Fed Com 171H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3477.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3477.00ft
Site:	Nimitz MDP1 13_1	North Reference:	Grid
Well:	Nimitz MDP1 13_1 Fed Com 171H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

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		
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
700.00 800.00	0.00 0.00	0.00 0.00	700.00 800.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2.000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
,			,						
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4.000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,535.00	0.00	0.00	4,535.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.65	204.68	4,600.00	-0.34	-0.15	-0.33	1.00	1.00	0.00
4,700.00	1.65	204.68	4,699.98	-2.16	-0.99	-2.12	1.00	1.00	0.00
4,800.00	2.65	204.68	4,799.91	-5.57	-2.56	-5.46	1.00	1.00	0.00
4,900.00	3.65	204.68	4,899.75	-10.56	-4.85	-10.36	1.00	1.00	0.00
5,000.00	4.65	204.68	4,999.49	-17.14	-7.87	-16.81	1.00	1.00	0.00
5,100.00	5.65	204.68	5,099.08	-25.29	-11.62	-24.81	1.00	1.00	0.00
5,200.00	6.65	204.68	5,198.51	-35.03	-16.10	-34.35	1.00	1.00	0.00
5,300.00	7.65	204.68	5,297.73	-46.34	-21.29	-45.45	1.00	1.00	0.00

Database:	HOPSPP	Local Co-ordinate Reference:	Well Nimitz MDP1 13_1 Fed Com 171H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3477.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3477.00ft
Site:	Nimitz MDP1 13_1	North Reference:	Grid
Well:	Nimitz MDP1 13_1 Fed Com 171H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

