

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**OCD-ARTESIA**


**A15-10-564**  
FORM APPROVED  
OMB NO. 1004-0136  
Expires: November 30, 2000

**APPLICATION FOR PERMIT TO DRILL OR REENTER R-111-POTASH**

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		15. Lease Serial No. NMNM104730	
1b. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator OXY USA Inc.		7. Unit or CA Agreement Name and No.	
3a. Address P.O. Box 50250 Midland, TX 79710-0250		8. Lease Name and Well No. <b>(384)</b> Sundance 4 Federal #32	
3b. Phone No. (include area code) 432-685-5717		9. API Well No. 30-015- <b>38393</b>	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface <del>1973 FSL 860 FEL</del> NESE(I) Sec 4 T24S R31E At proposed prod. zone <b>660 FNL 458 FWL (44D)</b>		10. Field and Pool, or Exploration <b>SWD, DELAWARE</b>	
11. Sec., T., R., M., or Blk. and Survey or Area Sec 4 T24S R31E		12. County or Parish Eddy	
13. State NM		14. Distance in miles and direction from nearest town or post office* 20 miles northeast from Loving, NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 860		16. No. of Acres in lease 640	
17. Spacing Unit dedicated to this well N/A		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 200'	
19. Proposed Depth 5400'		20. BLM/BIA Bond No. on file ES0136	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3427.5'		22. Approximate date work will start* 6/10	
23. Estimated duration 20		24. Attachments	

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan  | 5. Operator certification.   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) David Stewart	Date <b>5/3/10</b>
Title Sr. Regulatory Analyst		
Approved by (Signautre) /s/ Linda S. C. Rundell	Name (Printed/Typed) /s/ Linda S. C. Rundell	Date <b>SEP 28 2010</b>
Title <b>STATE DIRECTOR</b>	Office <b>NM STATE OFFICE</b>	

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

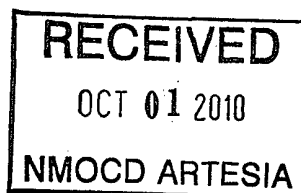
**APPROVAL FOR TWO YEARS**

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

\*(Instructions on Reverse)

**Carlsbad Controlled Water Basin**

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**



**Approval Subject to General Requirements  
& Special Stipulations Attached**

**KZ**  
**01/07/10**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

## 1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other

SWD

## 2. Name of Operator

OXY USA Inc.

16696

## 3a. Address

P.O. Box 50250, Midland, TX 79710-0250

## 3b. Phone No. (include area code)

432-685-5717

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

660 FNL 458 FWL NWNW(D) Sec 4 T24S R31E

## 5. Lease Serial No.

NMNM104730

## 6. If Indian, Allottee or Tribe Name

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

## 8. Well Name and No.

Sundance 4 #32  
Federal

## 9. API Well No.

30-015- 58393

## 10. Field and Pool, or Exploratory Area

Sand Dunes Delaware, West

## 11. County or Parish, State

Eddy NM

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

## TYPE OF SUBMISSION

☒ Notice of Intent☐ Subsequent Report☐ Final Abandonment Notice

## TYPE OF ACTION

☐ Acidize☐ Alter Casing☐ Casing Repair☒ Change Plans☐ Convert to Injection☐ Deepen☐ Fracture Treat☐ New Construction☐ Plug and Abandon☐ Plug Back☐ Production (Start/Resume)☐ Reclamation☐ Recomplete☐ Temporarily Abandon☐ Water Disposal☐ Water Shut-Off☐ Well Integrity☒ Other Amend APD -

APD Deficiencies

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

OXY USA Inc. respectfully requests that the following attached information be accepted to amend the APD for the Sundance 4 Federal #32 that was originally filed 5/3/10.

1. C-102, location was moved at the BLM request.

Amended-660 FNL 458 FWL NWNW(D) Original-1973 FSL 860 FEL NESE(I)

2. Amended Drilling Plan w/ new TD and changes to production casing.

3. APD Deficiencies List

ENG. OK  
DW 8-11-10

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

David Stewart

## Title

Sr. Regulatory Analyst

## Date

8/9/10

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

## Approved by

/s/ Linda S. C. Rundell

## Title

STATE DIRECTOR

## Date

SEP 28 2010

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

## Office

NM STATE OFFICE

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

# APD DATA - DRILLING PLAN

OPERATOR NAME / NUMBER: OXY USA Inc - 16696

LEASE NAME / NUMBER: Sundance 4 Federal # 32

Federal Lease No: NMNM104730

STATE: NM

COUNTY: Eddy

SURFACE LOCATION: 660 FNL 458 FWL NWNW(D) Sec 4 T24S R31E

SL: LAT: 32.2517228N LONG: 103.7893119W X: 455721.0 Y: 668182.5 NAD: 27

C-102 PLAT APPROX GR ELEV: 3395.2'

