

C-104 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024
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REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Section 1 - Operator and Well Information

Submittal Type: ☐ Test Allowable (C-104RT) ☒ New Well (C-104NW) ☐ Recomplete (C-104RC) ☐ Pay Add (C-104RC) ☐ Amended	
Operator Name: OXY USA INC	OGRID: 16696
Property Name and Well Number: TOP SPOT 12-13 FEDERAL COM 24H	Property Code: 329719
Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal	API Number: 30-0 15-47954
Pool Name: Bilbrey Basin; Bone Spring	Pool Code: 5695

Section 2 – Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	13	22S	31E		310 FSL	1216 FEL	32.385099°	-103.726884°	EDDY

Section 3 – Completion Information

Producing Method	Ready Date	Perforations MD	Perforations TVD
Gas lift	08/28/24	9913-19971' MD	9736-9903' TVD

Section 4 – Action IDs for Submissions and Order Numbers

List Action IDs for Drilling Sundries	Was an Order required / needed (Y/N), if yes list Order number:
C-104 RT Action ID (if C-104NW):	Communitization Agreement ☒ Yes ☐ No, Order No. Pending w/ BLM
Surface Casing Action ID: 392351	Unit: ☐ Yes ☒ No, Order No.
Intermediate 1 Casing Action ID: 392351	Compulsory Pooling: ☒ Yes ☐ No, Order No. R-23271
Intermediate 2 Casing Action ID: NA	Down Hole Commingling: ☐ Yes ☒ No, Order No.
Production Casing Action ID: 392351	Surface Commingling: ☒ Yes ☐ No, Order No. PLC-844
All casing was pressure tested in accordance with NMAC ☒ Yes ☐ No	Non-standard Location: ☐ Yes ☒ No ☐ Common ownership Order No.
Liner 1 Action ID: NA	Non-standard Proration: ☐ Yes ☒ No, Order No.
Casing was installed prior to OCD's Action ID system (Y/N): N	Simultaneous Dedication: ☐ Yes ☒ No, Order No.

Section 5 - Operator Signature and Certification

☒ I hereby certify that the required Water Use Report has been, or will be, submitted for this well's completion.	
☒ I hereby certify that the required Fracfocus disclosure has been, or will be, submitted for this well's completion.	
☒ I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.	
Name Jana Mendiola	<i>Jana Mendiola</i>
Title Regulatory Advisor	Date 12/02/24

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type:	☐ Initial Submittal
			☐ Amended Report
		☒ As Drilled	

WELL LOCATION INFORMATION

API Number 30-015-47954	Pool Code 5695	Pool Name Bilbrey Basin; Bone Spring
Property Code 329719	Property Name TOP SPOT 12_13 FED COM	Well Number 24H
OGRID No. 16696	Operator Name OXY USA INC.	Ground Level Elevation 3,583.6'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL P	Section 13	Township 22S	Range 31E	Lot	Ft. from N/S 310 SOUTH	Ft. from E/W 1,216 EAST	Latitude (NAD 83) 32.385099°	Longitude (NAD 83) -103.726884°	County EDDY
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Bottom Hole Location

UL B	Section 12	Township 22S	Range 31E	Lot	Ft. from N/S 58 NORTH	Ft. from E/W 1,772 EAST	Latitude (NAD 83) 32.413120°	Longitude (NAD 83) -103.728675°	County EDDY
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Dedicated Acres 320	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
Order Numbers.		Well setbacks are under Common Ownership: ☐ Yes ☐ No		

Kick Off Point (KOP)

UL O	Section 13	Township 22S	Range 31E	Lot	Ft. from N/S 31 SOUTH	Ft. from E/W 1,712 EAST	Latitude (NAD 83) 32.384334°	Longitude (NAD 83) -103.728494°	County EDDY
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First Take Point (FTP)

UL O	Section 13	Township 22S	Range 31E	Lot	Ft. from N/S 365 SOUTH	Ft. from E/W 1,772 EAST	Latitude (NAD 83) 32.385252°	Longitude (NAD 83) -103.728688°	County EDDY
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Last Take Point (LTP)

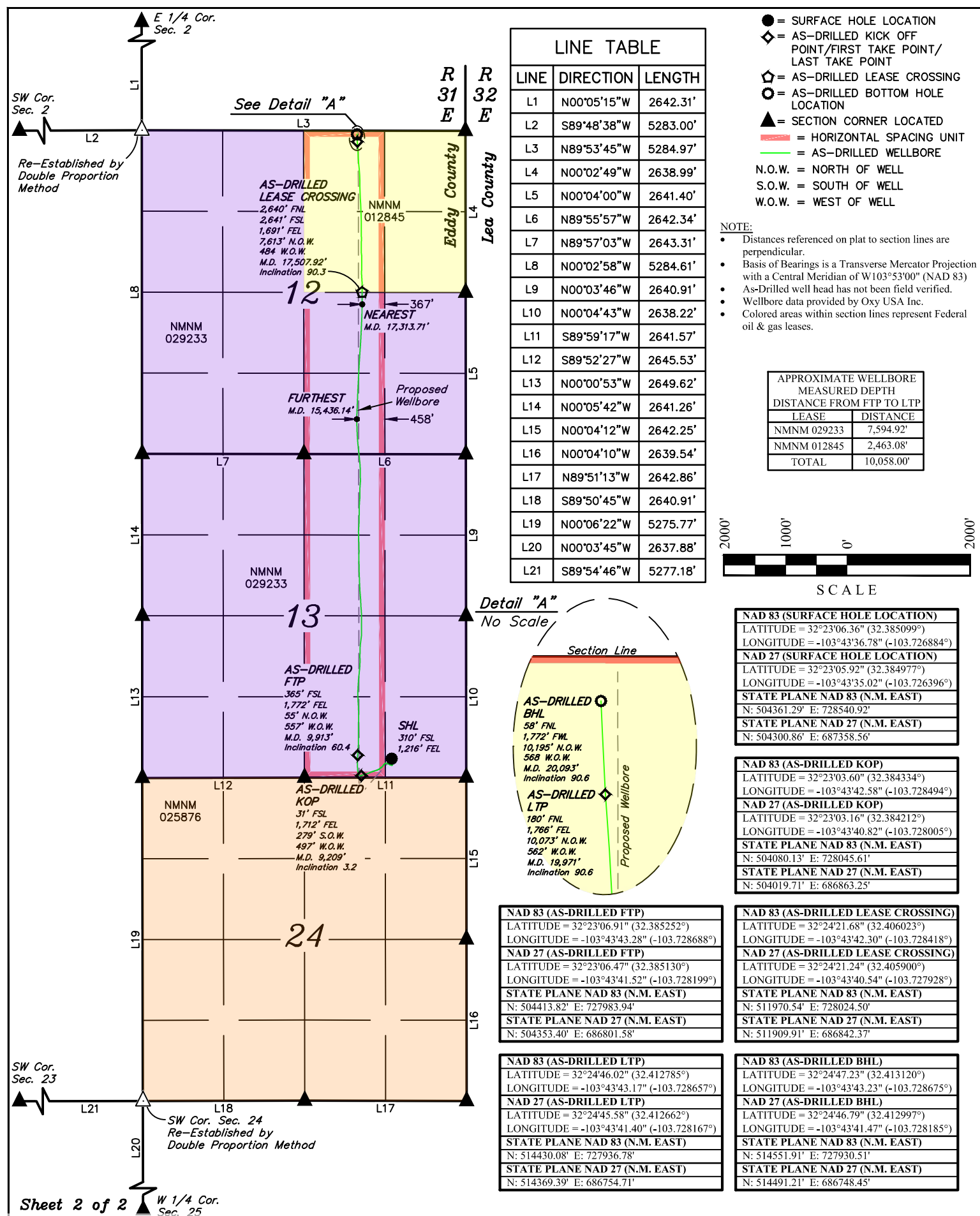
UL B	Section 12	Township 22S	Range 31E	Lot	Ft. from N/S 180 NORTH	Ft. from E/W 1,766 EAST	Latitude (NAD 83) 32.412785°	Longitude (NAD 83) -103.728657°	County EDDY
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Unitized Area or Area of Uniform Interest	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation:
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OPERATOR CERTIFICATIONS <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> <i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i> <i>Jana Mendiola</i> 12/02/2024 Signature Date Jana Mendiola Printed Name janalyn_mendiola@oxy.com Email Address	SURVEYOR CERTIFICATIONS <i>I hereby certify that the well location shown on this plat was plotted from the 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.</i>  Signature and Seal of Professional Surveyor 23782 February 26, 2024 Certificate Number Date of Survey
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Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

Property Name TOP SPOT 12_13 FED COM	Well Number 24H	Drawn By N.R. 09-09-24	Revised By
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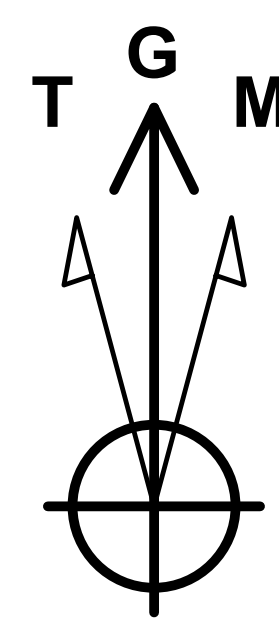