5.400.00            8.65            204.88            5.396.72            -95.92            -27.21            -52.08            1.00            1.00	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
	5.400.00	8.65	204.68	5.396.72	-59,22	-27.21	-58.08	1.00	1.00	0.00
$ \begin{bmatrix} 5,600.00 & 10.65 & 204.68 & 5,593.88 & -99.68 & -41.21 & -97.86 & 1.00 & 1.00 & 0.00 \\ 5,700.00 & 11.00 & 204.68 & 5,692.06 & -106.92 & -49.13 & -104.68 & 0.00 & 0.00 & 0.00 \\ 5,800.00 & 11.00 & 204.68 & 5,790.23 & -124.25 & -57.06 & -138.86 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 5,898.68 & -141.85 & -65.06 & -138.86 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 5,898.68 & -141.81 & -65.85 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 6,804.27 & -176.28 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 6,812.2 & -176.24 & -80.99 & -172.85 & 0.00 & 0.00 & 0.00 \\ 6,200.00 & 11.00 & 204.68 & 6,212.2 & -176.24 & -80.99 & -172.85 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 6,122.88 & -133.57 & -88.95 & -189.85 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 6,773.38 & -245.56 & -112.48 & -223.84 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 6,773.38 & -245.56 & -112.84 & -220.84 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 6,773 & -280.29 & -120.80 & -257.84 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 6,771.67 & -297.55 & -136.73 & -291.83 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 6,770 & -384.22 & -152.60 & -257.84 & 0.00 & 0.00 & 0.00 \\ 7,000.00 & 11.00 & 204.68 & 6,770 & -384.22 & -152.60 & -257.84 & 0.00 & 0.00 & 0.00 \\ 7,000.01 & 11.00 & 204.68 & 7,708.68 & -163.59 & -359.82 & 0.00 & 0.00 & 0.00 \\ 7,000.01 & 11.00 & 204.68 & 7,708.68 & -163.59 & -359.82 & 0.00 & 0.00 & 0.00 \\ 7,000.01 & 11.00 & 204.68 & 7,850.28 & -163.59 & -359.82 & 0.00 & 0.00 & 0.00 \\ 7,000.01 & 11.00 & 204.68 & 7,765.35 & -476.68 & -163.62 & -326.83 & 0.00 & 0.00 & 0.00 \\ 7,000.01 & 11.00 & 204.68 & 7,765.35 & -476.68 & -163.59 & -359.82 & 0.00 & 0.00 & 0.00 \\ 7,000.01 & 11.00 & 204.68 & 7,765.35 & -476.80 & -163.79 & -359.82 & 0.00 & 0.00 & 0.00 \\ 7,000.01 & 11.00 & 204.68 & 7,765.35 & -476.80 & -166.79 & -359.82 & 0.00 & 0.00 & 0.00 \\ 7,000.01 & 11.00 & 204.68 & 7,765.35 & -476.80 & -164.79 & -300.0 & 0.00 & 0.00 \\ 7,000.01 & 11.00 & 204.68 & 7,853.83 & -766.751 & -256.79 & $										
$ \begin{bmatrix} 5,634,52 & 11.00 & 204.68 & 5,627.79 & -45.57 & -43.92 & -93.73 & 1.00 & 1.00 & 0.00 \\ 5,700.00 & 11.00 & 204.68 & 5,790.23 & -124.25 & -57.09 & -121.86 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 5,790.23 & -124.25 & -57.09 & -121.86 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 5,988.39 & -141.58 & -65.06 & -138.68 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 6,782.88 & -193.57 & -88.85 & 0.00 & 0.00 & 0.00 \\ 6,000.00 & 11.00 & 204.68 & 6,192.48 & -193.57 & -88.85 & -189.85 & 0.00 & 0.00 & 0.00 \\ 6,000.01 & 11.00 & 204.68 & 6,773.8 & -245.56 & -112.84 & -203.84 & 0.00 & 0.00 & 0.00 \\ 6,000.01 & 11.00 & 204.68 & 6,773.8 & -245.56 & -112.84 & -203.84 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 11.00 & 204.68 & 6,773.5 & -288.22 & -128.77 & -274.83 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 11.00 & 204.68 & 6,773.6 & -245.56 & -112.84 & -240.84 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 11.00 & 204.68 & 6,773.6 & -245.56 & -112.84 & -240.84 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 11.00 & 204.68 & 6,773.70 & -280.22 & -128.77 & -274.83 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 11.00 & 204.68 & 6,771.87 & -297.55 & -136.73 & -291.83 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 11.00 & 204.68 & 6,703.3 & -344.85 & -160.82 & -336.83 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 11.00 & 204.68 & 7,716.73 & -287.55 & -136.73 & -291.83 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 11.00 & 204.68 & 7,716.53 & -366.82 & -168.59 & -359.82 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 11.00 & 204.68 & 7,164.53 & -366.84 & -168.59 & -359.82 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 11.00 & 204.68 & 7,164.53 & -366.84 & -168.59 & -359.82 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 11.00 & 204.68 & 7,164.53 & -366.82 & -168.59 & -359.82 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 11.00 & 204.68 & 7,363.63 & -401.54 & -184.51 & -393.82 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 11.00 & 204.68 & 7,459.62 & -202.44 & -477.81 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 11.00 & 204.68 & 7,459.62 & -208.41 & -444.81 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 11.00 & 204.68 & 7,351.68 & -401.54 & -184.51 & -393.82 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 11.00 & 204.68 & 7,4$										
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6.000.00      11.00      204.68      5.986.55      -158.91      -73.02      -155.85      0.00      0.00      0.00        6.200.00      11.00      204.68      6.182.88      -193.57      -88.95      -189.85      0.00      0.00      0.00        6.400.00      11.00      204.68      6.281.05      -210.90      -96.91      -206.85      0.00      0.00      0.00        6.400.00      11.00      204.68      6.477.38      -242.84      0.00      0.00      0.00        6.600.00      11.00      204.68      6.675.54      -282.28      -12.84      -20.84      0.00      0.00      0.00        6.600.00      11.00      204.68      6.673.70      -280.22      -128.77      -274.83      0.00      0.00      0.00        6.900.00      11.00      204.68      6.966.20      -332.22      -152.66      -342.83      0.00      0.00      0.00        7.000.00      11.00      204.68      7.663.66      -344.21      -376.82      0.00      0.00      0.00      7.700.00      11.00      2										
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6,400.00      11.00      204.68      6,379.21      -228.23      -104.88      -223.84      0.00      0.00      0.00        6,500.00      11.00      204.68      6,575.54      -262.89      -120.80      -257.84      0.00      0.00      0.00        6,700.00      11.00      204.68      6,677.37      -280.22      -128.77      -274.83      0.00      0.00      0.00        6,800.00      11.00      204.68      6,870.03      -314.88      -144.70      -306.83      0.00      0.00      0.00        7,000.00      11.00      204.68      6,968.20      -332.22      -152.66      -325.83      0.00      0.00      0.00        7,000.00      11.00      204.68      7,164.53      -366.88      -168.59      -359.82      0.00      0.00      0.00        7,400.00      11.00      204.68      7,459.02      -418.87      -192.48      -410.84      1.00      0.00      0.00        7,600.00      11.00      204.68      7,459.02      -418.87      -192.48      -410.84      10.00      0.00	6,200.00	11.00	204.68	6,182.88	-193.57	-88.95	-189.85	0.00	0.00	
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6.600.00      11.00      204.68      6.575.54      -262.89      -128.77      -277.83      0.00      0.00      0.00        6.700.00      11.00      204.68      6.677.137      -297.55      -136.73      -291.83      0.00      0.00      0.00        6.800.00      11.00      204.68      6.870.03      -314.88      -144.70      -308.83      0.00      0.00      0.00        7.000.00      11.00      204.68      6.968.20      -332.22      -166.62      -342.82      0.00      0.00      0.00        7.100.00      11.00      204.68      7.164.53      -366.88      -166.59      -356.82      0.00      0.00      0.00        7.200.00      11.00      204.68      7.360.66      -401.54      -176.55      -376.82      0.00      0.00      0.00        7.400.00      11.00      204.68      7.455.35      -455.35      -200.44      +417.81      0.00      0.00      0.00        7.600.00      11.00      204.68      7.553.51      +470.86      -216.37      +461.80      0.00      0.00	· · · · ·									
$ \begin{bmatrix} 6,700.00 & 11.00 & 204.68 & 6,673.70 & -280.22 & -128.77 & -274.83 & 0.00 & 0.00 & 0.00 \\ 6,800.00 & 11.00 & 204.68 & 6,771.87 & -297.55 & -136.73 & -291.83 & 0.00 & 0.00 & 0.00 \\ 7,000.00 & 11.00 & 204.68 & 6,968.20 & -332.22 & -152.66 & -325.83 & 0.00 & 0.00 & 0.00 \\ 7,000.00 & 11.00 & 204.68 & 7,066.36 & -349.55 & -160.62 & -342.82 & 0.00 & 0.00 & 0.00 \\ 7,200.00 & 11.00 & 204.68 & 7,262.69 & -384.21 & -176.55 & -376.82 & 0.00 & 0.00 & 0.00 \\ 7,300.00 & 11.00 & 204.68 & 7,363.08 & -401.54 & -184.51 & -339.82 & 0.00 & 0.00 & 0.00 \\ 7,400.00 & 11.00 & 204.68 & 7,363.08 & -401.54 & -184.51 & -339.82 & 0.00 & 0.00 & 0.00 \\ 7,600.00 & 11.00 & 204.68 & 7,557.18 & -436.20 & -200.44 & -427.81 & 0.00 & 0.00 & 0.00 \\ 7,600.00 & 11.00 & 204.68 & 7,557.18 & -436.20 & -200.44 & -427.81 & 0.00 & 0.00 & 0.00 \\ 7,600.00 & 11.00 & 204.68 & 7,557.18 & -436.20 & -201.44 & -427.81 & 0.00 & 0.00 & 0.00 \\ 7,000.00 & 11.00 & 204.68 & 7,557.51 & -276.52 & -221.637 & -461.80 & 0.00 & 0.00 & 0.00 \\ 7,900.00 & 11.00 & 204.68 & 7,557.55 & -253.53 & -2216.37 & -461.80 & 0.00 & 0.00 & 0.00 \\ 7,900.00 & 11.00 & 204.68 & 7,557.51 & -470.86 & -216.57 & -495.80 & 0.00 & 0.00 & 0.00 \\ 8,000.00 & 11.00 & 204.68 & 7,557.51 & -240.26 & -512.80 & 0.00 & 0.00 & 0.00 \\ 8,000.00 & 11.00 & 204.68 & 8,146.17 & -540.18 & -248.22 & -529.79 & 0.00 & 0.00 & 0.00 \\ 8,000.00 & 11.00 & 204.68 & 8,342.50 & -574.84 & -264.15 & -563.79 & 0.00 & 0.00 & 0.00 \\ 8,000.00 & 11.00 & 204.68 & 8,332.5 & -575.51 & -224.26 & -512.80 & 0.00 & 0.00 & 0.00 \\ 8,000.00 & 11.00 & 204.68 & 8,332.5 & -574.84 & -264.15 & -563.79 & 0.00 & 0.00 & 0.00 \\ 8,000.00 & 11.00 & 204.68 & 8,334.8 & -502.17 & -272.12 & -580.79 & 0.00 & 0.00 & 0.00 \\ 8,000.00 & 11.00 & 204.68 & 8,334.8 & -507.51 & -228.04 & -597.78 & 0.00 & 0.00 & 0.00 \\ 8,000.00 & 11.00 & 204.68 & 8,333.2 & -661.50 & -331.97 & -648.77 & 0.00 & 0.00 & 0.00 \\ 9,000.00 & 11.00 & 204.68 & 8,333.4 & -678.33 & -311.93 & -665.77 & 0.00 & 0.00 & 0.00 \\ 9,000.00 & 11.00 & 204.68 & 9,324.14 & -748.15 & -343.79 & -733.76 & 0.00 &$	6,500.00	11.00		6,477.38		-112.84				
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7,600.00      11.00      204.68      7,557.18      -436.20      -200.44      -427.81      0.00      0.00      0.00        7,700.00      11.00      204.68      7,655.35      -453.53      -208.41      -444.81      0.00      0.00      0.00        7,800.00      11.00      204.68      7,753.51      -470.86      -216.37      -461.80      0.00      0.00      0.00        7,900.00      11.00      204.68      7,851.68      -488.19      -224.33      -478.80      0.00      0.00      0.00        8,000.00      11.00      204.68      7,949.84      -505.52      -232.30      -495.80      0.00      0.00      0.00        8,100.00      11.00      204.68      8,048.01      -522.85      -240.26      -512.80      0.00      0.00      0.00        8,200.00      11.00      204.68      8,146.17      -546.19      -546.79      0.00      0.00      0.00        8,300.00      11.00      204.68      8,538.83      -609.50      -280.08      -597.78      0.00      0.00      0.00 <td></td>										
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7,900.00      11.00      204.68      7,851.68      -488.19      -224.33      -478.80      0.00      0.00      0.00        8,000.00      11.00      204.68      7,949.84      -505.52      -232.30      -495.80      0.00      0.00      0.00        8,100.00      11.00      204.68      8,048.01      -522.85      -240.26      -512.80      0.00      0.00      0.00        8,200.00      11.00      204.68      8,146.17      -540.18      -248.22      -529.79      0.00      0.00      0.00        8,300.00      11.00      204.68      8,244.33      -557.51      -256.19      -546.79      0.00      0.00      0.00        8,300.00      11.00      204.68      8,342.50      -574.84      -264.15      -563.79      0.00      0.00      0.00        8,600.00      11.00      204.68      8,538.83      -609.50      -280.08      -597.78      0.00      0.00      0.00        8,600.00      11.00      204.68      8,636.99      -626.83      -288.04      -614.78      0.00      0.00										
8,000.00      11.00      204.68      7,949.84      -505.52      -232.30      -495.80      0.00      0.00      0.00        8,100.00      11.00      204.68      8,048.01      -522.85      -240.26      -512.80      0.00      0.00      0.00        8,200.00      11.00      204.68      8,146.17      -540.18      -248.22      -529.79      0.00      0.00      0.00        8,300.00      11.00      204.68      8,244.33      -557.51      -256.19      -546.79      0.00      0.00      0.00        8,400.00      11.00      204.68      8,342.50      -574.84      -264.15      -563.79      0.00      0.00      0.00        8,600.00      11.00      204.68      8,538.83      -609.50      -280.08      -597.78      0.00      0.00      0.00        8,600.00      11.00      204.68      8,638.32      -661.50      -303.97      -648.77      0.00      0.00      0.00        8,800.00      11.00      204.68      8,931.48      -678.83      -311.93      -665.77      0.00      0.00										