EST KB ELEV: 3411.7' (16.5' KB)

## 1. GEOLOGIC NAME OF SURFACE FORMATION

a. Permian

## 2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS

Formation	TV Depth Top	Expected Fluids
Upper Permian Sand	170	Water
Rustler	450	
Base of Salt	4200	None
Lamar	4200	None
Bell Canyon	4250	
Cherry Canyon	5089	
Middle Cherry Canyon	5758	
Lower Cherry Canyon	6327	

A. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

GREATEST PROJECTED TD 6300' MD/ 6300' TVD OBJECTIVE: Bell Canyon / Cherry Canyon

## 3. CASING PROGRAM

Surface Casing: 11.75" casing set at ± 475' MD/ 475' TVD in a <sup>14 3/4" Per Operator 8-11-10 Dhw</sup> hole filled with 8.40 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-475'	<del>475'</del>	42	H-40	ST&C	1070	1980	307	11.084	4.77	7.46	2.43	2.43

Intermediate Casing: 8.625" casing set at ± 4310' MD / 4310' TVD in a <sup>10 5/8"</sup> hole filled with 10 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-4310'	4310'	32	J-55	LT&C	2530	3930	417	7.92	7.80	2.93	1.3	1.94

77/8

Production Casing: 5.5" casing set at ± 6300' MD / 6300' TVD in a <sup>77/8</sup> hole filled with 8.90 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 6300'	6300'	17	J-55	LT&C	4910	5320	247	4.89	4.77	1.75	1.28	1.73

Collapse and burst loads calculated using Stress Check with actual anticipated loads.

**4. CEMENT PROGRAM:****Surface Interval**

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft <sup>3</sup> /sk	24 Hr Comp
<b>Surface (TOC: 0' -475')</b>							
<b>Lead:</b> 0' - 475' (150% Excess)	410	475'	Premium Plus Cement, with 2% Calcium Chloride.	9.39	14.8	1.35	2500 psi

**Intermediate Interval**

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft <sup>3</sup> /sk	24 Hr Comp
<b>Intermediate TOC: Surface ( 0' -4310')</b>							
<b>Lead:</b> 0' -3816' ( 150%Excess)	1000	3816'	Light Premium Plus Cement, with 5% Salt, 5 lb/sk Gilsonite, & 0.125 lb/sk Poly-E-Flake, 1% Halad-344, 2% Calcium Chloride	9.35	12.9	1.88	650 psi
<b>Tail:</b> 3816' -4310' ( 150%Excess)	200	494'	Premium Plus cement with 1% WellLife 734	6.38	14.8	1.34	1343 psi

**Production Interval**

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft <sup>3</sup> /sk	24 Hr Comp
<b>Production (TOC: 4350 ') 1<sup>st</sup> Stage</b>							
<b>Lead:</b> 4350' - 6300' (200 %Excess)	640	1950'	Super H Cement with 0.5% Halad-344 (Low Fluid Loss Control), 0.4% CFR-3 (Dispersant), 0.3% Poly-E-Flake (Retarder), 1 lb/sk Salt & 5 lb/sk Gilsonite	7.84	13.2	1.61	1536 psi
<b>DV Tool @ 4350'</b>							
<b>Production (TOC: Surface') 2<sup>nd</sup> Stage</b>							
<b>Lead:</b> 0' -3852' (35% Excess)	460	3852'	Light Premium Plus with 3 lb/sk Salt	11.29	12.4	2.01	560 psi
<b>Tail:</b> 4310' - 3852'	100	498	Premium Plus	5.81	14.8	1.33	1750 psi

## 5. PRESSURE CONTROL EQUIPMENT

**Surface: 0 – 475'** None.

**Intermediate: 0 – 4310'** the minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required to drill below the surface casing shoe shall be 3000 (3M) psi . Operator will using a 11" 5M two ram stack w/ 5M annular preventer, & 5M Choke Manifold, but testing as 3M.

