12/28/2015 DATE IN	SUSPENSE	MAM ENGINEER	12/28/2015 LOGGED IN	NSL TYPE	DMAM1536257615 APP NO.

ABOVE THIS LINE FOR DIVISION USE ONLY

RECEIVED OCD
2015 DEC 28

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

- NSL
- OXY USA Inc 16696
- well
- Cedar Canyon "29" Federal #21H
- 30-015-Pending
- Pool
- Pierce Crossing; Bone Spring 50371

[A] Location - Spacing Unit - Simultaneous Dedication
☑ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☑ Offset Operators, Leaseholders ~~or Surface Owner~~

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

~~**Note: Statement must be completed by an individual with managerial and/or supervisory capacity.**~~

David Stewart		Sr. Regulatory Advisor	12/21/15
Print or Type Name	Signature	Title	Date

david_stewart@oxy.com
e-mail Address

OXY USA Inc.
Cedar Canyon 29 Federal #21H

OXY USA Inc.

PO Box 50250
Midland, TX 79710-0250

December 21, 2015

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

Attention: Leonard Lowe

Re: ***Application for Administrative Approval of Non-Standard Location –***
Cedar Canyon 29 Federal #21H - Pierce Crossing Bone Spring
Surface – 1989 FNL 150 FEL Ut H Sec 29 T24S R29E
Top Perforation – 1342 FNL 340 FEL Ut H Sec 29 T24S R29E
Bottom Perforation – 1336 FNL 340 FWL Ut E Sec 29 T24S R29E
Bottom Hole –1336 FNL 160 FWL Ut E Sec 29 T24S R29E
Eddy County, New Mexico

Dear Mr. Lowe:

OXY USA Inc. respectfully requests administrative approval of a non-standard location on the Cedar Canyon 29 Federal #21H well, API Number-Pending, Property Code 314329. The #21H well is proposed to be completed in the Pierce Crossing Bone Spring, Pool Code 50371. This will be a horizontal well in a pool with no special rules for setback, so the setback requirements under Rule 19.15.15.9 (A) and 19.15.16.15 (B) would apply. The proposed producing interval is outside of the proposed Producing Area but within the proposed Project Area and will be drilled as follows:

Surface – 1989 FNL 150 FEL Ut H Sec 29 T24S R29E
Top Perforation – 1342 FNL 340 FEL Ut H Sec 29 T24S R29E
Bottom Perforation – 1336 FNL 340 FWL Ut E Sec 29 T24S R29E
Bottom Hole –1336 FNL 160 FWL Ut E Sec 29 T24S R29E

The adjoining spacing units are located in Section 28 - Units D, E, L; Section 29 – Units A, B, C, D, E, F, G, H, I, J, K, L; Section 30 – Units A, H, I.

Approval of the unorthodox producing interval will allow for efficient spacing of horizontal wells and thereby prevent waste.

To support this request, the following information has been submitted for your review:
1. Application for Permit to Drill.
2. C-102 Plat for the proposed well and additional plats with offsetting well and affected spacing units.
3. List of affected offset parties that adjoin the non-standard well along with a copy of the certified returned receipts. Copies of the signed certified receipts will be furnished upon request.
4. Proposed Directional Survey

If you need any additional information, please call me at 432-685-5717.

Sincerely,

David Stewart
Sr. Regulatory Advisor
OXY USA Inc.

Attachments

CC: NMOCD-Artesia, BLM-Carlsbad, Service List

OXY USA Inc.

PO Box 50250
Midland, TX 79710-0250

December 21, 2015

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Re: ***Application for Administrative Approval of Non-Standard Location –***
Cedar Canyon 29 Federal #21H - Pierce Crossing Bone Spring
Surface – 1989 FNL 150 FEL Ut H Sec 29 T24S R29E
Top Perforation – 1342 FNL 340 FEL Ut H Sec 29 T24S R29E
Bottom Perforation – 1336 FNL 340 FWL Ut E Sec 29 T24S R29E
Bottom Hole –1336 FNL 160 FWL Ut E Sec 29 T24S R29E
Eddy County, New Mexico

Ladies and Gentlemen:

Enclosed is a copy of an application, filed with the New Mexico Oil Conservation Division by OXY USA Inc., requesting administrative approval for a non-standard location. As an affected party, notice is being provided to you pursuant to Rule 19.15.15.9 (A) and 19.15.16.15 (B). The well is located as follows:

Surface – 1989 FNL 150 FEL Ut H Sec 29 T24S R29E
Top Perforation – 1342 FNL 340 FEL Ut H Sec 29 T24S R29E
Bottom Perforation – 1336 FNL 340 FWL Ut E Sec 29 T24S R29E
Bottom Hole –1336 FNL 160 FWL Ut E Sec 29 T24S R29E

If you object to the well's location, you must notify the Division in writing no later than 20 days from the date the application is received by the NMOCD (1220 South St. Francis Drive, Santa Fe, NM 87505; Attention: Leonard Lowe).

If you need any additional information, please call me at 432-685-5717.

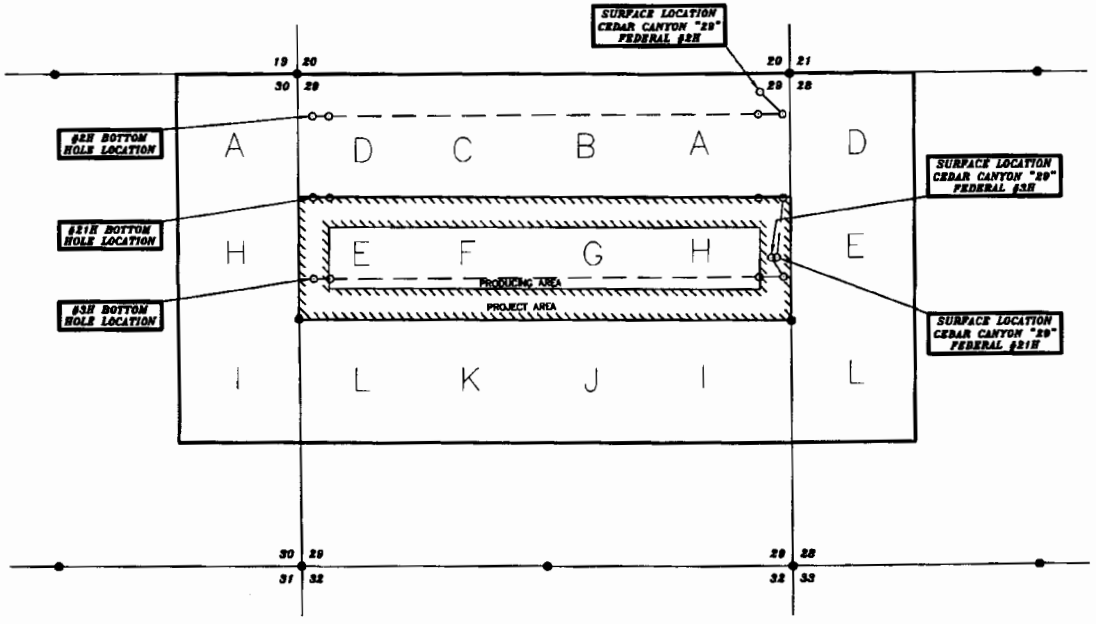
Sincerely,

David Stewart
Sr. Regulatory Advisor
OXY USA Inc.

Attachments

OXY USA INC.