8,100.00      11.00      204.68      8,048.01      -522.85      -240.26      -512.80      0.00      0.00      0.00        8,200.00      11.00      204.68      8,146.17      -540.18      -248.22      -529.79      0.00      0.00      0.00        8,300.00      11.00      204.68      8,244.33      -557.51      -256.19      -546.79      0.00      0.00      0.00        8,400.00      11.00      204.68      8,342.50      -574.84      -264.15      -563.79      0.00      0.00      0.00        8,600.00      11.00      204.68      8,440.66      -592.17      -272.12      -580.79      0.00      0.00      0.00        8,600.00      11.00      204.68      8,636.99      -626.83      -280.08      -597.78      0.00      0.00      0.00        8,700.00      11.00      204.68      8,636.99      -626.83      -280.04      -614.78      0.00      0.00      0.00        8,800.00      11.00      204.68      8,933.32      -661.50      -303.97      -648.77      0.00      0.00										
8,200.00      11.00      204.68      8,146.17      -540.18      -248.22      -529.79      0.00      0.00      0.00        8,300.00      11.00      204.68      8,244.33      -557.51      -256.19      -546.79      0.00      0.00      0.00        8,400.00      11.00      204.68      8,342.50      -574.84      -264.15      -563.79      0.00      0.00      0.00        8,500.00      11.00      204.68      8,440.66      -592.17      -272.12      -580.79      0.00      0.00      0.00        8,600.00      11.00      204.68      8,538.83      -609.50      -280.08      -597.78      0.00      0.00      0.00        8,700.00      11.00      204.68      8,735.16      -644.17      -296.01      -631.78      0.00      0.00      0.00        8,800.00      11.00      204.68      8,933.32      -661.50      -303.97      -648.77      0.00      0.00      0.00        9,000.00      11.00      204.68      8,931.48      -678.83      -311.93      -665.77      0.00      0.00										
8,300.00      11.00      204.68      8,244.33      -557.51      -256.19      -546.79      0.00      0.00      0.00        8,400.00      11.00      204.68      8,342.50      -574.84      -264.15      -563.79      0.00      0.00      0.00        8,500.00      11.00      204.68      8,440.66      -592.17      -272.12      -580.79      0.00      0.00      0.00        8,600.00      11.00      204.68      8,636.99      -626.83      -280.08      -597.78      0.00      0.00      0.00        8,700.00      11.00      204.68      8,636.99      -626.83      -288.04      -614.78      0.00      0.00      0.00        8,800.00      11.00      204.68      8,735.16      -644.17      -296.01      -631.78      0.00      0.00      0.00        8,800.00      11.00      204.68      8,833.32      -661.50      -303.97      -648.77      0.00      0.00      0.00        9,000.00      11.00      204.68      9,929.65      -696.16      -319.90      -682.77      0.00      0.00										
8,400.00      11.00      204.68      8,342.50      -574.84      -264.15      -563.79      0.00      0.00      0.00        8,500.00      11.00      204.68      8,440.66      -592.17      -272.12      -580.79      0.00      0.00      0.00        8,600.00      11.00      204.68      8,538.83      -609.50      -280.08      -597.78      0.00      0.00      0.00        8,700.00      11.00      204.68      8,636.99      -626.83      -288.04      -614.78      0.00      0.00      0.00        8,800.00      11.00      204.68      8,735.16      -644.17      -296.01      -631.78      0.00      0.00      0.00        8,800.00      11.00      204.68      8,833.32      -661.50      -303.97      -648.77      0.00      0.00      0.00        9,000.00      11.00      204.68      8,931.48      -678.83      -311.93      -665.77      0.00      0.00      0.00        9,100.00      11.00      204.68      9,127.81      -713.49      -327.86      -699.77      0.00      0.00										
8,500.00      11.00      204.68      8,440.66      -592.17      -272.12      -580.79      0.00      0.00      0.00        8,600.00      11.00      204.68      8,538.83      -609.50      -280.08      -597.78      0.00      0.00      0.00        8,700.00      11.00      204.68      8,636.99      -626.83      -288.04      -614.78      0.00      0.00      0.00        8,800.00      11.00      204.68      8,735.16      -644.17      -296.01      -631.78      0.00      0.00      0.00        8,800.00      11.00      204.68      8,833.32      -661.50      -303.97      -648.77      0.00      0.00      0.00        9,000.00      11.00      204.68      8,931.48      -678.83      -311.93      -665.77      0.00      0.00      0.00        9,100.00      11.00      204.68      9,029.65      -696.16      -319.90      -682.77      0.00      0.00      0.00        9,200.00      11.00      204.68      9,225.98      -730.82      -335.83      -716.76      0.00      0.00										
8,600.00      11.00      204.68      8,538.83      -609.50      -280.08      -597.78      0.00      0.00      0.00        8,700.00      11.00      204.68      8,636.99      -626.83      -288.04      -614.78      0.00      0.00      0.00        8,800.00      11.00      204.68      8,735.16      -644.17      -296.01      -631.78      0.00      0.00      0.00        8,900.00      11.00      204.68      8,833.32      -661.50      -303.97      -648.77      0.00      0.00      0.00        9,000.00      11.00      204.68      8,931.48      -678.83      -311.93      -665.77      0.00      0.00      0.00        9,000.00      11.00      204.68      9,029.65      -696.16      -319.90      -682.77      0.00      0.00      0.00        9,200.00      11.00      204.68      9,127.81      -713.49      -327.86      -699.77      0.00      0.00      0.00        9,300.00      11.00      204.68      9,324.14      -748.15      -343.79      -733.76      0.00      0.00										
8,700.00      11.00      204.68      8,636.99      -626.83      -288.04      -614.78      0.00      0.00      0.00        8,800.00      11.00      204.68      8,735.16      -644.17      -296.01      -631.78      0.00      0.00      0.00        8,900.00      11.00      204.68      8,833.32      -661.50      -303.97      -648.77      0.00      0.00      0.00        9,000.00      11.00      204.68      8,931.48      -678.83      -311.93      -665.77      0.00      0.00      0.00        9,000.00      11.00      204.68      9,029.65      -696.16      -319.90      -682.77      0.00      0.00      0.00        9,200.00      11.00      204.68      9,127.81      -713.49      -327.86      -699.77      0.00      0.00      0.00        9,300.00      11.00      204.68      9,324.14      -748.15      -335.83      -716.76      0.00      0.00      0.00        9,400.00      11.00      204.68      9,324.14      -748.15      -343.79      -733.76      0.00      0.00				,						
8,800.00      11.00      204.68      8,735.16      -644.17      -296.01      -631.78      0.00      0.00      0.00        8,900.00      11.00      204.68      8,833.32      -661.50      -303.97      -648.77      0.00      0.00      0.00        9,000.00      11.00      204.68      8,931.48      -678.83      -311.93      -665.77      0.00      0.00      0.00        9,100.00      11.00      204.68      9,029.65      -696.16      -319.90      -682.77      0.00      0.00      0.00        9,200.00      11.00      204.68      9,127.81      -713.49      -327.86      -699.77      0.00      0.00      0.00        9,300.00      11.00      204.68      9,225.98      -730.82      -335.83      -716.76      0.00      0.00      0.00        9,300.00      11.00      204.68      9,324.14      -748.15      -343.79      -733.76      0.00      0.00      0.00        9,500.00      11.00      204.68      9,422.31      -765.48      -351.75      -750.76      0.00      0.00	· · · · ·									
8,900.00      11.00      204.68      8,833.32      -661.50      -303.97      -648.77      0.00      0.00      0.00        9,000.00      11.00      204.68      8,931.48      -678.83      -311.93      -665.77      0.00      0.00      0.00        9,100.00      11.00      204.68      9,029.65      -696.16      -319.90      -682.77      0.00      0.00      0.00        9,200.00      11.00      204.68      9,127.81      -713.49      -327.86      -699.77      0.00      0.00      0.00        9,300.00      11.00      204.68      9,225.98      -730.82      -335.83      -716.76      0.00      0.00      0.00        9,400.00      11.00      204.68      9,324.14      -748.15      -343.79      -733.76      0.00      0.00      0.00        9,500.00      11.00      204.68      9,422.31      -765.48      -351.75      -750.76      0.00      0.00      0.00        9,500.00      11.00      204.68      9,520.47      -782.81      -359.72      -767.76      0.00      0.00										
9,000.00      11.00      204.68      8,931.48      -678.83      -311.93      -665.77      0.00      0.00      0.00        9,100.00      11.00      204.68      9,029.65      -696.16      -319.90      -682.77      0.00      0.00      0.00        9,200.00      11.00      204.68      9,127.81      -713.49      -327.86      -699.77      0.00      0.00      0.00        9,300.00      11.00      204.68      9,225.98      -730.82      -335.83      -716.76      0.00      0.00      0.00        9,400.00      11.00      204.68      9,324.14      -748.15      -343.79      -733.76      0.00      0.00      0.00        9,500.00      11.00      204.68      9,422.31      -765.48      -351.75      -750.76      0.00      0.00      0.00        9,500.00      11.00      204.68      9,520.47      -782.81      -359.72      -767.76      0.00      0.00      0.00										0.00
9,100.00      11.00      204.68      9,029.65      -696.16      -319.90      -682.77      0.00      0.00      0.00        9,200.00      11.00      204.68      9,127.81      -713.49      -327.86      -699.77      0.00      0.00      0.00        9,300.00      11.00      204.68      9,225.98      -730.82      -335.83      -716.76      0.00      0.00      0.00        9,400.00      11.00      204.68      9,324.14      -748.15      -343.79      -733.76      0.00      0.00      0.00        9,500.00      11.00      204.68      9,422.31      -765.48      -351.75      -750.76      0.00      0.00      0.00        9,500.00      11.00      204.68      9,520.47      -782.81      -359.72      -767.76      0.00      0.00      0.00										
9,200.00      11.00      204.68      9,127.81      -713.49      -327.86      -699.77      0.00      0.00      0.00        9,300.00      11.00      204.68      9,225.98      -730.82      -335.83      -716.76      0.00      0.00      0.00        9,400.00      11.00      204.68      9,324.14      -748.15      -343.79      -733.76      0.00      0.00      0.00        9,500.00      11.00      204.68      9,422.31      -765.48      -351.75      -750.76      0.00      0.00      0.00        9,600.00      11.00      204.68      9,520.47      -782.81      -359.72      -767.76      0.00      0.00      0.00										
9,300.00      11.00      204.68      9,225.98      -730.82      -335.83      -716.76      0.00      0.00      0.00        9,400.00      11.00      204.68      9,324.14      -748.15      -343.79      -733.76      0.00      0.00      0.00        9,500.00      11.00      204.68      9,422.31      -765.48      -351.75      -750.76      0.00      0.00      0.00        9,600.00      11.00      204.68      9,520.47      -782.81      -359.72      -767.76      0.00      0.00      0.00										
9,400.00      11.00      204.68      9,324.14      -748.15      -343.79      -733.76      0.00      0.00      0.00        9,500.00      11.00      204.68      9,422.31      -765.48      -351.75      -750.76      0.00      0.00      0.00        9,600.00      11.00      204.68      9,520.47      -782.81      -359.72      -767.76      0.00      0.00      0.00				,						
9,500.00      11.00      204.68      9,422.31      -765.48      -351.75      -750.76      0.00      0.00      0.00        9,600.00      11.00      204.68      9,520.47      -782.81      -359.72      -767.76      0.00      0.00      0.00	,			,						
9,600.00 11.00 204.68 9,520.47 -782.81 -359.72 -767.76 0.00 0.00 0.00										
	-,									
9,700.00 11.00 204.68 9,618.63 -800.14 -367.68 -784.75 0.00 0.00 0.00										
9,800.00 11.00 204.68 9,716.80 -817.47 -375.64 -801.75 0.00 0.00 0.00 0.00				-,						
9,900.00 11.00 204.68 9,814.96 -834.80 -383.61 -818.75 0.00 0.00 0.00										
10,000.00 11.00 204.68 9,913.13 -852.13 -391.57 -835.74 0.00 0.00 0.00 0.00										
10,100.00      11.00      204.68      10,011.29      -869.46      -399.54      -852.74      0.00      0.00      0.00        10,200.00      11.00      204.68      10,109.46      -886.79      -407.50      -869.74      0.00      0.00      0.00	.,									
10,300.00 11.00 204.68 10,207.62 -904.12 -415.46 -886.74 0.00 0.00 0.00 0.00										
10,400.00 11.00 204.68 10,305.78 -921.45 -423.43 -903.73 0.00 0.00 0.00 0.00	· · · · ·			,						
10,500.00 11.00 204.68 10,403.95 -938.78 -431.39 -920.73 0.00 0.00 0.00 0.00	· · · · ·									
10,600.00 11.00 204.68 10,502.11 -956.12 -439.35 -937.73 0.00 0.00 0.00 10,700.00 11.00 204.68 10,600.28 073.45 447.32 054.73 0.00 0.00 0.00	.,			,						
10,700.00 11.00 204.68 10,600.28 -973.45 -447.32 -954.73 0.00 0.00 0.00	10,700.00	11.00	204.68	10,000.28	-973.45	-447.32	-904.73	0.00	0.00	0.00