- a. The 11" 5000 psi blowout prevention equipment will be installed and operational after setting the 11 3/4" surface casing and the 11 3/4" SOW x 13 5/8" 3K conventional wellhead; the rotating head body will be installed but the rubber will be installed when it becomes operationally necessary.
- b. The BOP and ancillary BOPE will be tested by a third party upon installation to the 11 3/4"H-40 42ppf surface casing. All equipment will be tested to 250/1386 (70% of casing burst) psi for 30 minutes without a test plug or 10 minutes if test plug is implemented. This is to be in compliance with the Onshore Order # 2 which states the BOPE shall be tested to 70 % of the yield of the casing when the BOP and casing are not isolated

**Production: 0 – 6300'** will be drilled with a 11" 5M two ram stack w/ 5M annular preventer, & 5M Choke Manifold.

- a. The BOP and ancillary BOPE will be tested by a third party upon installation to the 8 5/8" intermediate casing at 4310'. All equipment will be tested to 5000 psi (high) and 250 psi (low) except the annular will be tested to 70% of its rated working pressure (high) and also to 250 psi (low). All test will performed with the implementation of a test type plug,
- b. The pipe rams will be functionally tested during each 24 hour period; the blind rams will be functionally tested on each trip out of the hole. These functional tests will be documented on the Daily Driller's Log. Other accessory equipment (BOPE) will include a safety valve and subs as needed to fit all drill strings, and a 2" kill line and 3 " choke line having a 5000 psi WP rating. Oxy requests that the system be tested at 5,000 psi WP rating..
- c. Oxy also requests a variance to connect the BOP choke outlet to the choke manifold using a co-flex hose made by *Contitech Rubber Industrial KFT*. It is a 3" ID x 35' flexible hose rated to 10,000 psi working pressure. It has been tested to 15,000 psi and is built to API Spec 16C. Once the flex line is installed it will be tied down with safety clamps. Please see attached certifications.
- d. See attached BOP & Choke manifold diagrams.

## 6. MUD PROGRAM:

See  
COA  
491'

Depth	Mud Wt ppg	Vis Sec	Fluid Loss	Type System
0 - <del>475'</del> 491'	8.4 – 8.8	32 – 38	NC	Fresh Water /Spud Mud
<del>475'</del> - 4310'	9.8 – 10.0	28 – 29	NC	Brine Water
4310' – 6000'	8.4 – 8.8	26- 28	NC	Fresh Water
7800' - TD	8.5 – 9.0	32 - 38	10- 15	Duo Vis

Remarks: 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.

7. **AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT**

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.
- c. Hydrogen Sulfide detection equipment will be in operation after drilling out the surface casing shoe until the production casing is cemented. Breathing equipment will be on location upon drilling the surface casing shoe until total depth is reached. **If Hydrogen Sulfide is encountered , measured amounts and formations will be reported to the BLM**

8. **POTENTIAL HAZARDS:**

- A. H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6.
- B. No abnormal temperatures or pressures are anticipated. **The highest anticipated pressure gradient is 0.55 psi.** All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

9. **ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS**

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 35 days. If production casing is run, then an additional 30 days will be needed to complete the well and construct surface facilities and/or lay flow lines in order to place well on production.