CEDAR CANYON "29" FEDERAL #2H, #3H & #21H
SECTIONS 28, 29 & 30, TOWNSHIP 24 SOUTH,
RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO



Asel Surveying

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

2000' 0 2000' 4000' FEET

SCALE: 1"=2000'

WO# 151218NSL

Form 3160-3
(August 2007)

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM94651

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

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

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
CEDAR CANYON 29 FEDERAL 21H

2. Name of Operator
OXY USA INC.

Contact: DAVID STEWART
E-Mail: david_stewart@oxy.com

9. API Well No.

3a. Address
P.O. BOX 50250
MIDLAND, TX 79710

3b. Phone No. (include area code)
Ph: 432-685-5717
Fx: 432-685-5742

10. Field and Pool, or Exploratory
PIERCE CROSSING BN SPRG

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface SENE 1989FNL 150FEL 32.190086 N Lat, 103.998072 W Lon

At proposed prod. zone SWNW 1336FNL 160FWL 32.191971 N Lat, 104.014178 W Lon

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 29 T24S R29E Mer

14. Distance in miles and direction from nearest town or post office*
6 MILES NORTHEAST FROM LOVING, NM

12. County or Parish
EDDY

13. State
NM

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
651

16. No. of Acres in Lease
1400.00

17. Spacing Unit dedicated to this well
160.00

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
30

19. Proposed Depth
13510 MD
8547 TVD

20. BLM/BIA Bond No. on file
ESB00226

21. Elevations (Show whether DF, KB, RT, GL, etc.
2948 GL

22. Approximate date work will start
01/20/2016

23. Estimated duration
35

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (Printed/Typed)	Date
(Electronic Submission)	DAVID STEWART Ph: 432-685-5717	12/17/2015

Title
SR. REGULATORY ADVISOR

Approved by (Signature)	Name (Printed/Typed)	Date

Title	Office

Application approval does not warrant or certify 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.

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.

Additional Operator Remarks (see next page)

Electronic Submission #326721 verified by the BLM Well Information System
For OXY USA INC., sent to the Carlsbad

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional Operator Remarks:

OXY USA Inc. respectfully requests approval for the following APD:

This well will be on a multi-well pad to accommodate batch drilling with skidding operations. An EA has already been done on the pad and one of the wells has an approved APD, the Cedar Canyon 29 Federal #3H, API No. 30-015-42993.

See attached for the following:

1. APD Drilling Plan
2. Surface Use Plan of Operations
3. Plats/surveys/diagrams
4. Directional Drilling Plan
5. BOP Diagrams
6. Choke Manifold Diagrams
7. Closed Loop Diagrams
8. Flex Hose Information
9. H2S Plan
10. Staking Notice
11. Operator Certification

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ *AMENDED REPORT*

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-	50371	Pierce Crossing Bone Spring

Property Code	Property Name	Well Number
314329	CEDAR CANYON "29" FEDERAL	21H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	2948.5'

Surface Location

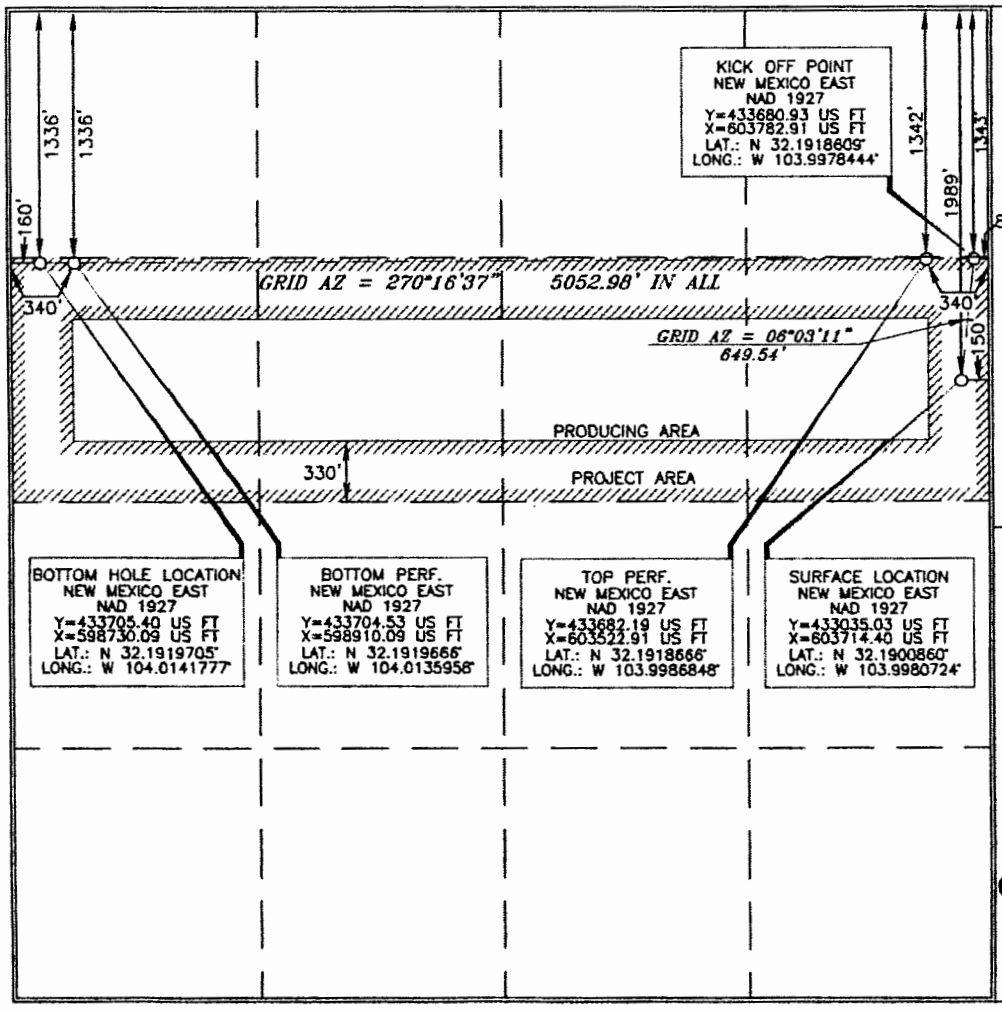
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	29	24 SOUTH	29 EAST, N.M.P.M.		1989'	NORTH	150'	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	29	24 SOUTH	29 EAST, N.M.P.M.		1336'	NORTH	160'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160	Y		

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

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

Signature — Date: 12/15/15

David Stewart Sr. Reg Adv
Printed Name

david_stewart@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

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

OCTOBER 19, 2015
Date of Survey

Signature and Seal of Professional Surveyor

NEW MEXICO — 15079 — REGISTERED PROFESSIONAL LAND SURVEYOR

10/22/2015

Certificate Number 15079

WO# 151019WL-b (KA)

DP-1

Schlumberger Plan Rev0 **OXY**

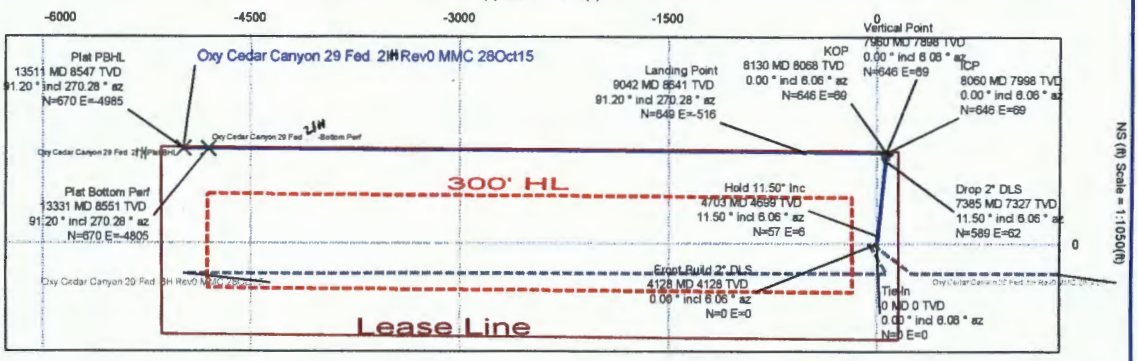
Borehole:	Well:	Field:	Structure:
Orig, Borehole	Cedar Canyon 29 Fed. 2H	NM Eddy County (NAD 27)	H&P 615