Database:	HOPSPP	Local Co-ordinate Reference:	Well Nimitz MDP1 13_1 Fed Com 171H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3477.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3477.00ft
Site:	Nimitz MDP1 13_1	North Reference:	Grid
Well:	Nimitz MDP1 13_1 Fed Com 171H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

10,800.00 11.00 204.68 10,698.44 -990.78 -455.28 -971.72 0.00 0.00	0.00
10,900.00 11.00 204.68 10,796.61 -1,008.11 -463.25 -988.72 0.00 0.00	0.00
11,000.00 11.00 204.68 10,894.77 -1,025.44 -471.21 -1,005.72 0.00 0.00	0.00
11,100.00 11.00 204.68 10,992.93 -1,042.77 -479.17 -1,022.71 0.00 0.00	0.00
11,155.52 11.00 204.68 11,047.43 -1,052.39 -483.59 -1,032.15 0.00 0.00	0.00
11,200.00 7.23 219.97 11,091.35 -1,058.39 -487.16 -1,038.00 10.00 -8.47	34.36
11,300.00 6.48 313.67 11,190.89 -1,059.32 -495.30 -1,038.60 10.00 -0.75	93.71
11,400.00 15.21 342.26 11,289.07 -1,042.89 -503.40 -1,021.86 10.00 8.73	28.59
11,500.00 24.90 349.63 11,382.91 -1,009.60 -511.21 -988.29 10.00 9.69	7.37
11,600.00 34.76 353.01 11,469.55 -960.47 -518.49 -938.91 10.00 9.86	3.38
11,700.00 44.68 355.03 11,546.38 -896.99 -525.02 -875.21 10.00 9.92	2.02
11,800.00 54.62 356.45 11,611.04 -821.08 -530.60 -799.14 10.00 9.94	1.42
11,900.00      64.58      357.55      11,661.58      -735.06      -535.07      -713.01      10.00      9.95	1.10
12,000.00 74.54 358.48 11,696.47 -641.53 -538.29 -619.43 10.00 9.96	0.93
12,100.00 84.50 359.33 11,714.63 -543.34 -540.16 -521.24 10.00 9.97	0.85
12,154.41 89.93 359.77 11,717.27 -489.02 -540.58 -466.95 10.00 9.97	0.82
12,200.00 89.93 359.77 11,717.33 -443.43 -540.77 -421.38 0.00 0.00	0.00
12,300.00 89.93 359.77 11,717.46 -343.43 -541.17 -321.45 0.00 0.00	0.00
12,400.00      89.93      359.77      11,717.58      -243.43      -541.56      -221.51      0.00      0.00        12,500.00      89.93      359.77      11,717.71      -143.43      -541.96      -121.58      0.00      0.00	0.00 0.00
12,600.00 89.93 359.77 11,717.84 -43.43 -542.36 -21.65 0.00 0.00	0.00
12,000.00 89.93 359.77 11,717.94 -43.43 -542.36 -21.05 0.00 0.00	0.00
12,800.00 89.93 359.77 11,718.09 156.57 -543.16 178.22 0.00 0.00	0.00
12,900.00 89.93 359.77 11,718.22 256.57 -543.56 278.16 0.00 0.00	0.00
13,000.00 89.93 359.77 11,718.35 356.57 -543.96 378.09 0.00 0.00	0.00
13,100.00 89.93 359.77 11,718.47 456.57 -544.36 478.03 0.00 0.00	0.00
13,200.00 89.93 359.77 11,718.60 556.57 -544.76 577.96 0.00 0.00	0.00
13,300.00 89.93 359.77 11,718.73 656.56 -545.15 677.90 0.00 0.00	0.00
13,400.00 89.93 359.77 11,718.86 756.56 -545.55 777.83 0.00 0.00	0.00
13,500.00 89.93 359.77 11,718.98 856.56 -545.95 877.77 0.00 0.00	0.00
13,600.00 89.93 359.77 11,719.11 956.56 -546.35 977.70 0.00 0.00	0.00
13,700.00 89.93 359.77 11,719.24 1,056.56 -546.75 1,077.64 0.00 0.00	0.00
13,800.00 89.93 359.77 11,719.37 1,156.56 -547.15 1,177.57 0.00 0.00	0.00
13,900.00      89.93      359.77      11,719.49      1,256.56      -547.55      1,277.51      0.00      0.00	0.00
14,000.00 89.93 359.77 11,719.62 1,356.56 -547.95 1,377.44 0.00 0.00	0.00
14,100.00 89.93 359.77 11,719.75 1,456.56 -548.35 1,477.37 0.00 0.00	0.00
14,200.00 89.93 359.77 11,719.87 1,556.56 -548.75 1,577.31 0.00 0.00	0.00
14,300.00 89.93 359.77 11,720.00 1,656.56 -549.14 1,677.24 0.00 0.00	0.00
14,400.00      89.93      359.77      11,720.13      1,756.56      -549.54      1,777.18      0.00      0.00        14,500.00      89.93      359.77      11,720.26      1,856.55      -549.94      1,877.11      0.00      0.00	0.00 0.00
14,600.00 89.93 359.77 11,720.38 1,956.55 -550.34 1,977.05 0.00 0.00	0.00
14,000.00 89.93 359.77 11,720.58 1,956.55 -550.34 1,977.05 0.00 0.00 14,700.00 89.93 359.77 11,720.51 2,056.55 -550.74 2,076.98 0.00 0.00	0.00
14,700.00 89.93 359.77 11,720.51 2,050.55 -551.14 2,176.92 0.00 0.00	0.00
14,900.00 89.93 359.77 11,720.77 2,256.55 -551.54 2,276.85 0.00 0.00	0.00
15,000.00 89.93 359.77 11,720.89 2,356.55 -551.94 2,376.79 0.00 0.00	0.00
15,100.00 89.93 359.77 11,721.02 2,456.55 -552.34 2,476.72 0.00 0.00	0.00
15,200.00 89.93 359.77 11,721.15 2,556.55 -552.73 2,576.66 0.00 0.00	0.00
15,300.00 89.93 359.77 11,721.27 2,656.55 -553.13 2,676.59 0.00 0.00	0.00
15,400.00 89.93 359.77 11,721.40 2,756.55 -553.53 2,776.53 0.00 0.00	0.00
15,500.00 89.93 359.77 11,721.53 2,856.55 -553.93 2,876.46 0.00 0.00	0.00
15,600.00 89.93 359.77 11,721.66 2,956.54 -554.33 2,976.40 0.00 0.00	0.00
15,700.00 89.93 359.77 11,721.78 3,056.54 -554.73 3,076.33 0.00 0.00	0.00
15,800.00 89.93 359.77 11,721.91 3,156.54 -555.13 3,176.26 0.00 0.00	0.00
15,900.00 89.93 359.77 11,722.04 3,256.54 -555.53 3,276.20 0.00 0.00	0.00
16,000.00      89.93      359.77      11,722.17      3,356.54      -555.93      3,376.13      0.00      0.00	0.00