10. **COMPANY PERSONNEL-DRILLING:**

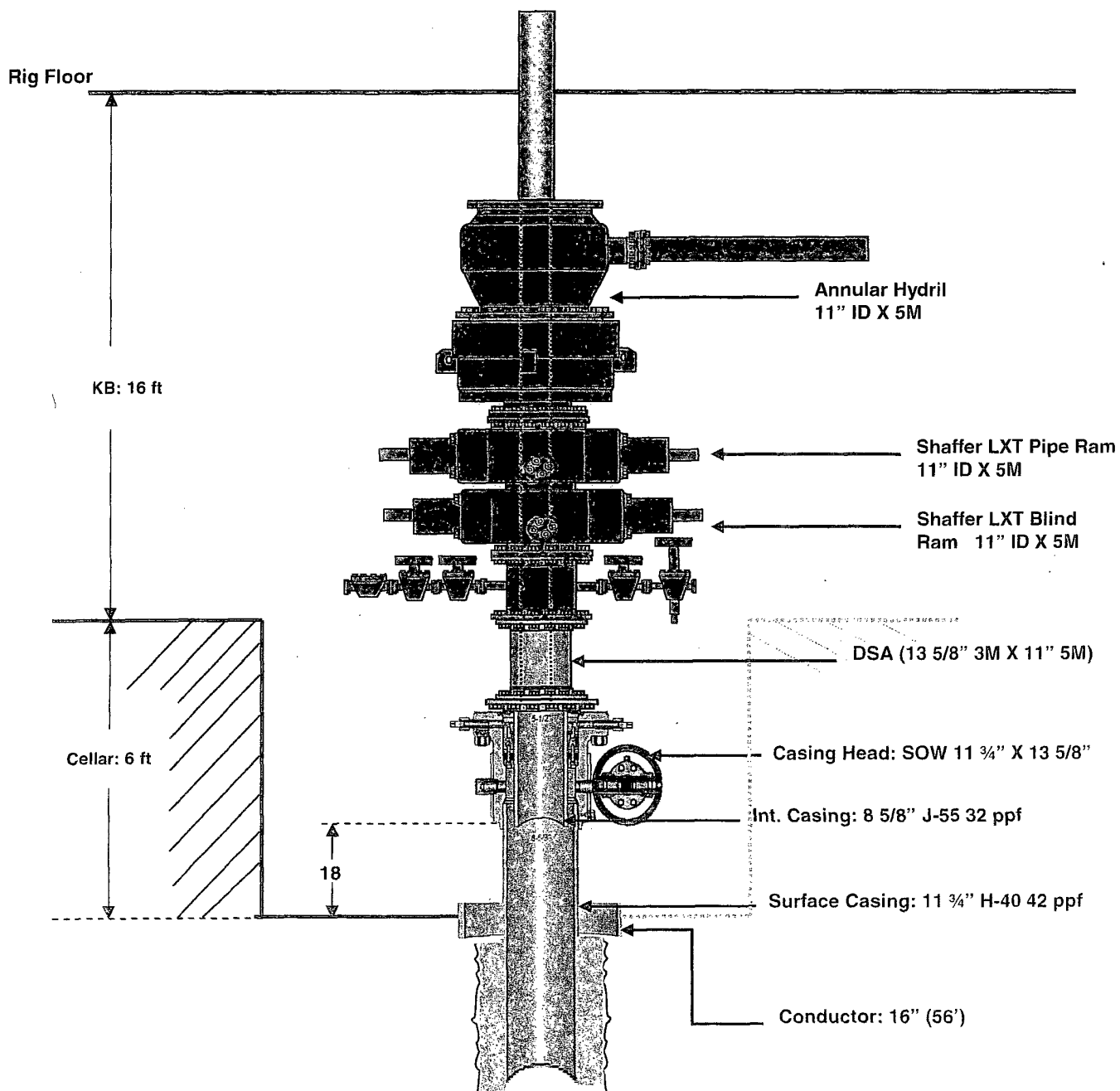
<u>Name</u>	<u>Title</u>	<u>Office Phone</u>	<u>Mobile Phone</u>
Luis Tarazona	Drilling Engineer	713-366-5771	713-628-9526
Frank Hutton	Drilling Engineer Supervisor	713-366-5325	713-855-4274
Sergio Abauat	Drilling Superintendent	713-366-5689	832-531-5636
Richard Jackson	Drilling Manager	713-215-7235	281-467-6383