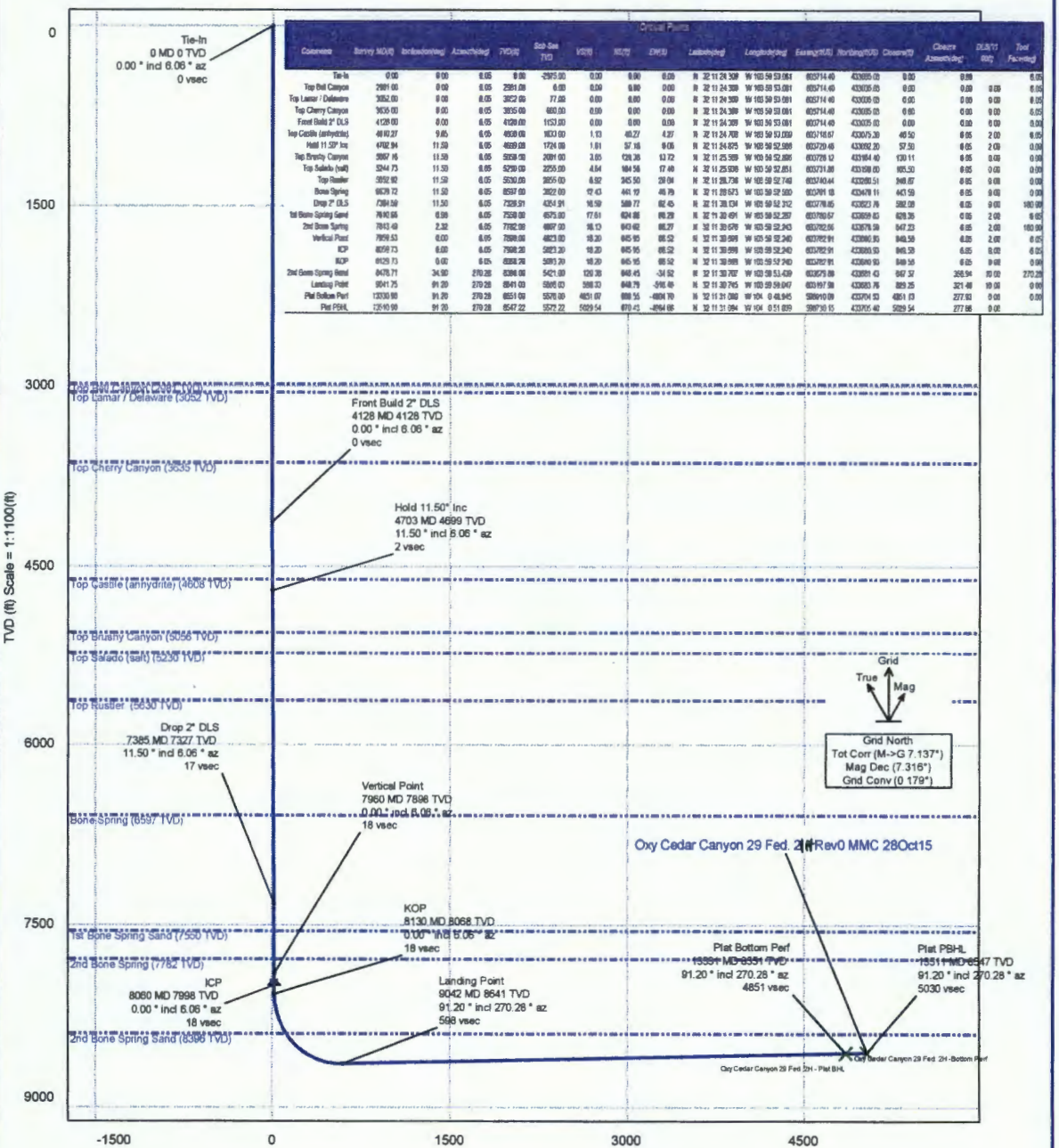
Gravity & Magnetic Parameters
Model: HDGM 2015 Dip: 60.04° Date: 28-Oct-2015
MagDec: 7.316° FS: 48286.807nT Gravity FS: 998.464mgn (9.80665 Based)

Surface Location NAD27 New Mexico State Plane, Eastern Zone, US Feet
Lat: N 32 11 34.31 Northing: 433035.03ftUS Grid Conv: 0.179°
Lon: W 103 59 53.06 Easting: 803714.46ftUS Scale Fact: 0.99992141

Miscellaneous
Slot: Oxy Cedar Canyon 29 Fed. 2H TVD Ref: RKB(2978ft above MSL)
Plan: Oxy Cedar Canyon 29 Fed. 2H Rev0 MMC 28Oct15

EW (ft) Scale = 1:1050(ft)





Critical Points

Comment	Survey MD(ft)	Incl(deg)	Azm(deg)	TVD(ft)	Sub-Sea TVD	VS(ft)	NS(ft)	EW(ft)	Latitude(deg)	Longitude(deg)	Easting(ftUS)	Northing(ftUS)	Closure(ft)	Closure Azimuth(deg)	DLS(°/100 ft)	Tool Face(deg)
Tie-In	0.00	0.00	0.00	0.00	-2978.00	0.00	0.00	0.00	N 32 11 34.308	W 103 59 53.061	803714.46	433035.03	0.00	0.00		0.00
Top Bell Canyon	2981.00	0.00	0.00	2981.00	3.00	0.00	0.00	0.00	N 32 11 34.308	W 103 59 53.061	803714.46	433035.03	0.00	0.00	0.00	0.00
Top Lamar / Delaware	3052.00	0.00	0.00	3052.00	77.00	0.00	0.00	0.00	N 32 11 34.308	W 103 59 53.061	803714.46	433035.03	0.00	0.00	0.00	0.00
Top Cherry Canyon	3635.00	0.00	0.00	3635.00	660.00	0.00	0.00	0.00	N 32 11 34.308	W 103 59 53.061	803714.46	433035.03	0.00	0.00	0.00	0.00
Front Build 2° DLS	4128.00	0.00	0.00	4128.00	1153.00	0.00	0.00	0.00	N 32 11 34.308	W 103 59 53.061	803714.46	433035.03	0.00	0.00	0.00	0.00
Top Castile (anhydrite)	4610.27	9.65	0.00	4608.00	1630.00	1.13	49.27	4.37	N 32 11 34.708	W 103 59 53.059	803718.67	433075.30	49.50	0.05	2.00	0.00
Hold 11.50° Inc	4702.94	11.50	0.00	4699.00	1724.00	1.81	57.16	5.05	N 32 11 34.875	W 103 59 52.988	803729.46	433092.20	57.50	0.05	2.00	0.00
Top Brushy Canyon	5067.16	11.50	0.00	5058.00	2081.00	3.05	126.26	11.22	N 32 11 35.939	W 103 59 52.886	803778.12	433164.40	130.11	0.05	0.00	0.00
Top Salado (salt)	5244.73	11.50	0.00	5250.00	2255.00	4.64	184.56	17.49	N 32 11 35.936	W 103 59 52.851	803731.88	433168.00	185.50	0.05	0.00	0.00
Top Rustler	5892.92	11.50	0.00	5630.00	2655.00	6.92	345.50	29.04	N 32 11 33.736	W 103 59 52.748	803740.44	433280.51	348.67	0.05	0.00	0.00
Bone Spring	6629.72	11.50	0.00	6597.00	3622.00	12.43	441.19	46.79	N 32 11 33.673	W 103 59 52.580	803761.18	433478.11	443.59	0.05	0.00	0.00
Drop 2° DLS	7384.58	11.50	0.00	7326.91	4354.91	16.59	589.77	62.45	N 32 11 33.634	W 103 59 52.312	803778.85	433623.76	592.08	0.05	0.00	180.00
1st Bone Spring Sand	7840.66	0.00	0.00	7550.00	4575.00	17.61	624.86	66.28	N 32 11 33.491	W 103 59 52.257	803780.67	433659.83	628.36	0.05	2.00	0.00
2nd Bone Spring	7843.48	2.32	0.00	7782.00	4807.00	18.10	643.62	66.27	N 32 11 33.479	W 103 59 52.243	803782.66	433678.59	647.23	0.05	2.00	180.00
Vertical Point	7959.53	0.00	0.00	7898.00	4923.00	18.20	645.95	66.52	N 32 11 33.998	W 103 59 52.240	803782.91	433960.93	949.58	0.05	2.00	0.00
KOP	8059.73	6.00	0.00	7998.20	5023.20	18.20	645.95	66.52	N 32 11 33.998	W 103 59 52.240	803782.91	433960.93	949.58	6.05	6.00	0.00
ICP	8129.73	0.00	0.00	8068.20	5093.20	18.20	645.95	66.52	N 32 11 33.998	W 103 59 52.240	803782.91	433960.93	949.58	6.05	6.00	0.00
2nd Bone Spring Sand	8478.71	34.90	270.28	8396.00	5421.00	120.38	648.45	-34.52	N 32 11 33.707	W 103 59 53.439	803675.89	433881.43	947.57	358.94	10.00	270.28
Landing Point	9041.75	91.20	270.28	8541.00	5566.00	598.33	648.79	-516.46	N 32 11 33.745	W 103 59 59.047	803197.58	433883.76	989.25	321.48	10.00	0.00
Plat Bottom Perf	13330.98	91.20	270.28	8551.00	5576.00	4851.07	668.55	-4804.70	N 32 11 31.080	W 104 0 48.945	798910.09	433704.53	4851.03	277.93	0.00	0.00
Plat PBHL	13510.98	91.20	270.28	8547.22	5572.22	5029.54	670.45	-4984.68	N 32 11 31.084	W 104 0 51.839	798730.15	433705.40	5029.54	277.88	0.00	