Project: Eddy County, NM (NAD83-NME)
Site: Top Spot 12_13
Well: Top Spot 12_13 Fed Com 24H
Wellbore: OH / 74954
Design: Plan 4 06-20-24
Rig: H&P 620

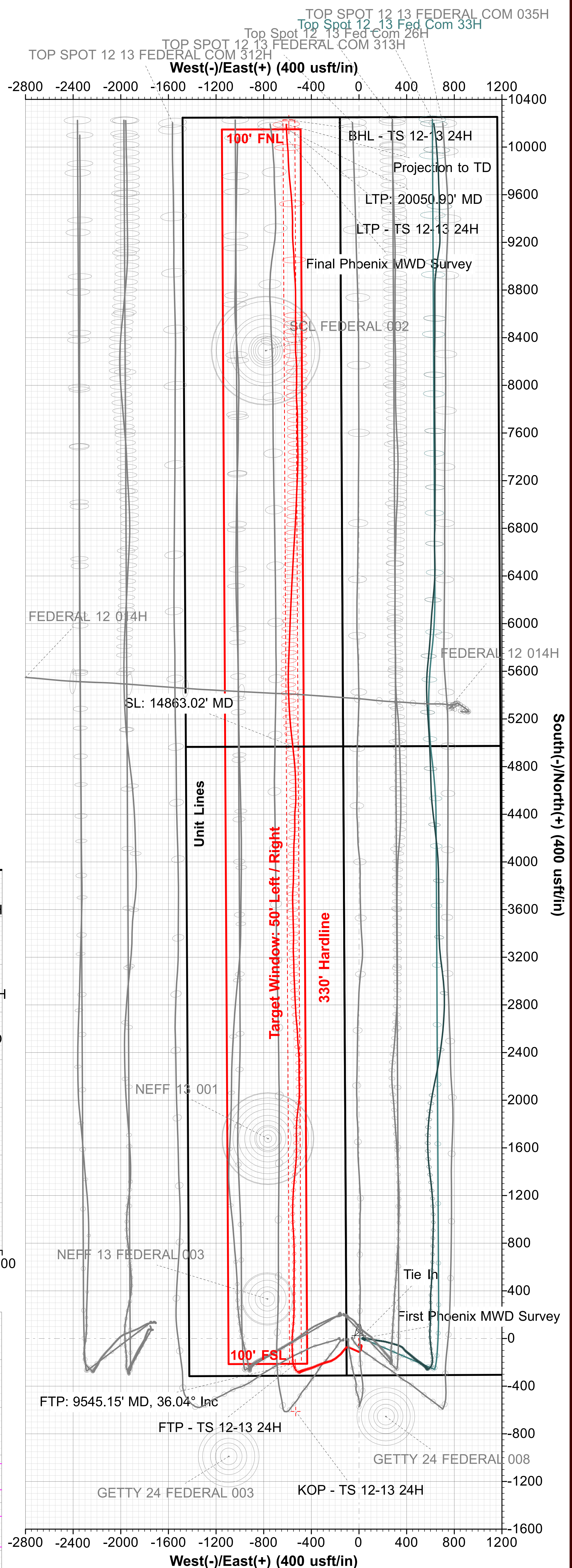
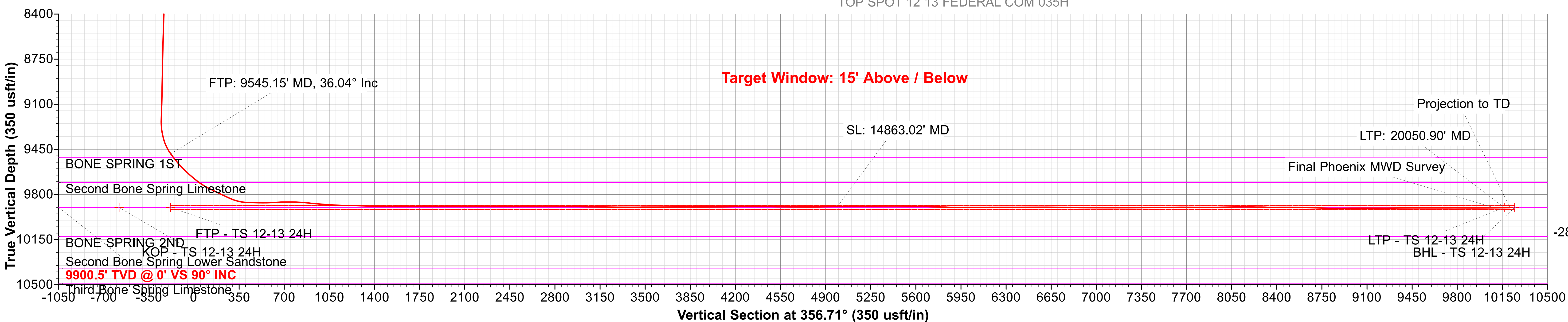
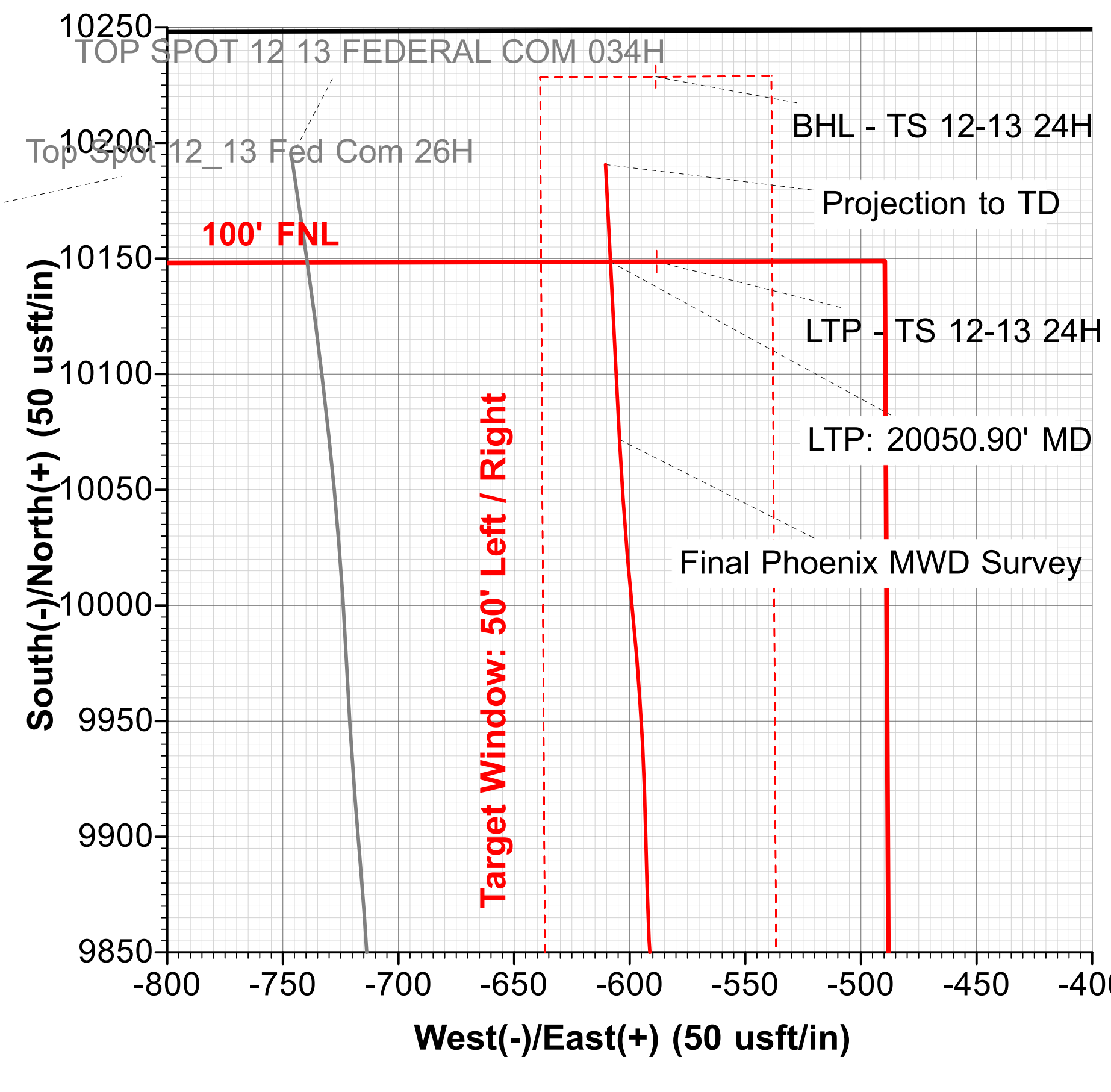
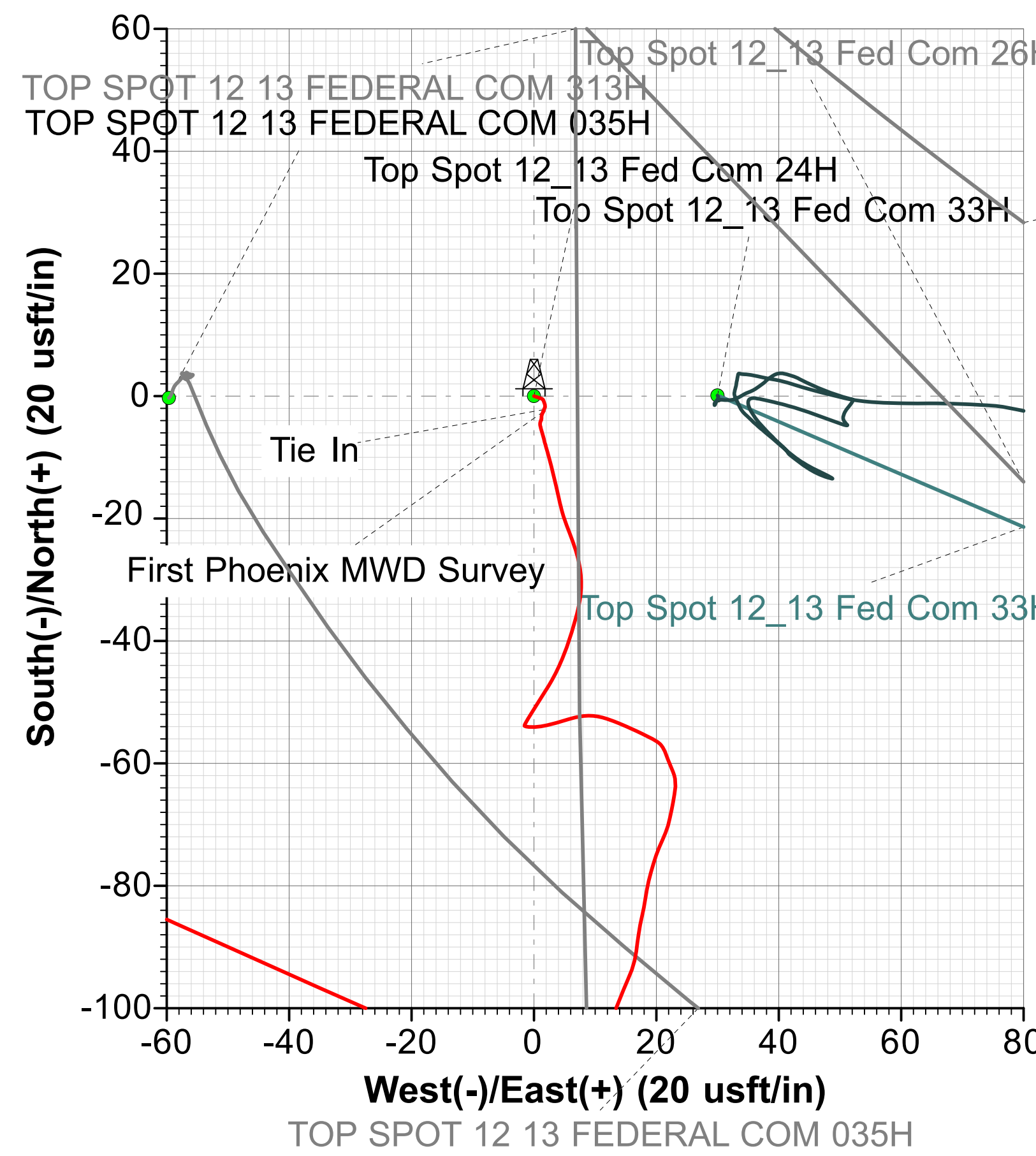