**Plan for improving/maintaining existing road to Sundance 4 Federal #32**

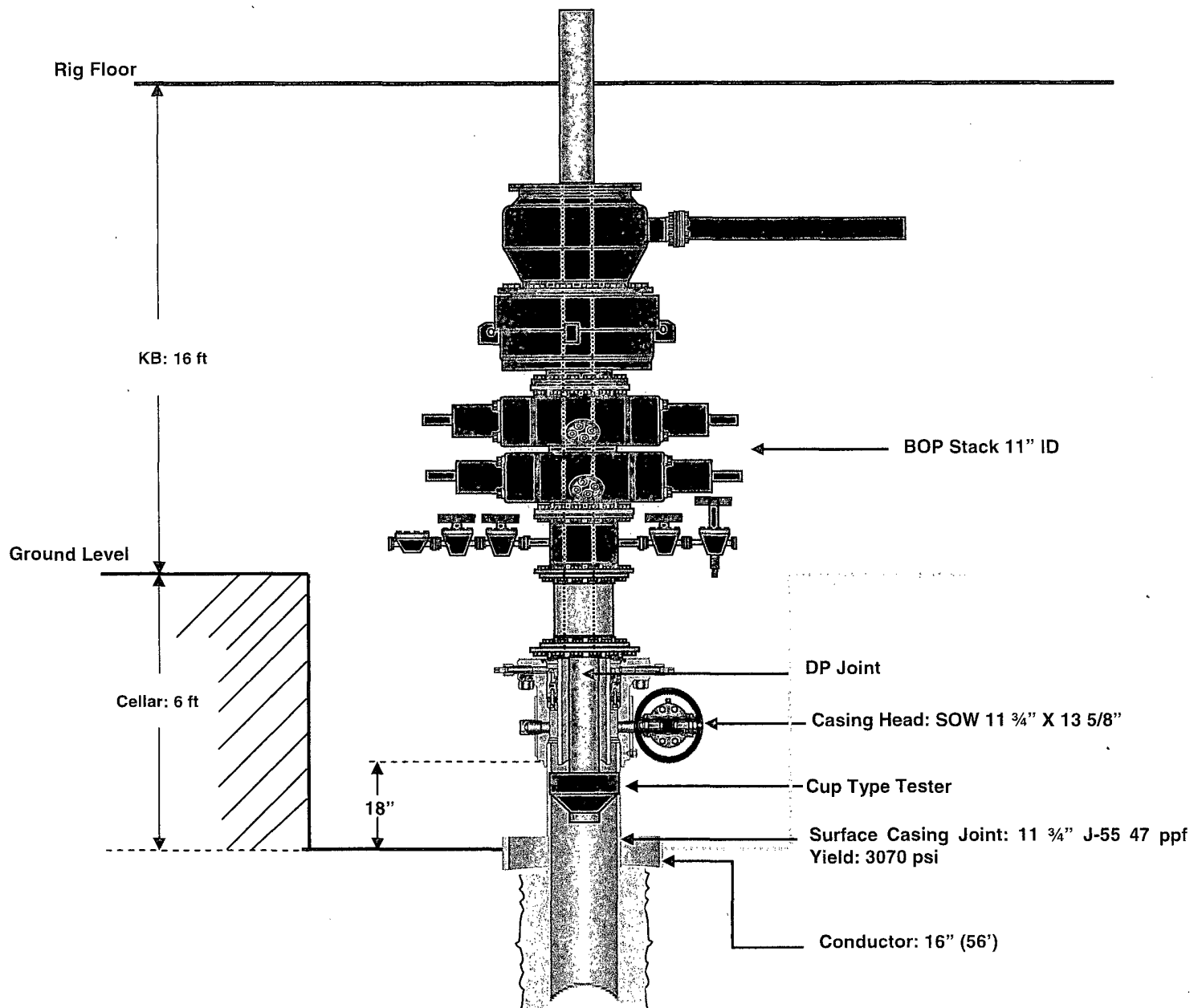
1. Blade and water existing road from Hwy 128 to new location.
2. Add caliche to any bad areas of existing road

Existing electrical line is on south edge of proposed location.

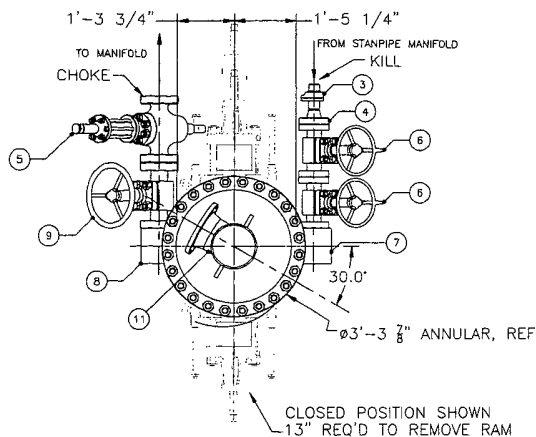
# BOP Diagram



**Fig 1.**







# PROPER TORQUE FOR BOLTS

COMPONENT	FLANGE SIZE & RATING	BOLT SIZE	TORQUE	(FT/LBS)
			CF=0.07	CF=0.13
SPOOLS, ANNULAR & RAMS	11"x5M	1 7/8" DIA.	1890	3330
BLOCKS	3 1/8x5M	1 1/8" DIA.	401	686
CHOKE VALVES	3 1/8x5M	1 1/8" DIA.	401	686
KILL VALVES	2 1/16x5M	7/8" DIA.	188	319