Vertical Section (ft) Azim = 277.66° Scale = 1:1100(ft) Origin = 0N/-S, 0E/-W

DP-2

Schlumberger

Oxy Cedar Canyon 29 Fed. 21H Rev0 MMC 28Oct15 Proposal Geodetic Report

(Non-Def Plan)

Report Date:	October 28, 2015 - 02:11 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	OXY	**Vertical Section Azimuth:**	277.660 ° (Grid North)
Field:	NM Eddy County (NAD 27)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Oxy Cedar Canyon 29 Fed. 21H / Oxy Cedar Canyon 29 Fed. 21H	**TVD Reference Datum:**	RKB
Well:	Oxy Cedar Canyon 29 Fed. 21H	**TVD Reference Elevation:**	2975.000 ft above MSL
Borehole:	Oxy Cedar Canyon 29 Fed. 21H- Orig, Borehole	**Seabed / Ground Elevation:**	2948.500 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.316 °
Survey Name:	Oxy Cedar Canyon 29 Fed. 21H Rev0 MMC 28Oct15	**Total Gravity Field Strength:**	998.4640mgn (9.80665 Based)
Survey Date:	October 28, 2015	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	114.200 ° / 5702.806 ft / 6.008 / 0.660	**Total Magnetic Field Strength:**	48286.507 nT
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	60.040 °
Location Lat / Long:	N 32° 11' 24.30949", W 103° 59' 53.06050"	**Declination Date:**	October 28, 2015
Location Grid N/E Y/X:	N 433035.030 ftUS, E 603714.400 ftUS	**Magnetic Declination Model:**	HDGM 2015
CRS Grid Convergence Angle:	0.1786 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99992141	**Grid Convergence Used:**	0.1786 °
Version / Patch:	2.8.572.0	**Total Corr Mag North->Grid North:**	7.1379 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Tie-In	0.00	0.00	6.05	0.00	-2975.00	0.00	0.00	0.00	N/A	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
Front Build 2° DLS	4128.00	0.00	6.05	4128.00	1153.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
Hold 11.50° Inc	4702.94	11.50	6.05	4699.09	1724.09	1.61	57.18	6.06	2.00	433092.20	603720.46	N 32 11 24.88	W 103 59 52.99
Drop 2° DLS	7384.59	11.50	6.05	7326.91	4351.91	16.59	588.77	62.45	0.00	433623.76	603776.85	N 32 11 30.13	W 103 59 52.31
Vertical Point	7959.53	0.00	6.05	7898.00	4923.00	18.20	645.95	68.52	2.00	433680.93	603782.91	N 32 11 30.70	W 103 59 52.24
KOP	8129.73	0.00	6.05	8068.20	5093.20	18.20	645.95	68.52	0.00	433680.93	603782.91	N 32 11 30.70	W 103 59 52.24
Landing Point	9041.75	91.20	270.28	8641.03	5666.03	598.33	648.79	-516.46	10.00	433683.76	603197.98	N 32 11 30.75	W 103 59 59.05
Plat Bottom Perf	13330.98	91.20	270.28	8551.00	5576.00	4851.07	669.55	-4804.70	0.00	433704.53	598910.09	N 32 11 31.08	W 104 0 48.95
Plat PBHL	13510.98	91.20	270.28	8547.22	5572.22	5029.54	670.43	-4984.66	0.00	433705.40	598730.15	N 32 11 31.09	W 104 0 51.04

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/100.000	30.000	30.000	SLB_MWD-STD_HDGM-Depth Only	Oxy Cedar Canyon 29 Fed. 21H- Orig, Borehole / Oxy Cedar Canyon 29 Fed. 21H Rev0 MMC 28Oct15
	1	26.500	13510.985	1/100.000	30.000	30.000	SLB_MWD-STD_HDGM	Oxy Cedar Canyon 29 Fed. 21H- Orig, Borehole / Oxy Cedar

DP-3

Schlumberger

Oxy Cedar Canyon 29 Fed. 21H Rev0 MMC 28Oct15 Proposal Geodetic Report

(Non-Def Plan)