Database:	HOPSPP	Local Co-ordinate Reference:	Well Nimitz MDP1 13_1 Fed Com 171H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3477.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3477.00ft
Site:	Nimitz MDP1 13_1	North Reference:	Grid
Well:	Nimitz MDP1 13_1 Fed Com 171H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
16,100.00	89.93	359.77	11,722.29	3,456.54	-556.32	3,476.07	0.00	0.00	0.00
16,200.00	89.93	359.77	11,722.42	3,556.54	-556.72	3,576.00	0.00	0.00	0.00
16,300.00	89.93	359.77	11,722.55	3,656.54	-557.12	3,675.94	0.00	0.00	0.00
16,400.00	89.93	359.77	11,722.68	3,756.54	-557.52	3,775.87	0.00	0.00	0.00
16,500.00	89.93	359.77	11,722.80	3,856.54	-557.92	3,875.81	0.00	0.00	0.00
16,600.00	89.93	359.77	11,722.93	3,956.54	-558.32	3,975.74	0.00	0.00	0.00
16,700.00	89.93	359.77	11,723.06	4,056.54	-558.72	4,075.68	0.00	0.00	0.00
16,800.00	89.93	359.77	11,723.18	4,156.53	-559.12	4,175.61	0.00	0.00	0.00
16,900.00	89.93	359.77	11,723.31	4,256.53	-559.52	4,275.55	0.00	0.00	0.00
17,000.00	89.93	359.77	11,723.44	4,356.53	-559.92	4,375.48	0.00	0.00	0.00
17,100.00	89.93	359.77	11,723.57	4,456.53	-560.31	4,475.42	0.00	0.00	0.00
17,200.00	89.93	359.77	11,723.69	4,556.53	-560.71	4,575.35	0.00	0.00	0.00
17,300.00	89.93	359.77	11,723.82	4,656.53	-561.11	4,675.28	0.00	0.00	0.00
17,400.00	89.93	359.77	11,723.95	4,756.53	-561.51	4,775.22	0.00	0.00	0.00
17,500.00	89.93	359.77	11,724.08	4,856.53	-561.91	4,875.15	0.00	0.00	0.00
17,600.00	89.93	359.77	11,724.20	4,956.53	-562.31	4,975.09	0.00	0.00	0.00
17,700.00	89.93	359.77	11,724.33	5,056.53	-562.71	5,075.02	0.00	0.00	0.00
17,800.00	89.93	359.77	11,724.46	5,156.53	-563.11	5,174.96	0.00	0.00	0.00
17,900.00	89.93	359.77	11,724.58	5,256.52	-563.51	5,274.89	0.00	0.00	0.00
18,000.00	89.93	359.77	11,724.71	5,356.52	-563.90	5,374.83	0.00	0.00	0.00
18,100.00	89.93	359.77	11,724.84	5,456.52	-564.30	5,474.76	0.00	0.00	0.00
18,200.00	89.93	359.77	11,724.97	5,556.52	-564.70	5,574.70	0.00	0.00	0.00
18,300.00	89.93	359.77	11,725.09	5,656.52	-565.10	5,674.63	0.00	0.00	0.00
18,400.00	89.93	359.77	11,725.22	5,756.52	-565.50	5,774.57	0.00	0.00	0.00
18,500.00	89.93	359.77	11,725.35	5,856.52	-565.90	5,874.50	0.00	0.00	0.00
18,600.00	89.93	359.77	11,725.48	5,956.52	-566.30	5,974.44	0.00	0.00	0.00
18,700.00	89.93	359.77	11,725.60	6,056.52	-566.70	6,074.37	0.00	0.00	0.00
18,800.00	89.93	359.77	11,725.73	6,156.52	-567.10	6,174.31	0.00	0.00	0.00
18,900.00	89.93	359.77	11,725.86	6,256.52	-567.50	6,274.24	0.00	0.00	0.00
19,000.00	89.93	359.77	11,725.98	6,356.51	-567.89	6,374.17	0.00	0.00	0.00
19,100.00	89.93	359.77	11,726.11	6,456.51	-568.29	6,474.11	0.00	0.00	0.00
19,200.00	89.93	359.77	11,726.24	6,556.51	-568.69	6,574.04	0.00	0.00	0.00
19,300.00	89.93	359.77	11,726.37	6,656.51	-569.09	6,673.98	0.00	0.00	0.00
19,400.00	89.93	359.77	11,726.49	6,756.51	-569.49	6,773.91	0.00	0.00	0.00
19,500.00	89.93	359.77	11,726.62	6,856.51	-569.89	6,873.85	0.00	0.00	0.00
19,600.00	89.93	359.77	11,726.75	6,956.51	-570.29	6,973.78	0.00	0.00	0.00
19,700.00	89.93	359.77	11,726.88	7,056.51	-570.69	7,073.72	0.00	0.00	0.00
19,800.00	89.93	359.77	11,727.00	7,156.51	-571.09	7,173.65	0.00	0.00	0.00
19,900.00	89.93	359.77	11,727.13	7,256.51	-571.48	7,273.59	0.00	0.00	0.00
20,000.00	89.93	359.77	11,727.26	7,356.51	-571.88	7,373.52	0.00	0.00	0.00
20,100.00	89.93	359.77	11,727.38	7,456.51	-572.28	7,473.46	0.00	0.00	0.00
20,200.00	89.93	359.77	11,727.51	7,556.50	-572.68	7,573.39	0.00	0.00	0.00
20,300.00	89.93	359.77	11,727.64	7,656.50	-573.08	7,673.33	0.00	0.00	0.00
20,400.00	89.93	359.77	11,727.77	7,756.50	-573.48	7,773.26	0.00	0.00	0.00
20,500.00	89.93	359.77	11,727.89	7,856.50	-573.88	7,873.20	0.00	0.00	0.00
20,600.00	89.93	359.77	11,728.02	7,956.50	-574.28	7,973.13	0.00	0.00	0.00
20,700.00	89.93	359.77	11,728.15	8,056.50	-574.68	8,073.06	0.00	0.00	0.00
20,800.00	89.93	359.77	11,728.28	8,156.50	-575.08	8,173.00	0.00	0.00	0.00
20,900.00	89.93	359.77	11,728.40	8,256.50	-575.47	8,272.93	0.00	0.00	0.00
21,000.00	89.93	359.77	11,728.53	8,356.50	-575.87	8,372.87	0.00	0.00	0.00
21,100.00	89.93	359.77	11,728.66	8,456.50	-576.27	8,472.80	0.00	0.00	0.00
21,200.00	89.93	359.77	11,728.78	8,556.50	-576.67	8,572.74	0.00	0.00	0.00
21,300.00	89.93	359.77	11,728.91	8,656.49	-577.07	8,672.67	0.00	0.00	0.00
21,400.00	89.93	359.77	11,729.04	8,756.49	-577.47	8,772.61	0.00	0.00	0.00
21,500.00	89.93	359.77	11,729.17	8,856.49	-577.87	8,872.54	0.00	0.00	0.00

