

Submit 1 Copy To Appropriate District
Office:
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87401
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

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

Form C-103
Revised July 18, 2013

WELL API NO. 30-025-41646
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. VO-4617-0002
7. Lease Name or Unit Agreement Name Ridge Runner 7 State
8. Well Number 1H
9. OGRID Number 16696
10. Pool name or Wildcat

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH
PROPOSALS.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐
2. Name of Operator OXY USA Inc.
3. Address of Operator P.O. Box 50250 Midland, TX 79710
4. Well Location Unit Letter <u>L</u> : <u>1700</u> feet from the <u>South</u> line and <u>165</u> feet from the <u>West</u> line Section <u>7</u> Township <u>22S</u> Range <u>33E</u> NMPM County <u>Lea</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3615.5' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: <u>Amend Approved APD</u> ☒		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

OXY USA Inc. respectfully requests to amend the APD for the Ridge Runner 7 State #1H, API No. 30-025-41646 with the following changes.

1. Amend the proposed TD to 10877'-TVD 15373'-TMD
2. Amend last take point and bottomhole location, see attached for the amended C-102 plat and directional drilling plan.
3. Amend the surface, intermediate and production casing, cementing and mud program due to a review of estimated geological markers, see attached.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE _____ TITLE Sr. Regulatory Advisor DATE _____

Type or print name David Stewart E-mail address: david_stewart@oxy.com PHONE: 432-685-5717

For State Use Only

APPROVED BY: [Signature] TITLE _____

Conditions of Approval (if any):

Petroleum Engineer

DATE 06/09/14

JUN 10 2014

Amended APD

Operator Name/Number: OXY USA Inc. 16696
 Lease Name/Number: Ridge Runner 7 State #1H 40380
 Pool Name/Number: Red Tank Bone Spring, East 51687
 Surface Location: 1700 FSL 165 FWL L Sec 7 T22S R33E State Lease No. V0-4617 0002
 Penetration Point: 1700 FSL 330 FWL L Sec 7 T22S R33E
 Last Take Point: 1700 FSL 330 FEL I Sec 7 T22S R33E
 Bottom Hole Location: 1700 FSL 180 FEL I Sec 7 T22S R33E

C-102 Plats: 1/2/14 1/14/14 6/5/14 Elevation: 3615.6' GL Objective: 2nd Bone Spring

Proposed TD: Horizontal Lateral 10877' TVD 15373' TMD
 SL - Lat: 32.4036696 Long: 103.6187957 X=720529.4 Y=511306.4 NAD - 1927
 PP - Lat: 32.4036690 Long: 103.6182612 X=720694.4 Y=511307.3 NAD - 1927
 LTP-Lat: 32.4036526 Long: 103.6036768 X=725195.7 Y=511331.7 NAD - 1927
 BH - Lat: 32.4036520 Long: 103.6031911 X=725345.7 Y=511332.5 NAD - 1927

Casing Program:

Hole Size	Interval	OD Csg	Weight	Collar	Grade	Condition	Collapse Design Factor	Burst Design Factor	Tension Design Factor
14-3/4"	0-1000'	11-3/4"	47	BT&C	J55	New	4.49	1.42	5.5
				Hole filled with 8.5# Mud			1514#	3072#	
10-5/8"	0-4750'	8-5/8"	32	LT&C	J-55	New	1.6	1.26	1.83
				Hole filled with 10.2# Mud			2533#	3928#	
7-7/8"	0-15373'	5-1/2"	17	BT&C	P-110	New	1.44	1.22	2.11
				Hole filled with 9.2# Mud			7480#	10640#	

Collapse and burst loads calculated using Stress Check with anticipated loads

Cement Program:

- 11-3/4" Surface Circulate cement to surface w/ 400sx PPC cmt w/ 1% CaCl₂ + 4% Bentonite + .25#/sx Poly-E-Flake, 13.5ppg 1.73 yield 888# 24hr CS 125% Excess followed by 250 PPC cmt w/ 1% CaCl₂, 14.8ppg 1.34 yield 1416# 24hr CS 125% Excess
- 8-5/8" Intermediate Circulate cement to surface w/ 1250sx HES Light PPC cmt w/ 5% salt + .125#/sx Poly-E-Flake + 2#/sx Kol-Seal, 12.9ppg 1.89 yield 700# 24hr CS 250% Excess followed by 330sx PPC cmt w/ 1% CaCl₂, 14.8ppg 1.33 yield 2100# 24hr CS 100% Excess
- 5-1/2" Production Cement w/ 750sx PP cmt w/ 9.8# Tuned Light Cmt + 3#/sx Kol-Seal + 0.125#/sx Poly-E-Flake + 0.25#/sx HR-800, 9.8ppg, 2.95 yield 900# 24hr CS 100% Excess followed by 1020sx Super H cmt w/ 3#/sx salt + .4% CFR-3 + .5% Halad-344 + .3% HR-800 + 0.125#/sx Poly-E-Flake, 13.2ppg 1.66 yield 620# 24hr CS 40% Excess. Calc TOC-0'