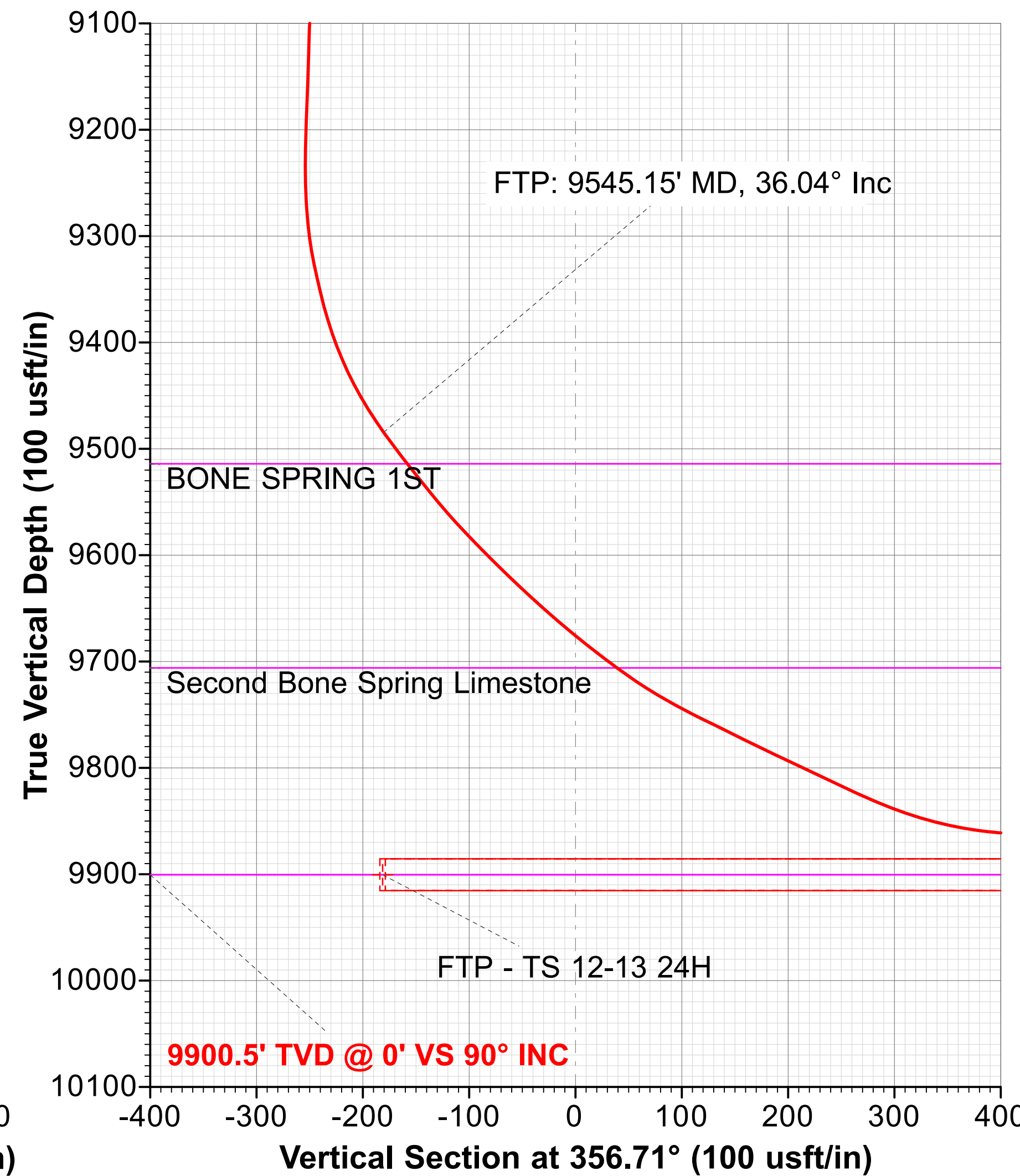
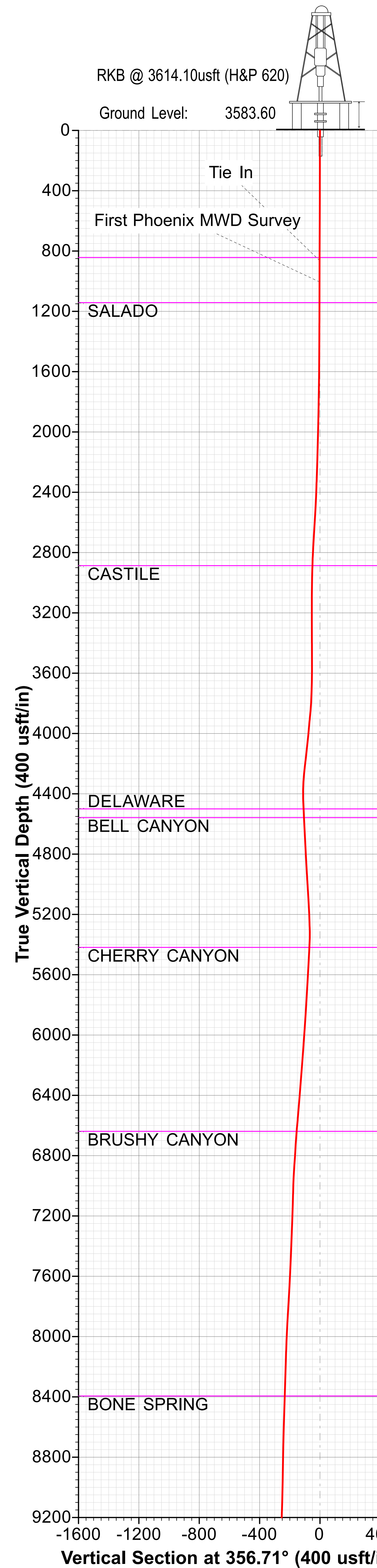


PHOENIX
TECHNOLOGY SERVICES



Azimuths to Grid North
True North: -0.32°
Magnetic North: 6.27°

Magnetic Field
Strength: 47550.2nT
Dip Angle: 60.06°
Date: 6/25/2024
Model: IFR





OXY USA INC.