Database:	HOPSPP	Local Co-ordinate Reference:	Well Nimitz MDP1 13_1 Fed Com 171H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3477.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3477.00ft
Site:	Nimitz MDP1 13_1	North Reference:	Grid
Well:	Nimitz MDP1 13_1 Fed Com 171H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
21,600.00	89.93	359.77	11,729.29	8,956.49	-578.27	8,972.48	0.00	0.00	0.00
21,700.00	89.93	359.77	11,729.42	9,056.49	-578.67	9,072.41	0.00	0.00	0.00
21,800.00	89.93	359.77	11,729.55	9,156.49	-579.06	9,172.35	0.00	0.00	0.00
21,900.00	89.93	359.77	11,729.68	9,256.49	-579.46	9,272.28	0.00	0.00	0.00
			,	,		,	0.00		0.00
22,000.00	89.93	359.77	11,729.80	9,356.49	-579.86	9,372.22		0.00	
22,100.00	89.93	359.77	11,729.93	9,456.49	-580.26	9,472.15	0.00	0.00	0.00
22,200.00	89.93	359.77	11,730.06	9,556.49	-580.66	9,572.08	0.00	0.00	0.00
22,300.00	89.93	359.77	11,730.18	9,656.49	-581.06	9,672.02	0.00	0.00	0.00
22,400.00	89.93	359.77	11,730.31	9,756.49	-581.46	9,771.95	0.00	0.00	0.00
22,500.00	89.93	359.77	11,730.44	9,856.48	-581.86	9,871.89	0.00	0.00	0.00
22,600.00	89.93	359.77	11,730.57	9,956.48	-582.26	9,971.82	0.00	0.00	0.00
22,700.00	89.93	359.77	11,730.69	10,056.48	-582.65	10,071.76	0.00	0.00	0.00
22,800.00	89.93	359.77	11,730.82	10,156.48	-583.05	10,171.69	0.00	0.00	0.00
22,900.00	89.93	359.77	11,730.95	10,256.48	-583.45	10,271.63	0.00	0.00	0.00
23,000.00	89.93	359.77	11,731.08	10,356.48	-583.85	10,371.56	0.00	0.00	0.00
23,100.00	89.93	359.77	11,731.20	10,456.48	-584.25	10,471.50	0.00	0.00	0.00
23,200.00	89.93	359.77	11,731.33	10,556.48	-584.65	10,571.43	0.00	0.00	0.00
23,300.00	89.93	359.77	11,731.46	10,656.48	-585.05	10,671.37	0.00	0.00	0.00
23,400.00	89.93	359.77	11,731.59	10,756.48	-585.45	10,771.30	0.00	0.00	0.00
23,500.00	89.93	359.77	11,731.71	10,856.48	-585.85	10,871.24	0.00	0.00	0.00
23,600.00	89.93	359.77	11,731.84	10,956.47	-586.25	10,971.17	0.00	0.00	0.00
23,700.00	89.93	359.77	11,731.97	11,056.47	-586.64	11,071.11	0.00	0.00	0.00
23,800.00	89.93	359.77	11,732.09	11,156.47	-587.04	11,171.04	0.00	0.00	0.00
23,900.00	89.93	359.77	11,732.22	11,256.47	-587.44	11,270.97	0.00	0.00	0.00
24,000.00	89.93	359.77	11,732.35	11,356.47	-587.84	11,370.91	0.00	0.00	0.00
24,100.00	89.93	359.77	11,732.48	11,456.47	-588.24	11,470.84	0.00	0.00	0.00
24,200.00	89.93	359.77	11,732.60	11,556.47	-588.64	11,570.78	0.00	0.00	0.00
24,300.00	89.93	359.77	11,732.73	11,656.47	-589.04	11,670.71	0.00	0.00	0.00
24,400.00	89.93	359.77	11,732.86	11,756.47	-589.44	11,770.65	0.00	0.00	0.00
24,500.00	89.93	359.77	11,732.99	11,856.47	-589.84	11,870.58	0.00	0.00	0.00
24,600.00	89.93	359.77	11,733.11	11,956.47	-590.23	11,970.52	0.00	0.00	0.00
24,700.00	89.93	359.77	11,733.24	12,056.47	-590.63	12,070.45	0.00	0.00	0.00
24,800.00	89.93	359.77	11,733.37	12,156.46	-591.03	12,170.39	0.00	0.00	0.00
24,900.00	89.93	359.77	11,733.49	12,256.46	-591.43	12,270.32	0.00	0.00	0.00
24,900.00	89.93	359.77	11,733.62	12,356.46	-591.83	12,370.26	0.00	0.00	0.00
					-592.23				
25,100.00 25,200.00	89.93 89.93	359.77 359.77	11,733.75 11,733.88	12,456.46 12,556.46	-592.23 -592.63	12,470.19 12,570.13	0.00 0.00	0.00 0.00	0.00 0.00
25,200.00	89.93	359.77	11,733.00	12,556.46	-592.03	12,570.13	0.00	0.00	0.00
25,300.00	89.93	359.77	11,734.00	12,050.40	-593.03	12,769.99	0.00	0.00	0.00
25,500.00	89.93	359.77	11,734.13	12,756.46	-593.43	12,769.99	0.00	0.00	0.00
	89.93	359.77	11.734.39	12,000.40			0.00		0.00
25,600.00	89.93 89.93		,	,	-594.22	12,969.86		0.00	
25,700.00 25,800.00	89.93 89.93	359.77 359.77	11,734.51 11,734.64	13,056.46 13,156.46	-594.62 -595.02	13,069.80 13,169.73	0.00 0.00	0.00 0.00	0.00 0.00
25,800.00	89.93 89.93	359.77	11,734.04	13,156.46	-595.02 -595.42	13,169.73	0.00	0.00	0.00
25,900.00	89.93	359.77	11,734.77	13,256.45	-595.42	13,369.60	0.00	0.00	0.00
	89.93	359.77	11,735.02	13,456.45	-596.22	13,469.54		0.00	0.00
26,100.00 26,200.00	89.93 89.93	359.77 359.77	11,735.02	13,456.45	-596.22 -596.62	13,469.54	0.00 0.00	0.00	0.00
26,300.00	89.93	359.77	11,735.28	13,656.45	-597.02	13,669.41	0.00	0.00	0.00
26,400.00	89.93	359.77	11,735.40	13,756.45	-597.42	13,769.34	0.00	0.00	0.00
26,500.00	89.93	359.77	11,735.53	13,856.45	-597.81	13,869.28	0.00	0.00	0.00
26,600.00	89.93	359.77	11,735.66	13,956.45	-598.21	13,969.21	0.00	0.00	0.00
26,700.00	89.93	359.77	11,735.79	14,056.45	-598.61	14,069.15	0.00	0.00	0.00
26,800.00	89.93	359.77	11,735.91	14,156.45	-599.01	14,169.08	0.00	0.00	0.00
26,900.00	89.93	359.77	11,736.04	14,256.45	-599.41	14,269.02	0.00	0.00	0.00
27,000.00	89.93	359.77	11,736.17	14,356.44	-599.81	14,368.95	0.00	0.00	0.00
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## **OXY** Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Nimitz MDP1 13_1 Fed Com 171H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3477.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3477.00ft
Site:	Nimitz MDP1 13_1	North Reference:	Grid
Well:	Nimitz MDP1 13_1 Fed Com 171H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
27,100.00	89.93	359.77	11,736.29	14,456.44	-600.21	14,468.88	0.00	0.00	0.00
27,200.00	89.93	359.77	11,736.42	14,556.44	-600.61	14,568.82	0.00	0.00	0.00
27,300.00	89.93	359.77	11,736.55	14,656.44	-601.01	14,668.75	0.00	0.00	0.00
27,400.00	89.93	359.77	11,736.68	14,756.44	-601.41	14,768.69	0.00	0.00	0.00
27,500.00	89.93	359.77	11,736.80	14,856.44	-601.80	14,868.62	0.00	0.00	0.00
27,600.00	89.93	359.77	11,736.93	14,956.44	-602.20	14,968.56	0.00	0.00	0.00
27,654.41	89.93	359.77	11,737.00	15,010.85	-602.42	15,022.93	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target _ - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Nimitz MDP1 - plan misses target o - Point	0.00 enter by 38		11,717.00 50.78ft MD	-701.73 (11681.33 TV	-539.74 ⁄D, -688.32 N	440,811.41 , -536.87 E)	693,325.05	32.210912	-103.841907
PBHL (Nimitz MDP1 - plan hits target cent - Point	0.00 er	0.00	11,737.00	15,010.85	-602.42	456,522.94	693,262.37	32.254101	-103.841877