## BILL OF MATERIAL

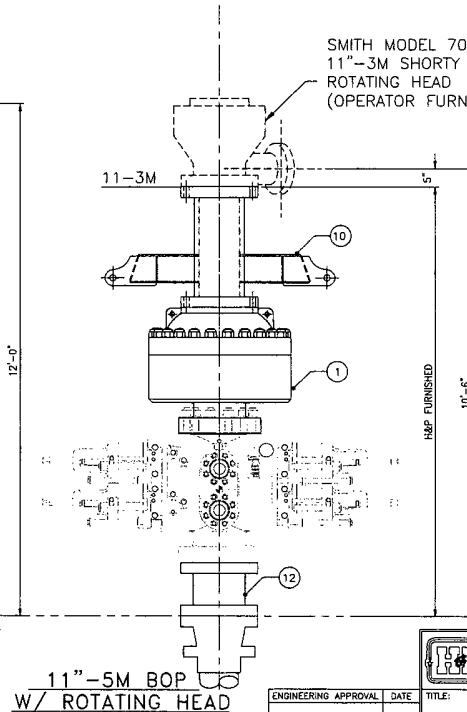
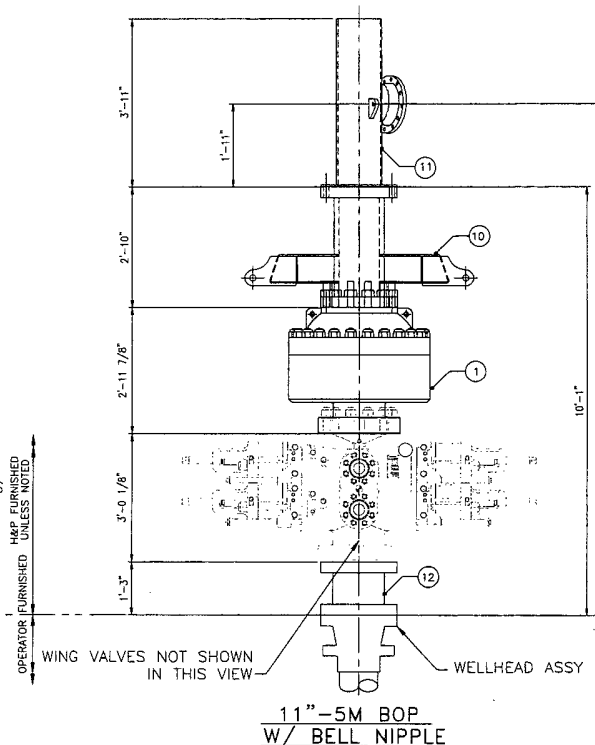
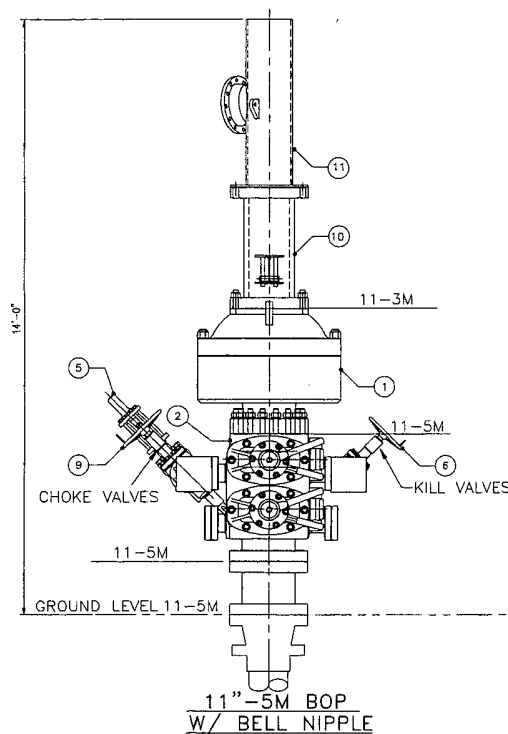
ITEM NO.	QUAN.	DESCRIPTION	PART NUMBER	WEIGHT
1	1	11"-5M BOP ASSEMBLY		
1	1	ANNULAR, 11x3M BOLTED TYPE		6005
2	1	BOP DOUBLE RAM		7600
4		RAM ELEMENTS		444
3	1	HAMMER UNION, 2-1502# XXH (BW)		5
4	1	FLANGE, WN 2 1/16-5M API		42
5	1	VALVE, GATE FLS-HCR 3 1/8-5M		396
6	2	VALVE, GATE 2 1/16-5M		350
7	1	90° STUDDER BLOCK, 3 1/8-5M X 2 1/16-5M		240
8	1	90° STUDDER BLOCK, 3 1/8-5M X 3 1/8-5M		250
9	2	VALVE, GATE 3 1/8-5M		720
10	1	BELL NIPPLE BOP LIFTING SECTION	WK FAM-H-318.01A	780
11	1	BELL NIPPLE EXTENSION	WK FAM-H-318.01A	396
12	1	11"-5M x 11"-5M x 1'-3" LONG SPACER		600
		SPOOL- WORKING PRESSURE 5000 PSI		

## HARDWARE

ITEM NO.	QUAN.	DESCRIPTION	PART NUMBER	WEIGHT
		RINGS AND BOLTS		400

APPROX. TOTAL WEIGHT = 18,228 LBS

SMITH MODEL 7068  
11"-3M SHORTY  
ROTATING HEAD  
(OPERATOR FURNISHED)