Report Date:	October 28, 2015 - 02:12 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	OXY	**Vertical Section Azimuth:**	277.660 ° (Grid North)
Field:	NM Eddy County (NAD 27)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Oxy Cedar Canyon 29 Fed. 21H / Oxy Cedar Canyon 29 Fed. 21H	**TVD Reference Datum:**	RKB
Well:	Oxy Cedar Canyon 29 Fed. 21H	**TVD Reference Elevation:**	2975.000 ft above MSL
Borehole:	Oxy Cedar Canyon 29 Fed. 21H- Orig, Borehole	**Seabed / Ground Elevation:**	2948.500 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.316 °
Survey Name:	Oxy Cedar Canyon 29 Fed. 21H Rev0 MMC 28Oct15	**Total Gravity Field Strength:**	998.4640mgn (9.80665 Based)
Survey Date:	October 28, 2015	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	114.200 ° / 5702.806 ft / 6.008 / 0.660	**Total Magnetic Field Strength:**	48286.507 nT
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	60.040 °
Location Lat / Long:	N 32° 11' 24.30949", W 103° 59' 53.06050"	**Declination Date:**	October 28, 2015
Location Grid N/E Y/X:	N 433035.030 ftUS, E 603714.400 ftUS	**Magnetic Declination Model:**	HDGM 2015
CRS Grid Convergence Angle:	0.1786 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99992141	**Grid Convergence Used:**	0.1786 °
Version / Patch:	2.8.572.0	**Total Corr Mag North->Grid North:**	7.1379 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Tie-In	0.00	0.00	6.05	0.00	-2975.00	0.00	0.00	0.00	N/A	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	100.00	0.00	6.05	100.00	-2875.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	200.00	0.00	6.05	200.00	-2775.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	300.00	0.00	6.05	300.00	-2675.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	400.00	0.00	6.05	400.00	-2575.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	500.00	0.00	6.05	500.00	-2475.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	600.00	0.00	6.05	600.00	-2375.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	700.00	0.00	6.05	700.00	-2275.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	800.00	0.00	6.05	800.00	-2175.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	900.00	0.00	6.05	900.00	-2075.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	1000.00	0.00	6.05	1000.00	-1975.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	1100.00	0.00	6.05	1100.00	-1875.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	1200.00	0.00	6.05	1200.00	-1775.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	1300.00	0.00	6.05	1300.00	-1675.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	1400.00	0.00	6.05	1400.00	-1575.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	1500.00	0.00	6.05	1500.00	-1475.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	1600.00	0.00	6.05	1600.00	-1375.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	1700.00	0.00	6.05	1700.00	-1275.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	1800.00	0.00	6.05	1800.00	-1175.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	1900.00	0.00	6.05	1900.00	-1075.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	2000.00	0.00	6.05	2000.00	-975.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	2100.00	0.00	6.05	2100.00	-875.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	2200.00	0.00	6.05	2200.00	-775.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	2300.00	0.00	6.05	2300.00	-675.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	2400.00	0.00	6.05	2400.00	-575.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	2500.00	0.00	6.05	2500.00	-475.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	2600.00	0.00	6.05	2600.00	-375.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	2700.00	0.00	6.05	2700.00	-275.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	2800.00	0.00	6.05	2800.00	-175.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	2900.00	0.00	6.05	2900.00	-75.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
Top Bell Canyon	*2981.00*	*0.00*	*6.05*	*2981.00*	*6.00*	*0.00*	*0.00*	*0.00*	*0.00*	*433035.03*	*603714.40*	*N 32 11 24.31*	*W 103 59 53.06*
	3000.00	0.00	6.05	3000.00	25.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
Top Lamar / Delaware	*3052.00*	*0.00*	*6.05*	*3052.00*	*77.00*	*0.00*	*0.00*	*0.00*	*0.00*	*433035.03*	*603714.40*	*N 32 11 24.31*	*W 103 59 53.06*
	3100.00	0.00	6.05	3100.00	125.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	3200.00	0.00	6.05	3200.00	225.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	3300.00	0.00	6.05	3300.00	325.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	3400.00	0.00	6.05	3400.00	425.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	3500.00	0.00	6.05	3500.00	525.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	3600.00	0.00	6.05	3600.00	625.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
Top Cherry Canyon	*3635.00*	*0.00*	*6.05*	*3635.00*	*660.00*	*0.00*	*0.00*	*0.00*	*0.00*	*433035.03*	*603714.40*	*N 32 11 24.31*	*W 103 59 53.06*
	3700.00	0.00	6.05	3700.00	725.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	3800.00	0.00	6.05	3800.00	825.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	3900.00	0.00	6.05	3900.00	925.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	4000.00	0.00	6.05	4000.00	1025.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	4100.00	0.00	6.05	4100.00	1125.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
Front Build 2° DLS	4128.00	0.00	6.05	4128.00	1153.00	0.00	0.00	0.00	0.00	433035.03	603714.40	N 32 11 24.31	W 103 59 53.06
	4200.00	1.44	6.05	4199.99	1224.99	0.03	0.90	0.10	2.00	433035.93	603714.50	N 32 11 24.32	W 103 59 53.06
	4300.00	3.44	6.05	4299.90	1324.90	0.14	5.13	0.54	2.00	433040.16	603714.94	N 32 11 24.36	W 103 59 53.05
	4400.00	5.44	6.05	4399.59	1424.59	0.36	12.83	1.36	2.00	433047.86	603715.76	N 32 11 24.44	W 103 59 53.04
	4500.00	7.44	6.05	4498.96	1523.96	0.68	23.98	2.54	2.00	433059.01	603716.94	N 32 11 24.55	W 103 59 53.03
	4600.00	9.44	6.05	4597.87	1622.87	1.09	38.58	4.09	2.00	433073.61	603718.49	N 32 11 24.69	W 103 59 53.01
Top Castile (anhydrite)	*4610.27*	*9.65*	*6.05*	*4608.00*	*1633.00*	*1.13*	*40.27*	*4.27*	*2.00*	*433075.30*	*603718.67*	*N 32 11 24.71*	*W 103 59 53.01*
	4700.00	11.44	6.05	4696.21	1721.21	1.59	56.60	6.00	2.00	433091.62	603720.40	N 32 11 24.87	W 103 59 52.99
Hold 11.50° Inc	4702.94	11.50	6.05	4699.09	1724.09	1.61	57.18	6.06	2.00	433092.20	603720.46	N 32 11 24.88	W 103 59 52.99
	4800.00	11.50	6.05	4794.20	1819.20	2.15	76.42	8.11	0.00	433111.44	603722.51	N 32 11 25.07	W 103 59 52.96
	4900.00	11.50	6.05	4892.19	1917.19	2.71	96.24	10.21	0.00	433131.27	603724.61	N 32 11 25.26	W 103 59 52.94
	5000.00	11.50	6.05	4990.19	2015.19	3.27	116.07	12.31	0.00	433151.09	603726.71	N 32 11 25.46	W 103 59 52.91
Top Brushy Canyon	*5067.16*	*11.50*	*6.05*	*5056.00*	*2081.00*	*3.65*	*129.38*	*13.72*	*0.00*	*433164.40*	*603728.12*	*N 32 11 25.59*	*W 103 59 52.90*
	5100.00	11.50	6.05	5088.18	2113.18	3.83	135.89	14.41	0.00	433170.91	603728.81	N 32 11 25.65	W 103 59 52.89
	5200.00	11.50	6.05	5186.17	2211.17	4.39	155.71	16.52	0.00	433190.73	603730.92	N 32 11 25.85	W 103 59 52.86
Top Salado (salt)	*5244.73*	*11.50*	*6.05*	*5230.00*	*2255.00*	*4.64*	*164.58*	*17.46*	*0.00*	*433199.60*	*603731.86*	*N 32 11 25.94*	*W 103 59 52.85*