Eddy County, NM (NAD83-NME)

Top Spot 12_13

Top Spot 12_13 Fed Com 24H

3001547954

OH / 74954

Design: Surveys (H&P 620)

Standard Survey Report

22 July, 2024





Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

Project	Eddy County, NM (NAD83-NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Top Spot 12_13		
Site Position:		Northing:	504,694.60 usft
From:	Map	Easting:	726,555.60 usft
Position Uncertainty:	0.90 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 23' 9.766554 N
		Longitude:	103° 43' 59.914620 W

Well	Top Spot 12_13 Fed Com 24H		
Well Position	+N/-S	0.00 usft	Latitude: 32° 23' 6.357576 N
	+E/-W	0.00 usft	Longitude: 103° 43' 36.784194 W
Position Uncertainty	2.00 usft	Wellhead Elevation:	3,583.60 usft
Grid Convergence:	0.325 °	Ground Level:	3,583.60 usft

Wellbore	OH / 74954				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IFR	6/25/2024	6.596	60.062	47,550.20000000

Design	Surveys (H&P 620)				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	356.71	

Survey Program		Date	7/22/2024		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
30.50	863.50	MWD Surveys - Adj Surface (OH / 74954)	SQC_C713Mb_MWD+HR	MWD+HRGM+Sag+FDIR	
877.65	9,196.20	Phoenix MWD Surveys - Int - SQC (OH / 7	SQC_C705Mb_MWD+IFF	MWD+IFR1+Sag+FDIR	
9,209.00	20,093.00	Phoenix MWD Surveys - Prod - SQC (OH	SQC_C705Mb_MWD+IFF	MWD+IFR1+Sag+FDIR	

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
30.50	0.00	0.00	30.50	0.00	0.00	0.00	0.00	0.00	0.00
174.50	0.40	107.51	174.50	-0.15	0.48	-0.18	0.28	0.28	0.00
255.50	0.29	110.15	255.50	-0.31	0.94	-0.36	0.14	-0.14	3.26
349.50	0.18	109.91	349.50	-0.44	1.30	-0.51	0.12	-0.12	-0.26
444.50	0.15	144.56	444.50	-0.59	1.52	-0.68	0.11	-0.03	36.47
538.50	0.28	167.51	538.50	-0.92	1.64	-1.01	0.16	0.14	24.41
633.50	0.30	156.96	633.49	-1.37	1.78	-1.47	0.06	0.02	-11.11



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
727.50	0.21	196.56	727.49	-1.76	1.83	-1.87	0.20	-0.10	42.13
822.50	0.18	211.05	822.49	-2.06	1.71	-2.15	0.06	-0.03	15.25
863.50	0.21	194.59	863.49	-2.19	1.65	-2.28	0.15	0.07	-40.15
Tie In									
877.65	0.20	195.38	877.64	-2.23	1.64	-2.32	0.07	-0.07	5.58
891.80	0.19	196.20	891.79	-2.28	1.63	-2.37	0.07	-0.07	5.80
905.95	0.18	197.06	905.94	-2.32	1.61	-2.41	0.07	-0.07	6.08
920.10	0.17	197.98	920.09	-2.37	1.60	-2.45	0.07	-0.07	6.50
934.25	0.16	198.98	934.24	-2.40	1.59	-2.49	0.07	-0.07	7.07
948.40	0.14	200.06	948.39	-2.44	1.58	-2.53	0.14	-0.14	7.63
962.55	0.13	201.24	962.54	-2.47	1.56	-2.56	0.07	-0.07	8.34
976.70	0.12	202.57	976.69	-2.50	1.55	-2.58	0.07	-0.07	9.40
990.85	0.11	204.09	990.84	-2.53	1.54	-2.61	0.07	-0.07	10.74
1,005.00	0.10	205.85	1,004.99	-2.55	1.53	-2.63	0.07	-0.07	12.44
First Phoenix MWD Survey									
1,018.57	0.12	206.31	1,018.56	-2.57	1.52	-2.66	0.15	0.15	3.39
1,032.14	0.13	206.60	1,032.13	-2.60	1.51	-2.68	0.07	0.07	2.14
1,045.71	0.15	206.78	1,045.70	-2.63	1.49	-2.71	0.15	0.15	1.33
1,059.29	0.16	206.88	1,059.28	-2.66	1.47	-2.74	0.07	0.07	0.74
1,072.86	0.18	206.92	1,072.85	-2.70	1.46	-2.78	0.15	0.15	0.29
1,086.43	0.19	206.91	1,086.42	-2.74	1.44	-2.81	0.07	0.07	-0.07
1,100.00	0.21	206.87	1,099.99	-2.78	1.41	-2.85	0.15	0.15	-0.29
1,113.14	0.22	204.57	1,113.13	-2.82	1.39	-2.90	0.10	0.08	-17.50
1,126.29	0.23	202.47	1,126.28	-2.87	1.37	-2.94	0.10	0.08	-15.97
1,139.43	0.24	200.53	1,139.42	-2.92	1.35	-2.99	0.10	0.08	-14.76
1,152.57	0.25	198.75	1,152.56	-2.97	1.33	-3.04	0.10	0.08	-13.55
1,165.71	0.26	197.09	1,165.70	-3.03	1.32	-3.10	0.09	0.08	-12.63
1,178.86	0.28	195.55	1,178.85	-3.09	1.30	-3.16	0.16	0.15	-11.71
1,192.00	0.29	194.11	1,191.99	-3.15	1.28	-3.22	0.09	0.08	-10.96
1,205.43	0.28	191.78	1,205.42	-3.22	1.27	-3.28	0.11	-0.07	-17.35
1,218.86	0.27	189.30	1,218.85	-3.28	1.26	-3.35	0.12	-0.07	-18.47
1,232.29	0.27	186.66	1,232.28	-3.34	1.25	-3.41	0.09	0.00	-19.66
1,245.71	0.26	183.86	1,245.70	-3.40	1.24	-3.47	0.12	-0.07	-20.86
1,259.14	0.25	180.89	1,259.13	-3.46	1.24	-3.53	0.12	-0.07	-22.11
1,272.57	0.25	177.77	1,272.56	-3.52	1.24	-3.59	0.10	0.00	-23.23
1,286.00	0.25	174.50	1,285.99	-3.58	1.24	-3.65	0.11	0.00	-24.35
1,299.29	0.23	178.71	1,299.28	-3.64	1.25	-3.70	0.20	-0.15	31.68
1,312.57	0.22	183.28	1,312.56	-3.69	1.25	-3.75	0.15	-0.08	34.41
1,325.86	0.22	188.20	1,325.85	-3.74	1.24	-3.80	0.14	0.00	37.02
1,339.14	0.21	193.43	1,339.13	-3.79	1.23	-3.85	0.17	-0.08	39.38
1,352.43	0.20	198.93	1,352.42	-3.83	1.22	-3.90	0.17	-0.08	41.38
1,365.71	0.20	204.62	1,365.70	-3.88	1.20	-3.94	0.15	0.00	42.85
1,379.00	0.20	210.39	1,378.99	-3.92	1.18	-3.98	0.15	0.00	43.42
1,392.57	0.22	207.17	1,392.56	-3.96	1.16	-4.02	0.17	0.15	-23.73