Description of Cement Additives: Calcium Chloride, Salt (Accelerator); Silicalite (Additive Material); CFR-3 (Dispersant); Bentonite, Schotchlite HGS-6000 (Light Weight Additive); Kol-Seal, Poly-E-Flake (Lost Circulation Additive); Halad-344 (Low Fluid Loss Control); HR-800 (Retarder)
 The above cement volumes could be revised pending the caliper measurement.

Proposed Mud Circulation System:

Depth	Mud Wt. ppg	Visc sec	Fluid Loss	Type System
0 - 1000'	8.5	28-38	NC	Fresh Water/Spud Mud
1000 - 4750'	10.2	28-32	NC	Fresh water/NaCl Brine
4750 - 15373'	9.2	32-50	<18	Cut Brine/Sweeps

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, water zones until such time as casing can be cemented into place for zonal isolation.

BOP Program:

Surface None
 Intermediate/Production 13-5/8" 10M three ram stack w/ 5M annular preventer, 5M Choke Manifold

Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

Geological Marker	Depth	Type
a. Rustler	950'	---
b. Top Salt	1090'	---
c. Bottom Salt	3850'	---
d. Base Anhydrite	4725'	---
e. Delaware	4725'	Formation
f. 1st Bone Spring	8600'	Oil/Gas
g. 2nd Bone Spring	9800'	Oil/Gas
h. 3rd Bone Spring	11950'	Oil/Gas

Fresh water may be present above the Rustler formation. Surface casing will be set below the top of the Rustler, which will cover potential fresh water sources.

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

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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

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-41646	Pool Code S1687	Pool Name Red Tank Bone Spring, East
Property Code 40380	Property Name RIDGE RUNNER "7" STATE	Well Number 1H
OGRID No. 16694	Operator Name OXY USA INC.	Elevation 3615.6'

Surface Location

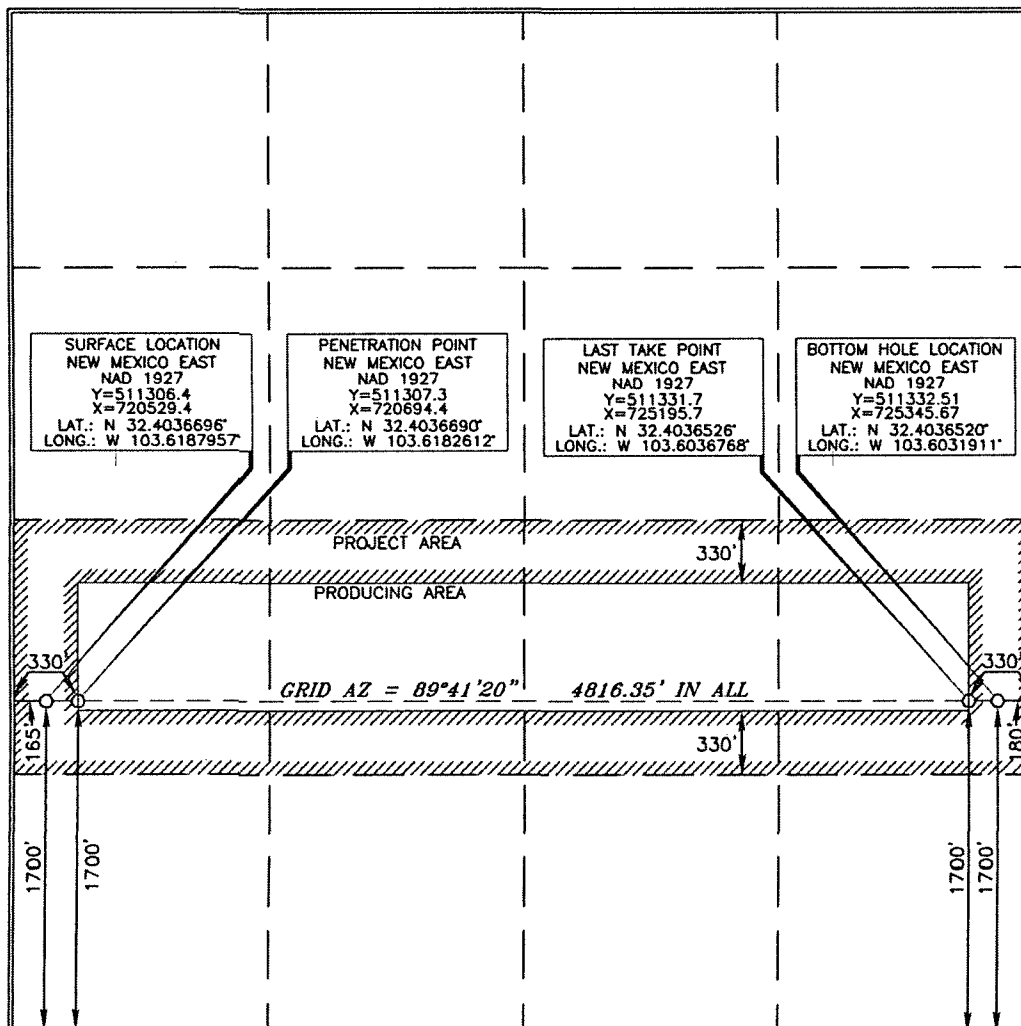
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	7	22 SOUTH	33 EAST, N.M.P.M.		1700'	SOUTH	165'	WEST	LEA