DP-4

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	5300.00	11.50	6.05	5284.16	2309.16	4.95	175.54	18.62	0.00	433210.55	603733.02	N 32 11 26.05	W 103 59 52.84
	5400.00	11.50	6.05	5382.16	2407.16	5.50	195.36	20.72	0.00	433230.37	603735.12	N 32 11 26.24	W 103 59 52.81
	5500.00	11.50	6.05	5480.15	2505.15	6.06	215.18	22.82	0.00	433250.20	603737.22	N 32 11 26.44	W 103 59 52.79
	5600.00	11.50	6.05	5578.14	2603.14	6.62	235.01	24.93	0.00	433270.02	603739.32	N 32 11 26.63	W 103 59 52.76
Top Rustler	*5652.92*	*11.50*	*6.05*	*5630.00*	*2655.00*	*6.92*	*245.50*	*26.04*	*0.00*	*433280.51*	*603740.44*	*N 32 11 26.74*	*W 103 59 52.75*
	5700.00	11.50	6.05	5676.14	2701.14	7.18	254.83	27.03	0.00	433289.84	603741.43	N 32 11 26.83	W 103 59 52.74
	5800.00	11.50	6.05	5774.13	2799.13	7.74	274.65	29.13	0.00	433309.66	603743.53	N 32 11 27.03	W 103 59 52.71
	5900.00	11.50	6.05	5872.12	2897.12	8.30	294.48	31.23	0.00	433329.48	603745.63	N 32 11 27.22	W 103 59 52.69
	6000.00	11.50	6.05	5970.12	2995.12	8.86	314.30	33.34	0.00	433349.31	603747.73	N 32 11 27.42	W 103 59 52.66
	6100.00	11.50	6.05	6068.11	3093.11	9.41	334.12	35.44	0.00	433369.13	603749.84	N 32 11 27.61	W 103 59 52.64
	6200.00	11.50	6.05	6166.10	3191.10	9.97	353.95	37.54	0.00	433388.95	603751.94	N 32 11 27.81	W 103 59 52.61
	6300.00	11.50	6.05	6264.09	3289.09	10.53	373.77	39.65	0.00	433408.77	603754.04	N 32 11 28.01	W 103 59 52.59
	6400.00	11.50	6.05	6362.09	3387.09	11.09	393.59	41.75	0.00	433428.59	603756.14	N 32 11 28.20	W 103 59 52.56
	6500.00	11.50	6.05	6460.08	3485.08	11.65	413.42	43.85	0.00	433448.41	603758.25	N 32 11 28.40	W 103 59 52.54
	6600.00	11.50	6.05	6558.07	3583.07	12.21	433.24	45.95	0.00	433468.24	603760.35	N 32 11 28.60	W 103 59 52.51
Bone Spring	*6639.72*	*11.50*	*6.05*	*6597.00*	*3622.00*	*12.43*	*441.12*	*46.79*	*0.00*	*433476.11*	*603761.18*	*N 32 11 28.67*	*W 103 59 52.50*
	6700.00	11.50	6.05	6656.07	3681.07	12.77	453.06	48.06	0.00	433488.06	603762.45	N 32 11 28.79	W 103 59 52.48
	6800.00	11.50	6.05	6754.06	3779.06	13.32	472.89	50.16	0.00	433507.88	603764.55	N 32 11 28.99	W 103 59 52.46
	6900.00	11.50	6.05	6852.05	3877.05	13.88	492.71	52.26	0.00	433527.70	603766.66	N 32 11 29.18	W 103 59 52.43
	7000.00	11.50	6.05	6950.04	3975.04	14.44	512.54	54.36	0.00	433547.52	603768.76	N 32 11 29.38	W 103 59 52.41
	7100.00	11.50	6.05	7048.04	4073.04	15.00	532.36	56.47	0.00	433567.35	603770.86	N 32 11 29.58	W 103 59 52.38
	7200.00	11.50	6.05	7146.03	4171.03	15.56	552.18	58.57	0.00	433587.17	603772.96	N 32 11 29.77	W 103 59 52.36
	7300.00	11.50	6.05	7244.02	4269.02	16.12	572.01	60.67	0.00	433606.99	603775.07	N 32 11 29.97	W 103 59 52.33
Drop 2° DLS	7384.59	11.50	6.05	7328.91	4351.91	16.59	588.77	62.45	0.00	433623.76	603776.85	N 32 11 30.13	W 103 59 52.31
	7400.00	11.19	6.05	7342.02	4367.02	16.67	591.79	62.77	2.00	433626.77	603777.17	N 32 11 30.16	W 103 59 52.31
	7500.00	9.19	6.05	7440.44	4465.44	17.17	609.38	64.64	2.00	433644.36	603779.03	N 32 11 30.34	W 103 59 52.29
	7600.00	7.19	6.05	7539.42	4564.42	17.57	623.55	66.14	2.00	433658.53	603780.53	N 32 11 30.48	W 103 59 52.27
1st Bone Spring Sand	*7610.66*	*6.98*	*6.05*	*7550.00*	*4575.00*	*17.61*	*624.86*	*66.28*	*2.00*	*433659.83*	*603780.67*	*N 32 11 30.49*	*W 103 59 52.27*
	7700.00	5.19	6.05	7638.83	4663.83	17.87	634.27	67.28	2.00	433669.25	603781.67	N 32 11 30.58	W 103 59 52.25
	7800.00	3.19	6.05	7738.56	4763.56	18.08	641.54	68.05	2.00	433676.51	603782.44	N 32 11 30.66	W 103 59 52.25
2nd Bone Spring	*7843.49*	*2.32*	*6.05*	*7782.00*	*4807.00*	*18.13*	*643.62*	*68.27*	*2.00*	*433678.59*	*603782.66*	*N 32 11 30.68*	*W 103 59 52.24*
	7900.00	1.19	6.05	7838.48	4863.48	18.18	645.34	68.45	2.00	433680.32	603782.84	N 32 11 30.69	W 103 59 52.24
Vertical Point	7959.53	0.00	6.05	7898.00	4923.00	18.20	645.95	68.52	2.00	433680.93	603782.91	N 32 11 30.70	W 103 59 52.24
	8000.00	0.00	6.05	7938.47	4963.47	18.20	645.95	68.52	0.00	433680.93	603782.91	N 32 11 30.70	W 103 59 52.24
ICP	*8059.73*	*0.00*	*6.05*	*7998.20*	*5023.20*	*18.20*	*645.95*	*68.52*	*0.00*	*433680.93*	*603782.91*	*N 32 11 30.70*	*W 103 59 52.24*
	8100.00	0.00	6.05	8038.47	5063.47	18.20	645.95	68.52	0.00	433680.93	603782.91	N 32 11 30.70	W 103 59 52.24
KOP	8129.73	0.00	6.05	8068.20	5093.20	18.20	645.95	68.52	0.00	433680.93	603782.91	N 32 11 30.70	W 103 59 52.24
	8200.00	7.03	270.28	8138.30	5163.30	22.47	645.97	64.21	10.00	433680.95	603778.61	N 32 11 30.70	W 103 59 52.29
	8300.00	17.03	270.28	8235.98	5260.98	43.11	646.07	43.40	10.00	433681.05	603757.80	N 32 11 30.70	W 103 59 52.53
	8400.00	27.03	270.28	8328.56	5353.56	80.25	646.26	5.94	10.00	433681.23	603720.34	N 32 11 30.70	W 103 59 52.97
2nd Bone Spring Sand	*8478.71*	*34.90*	*270.28*	*8396.00*	*5421.00*	*120.38*	*646.45*	*-34.52*	*10.00*	*433681.43*	*603679.88*	*N 32 11 30.71*	*W 103 59 53.44*
	8500.00	37.03	270.28	8413.23	5438.23	132.78	646.51	-47.02	10.00	433681.49	603667.38	N 32 11 30.71	W 103 59 53.58
	8600.00	47.03	270.28	8487.42	5512.42	199.09	646.84	-113.88	10.00	433681.81	603600.53	N 32 11 30.71	W 103 59 54.36
	8700.00	57.03	270.28	8548.87	5573.87	277.17	647.22	-192.61	10.00	433682.19	603521.80	N 32 11 30.72	W 103 59 55.28
	8800.00	67.03	270.28	8595.72	5620.72	364.64	647.64	-280.82	10.00	433682.62	603433.61	N 32 11 30.73	W 103 59 56.30
	8900.00	77.03	270.28	8626.53	5651.53	458.85	648.10	-375.82	10.00	433683.08	603338.61	N 32 11 30.73	W 103 59 57.41
	9000.00	87.03	270.28	8640.39	5665.39	556.94	648.58	-474.72	10.00	433683.56	603239.72	N 32 11 30.74	W 103 59 58.56
Landing Point	9041.75	91.20	270.28	8641.03	5666.03	598.33	648.79	-516.46	10.00	433683.76	603197.98	N 32 11 30.75	W 103 59 59.05
	9100.00	91.20	270.28	8639.81	5664.81	656.09	649.07	-574.69	0.00	433684.04	603139.75	N 32 11 30.75	W 103 59 59.72
	9200.00	91.20	270.28	8637.71	5662.71	755.23	649.55	-674.67	0.00	433684.53	603039.78	N 32 11 30.76	W 104 0 0.89
	9300.00	91.20	270.28	8635.61	5660.61	854.38	650.04	-774.65	0.00	433685.01	602939.81	N 32 11 30.77	W 104 0 2.05
	9400.00	91.20	270.28	8633.51	5658.51	953.53	650.52	-874.62	0.00	433685.50	602839.85	N 32 11 30.77	W 104 0 3.21
	9500.00	91.20	270.28	8631.41	5656.41	1052.68	651.00	-974.60	0.00	433685.98	602739.88	N 32 11 30.78	W 104 0 4.38
	9600.00	91.20	270.28	8629.31	5654.31	1151.83	651.49	-1074.58	0.00	433686.47	602639.91	N 32 11 30.79	W 104 0 5.54
	9700.00	91.20	270.28	8627.21	5652.21	1250.98	651.97	-1174.56	0.00	433686.95	602539.94	N 32 11 30.80	W 104 0 6.70
	9800.00	91.20	270.28	8625.12	5650.12	1350.13	652.46	-1274.53	0.00	433687.43	602439.97	N 32 11 30.80	W 104 0 7.87
	9900.00	91.20	270.28	8623.02	5648.02	1449.28	652.94	-1374.51	0.00	433687.92	602340.00	N 32 11 30.81	W 104 0 9.03
	10000.00	91.20	270.28	8620.92	5645.92	1548.43	653.43	-1474.49	0.00	433688.40	602240.03	N 32 11 30.82	W 104 0 10.19
	10100.00	91.20	270.28	8618.82	5643.82	1647.58	653.91	-1574.46	0.00	433688.89	602140.06	N 32 11 30.83	W 104 0 11.36
	10200.00	91.20	270.28	8616.72	5641.72	1746.73	654.39	-1674.44	0.00	433689.37	602040.10	N 32 11 30.84	W 104 0 12.52
	10300.00	91.20	270.28	8614.62	5639.62	1845.87	654.88	-1774.42	0.00	433689.85	601940.13	N 32 11 30.84	W 104 0 13.68
	10400.00	91.20	270.28	8612.52	5637.52	1945.02	655.36	-1874.39	0.00	433690.34	601840.16	N 32 11 30.85	W 104 0 14.85
	10500.00	91.20	270.28	8610.42	5635.42	2044.17	655.85	-1974.37	0.00	433690.82	601740.19	N 32 11 30.86	W 104 0 16.01
	10600.00	91.20	270.28	8608.32	5633.32	2143.32	656.33	-2074.35	0.00	433691.31	601640.22	N 32 11 30.87	W 104 0 17.17
	10700.00	91.20	270.28	8606.22	5631.22	2242.47	656.81	-2174.32	0.00	433691.79	601540.25	N 32 11 30.88	W 104 0 18.34
	10800.00	91.20	270.28	8604.13	5629.13	2341.62	657.30	-2274.30	0.00	433692.28	601440.28	N 32 11 30.88	W 104 0 19.50
	10900.00	91.20	270.28	8602.03	5627.03	2440.77	657.78	-2374.28	0.00	433692.76	601340.31	N 32 11 30.89	W 104 0 20.66
	11000.00	91.20	270.28	8599.93	5624.93	2539.92	658.27	-2474.25	0.00	433693.24	601240.35	N 32 11 30.90	W 104 0 21.83
	11100.00	91.20	270.28	8597.83	5622.83	2639.07	658.75	-2574.23	0.00	433693.73	601140.38	N 32 11 30.91	W 104 0 22.99
	11200.00	91.20	270.28	8595.73	5620.73	2738.22	659.24	-2674.21	0.00	433694.21	601040.41	N 32 11 30.91	W 104 0 24.15
	11300.00	91.20	270.28	8593.63	5618.63	2837.37	659.72	-2774.18	0.00	433694.70	600940.44	N 32 11 30.92	W 104 0 25.32
	11400.00	91.20	270.28	8591.53	5616.53	2936.52	660.20	-2874.16	0.00	433695.18	600840.47	N 32 11 30.93	W 104 0 26.48
	11500.00	91.20	270.28	8589.43	5614.43	3035.66	660.69	-2974.14	0.00	433695.66	600740.50	N 32 11 30.94	W 104 0 27.64
	11600.00	91.20	270.28	8587.33	5612.33	3134.81	661.17	-3074.11	0.00	433696.15	600640.53	N 32 11 30.95	W 104 0 28.81
	11700.00	91.20	270.28	8585.23	5610.23	3233.96	661.66	-3174.09	0.00	433696.63	600540.56	N 32 11 30.95	W 104 0 29.97
	11800.00	91.20	270.28	8583.14	5608.14	3333.11	662.14	-3274.07	0.00	433697.12	600440.60	N 32 11 30.96	W 104 0 31.13
	11900.00	91.20	270.28	8581.04	5606.04	3432.26	662.63	-3374.04	0.00	433697.60	600340.63	N 32 11 30.97	W 104 0 32.30
	12000.00	91.20	270.28	8578.94	5603.94	3531.41	663.11	-3474.02	0.00	433698.09	600240.66	N 32 11 30.98	W 104 0 33.46
	12100.00	91.20	270.28	8576.84	5601.84	3630.56	663.59	-3574.00	0.00	433698.57	600140.69	N 32 11 30.98	W 104 0 34.62
	12200.00	91.20	270.28	8574.74	5599.74	3729.71	664.08	-3673.98	0.00	433699.05	600040.72	N 32 11 30.99	W 104 0 35.79
	12300.00	91.20	270.28	8572.64	5597.64	3828.86	664.56	-3773.95	0.00	433699.54	599940.75	N 32 11 31.00	W 104 0 36.95
	12400.00	91.20	270.28	8570.54	5595.54	3928.01	665.05	-3873.93	0.00	433700.02	599840.78	N 32 11 31.01	W 104 0 38.11
	12500.00	91.20	270.28	8568.44	5593.44	4027.16	665.53	-3973.91	0.00	433700.51	599740.81	N 32 11 31.02	W 104 0 39.28
	12600.00	91.20	270.28	8566.34	5591.34	4126.31	666.01	-4073.88	0.00	433700.99	599640.85	N 32 11 31.02	W 104 0 40.44
	12700.00	91.20	270.28	8564.24	5589.24	4225.45	666.50	-4173.86	0.00	433701.47	599540.88	N 32 11 31.03	W 104 0 41.60
	12800.00	91.20	270.28	8562.15	5587.15	4324.60	666.98	-4273.84	0.00	433701.96	599440.91	N 32 11 31.04	W 104 0 42.77
	12900.00	91.20	270.28	8560.05	5585.05	4423.75	667.47	-4373.81	0.00	433702.44	599340.94	N 32 11 31.05	W 104 0 43.93
	13000.00	91.20	270.28	8557.95	5582.95	4522.90	667.95	-4473.79	0.00	433702.93	599240.97	N 32 11 31.05	W 104 0 45.09
	13100.00	91.20	270.28	8555.85	5580.85	4622.05	668.44	-4573.77	0.00	433703.41	599141.00	N 32 11 31.06	W 104 0 46.26
	13200.00	91.20	270.28	8553.75	5578.75	4721.20	668.92	-4673.74	0.00	433703.90	599041.03	N 32 11 31.07	W 104 0 47.42
	13300.00	91.20	270.28	8551.65	5576.65	4820.35	669.40	-4773.72	0.00	433704.38	598941.06	N 32 11 31.08	W 104 0 48.58
Plat Bottom Perf	13330.98	91.20	270.28	8551.00	5576.00	4851.07	669.55	-4804.70	0.00	433704.53	598910.09	N 32 11 31.08	W 104 0 48.95
	13400.00	91.20	270.28	8549.55	5574.55	4919.50	669.89	-4873.70	0.00	433704.86	598841.10	N 32 11 31.09	W 104 0 49.75
	13500.00	91.20	270.28	8547.45	5572.45	5018.65	670.37	-4973.67	0.00	433705.35	598741.13	N 32 11 31.09	W 104 0 50.91
Plat PBHL	13510.98	91.20	270.28	8547.22	5572.22	5029.54	670.43	-4984.66	0.00	433705.40	598730.15	N 32 11 31.09	W 104 0 51.04