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
1,406.14	0.23	204.38	1,406.13	-4.01	1.13	-4.07	0.11	0.07	-20.56
1,419.71	0.25	201.94	1,419.70	-4.06	1.11	-4.12	0.17	0.15	-17.98
1,433.29	0.27	199.79	1,433.28	-4.12	1.09	-4.18	0.16	0.15	-15.83
1,446.86	0.29	197.88	1,446.85	-4.18	1.07	-4.24	0.16	0.15	-14.08
1,460.43	0.31	196.17	1,460.42	-4.25	1.05	-4.30	0.16	0.15	-12.60
1,474.00	0.32	194.62	1,473.99	-4.32	1.03	-4.37	0.10	0.07	-11.42
1,487.57	0.35	188.10	1,487.56	-4.40	1.01	-4.45	0.36	0.22	-48.05
1,501.14	0.38	182.49	1,501.13	-4.49	1.00	-4.54	0.34	0.22	-41.34
1,514.71	0.41	177.70	1,514.70	-4.58	1.00	-4.63	0.33	0.22	-35.30
1,528.29	0.44	173.60	1,528.28	-4.68	1.01	-4.73	0.31	0.22	-30.19
1,541.86	0.48	170.09	1,541.85	-4.79	1.03	-4.84	0.36	0.29	-25.87
1,555.43	0.52	167.07	1,555.42	-4.90	1.05	-4.96	0.35	0.29	-22.25
1,569.00	0.56	164.44	1,568.99	-5.03	1.08	-5.08	0.35	0.29	-19.38
1,582.57	0.59	164.42	1,582.55	-5.16	1.12	-5.21	0.22	0.22	-0.15
1,596.14	0.62	164.39	1,596.12	-5.30	1.16	-5.35	0.22	0.22	-0.22
1,609.71	0.65	164.34	1,609.69	-5.44	1.20	-5.50	0.22	0.22	-0.37
1,623.29	0.68	164.29	1,623.27	-5.59	1.24	-5.66	0.22	0.22	-0.37
1,636.86	0.71	164.22	1,636.84	-5.75	1.28	-5.82	0.22	0.22	-0.52
1,650.43	0.74	164.15	1,650.41	-5.92	1.33	-5.98	0.22	0.22	-0.52
1,664.00	0.77	164.07	1,663.98	-6.09	1.38	-6.16	0.22	0.22	-0.59
1,677.43	0.81	164.38	1,677.41	-6.27	1.43	-6.34	0.30	0.30	2.31
1,690.86	0.84	164.65	1,690.84	-6.45	1.48	-6.53	0.23	0.22	2.01
1,704.29	0.87	164.89	1,704.26	-6.65	1.53	-6.72	0.22	0.22	1.79
1,717.71	0.90	165.11	1,717.68	-6.85	1.59	-6.93	0.22	0.22	1.64
1,731.14	0.94	165.29	1,731.11	-7.06	1.64	-7.14	0.30	0.30	1.34
1,744.57	0.97	165.46	1,744.54	-7.27	1.70	-7.36	0.22	0.22	1.27
1,758.00	1.00	165.60	1,757.97	-7.50	1.76	-7.58	0.22	0.22	1.04
1,771.57	1.01	165.19	1,771.54	-7.73	1.82	-7.82	0.09	0.07	-3.02
1,785.14	1.03	164.70	1,785.10	-7.96	1.88	-8.05	0.16	0.15	-3.61
1,798.71	1.04	164.21	1,798.67	-8.20	1.95	-8.29	0.10	0.07	-3.61
1,812.29	1.06	163.75	1,812.25	-8.43	2.01	-8.54	0.16	0.15	-3.39
1,825.86	1.07	163.40	1,825.82	-8.68	2.09	-8.78	0.09	0.07	-2.58
1,839.43	1.09	163.19	1,839.38	-8.92	2.16	-9.03	0.15	0.15	-1.55
1,853.00	1.11	163.23	1,852.95	-9.17	2.23	-9.28	0.15	0.15	0.29
1,866.57	1.14	163.59	1,866.52	-9.43	2.31	-9.54	0.23	0.22	2.65
1,880.14	1.16	164.13	1,880.09	-9.69	2.39	-9.81	0.17	0.15	3.98
1,893.71	1.19	164.74	1,893.65	-9.96	2.46	-10.08	0.24	0.22	4.50
1,907.29	1.22	165.36	1,907.23	-10.23	2.53	-10.36	0.24	0.22	4.57
1,920.86	1.25	165.91	1,920.80	-10.51	2.61	-10.65	0.24	0.22	4.05
1,934.43	1.28	166.34	1,934.36	-10.81	2.68	-10.94	0.23	0.22	3.17
1,948.00	1.30	166.58	1,947.93	-11.10	2.75	-11.24	0.15	0.15	1.77
1,961.43	1.32	166.58	1,961.36	-11.40	2.82	-11.54	0.15	0.15	0.00
1,974.86	1.33	166.40	1,974.78	-11.70	2.89	-11.85	0.08	0.07	-1.34



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
1,988.29	1.35	166.13	1,988.21	-12.01	2.97	-12.16	0.16	0.15	-2.01
2,001.71	1.36	165.84	2,001.63	-12.32	3.05	-12.47	0.09	0.07	-2.16
2,015.14	1.37	165.58	2,015.05	-12.63	3.12	-12.79	0.09	0.07	-1.94
2,028.57	1.38	165.42	2,028.48	-12.94	3.21	-13.10	0.08	0.07	-1.19
2,042.00	1.40	165.44	2,041.90	-13.25	3.29	-13.42	0.15	0.15	0.15
2,055.57	1.42	165.71	2,055.47	-13.58	3.37	-13.75	0.16	0.15	1.99
2,069.14	1.45	166.14	2,069.04	-13.91	3.45	-14.08	0.23	0.22	3.17
2,082.71	1.48	166.62	2,082.60	-14.24	3.53	-14.42	0.24	0.22	3.54
2,096.29	1.51	167.11	2,096.18	-14.59	3.62	-14.77	0.24	0.22	3.61
2,109.86	1.55	167.53	2,109.74	-14.94	3.69	-15.13	0.31	0.29	3.10
2,123.43	1.58	167.83	2,123.31	-15.30	3.77	-15.50	0.23	0.22	2.21
2,137.00	1.62	167.94	2,136.87	-15.67	3.85	-15.87	0.30	0.29	0.81
2,150.43	1.66	167.87	2,150.30	-16.05	3.93	-16.25	0.30	0.30	-0.52
2,163.86	1.71	167.62	2,163.72	-16.44	4.02	-16.64	0.38	0.37	-1.86
2,177.29	1.75	167.27	2,177.14	-16.83	4.11	-17.04	0.31	0.30	-2.61
2,190.71	1.80	166.85	2,190.56	-17.24	4.20	-17.45	0.38	0.37	-3.13
2,204.14	1.84	166.35	2,203.98	-17.65	4.30	-17.87	0.32	0.30	-3.72
2,217.57	1.89	165.78	2,217.40	-18.08	4.40	-18.30	0.40	0.37	-4.24
2,231.00	1.93	165.10	2,230.83	-18.51	4.52	-18.74	0.34	0.30	-5.06
2,244.57	1.96	164.15	2,244.39	-18.95	4.64	-19.19	0.32	0.22	-7.00
2,258.14	1.98	163.12	2,257.95	-19.40	4.77	-19.64	0.30	0.15	-7.59
2,271.71	2.01	162.10	2,271.51	-19.85	4.91	-20.10	0.34	0.22	-7.52
2,285.29	2.03	161.13	2,285.08	-20.31	5.06	-20.56	0.29	0.15	-7.14
2,298.86	2.05	160.27	2,298.65	-20.76	5.22	-21.03	0.27	0.15	-6.34
2,312.43	2.08	159.57	2,312.21	-21.22	5.39	-21.50	0.29	0.22	-5.16
2,326.00	2.10	159.13	2,325.77	-21.68	5.56	-21.97	0.19	0.15	-3.24
2,339.43	2.13	158.99	2,339.19	-22.15	5.74	-22.44	0.23	0.22	-1.04
2,352.86	2.16	159.10	2,352.61	-22.62	5.92	-22.92	0.23	0.22	0.82
2,366.29	2.19	159.40	2,366.03	-23.09	6.10	-23.41	0.24	0.22	2.23
2,379.71	2.23	159.87	2,379.44	-23.58	6.28	-23.90	0.33	0.30	3.50
2,393.14	2.27	160.50	2,392.86	-24.07	6.46	-24.41	0.35	0.30	4.69
2,406.57	2.31	161.31	2,406.28	-24.58	6.64	-24.92	0.38	0.30	6.03
2,420.00	2.37	162.32	2,419.70	-25.10	6.81	-25.45	0.54	0.45	7.52
2,433.57	2.43	163.77	2,433.26	-25.65	6.97	-26.00	0.63	0.44	10.69
2,447.14	2.51	165.39	2,446.81	-26.21	7.13	-26.58	0.78	0.59	11.94
2,460.71	2.58	167.13	2,460.37	-26.80	7.27	-27.17	0.77	0.52	12.82
2,474.29	2.67	168.94	2,473.94	-27.40	7.40	-27.78	0.90	0.66	13.33
2,487.86	2.76	170.83	2,487.49	-28.04	7.51	-28.42	0.94	0.66	13.93
2,501.43	2.85	172.83	2,501.04	-28.69	7.61	-29.08	0.98	0.66	14.74
2,515.00	2.95	174.97	2,514.60	-29.38	7.68	-29.77	1.09	0.74	15.77
2,528.57	3.03	177.77	2,528.15	-30.08	7.72	-30.48	1.23	0.59	20.63
2,542.14	3.11	180.68	2,541.70	-30.81	7.73	-31.20	1.29	0.59	21.44
2,555.71	3.20	183.55	2,555.25	-31.56	7.71	-31.95	1.34	0.66	21.15