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
I	7	22 SOUTH	33 EAST, N.M.P.M.		1700'	SOUTH	180'	EAST	LEA

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: *David Stewart* Date: 6/5/14
Printed Name: David Stewart Sr. Res. 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.

Date of Survey: JANUARY 2, 2014
Signature and Seal of Professional Surveyor: *Timothy J. Alford*

Certificate Number: 15079



RR 7 S 1H
Lea County, New Mexico
Northing: 511306.40
Easting: 720529.40
Design #2



To convert a Magnetic Direction to a Grid Direction Add 6.92°
To convert a True Direction to a Grid Direction Subtract 0.38°

Azimuth to Grid North
True North: 0.38°
Magnetic North: 6.92°
Magnetic Field
Strength: 48457.7nT
Dip Angle: 60.23°
Date: 6/1/2024
Model: IGRF-2010

SECTION DETAILS:

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10229.10	0.00	0.00	10229.10	0.00	0.00	0.00	0.00	0.00	
11118.96	88.99	89.69	10801.97	3.05	562.81	10.00	89.69	562.82	
15223.15	88.99	89.69	10874.60	25.30	4666.30	0.00	0.00	4666.37	RR7S 1H LTP
15373.15	88.99	89.69	10877.25	26.11	4816.27	0.00	0.00	4816.35	

WELL DETAILS: RR 7 S 1H

Ground Level: 3615.60

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	511306.40	720529.40	32.403670	-103.618796

DESIGN TARGET DETAILS:

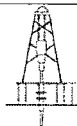
Name	TVD	+N/-S	+E/-W	Northing	Easting
RR7S 1H PP	10632.42	0.90	165.00	511307.30	720694.40
RR7S 1H LTP	10874.60	25.30	4666.30	511331.70	725195.70
RR 7S 1H BHL	10877.25	26.11	4816.27	511332.51	725345.67

PROJECT DETAILS:
Lea County, New Mexico
Geodetic System: US State Plane 1927
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001