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey

DP-5

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
		1	0.000	26.500	1/100.000	30.000	30.000	SLB_MWD-STD_HDGM-Depth Only		Oxy Cedar Canyon 29 Fed. 21H-Orig, Borehole / Oxy Cedar Canyon 29 Fed. 21H Rev0 MMC 28Oct15			
		1	26.500	13510.985	1/100.000	30.000	30.000	SLB_MWD-STD_HDGM		Oxy Cedar Canyon 29 Fed. 21H-Orig, Borehole / Oxy Cedar			

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☑ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-42993	50371	Pierce Crossing; Bone Spring

Property Code	Property Name	Well Number
314329	CEDAR CANYON "29" FEDERAL	3H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	2948.5'

Surface Location

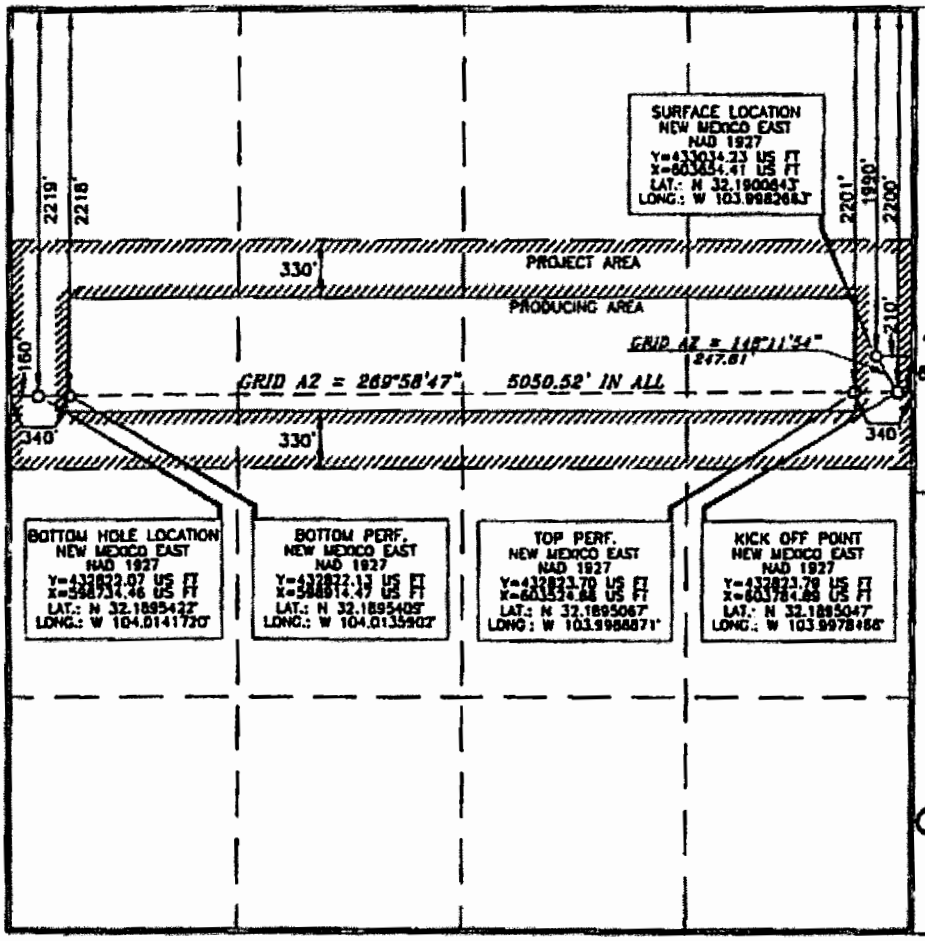
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	29	24 SOUTH	29 EAST, N.M.P.M.		1990'	NORTH	210'	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	29	24 SOUTH	29 EAST, N.M.P.M.		2219'	NORTH	160'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160	Y		