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
2,569.29	3.29	186.28	2,568.81	-32.32	7.64	-32.71	1.32	0.66	20.10
2,582.86	3.39	188.77	2,582.35	-33.10	7.54	-33.48	1.30	0.74	18.35
2,596.43	3.50	190.94	2,595.90	-33.91	7.40	-34.28	1.26	0.81	15.99
2,610.00	3.62	192.66	2,609.44	-34.73	7.22	-35.09	1.18	0.88	12.68
2,623.43	3.72	194.17	2,622.84	-35.57	7.02	-35.91	1.04	0.74	11.24
2,636.86	3.82	195.32	2,636.25	-36.42	6.80	-36.75	0.93	0.74	8.56
2,650.29	3.93	196.26	2,649.64	-37.30	6.55	-37.61	0.95	0.82	7.00
2,663.71	4.02	197.06	2,663.03	-38.19	6.28	-38.48	0.79	0.67	5.96
2,677.14	4.08	197.80	2,676.43	-39.09	6.00	-39.37	0.59	0.45	5.51
2,690.57	4.12	198.56	2,689.82	-40.00	5.70	-40.27	0.50	0.30	5.66
2,704.00	4.11	199.41	2,703.22	-40.92	5.39	-41.16	0.46	-0.07	6.33
2,717.57	4.03	200.51	2,716.76	-41.82	5.06	-42.04	0.82	-0.59	8.11
2,731.14	3.90	201.81	2,730.29	-42.70	4.72	-42.90	1.16	-0.96	9.58
2,744.71	3.73	203.26	2,743.83	-43.53	4.37	-43.71	1.44	-1.25	10.69
2,758.29	3.55	204.85	2,757.39	-44.32	4.02	-44.47	1.52	-1.33	11.71
2,771.86	3.36	206.55	2,770.93	-45.05	3.67	-45.19	1.59	-1.40	12.53
2,785.43	3.17	208.28	2,784.48	-45.74	3.31	-45.85	1.58	-1.40	12.75
2,799.00	2.98	209.96	2,798.03	-46.38	2.96	-46.47	1.55	-1.40	12.38
2,812.57	2.79	210.82	2,811.58	-46.97	2.61	-47.04	1.44	-1.40	6.34
2,826.14	2.61	211.42	2,825.14	-47.51	2.28	-47.57	1.34	-1.33	4.42
2,839.71	2.44	211.81	2,838.69	-48.02	1.97	-48.06	1.26	-1.25	2.87
2,853.29	2.27	212.05	2,852.26	-48.50	1.68	-48.51	1.25	-1.25	1.77
2,866.86	2.13	212.16	2,865.82	-48.94	1.40	-48.94	1.03	-1.03	0.81
2,880.43	2.00	212.18	2,879.38	-49.35	1.14	-49.33	0.96	-0.96	0.15
2,894.00	1.91	212.14	2,892.95	-49.74	0.89	-49.71	0.66	-0.66	-0.29
2,907.43	1.86	212.25	2,906.37	-50.12	0.66	-50.07	0.37	-0.37	0.82
2,920.86	1.85	212.30	2,919.79	-50.48	0.42	-50.42	0.08	-0.07	0.37
2,934.29	1.85	212.29	2,933.21	-50.85	0.19	-50.78	0.00	0.00	-0.07
2,947.71	1.85	212.20	2,946.63	-51.22	-0.04	-51.13	0.02	0.00	-0.67
2,961.14	1.86	212.03	2,960.05	-51.58	-0.27	-51.48	0.08	0.07	-1.27
2,974.57	1.86	211.74	2,973.47	-51.95	-0.50	-51.84	0.07	0.00	-2.16
2,988.00	1.84	211.26	2,986.90	-52.32	-0.73	-52.20	0.19	-0.15	-3.57
3,001.57	1.78	210.73	3,000.46	-52.69	-0.95	-52.55	0.46	-0.44	-3.91
3,015.14	1.70	210.11	3,014.02	-53.05	-1.16	-52.89	0.61	-0.59	-4.57
3,028.71	1.62	209.48	3,027.59	-53.39	-1.35	-53.22	0.60	-0.59	-4.64
3,042.29	1.25	204.06	3,041.16	-53.69	-1.51	-53.52	2.90	-2.72	-39.91
3,055.86	0.51	133.27	3,054.73	-53.87	-1.52	-53.69	8.73	-5.45	-521.67
3,069.43	0.56	114.95	3,068.30	-53.94	-1.42	-53.77	1.31	0.37	-135.00
3,083.00	0.66	100.71	3,081.87	-53.98	-1.28	-53.82	1.33	0.74	-104.94
3,096.57	0.70	98.31	3,095.44	-54.01	-1.12	-53.85	0.36	0.29	-17.69
3,110.14	0.74	96.17	3,109.01	-54.03	-0.95	-53.88	0.36	0.29	-15.77
3,123.71	0.78	94.26	3,122.58	-54.04	-0.77	-53.91	0.35	0.29	-14.08
3,137.29	0.83	92.55	3,136.16	-54.05	-0.58	-53.93	0.41	0.37	-12.59
3,150.86	0.87	91.01	3,149.72	-54.06	-0.38	-53.95	0.34	0.29	-11.35



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
3,164.43	0.92	89.62	3,163.29	-54.06	-0.17	-53.96	0.40	0.37	-10.24
3,178.00	0.96	88.37	3,176.86	-54.06	0.05	-53.97	0.33	0.29	-9.21
3,191.43	1.01	86.51	3,190.29	-54.05	0.28	-53.97	0.44	0.37	-13.85
3,204.86	1.05	84.80	3,203.72	-54.03	0.52	-53.97	0.38	0.30	-12.73
3,218.29	1.09	83.23	3,217.14	-54.00	0.77	-53.96	0.37	0.30	-11.69
3,231.71	1.14	81.78	3,230.56	-53.97	1.03	-53.94	0.43	0.37	-10.80
3,245.14	1.18	80.43	3,243.99	-53.93	1.30	-53.91	0.36	0.30	-10.05
3,258.57	1.23	79.19	3,257.42	-53.88	1.58	-53.88	0.42	0.37	-9.23
3,272.00	1.28	78.04	3,270.84	-53.82	1.87	-53.84	0.42	0.37	-8.56
3,285.57	1.29	77.58	3,284.41	-53.75	2.16	-53.79	0.11	0.07	-3.39
3,299.14	1.30	76.94	3,297.98	-53.69	2.46	-53.74	0.13	0.07	-4.72
3,312.71	1.32	76.21	3,311.54	-53.61	2.76	-53.68	0.19	0.15	-5.38
3,326.29	1.34	75.48	3,325.12	-53.54	3.07	-53.63	0.19	0.15	-5.38
3,339.86	1.36	74.79	3,338.69	-53.46	3.38	-53.56	0.19	0.15	-5.08
3,353.43	1.38	74.20	3,352.25	-53.37	3.69	-53.49	0.18	0.15	-4.35
3,367.00	1.39	73.76	3,365.82	-53.28	4.01	-53.42	0.11	0.07	-3.24
3,380.43	1.41	73.47	3,379.24	-53.19	4.32	-53.35	0.16	0.15	-2.16
3,393.86	1.42	73.35	3,392.67	-53.09	4.64	-53.27	0.08	0.07	-0.89
3,407.29	1.43	73.37	3,406.10	-53.00	4.96	-53.19	0.07	0.07	0.15
3,420.71	1.44	73.55	3,419.51	-52.90	5.28	-53.12	0.08	0.07	1.34
3,434.14	1.46	73.89	3,432.94	-52.80	5.61	-53.04	0.16	0.15	2.53
3,447.57	1.47	74.44	3,446.36	-52.71	5.94	-52.96	0.13	0.07	4.10
3,461.00	1.49	75.24	3,459.79	-52.62	6.27	-52.89	0.21	0.15	5.96
3,474.57	1.52	76.44	3,473.35	-52.53	6.62	-52.83	0.32	0.22	8.84
3,488.14	1.54	77.91	3,486.92	-52.45	6.97	-52.77	0.32	0.15	10.83
3,501.71	1.58	79.60	3,500.48	-52.38	7.33	-52.72	0.45	0.29	12.45
3,515.29	1.62	81.47	3,514.06	-52.32	7.71	-52.67	0.48	0.29	13.77
3,528.86	1.67	83.56	3,527.62	-52.27	8.09	-52.65	0.58	0.37	15.40
3,542.43	1.73	85.87	3,541.19	-52.23	8.50	-52.63	0.67	0.44	17.02
3,556.00	1.81	88.48	3,554.75	-52.21	8.91	-52.64	0.84	0.59	19.23
3,569.43	1.90	92.15	3,568.17	-52.21	9.35	-52.66	1.11	0.67	27.33
3,582.86	2.01	95.92	3,581.60	-52.25	9.81	-52.72	1.26	0.82	28.07
3,596.29	2.14	99.50	3,595.02	-52.31	10.29	-52.82	1.37	0.97	26.66
3,609.71	2.28	102.70	3,608.43	-52.41	10.79	-52.95	1.39	1.04	23.85
3,623.14	2.43	105.43	3,621.85	-52.55	11.33	-53.11	1.39	1.12	20.33
3,636.57	2.60	107.61	3,635.26	-52.71	11.89	-53.31	1.45	1.27	16.23
3,650.00	2.78	109.15	3,648.68	-52.91	12.49	-53.54	1.44	1.34	11.47
3,663.57	2.95	110.91	3,662.23	-53.15	13.13	-53.81	1.41	1.25	12.97
3,677.14	3.13	112.22	3,675.78	-53.41	13.80	-54.11	1.42	1.33	9.65
3,690.71	3.32	113.21	3,689.33	-53.70	14.50	-54.45	1.46	1.40	7.30
3,704.29	3.50	113.99	3,702.89	-54.03	15.24	-54.82	1.37	1.33	5.74
3,717.86	3.68	114.63	3,716.43	-54.38	16.02	-55.21	1.36	1.33	4.72
3,731.43	3.85	115.17	3,729.97	-54.75	16.83	-55.63	1.28	1.25	3.98