ISSUED FOR  
FABRICATION  
August-08-2008  
DRAFTSMAN  
ENGINEER

## PROPRIETARY

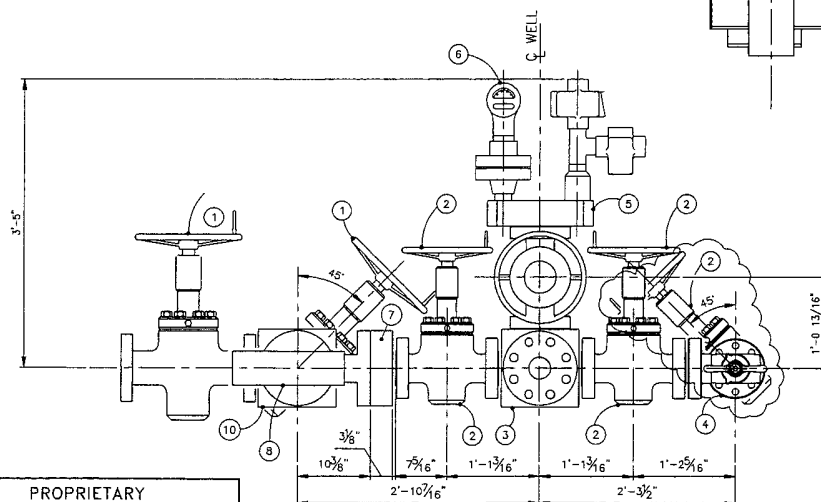
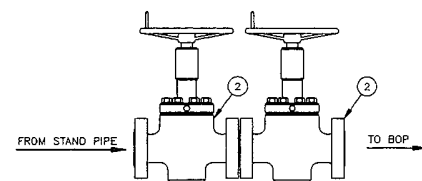
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## NOTES:

- ALL BOP RAMS SHOWN ARE SHAFFER MODEL LXT 11-5M PSI WP - FLANGED BOTTOM AND STUDDER TOP

<b>HELMERICH &amp; PAYNE</b> INTERNATIONAL DRILLING CO.	
TITLE: <b>11"-5M BOP EQUIPMENT GENERAL ARRANGEMENT</b>	
CUSTOMER: OXY-PERMAN	
PROJECT: FAM	
DRAWN: DJOHNSON	DATE: 07/14/08
DWG. NO.: FAM-H-320	REV:

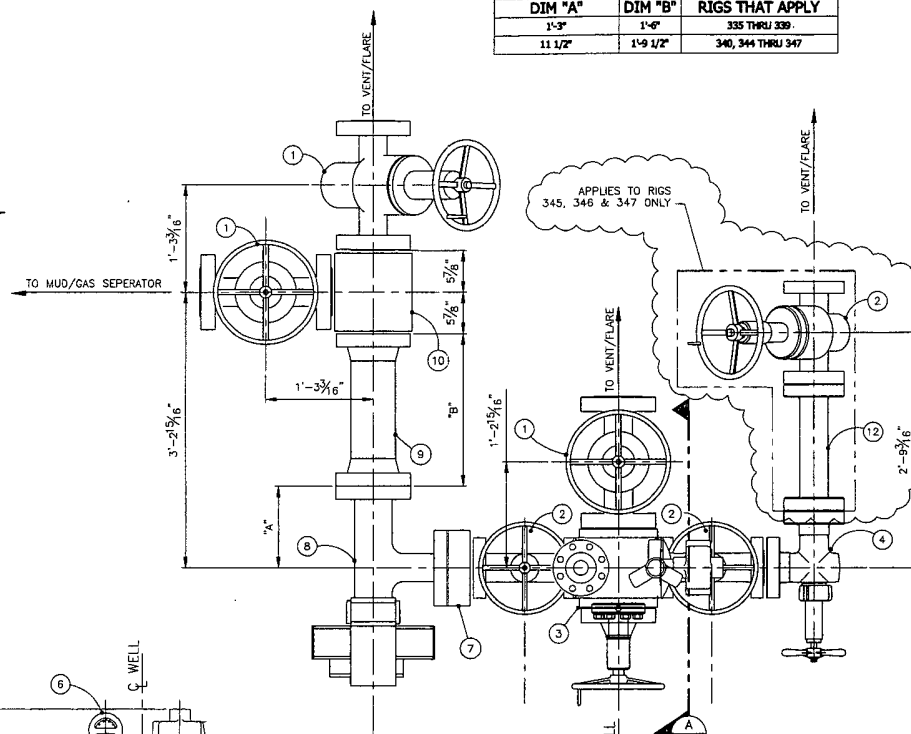
ENGINEERING APPROVAL	DATE
08/08/08	ADDED 1 OF 4 SHTS WAS 1 OF 3
07/28/08	SHEET 1 OF 3 WAS 1 OF 5



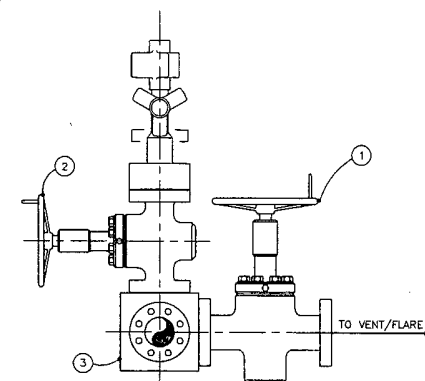
PROPRIETARY

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RIZED OFFICER OF HELMERICH & PAYNE INT'L DRILLING CO.