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
481.00	481.00	RUSTLER			
843.00	843.00	SALADO			
2,667.00	2,667.00	CASTILE			
4,104.00	4,104.00	DELAWARE			
4,135.00	4,135.00	BELL CANYON			
5,051.70	5,051.00	CHERRY CANYON			
6,295.88	6,277.00	BRUSHY CANYON			
8,024.61	7,974.00	BONE SPRING			
8,988.30	8,920.00	BONE SPRING 1ST			
9,751.31	9,669.00	BONE SPRING 2ND			
10,970.69	10,866.00	BONE SPRING 3RD			
11,428.10	11,316.00	WOLFCAMP			
11,589.65	11,461.00	WOLFCAMP A			

### Plan Annotations

Measured	Vertical	Local Coordinates		
Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
4,535.00	4,535.00	0.00	0.00	Build 1°/100'
5,634.52	5,627.78	-95.57	-43.92	Hold 11° Tangent
11,155.52	11,047.44	-1,052.39	-483.59	KOP, Build & Turn 10°/100'
12,154.41	11,717.27	-489.02	-540.58	Landing Point
27,654.41	11,737.00	15,010.85	-602.42	TD at 27654.41' MD

### Received by OCD: 3/14/2023 1:46:06 PM

Tenaris

# **Tenaris** 425<sup>®</sup>



		Couplin	ng	Pipe Body	
Hydril Wedge		Body: N	nd: Grey Ind: -	Grade: P110-CY 1st Band: White 2nd Band: Grey 3rd Band: - 4th Band: - 5th Band: -	
5.500 in. Wa	all Thickness	0.361 in.	Grade	6th Band: -	P110-CY
87.50 % <b>Pi</b> p	e Body Drift	API Standard	Туре		Casing

**Connection OD Option** 

### **Pipe Body Data**

**Outside Diameter** 

Min. Wall Thickness

Geometry			
Nominal OD	5.500 in.	Wall Thickness	0.361 in.
Nominal Weight	20 lb/ft	Plain End Weight	19.83 lb/ft
Drift	4.653 in.	OD Tolerance	API
Nominal ID	4.778 in.		

Destau

REGULAR

### Performance

Body Yield Strength	641 x1000 lb
Min. Internal Yield Pressure	12,640 psi
SMYS	110,000 psi
Collapse Pressure	11,100 psi

### **Connection Data**

Geometry	
Connection OD	5.777 in.
Connection ID	4.734 in.
Make-up Loss	5.823 in.
Threads per inch	3.77
Connection OD Option	Regular

Performance	
Tension Efficiency	90 %
Joint Yield Strength	577 x1000 lb
Internal Pressure Capacity	12,640 psi
Compression Efficiency	90 %
Compression Strength	577 x1000 lb
Max. Allowable Bending	82 °/100 ft
External Pressure Capacity	11,100 psi

Make-Up Torques	
Minimum	15,700 ft-lb
Optimum	19,600 ft-lb
Maximum	21,600 ft-lb
Operation Limit Torques	
Operating Torque	29,000 ft-Ib
Yield Torque	36,000 ft-Ib

### Notes

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

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

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### Received by OCD: 3/14/2023 1:46:06 PM

Tenaris

# TenarisHydr 441<sup>®</sup>



	— 1	Coupl	ing	Pipe Body	
Iril Wedg		Grade	: P110-CY	Grade: P110-CY	
in vecuy		Body:	White	1st Band: White	
		1st Ba	nd: Grey	2nd Band: Grey	
		2nd B	and: -	3rd Band: -	
		3rd Ba	and: -	4th Band: -	
				5th Band: -	
				6th Band: -	
5.500 in.	Wall Thickness	0.361 in.	Grade		P110-CY
87.50 %	Drift	API Standard	Туре		Casing

#### **Pipe Body Data**

**Outside Diameter** 

Min. Wall Thickness

**Connection OD Option** 

Geometry			
Nominal OD	5.500 in.	Wall Thickness	0.361 in.
Nominal Weight	20 lb/ft	Plain End Weight	19.83 lb/ft
Drift	4.653 in.	OD Tolerance	API
Nominal ID	4.778 in.		