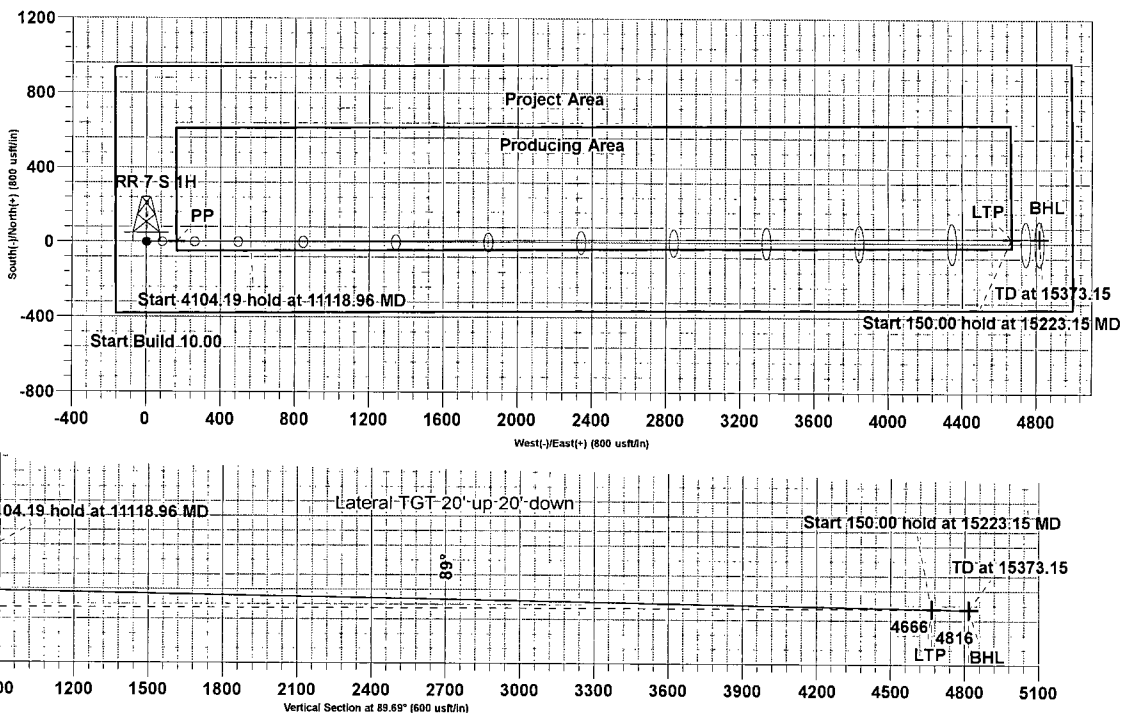
System Datum: Mean Sea Level

SITE DETAILS: Ridge Runner 7 State 1H
Site Centre Northing: 511306.40
Easting: 720529.40

Positional Uncertainty: 0.00
Convergence: 0.38
Local North: Grid



KB @ 3639.60usft
Gr @ 3615.60





HOBBS OCD

Scientific Drilling
Planning Report

Database:	CompassC	Local Co-ordinate Reference:	Well RR 7 S 1H
Company:	OXY	TVD Reference:	KB @ 3639.60usft
Project:	Lea County, New Mexico	MD Reference:	KB @ 3639.60usft
Site:	Ridge Runner 7 State 1H	North Reference:	Grid
Well:	RR 7 S 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #2		

Project:	Lea County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Ridge Runner 7 State 1H			
Site Position:		Northing:	511,306.40 usft	Latitude:	32.403670
From:	Map	Easting:	720,529.40 usft	Longitude:	-103.618796
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38

Well	RR 7 S 1H					
Well Position	+N/-S	0.00 usft	Northing:	511,306.40 usft	Latitude:	32.403670
	+E/-W	0.00 usft	Easting:	720,529.40 usft	Longitude:	-103.618796
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,615.60 usft

Wellbore:	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	01/20/14	7.30	60.28	48,458

Design:	Design #2			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	89.69

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10,229.10	0.00	0.00	10,229.10	0.00	0.00	0.00	0.00	0.00	0.00	
11,118.96	88.99	89.69	10,801.97	3.05	562.81	10.00	10.00	0.00	89.69	
15,223.15	88.99	89.69	10,874.60	25.30	4,666.30	0.00	0.00	0.00	0.00	RR7S 1H LTP
15,373.15	88.99	89.69	10,877.25	26.11	4,816.27	0.00	0.00	0.00	0.00	



Scientific Drilling
Planning Report



Database:	CompassC	Local Co-ordinate Reference:	Well RR 7 S 1H
Company:	OXY	TVD Reference:	KB @ 3639.60usft
Project:	Lea County, New Mexico	MD Reference:	KB @ 3639.60usft
Site:	Ridge Runner 7 State 1H	North Reference:	Grid
Well:	RR 7 S 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	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
4,100.00	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	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00



Scientific Drilling

Planning Report



Database:	CompassC	Local Co-ordinate Reference:	Well RR 7 S 1H
Company:	OXY	TVD Reference:	KB @ 3639.60usft
Project:	Lea County, New Mexico	MD Reference:	KB @ 3639.60usft
Site:	Ridge Runner 7 State 1H	North Reference:	Grid
Well:	RR 7 S 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,229.10	0.00	0.00	10,229.10	0.00	0.00	0.00	0.00	0.00	0.00
10,250.00	2.09	89.69	10,250.00	0.00	0.38	0.38	10.00	10.00	0.00
10,300.00	7.09	89.69	10,299.82	0.02	4.38	4.38	10.00	10.00	0.00
10,350.00	12.09	89.69	10,349.11	0.07	12.71	12.71	10.00	10.00	0.00
10,400.00	17.09	89.69	10,397.48	0.14	25.30	25.30	10.00	10.00	0.00