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
3,745.00	4.01	115.67	3,743.51	-55.15	17.67	-56.08	1.21	1.18	3.68
3,758.43	4.13	116.14	3,756.90	-55.57	18.52	-56.54	0.93	0.89	3.50
3,771.86	4.23	116.58	3,770.30	-56.00	19.40	-57.03	0.78	0.74	3.28
3,785.29	4.16	126.60	3,783.69	-56.52	20.23	-57.59	5.48	-0.52	74.61
3,798.71	4.35	144.01	3,797.08	-57.22	20.92	-58.33	9.69	1.42	129.73
3,812.14	4.78	157.65	3,810.46	-58.15	21.44	-59.28	8.67	3.20	101.56
3,825.57	4.85	158.20	3,823.85	-59.19	21.86	-60.35	0.62	0.52	4.10
3,839.00	4.90	158.90	3,837.23	-60.25	22.28	-61.44	0.58	0.37	5.21
3,852.57	5.20	157.55	3,850.75	-61.36	22.72	-62.57	2.38	2.21	-9.95
3,866.14	5.19	169.33	3,864.26	-62.54	23.07	-63.76	7.85	-0.07	86.81
3,879.71	5.39	185.39	3,877.77	-63.77	23.12	-65.00	10.97	1.47	118.35
3,893.29	5.49	188.91	3,891.29	-65.05	22.96	-66.26	2.56	0.74	25.92
3,906.86	5.55	190.49	3,904.80	-66.34	22.74	-67.53	1.20	0.44	11.64
3,920.43	5.62	191.85	3,918.30	-67.63	22.49	-68.81	1.10	0.52	10.02
3,934.00	5.68	192.65	3,931.81	-68.94	22.20	-70.10	0.73	0.44	5.90
3,947.57	5.02	195.12	3,945.32	-70.17	21.90	-71.31	5.15	-4.86	18.20
3,961.14	5.18	201.81	3,958.84	-71.31	21.52	-72.43	4.54	1.18	49.30
3,974.71	5.76	204.31	3,972.34	-72.50	21.01	-73.58	4.62	4.27	18.42
3,988.29	5.82	202.20	3,985.85	-73.76	20.47	-74.81	1.63	0.44	-15.54
4,001.86	5.91	199.80	3,999.35	-75.05	19.97	-76.07	1.92	0.66	-17.69
4,015.43	6.02	197.33	4,012.85	-76.39	19.52	-77.38	2.06	0.81	-18.20
4,029.00	6.15	195.03	4,026.34	-77.77	19.12	-78.74	2.04	0.96	-16.95
4,042.43	6.25	192.84	4,039.70	-79.18	18.77	-80.12	1.91	0.74	-16.31
4,055.86	6.36	190.85	4,053.04	-80.62	18.47	-81.55	1.82	0.82	-14.82
4,069.29	6.48	189.03	4,066.39	-82.10	18.21	-83.01	1.76	0.89	-13.55
4,082.71	6.25	190.02	4,079.73	-83.56	17.97	-84.46	1.90	-1.71	7.38
4,096.14	6.06	193.09	4,093.08	-84.98	17.68	-85.85	2.83	-1.41	22.86
4,109.57	6.15	191.24	4,106.43	-86.37	17.38	-87.23	1.61	0.67	-13.78
4,123.00	6.23	189.34	4,119.79	-87.80	17.12	-88.63	1.64	0.60	-14.15
4,136.57	6.25	187.26	4,133.27	-89.26	16.91	-90.08	1.67	0.15	-15.33
4,150.14	6.29	186.70	4,146.76	-90.73	16.73	-91.54	0.54	0.29	-4.13
4,163.71	6.65	194.29	4,160.25	-92.23	16.45	-93.02	6.83	2.65	55.93
4,177.29	6.80	199.71	4,173.73	-93.74	15.98	-94.51	4.80	1.10	39.91
4,190.86	7.62	203.81	4,187.20	-95.32	15.35	-96.05	7.13	6.04	30.21
4,204.43	7.50	202.50	4,200.65	-96.97	14.65	-97.65	1.55	-0.88	-9.65
4,218.00	7.35	201.30	4,214.11	-98.59	13.99	-99.23	1.59	-1.11	-8.84
4,231.57	7.13	200.62	4,227.57	-100.19	13.38	-100.79	1.74	-1.62	-5.01
4,245.14	7.74	205.76	4,241.02	-101.80	12.69	-102.36	6.65	4.50	37.88
4,258.71	7.55	208.69	4,254.47	-103.41	11.86	-103.92	3.20	-1.40	21.59
4,272.29	6.75	213.25	4,267.95	-104.86	10.99	-105.31	7.22	-5.89	33.58
4,285.86	6.25	217.48	4,281.43	-106.11	10.11	-106.51	5.10	-3.68	31.17
4,299.43	6.02	218.09	4,294.92	-107.26	9.22	-107.61	1.76	-1.69	4.50
4,313.00	5.82	218.72	4,308.42	-108.35	8.35	-108.65	1.55	-1.47	4.64



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
4,326.57	5.20	223.68	4,321.93	-109.33	7.49	-109.58	5.76	-4.57	36.55
4,340.14	4.94	237.16	4,335.44	-110.10	6.58	-110.29	8.96	-1.92	99.34
4,353.71	4.84	253.33	4,348.97	-110.58	5.54	-110.71	10.15	-0.74	119.16
4,367.29	4.92	261.39	4,362.50	-110.83	4.42	-110.90	5.08	0.59	59.35
4,380.86	5.05	261.01	4,376.01	-111.01	3.25	-111.01	0.99	0.96	-2.80
4,394.43	5.22	260.62	4,389.53	-111.20	2.05	-111.14	1.28	1.25	-2.87
4,408.00	5.39	260.25	4,403.04	-111.41	0.81	-111.27	1.28	1.25	-2.73
4,421.43	5.03	263.07	4,416.42	-111.59	-0.39	-111.38	3.29	-2.68	21.00
4,434.86	4.70	276.41	4,429.80	-111.60	-1.52	-111.33	8.75	-2.46	99.33
4,448.29	4.68	293.88	4,443.18	-111.32	-2.57	-110.98	10.60	-0.15	130.08
4,461.71	4.87	297.09	4,456.56	-110.83	-3.58	-110.45	2.44	1.42	23.92
4,475.14	5.13	296.44	4,469.94	-110.31	-4.62	-109.86	1.98	1.94	-4.84
4,488.57	5.38	295.85	4,483.31	-109.77	-5.73	-109.25	1.90	1.86	-4.39
4,502.00	5.59	295.36	4,496.68	-109.21	-6.89	-108.63	1.60	1.56	-3.65
4,515.57	5.72	294.96	4,510.18	-108.64	-8.10	-108.00	1.00	0.96	-2.95
4,529.14	5.80	294.69	4,523.68	-108.07	-9.33	-107.36	0.62	0.59	-1.99
4,542.71	5.86	294.49	4,537.18	-107.50	-10.59	-106.71	0.47	0.44	-1.47
4,556.29	5.89	294.35	4,550.69	-106.92	-11.85	-106.06	0.24	0.22	-1.03
4,569.86	5.91	294.23	4,564.19	-106.35	-13.12	-105.42	0.17	0.15	-0.88
4,583.43	5.93	294.14	4,577.69	-105.77	-14.40	-104.77	0.16	0.15	-0.66
4,597.00	5.96	294.05	4,591.19	-105.20	-15.68	-104.13	0.23	0.22	-0.66
4,610.57	6.00	293.96	4,604.68	-104.63	-16.97	-103.48	0.30	0.29	-0.66
4,624.14	6.04	293.87	4,618.18	-104.05	-18.28	-102.83	0.30	0.29	-0.66
4,637.71	6.09	293.80	4,631.67	-103.47	-19.59	-102.17	0.37	0.37	-0.52
4,651.29	6.14	293.72	4,645.17	-102.89	-20.91	-101.52	0.37	0.37	-0.59
4,664.86	6.19	293.67	4,658.67	-102.30	-22.25	-100.85	0.37	0.37	-0.37
4,678.43	6.24	293.63	4,672.16	-101.71	-23.59	-100.19	0.37	0.37	-0.29
4,692.00	6.29	293.61	4,685.64	-101.12	-24.95	-99.52	0.37	0.37	-0.15
4,705.57	6.34	293.65	4,699.13	-100.52	-26.32	-98.84	0.37	0.37	0.29
4,719.14	6.38	293.71	4,712.62	-99.92	-27.69	-98.16	0.30	0.29	0.44
4,732.71	6.43	293.78	4,726.10	-99.31	-29.08	-97.47	0.37	0.37	0.52
4,746.29	6.47	293.85	4,739.60	-98.69	-30.47	-96.78	0.30	0.29	0.52
4,759.86	6.51	293.92	4,753.08	-98.07	-31.88	-96.08	0.30	0.29	0.52
4,773.43	6.55	293.99	4,766.56	-97.44	-33.29	-95.37	0.30	0.29	0.52
4,787.00	6.59	294.04	4,780.04	-96.81	-34.70	-94.66	0.30	0.29	0.37
4,800.43	6.62	294.07	4,793.38	-96.18	-36.11	-93.95	0.22	0.22	0.22
4,813.86	6.66	294.08	4,806.72	-95.55	-37.53	-93.23	0.30	0.30	0.07
4,827.29	6.69	294.09	4,820.06	-94.91	-38.96	-92.52	0.22	0.22	0.07
4,840.71	6.73	294.09	4,833.39	-94.27	-40.39	-91.79	0.30	0.30	0.00
4,854.14	6.76	294.08	4,846.73	-93.63	-41.83	-91.07	0.22	0.22	-0.07
4,867.57	6.81	294.07	4,860.06	-92.98	-43.28	-90.34	0.37	0.37	-0.07
4,881.00	6.86	294.08	4,873.40	-92.33	-44.74	-89.60	0.37	0.37	0.07
4,894.57	6.92	294.09	4,886.87	-91.66	-46.22	-88.86	0.44	0.44	0.07
4,908.14	6.99	294.12	4,900.34	-90.99	-47.72	-88.10	0.52	0.52	0.22