Devel

REGULAR

### Performance

Body Yield Strength	641 x1000 lb
Min. Internal Yield Pressure	12,640 psi
SMYS	110,000 psi
Collapse Pressure	11,100 psi

### **Connection Data**

Geometry	
Connection OD	5.852 in.
Coupling Length	8.714 in.
Connection ID	4.778 in.
Make-up Loss	3.780 in.
Threads per inch	3.40
Connection OD Option	Regular

Performance	
Tension Efficiency	81.50 %
Joint Yield Strength	522 x1000 lb
Internal Pressure Capacity	12,640 psi
Compression Efficiency	81.50 %
Compression Strength	522 x1000 lb
Max. Allowable Bending	71 °/100 ft
External Pressure Capacity	11,100 psi

Make-Up Torques	
Minimum	15,000 ft-lb
Optimum	16,000 ft-lb
Maximum	19,200 ft-Ib
Operation Limit Torques	
Operating Torque	32,000 ft-Ib
Yield Torque	38,000 ft-Ib
Buck-On	
Minimum	19,200 ft-Ib
Maximum	20,700 ft-lb

### Notes

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

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

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# TenarisHydril

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

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

21600 ft-lbs

23100 ft-lbs

Nominal OD	5.500 in.	Wall Thickness	0.361 in.	Grade	P110-CY
Min Wall Thickness	87.5%	Туре	CASING	Connection OD Option	MATCHED STRENGTH
Pipe Body Data					
Geometry				Performance	
Nominal OD	5.500 in.	Nominal ID	4.778 in.	Body Yield Strength	641 x 1000 lbs
Nominal Weight	20.00 lbs/ft	Wall Thickness	0.361 in.	Internal Yield	12640 psi
Standard Drift Diameter	4.653 in.	Plain End Weight	19.83 lbs/ft	SMYS	110000 psi
Special Drift Diameter	N/A	OD Tolerance	API	Collapse Pressure	11110 psi
Connection Data					
Geometry		Performance		Make-up Torques	
Matched Strength OD	6.050 in.	Tension Efficiency	100%	Minimum	17000 ft-lbs
Make-up Loss	3.775 in.	Joint Yield Strength	641 x 1000 lbs	Optimum	18000 ft-lbs
Threads per in.	3.40	Internal Yield	12640 psi	Maximum	21600 ft-lbs
Connection OD Option	MATCHED STRENGTH	Compression Efficiency	100%	Operational Limit Torque	S
Coupling Length	7.714 in.	Compression Strength	641 x 1000 lbs	Operating Torque	32000 ft-lbs
		Bending	92 °/100 ft	Yield Torque	38000 ft-lbs

11110 psi

**Buck-On Torques** 

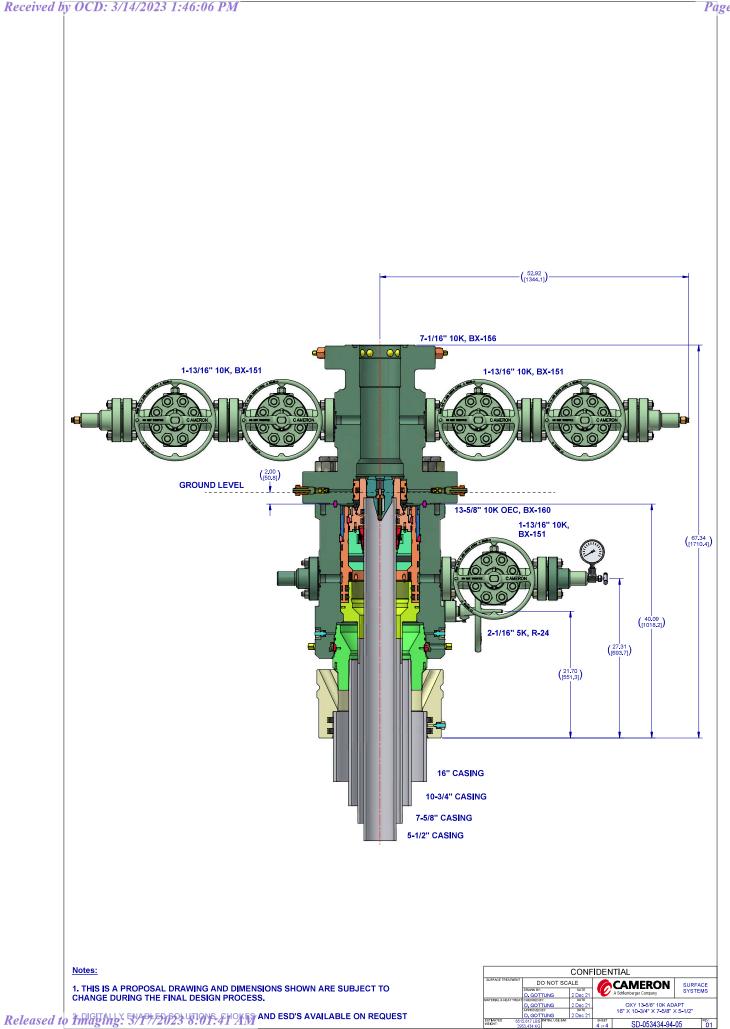
Minimum

Maximum

### Notes

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

Collapse



## **OXY USA Inc** APD ATTACHMENT: SPUDDER RIG DATA

### OPERATOR NAME / NUMBER: OXY USA Inc

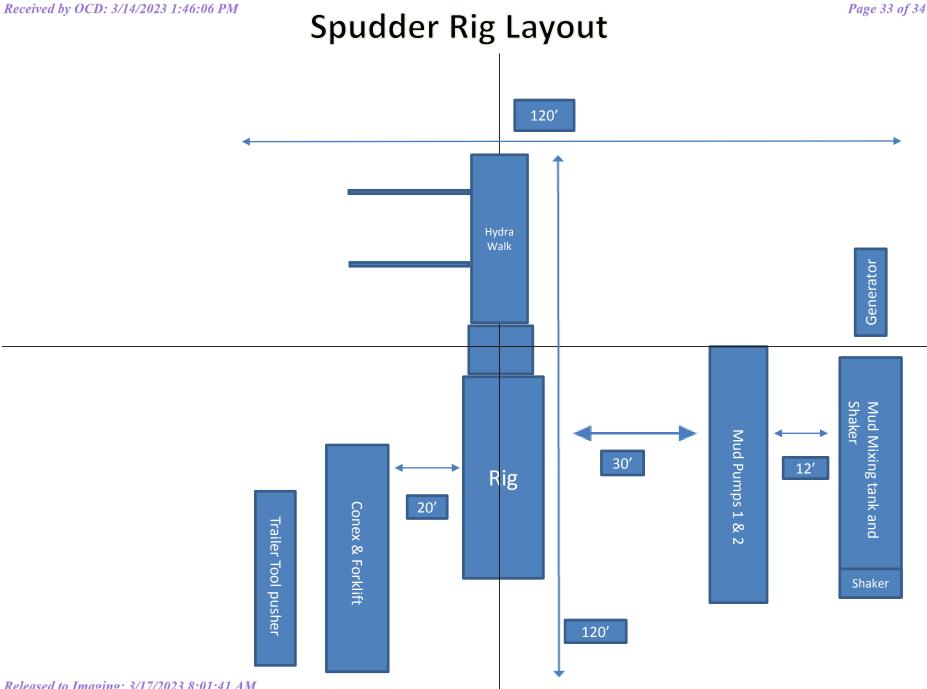
### 1. SUMMARY OF REQUEST:

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

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

### 2. Description of Operations

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



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District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

CONDITIONS

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	196947
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

### CONDITIONS

Created By	Condition	Condition Date
kpickford	NSL Will require an administrative order for non-standard location prior to placing the well on production.	3/17/2023
kpickford	NSP Will require administrative order for non-standard spacing unit	3/17/2023
kpickford	Adhere to previous NMOCD Conditions of Approval	3/17/2023

CONDITIONS

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Action 196947