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

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

Signature — Date: 11/9/15

Printed Name: David Stewart Sr. Reg Adv.

E-mail Address: david_stewart@oxy.com

SURVEYOR CERTIFICATION

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

15079
OCTOBER 19, 2015
NEW MEXICO PROFESSIONAL LAND SURVEYOR

Date of Survey

Signature and Seal of Professional Surveyor

Certificate Number: 15079

WO# 151019WL-a (kk)

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

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

☑ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-42992	50371	Pierce Crossing Bone Spring

Property Code	Property Name	Well Number
314329	CEDAR CANYON "29" FEDERAL Com.	2H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	2949.3'

Surface Location

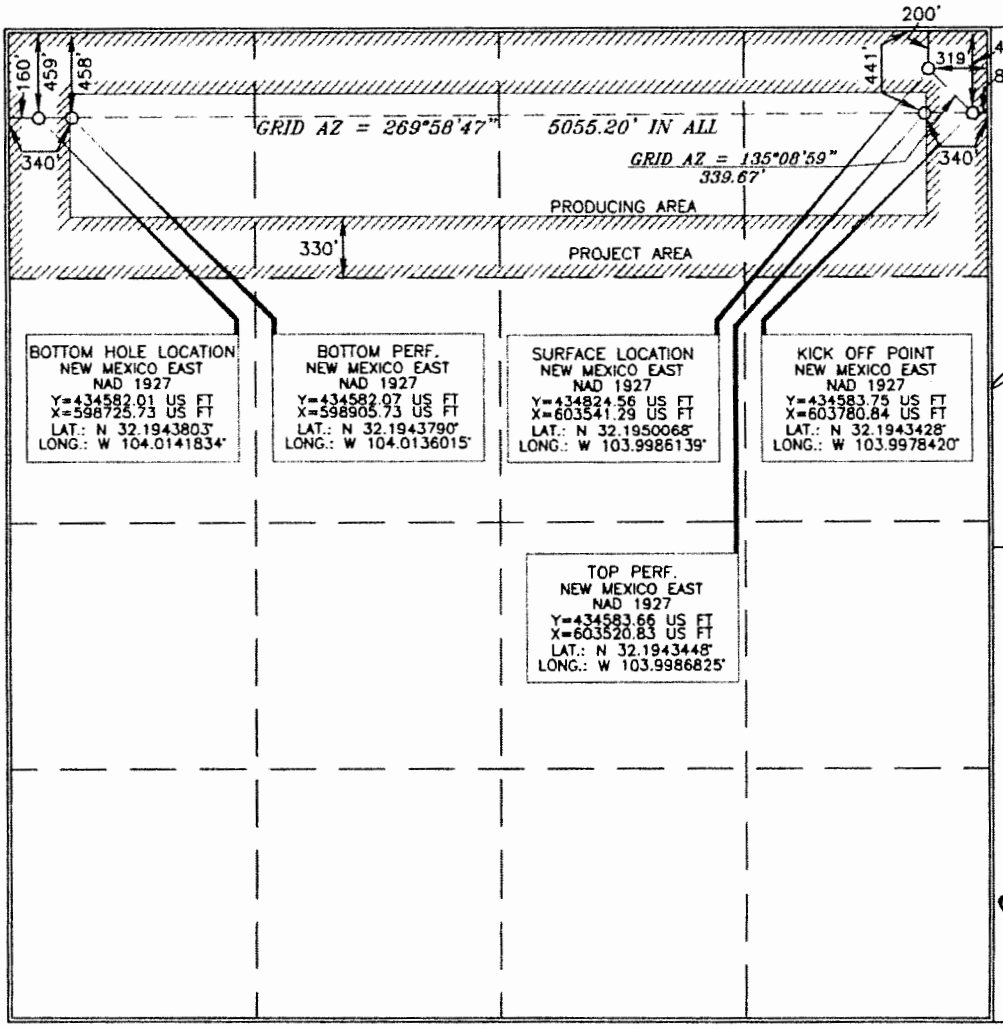
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	29	24 SOUTH	29 EAST, N.M.P.M.		200'	NORTH	319'	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	29	24 SOUTH	29 EAST, N.M.P.M.		459'	NORTH	160'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160	N		

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

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

Signature — Date: 12/10/15

David Stewart Sr. Reg. Adv.
Printed Name

david_stewart@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

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

OCTOBER 27, 2015
Date of Survey

Signature and Seal of Professional Surveyor

GERRY L. ASEL — NEW MEXICO — 15079 — REGISTERED PROFESSIONAL LAND SURVEYOR

10/29/2015

Certificate Number 15079

WO# 151027WL-d (KA)

Application Non-Standard Location - Service List
OXY USA Inc
Cedar Canyon 29 Federal #21H

New Mexico Oil Conservation Division
811 S. First St.
Artesia, NM 88210

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

United States Dept of Interior
Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88220

Section 28 - Unit D, E, L

OXY USA Inc
P.O. Box 50250
Midland, TX 79710

Section 29 - Units A, B, C, D, E, F, G, H, I, J, K, L

OXY USA Inc.
P.O. Box 50250
Midland, TX 79710

Judah Oil LLC
P.O. Box 568
Artesia, NM 88210

XTO Energy Inc.
810 Houston St.
Fort Worth, TX 76102

XTO Energy Inc.
P.O. Box 6501
Englewood, CO 80155

Section 30 - Units A, H, I

Mewbourne Oil Co.
P.O. Box 5270
Hobbs, NM 88241

Murchison Oil & Gas Inc.
7250 Dallas Pkwy, Ste 1400
Plano, TX 75024

Copies of this application were mailed to the following individuals, companies and organizations on or before 12/21/15.

David Stewart
OXY USA Inc.

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

NMOCD
1220 South St. Francis Dr.
Santa Fe, NM 87505

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Transfer from service label)* 7011 3500 0002 4988 4103

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

NMOCD
811 S. First St.
Artesia, NM 88210

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Transfer from service label)* 7011 3500 0002 4988 2031

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Judah Oil LLC
P.O. Box 568
Artesia, NM 88210

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Transfer from service label)* 7011 3500 0002 4988 4127

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

BLM
620 E. Greene St.
Carlsbad NM 88220

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Transfer from service label)* 7011 3500 0002 4988 4110

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

XTO Energy Inc.
P.O. Box 6501
Englewood, CO 80155

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7011 3500 0002 4988 4141

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Murchison Oil & Gas Inc.
7250 Dallas Pkwy Ste. 1400
Plano TX 75024

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7011 3500 0002 4988 4165

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

XTO Energy Inc.
810 Houston St.
Fort Worth, TX 76102

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7011 3500 0002 4988 4134

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Newhourne Oil Co.
P.O. Box 5270
Hobbs, NM 88241

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7011 3500 0002 4988 4158

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540