DIMENSION NOTATION		
DIM "A"	DIM "B"	RIGS THAT APPLY
1'-3"	1'-6"	335 THRU 339
11 1/2"	1'-9 1/2"	340, 344 THRU 347



PLAN VIEW



### LEGEND

- ①—3 1/8"—5M FLANGED END GATE VALVE
- ②—2 1/16"—5M FLANGED END GATE VALVE
- ③—BLOCK WITH TRANSMITTER FLANGE AND PRESSURE GAUGE
- ④—2 1/16"—5M ADJUSTABLE CHOKE
- ⑤—TRANSMITTER FLANGE
- ⑥—PRESSURE GAUGE
- ⑦—DSA 2 1/16"—5M x 3 1/16"—10M
- ⑧—3 1/16"—10M HYDRAULIC CHOKE
- ⑨—3 1/8"—5M x 3 1/16"—10M SPOOL
- ⑩—3 1/8"—5M x 3 1/8"—5M STUDDED TEE
- ⑪—3 1/8"—5M FLANGED END HCR GATE VALVE
- ⑫—2 1/16"—5M x 2 1/16"—5M SPOOL

**ISSUED FOR FABRICATION**  
October-17-2008  
DRAFTSMAN \_\_\_\_\_  
ENGINEER \_\_\_\_\_

VIEW A-A



HELMERICH & PAYNE  
INTERNATIONAL DRILLING CO.

### CHOKE MANIFOLD DETAIL ARRANGEMENT

ENGINEERING APPROVAL		DATE	TITLE:	
			CHOKE MANIFOLD DETAIL ARRANGEMENT	
			CUSTOMER: OXY SOUTH AMERICA	
			PROJECT: FAM	
			DRAWN: JAV	
			DATE: 01/07/08	
			DWG. NO.:	
			REV	



# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

**Jim Noel**  
Cabinet Secretary

**Karen W. Garcia**  
Deputy Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



Administrative Order SWD-1245  
September 3, 2010

## ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Rule 26.8B., OXY USA, Inc. seeks an administrative order to utilize its Sundance 4 Federal Well No. 32 (API 30-015-NA) to be located 660 feet from the North line and 458 feet from the West line, Unit Letter D of Section 4, Township 24 South, Range 31 East, NMPM, Eddy County, New Mexico, for produced water disposal purposes.

### THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rule 26.8B. Satisfactory information has been provided that affected parties as defined in Rule 26.8B.(2) have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 26.8 will be met and the operator is in compliance with Division Rule 5.9.

### IT IS THEREFORE ORDERED THAT:

The applicant, OXY USA, Inc., is hereby authorized to utilize its Sundance 4 Federal Well No. 32 (API 30-015-NA) to be located 660 feet from the North line and 458 feet from the West line, Unit Letter D of Section 4, Township 24 South, Range 31 East, NMPM, Eddy County, New Mexico, for disposal of oil field produced water (UIC Class II only) into the Bell Canyon and Cherry Canyon members of the Delaware Mountain Group through perforations from approximately 4249 feet to 5882 feet through lined tubing and a packer set within 100 feet of the disposal interval.

### IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the proposed disposal interval and is not permitted to escape to other formations or onto the surface.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine



leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The wellhead injection pressure on the well shall be limited to **no more than 850 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate-Test.

The operator shall notify the supervisor of the Division's district office of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 26.13 and 7.24.

Without limitation on the duties of the operator as provided in Division Rules 30 and 29, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

The injection authority granted under this order is not transferable except upon division approval. The division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.


The division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.

In accordance with Division Rule No 26.12.C., the disposal authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request, mailed by the operator prior to the termination date, may grant an extension thereof for good cause. One year after disposal into the well has ceased, the authority to dispose will terminate *ipso facto*.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the

operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.

  
MARK E. FESMIRE, P.E.  
Acting Director

MEF/wvj

cc: Oil Conservation Division – Artesia  
Bureau of Land Management – Carlsbad