Scientific Drilling
Planning Report



Database:	CompassC	Local Co-ordinate Reference:	Well RR 7 S 1H
Company:	OXY	TVD Reference:	KB @ 3639.60usft
Project:	Lea County, New Mexico	MD Reference:	KB @ 3639.60usft
Site:	Ridge Runner 7 State 1H	North Reference:	Grid
Well:	RR 7 S 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,450.00	22.09	89.69	10,444.57	0.23	42.06	42.06	10.00	10.00	0.00
10,500.00	27.09	89.69	10,490.02	0.34	62.86	62.86	10.00	10.00	0.00
10,550.00	32.09	89.69	10,533.48	0.47	87.54	87.54	10.00	10.00	0.00
10,600.00	37.09	89.69	10,574.63	0.63	115.91	115.91	10.00	10.00	0.00
10,650.00	42.09	89.69	10,613.15	0.80	147.77	147.77	10.00	10.00	0.00
10,700.00	47.09	89.69	10,648.75	0.99	182.86	182.86	10.00	10.00	0.00
10,750.00	52.09	89.69	10,681.15	1.20	220.92	220.92	10.00	10.00	0.00
10,800.00	57.09	89.69	10,710.11	1.42	261.65	261.66	10.00	10.00	0.00
10,850.00	62.09	89.69	10,735.41	1.65	304.76	304.76	10.00	10.00	0.00
10,900.00	67.09	89.69	10,756.86	1.90	349.91	349.91	10.00	10.00	0.00
10,950.00	72.09	89.69	10,774.29	2.15	396.75	396.76	10.00	10.00	0.00
11,000.00	77.09	89.69	10,787.58	2.41	444.94	444.95	10.00	10.00	0.00
11,050.00	82.09	89.69	10,796.61	2.68	494.10	494.11	10.00	10.00	0.00
11,100.00	87.09	89.69	10,801.32	2.95	543.86	543.87	10.00	10.00	0.00
11,118.96	88.99	89.69	10,801.97	3.05	562.81	562.82	10.00	10.00	0.00
11,200.00	88.99	89.69	10,803.40	3.49	643.83	643.84	0.00	0.00	0.00
11,300.00	88.99	89.69	10,805.17	4.03	743.82	743.83	0.00	0.00	0.00
11,400.00	88.99	89.69	10,806.94	4.57	843.80	843.81	0.00	0.00	0.00
11,500.00	88.99	89.69	10,808.71	5.12	943.78	943.80	0.00	0.00	0.00
11,600.00	88.99	89.69	10,810.48	5.66	1,043.77	1,043.78	0.00	0.00	0.00
11,700.00	88.99	89.69	10,812.25	6.20	1,143.75	1,143.77	0.00	0.00	0.00
11,800.00	88.99	89.69	10,814.02	6.74	1,243.73	1,243.75	0.00	0.00	0.00
11,900.00	88.99	89.69	10,815.79	7.29	1,343.72	1,343.73	0.00	0.00	0.00
12,000.00	88.99	89.69	10,817.56	7.83	1,443.70	1,443.72	0.00	0.00	0.00
12,100.00	88.99	89.69	10,819.33	8.37	1,543.68	1,543.70	0.00	0.00	0.00
12,200.00	88.99	89.69	10,821.10	8.91	1,643.66	1,643.69	0.00	0.00	0.00
12,300.00	88.99	89.69	10,822.87	9.45	1,743.65	1,743.67	0.00	0.00	0.00
12,400.00	88.99	89.69	10,824.64	10.00	1,843.63	1,843.66	0.00	0.00	0.00
12,500.00	88.99	89.69	10,826.41	10.54	1,943.61	1,943.64	0.00	0.00	0.00
12,600.00	88.99	89.69	10,828.18	11.08	2,043.60	2,043.63	0.00	0.00	0.00
12,700.00	88.99	89.69	10,829.95	11.62	2,143.58	2,143.61	0.00	0.00	0.00
12,800.00	88.99	89.69	10,831.72	12.16	2,243.56	2,243.59	0.00	0.00	0.00
12,900.00	88.99	89.69	10,833.49	12.71	2,343.54	2,343.58	0.00	0.00	0.00
13,000.00	88.99	89.69	10,835.26	13.25	2,443.53	2,443.56	0.00	0.00	0.00
13,100.00	88.99	89.69	10,837.03	13.79	2,543.51	2,543.55	0.00	0.00	0.00
13,200.00	88.99	89.69	10,838.80	14.33	2,643.49	2,643.53	0.00	0.00	0.00
13,300.00	88.99	89.69	10,840.57	14.87	2,743.48	2,743.52	0.00	0.00	0.00
13,400.00	88.99	89.69	10,842.34	15.42	2,843.46	2,843.50	0.00	0.00	0.00
13,500.00	88.99	89.69	10,844.11	15.96	2,943.44	2,943.48	0.00	0.00	0.00
13,600.00	88.99	89.69	10,845.88	16.50	3,043.42	3,043.47	0.00	0.00	0.00
13,700.00	88.99	89.69	10,847.65	17.04	3,143.41	3,143.45	0.00	0.00	0.00
13,800.00	88.99	89.69	10,849.42	17.59	3,243.39	3,243.44	0.00	0.00	0.00
13,900.00	88.99	89.69	10,851.18	18.13	3,343.37	3,343.42	0.00	0.00	0.00
14,000.00	88.99	89.69	10,852.95	18.67	3,443.36	3,443.41	0.00	0.00	0.00
14,100.00	88.99	89.69	10,854.72	19.21	3,543.34	3,543.39	0.00	0.00	0.00
14,200.00	88.99	89.69	10,856.49	19.75	3,643.32	3,643.37	0.00	0.00	0.00
14,300.00	88.99	89.69	10,858.26	20.30	3,743.30	3,743.36	0.00	0.00	0.00
14,400.00	88.99	89.69	10,860.03	20.84	3,843.29	3,843.34	0.00	0.00	0.00
14,500.00	88.99	89.69	10,861.80	21.38	3,943.27	3,943.33	0.00	0.00	0.00
14,600.00	88.99	89.69	10,863.57	21.92	4,043.25	4,043.31	0.00	0.00	0.00
14,700.00	88.99	89.69	10,865.34	22.46	4,143.24	4,143.30	0.00	0.00	0.00
14,800.00	88.99	89.69	10,867.11	23.01	4,243.22	4,243.28	0.00	0.00	0.00
14,900.00	88.99	89.69	10,868.88	23.55	4,343.20	4,343.27	0.00	0.00	0.00
15,000.00	88.99	89.69	10,870.65	24.09	4,443.18	4,443.25	0.00	0.00	0.00



Scientific Drilling Planning Report



Database:	CompassC	Local Co-ordinate Reference:	Well RR 7 S 1H
Company:	OXY	TVD Reference:	KB @ 3639.60usft
Project:	Lea County, New Mexico	MD Reference:	KB @ 3639.60usft
Site:	Ridge Runner 7 State 1H	North Reference:	Grid
Well:	RR 7 S 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Design #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (%/100usft)	Build Rate (%/100usft)	Turn Rate (%/100usft)
15,100.00	88.99	89.69	10,872.42	24.63	4,543.17	4,543.23	0.00	0.00	0.00
15,200.00	88.99	89.69	10,874.19	25.17	4,643.15	4,643.22	0.00	0.00	0.00
15,223.15	88.99	89.69	10,874.60	25.30	4,666.30	4,666.37	0.00	0.00	0.00
15,300.00	88.99	89.69	10,875.96	25.72	4,743.13	4,743.20	0.00	0.00	0.00
15,373.15	88.99	89.69	10,877.25	26.11	4,816.27	4,816.35	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
RR7S 1H PP	0.00	0.00	10,632.42	0.90	165.00	511,307.30	720,694.40	32.403669	-103.618261
- hit/miss target									
- Shape									
- plan misses target center by 0.71usft at 10675.83usft MD (10631.92 TVD, 0.90 N, 165.51 E)									
- Point									
RR7S 1H LTP	0.00	0.00	10,874.60	25.30	4,666.30	511,331.70	725,195.70	32.403653	-103.603677
- plan hits target center									
- Point									
RR 7S 1H BHL	0.00	0.00	10,877.25	26.11	4,816.27	511,332.51	725,345.67	32.403652	-103.603191
- plan misses target center by 0.01usft at 15373.15usft MD (10877.25 TVD, 26.11 N, 4816.27 E)									
- Point									