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
4,921.71	7.07	294.14	4,913.81	-90.31	-49.24	-87.34	0.59	0.59	0.15
4,935.29	7.15	294.15	4,927.28	-89.63	-50.77	-86.56	0.59	0.59	0.07
4,948.86	7.22	294.16	4,940.75	-88.93	-52.32	-85.78	0.52	0.52	0.07
4,962.43	7.30	294.14	4,954.21	-88.23	-53.89	-84.99	0.59	0.59	-0.15
4,976.00	7.37	294.11	4,967.67	-87.52	-55.47	-84.19	0.52	0.52	-0.22
4,989.43	7.43	294.05	4,980.99	-86.82	-57.05	-83.39	0.45	0.45	-0.45
5,002.86	7.49	293.96	4,994.30	-86.11	-58.64	-82.60	0.46	0.45	-0.67
5,016.29	7.55	293.81	5,007.62	-85.40	-60.25	-81.79	0.47	0.45	-1.12
5,029.71	7.62	293.60	5,020.92	-84.68	-61.87	-80.99	0.56	0.52	-1.56
5,043.14	7.70	293.29	5,034.23	-83.97	-63.51	-80.18	0.67	0.60	-2.31
5,056.57	7.80	292.85	5,047.54	-83.26	-65.18	-79.38	0.87	0.74	-3.28
5,070.00	7.93	292.21	5,060.84	-82.56	-66.87	-78.58	1.17	0.97	-4.77
5,083.57	8.11	291.25	5,074.28	-81.86	-68.63	-77.78	1.65	1.33	-7.07
5,097.14	8.31	290.17	5,087.71	-81.17	-70.45	-76.99	1.86	1.47	-7.96
5,110.71	8.53	289.08	5,101.13	-80.50	-72.32	-76.22	2.00	1.62	-8.03
5,124.29	8.75	288.09	5,114.56	-79.85	-74.25	-75.46	1.96	1.62	-7.29
5,137.86	8.92	288.45	5,127.97	-79.20	-76.23	-74.69	1.32	1.25	2.65
5,151.43	8.93	292.90	5,141.37	-78.46	-78.20	-73.84	5.09	0.07	32.79
5,165.00	7.74	293.36	5,154.80	-77.69	-80.01	-72.96	8.78	-8.77	3.39
5,178.57	6.66	289.92	5,168.26	-77.06	-81.59	-72.24	8.57	-7.96	-25.35
5,192.14	6.31	283.81	5,181.75	-76.61	-83.05	-71.71	5.70	-2.58	-45.03
5,205.71	6.50	283.33	5,195.23	-76.25	-84.52	-71.27	1.45	1.40	-3.54
5,219.29	6.69	282.94	5,208.72	-75.90	-86.04	-70.83	1.44	1.40	-2.87
5,232.86	6.87	282.64	5,222.20	-75.55	-87.60	-70.39	1.35	1.33	-2.21
5,246.43	7.03	282.45	5,235.67	-75.19	-89.21	-69.94	1.19	1.18	-1.40
5,260.00	7.15	282.39	5,249.13	-74.83	-90.84	-69.48	0.89	0.88	-0.44
5,273.43	7.19	282.56	5,262.46	-74.47	-92.48	-69.03	0.34	0.30	1.27
5,286.86	7.18	282.82	5,275.78	-74.10	-94.12	-68.57	0.25	-0.07	1.94
5,300.29	7.15	283.10	5,289.11	-73.72	-95.75	-68.10	0.34	-0.22	2.08
5,313.71	7.12	283.34	5,302.42	-73.34	-97.37	-67.62	0.32	-0.22	1.79
5,327.14	6.83	279.71	5,315.75	-73.01	-98.97	-67.21	3.93	-2.16	-27.03
5,340.57	6.17	270.63	5,329.10	-72.87	-100.48	-66.98	9.08	-4.91	-67.61
5,354.00	5.33	260.75	5,342.46	-72.96	-101.82	-66.99	9.64	-6.25	-73.57
5,367.57	4.82	247.04	5,355.98	-73.29	-102.96	-67.25	9.67	-3.76	-101.03
5,381.14	4.41	232.63	5,369.51	-73.83	-103.90	-67.73	9.03	-3.02	-106.19
5,394.71	4.39	231.17	5,383.04	-74.47	-104.72	-68.33	0.84	-0.15	-10.76
5,408.29	4.37	229.50	5,396.58	-75.13	-105.52	-68.94	0.95	-0.15	-12.30
5,421.86	4.34	227.75	5,410.11	-75.81	-106.29	-69.58	1.00	-0.22	-12.90
5,435.43	4.33	226.09	5,423.64	-76.51	-107.04	-70.23	0.93	-0.07	-12.23
5,449.00	4.32	224.67	5,437.17	-77.23	-107.77	-70.91	0.79	-0.07	-10.46
5,462.43	4.31	223.76	5,450.56	-77.95	-108.48	-71.59	0.52	-0.07	-6.78
5,475.86	4.31	223.16	5,463.95	-78.69	-109.17	-72.28	0.34	0.00	-4.47
5,489.29	4.31	222.75	5,477.34	-79.43	-109.86	-72.98	0.23	0.00	-3.05



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
5,502.71	4.32	222.48	5,490.73	-80.17	-110.54	-73.68	0.17	0.07	-2.01
5,516.14	4.33	222.30	5,504.12	-80.92	-111.22	-74.39	0.13	0.07	-1.34
5,529.57	4.34	222.18	5,517.51	-81.67	-111.91	-75.10	0.10	0.07	-0.89
5,543.00	4.36	222.10	5,530.90	-82.42	-112.59	-75.82	0.16	0.15	-0.60
5,556.57	4.38	222.04	5,544.43	-83.19	-113.28	-76.54	0.15	0.15	-0.44
5,570.14	4.40	222.00	5,557.96	-83.96	-113.98	-77.28	0.15	0.15	-0.29
5,583.71	4.42	221.97	5,571.49	-84.74	-114.68	-78.01	0.15	0.15	-0.22
5,597.29	4.44	221.94	5,585.03	-85.52	-115.38	-78.75	0.15	0.15	-0.22
5,610.86	4.46	221.89	5,598.56	-86.30	-116.08	-79.49	0.15	0.15	-0.37
5,624.43	4.48	221.83	5,612.09	-87.09	-116.79	-80.24	0.15	0.15	-0.44
5,638.00	4.49	221.73	5,625.62	-87.88	-117.49	-80.98	0.09	0.07	-0.74
5,651.57	4.50	221.56	5,639.15	-88.68	-118.20	-81.74	0.12	0.07	-1.25
5,665.14	4.50	221.36	5,652.67	-89.47	-118.90	-82.49	0.12	0.00	-1.47
5,678.71	4.51	221.14	5,666.20	-90.28	-119.61	-83.25	0.15	0.07	-1.62
5,692.29	4.51	220.93	5,679.74	-91.08	-120.31	-84.02	0.12	0.00	-1.55
5,705.86	4.51	220.72	5,693.27	-91.89	-121.01	-84.78	0.12	0.00	-1.55
5,719.43	4.52	220.55	5,706.80	-92.70	-121.70	-85.55	0.12	0.07	-1.25
5,733.00	4.54	220.44	5,720.32	-93.51	-122.40	-86.33	0.16	0.15	-0.81
5,746.57	4.58	220.41	5,733.85	-94.34	-123.10	-87.11	0.30	0.29	-0.22
5,760.14	4.62	220.44	5,747.38	-95.16	-123.80	-87.89	0.30	0.29	0.22
5,773.71	4.66	220.50	5,760.90	-96.00	-124.52	-88.69	0.30	0.29	0.44
5,787.29	4.72	220.56	5,774.44	-96.84	-125.24	-89.49	0.44	0.44	0.44
5,800.86	4.77	220.63	5,787.96	-97.70	-125.97	-90.30	0.37	0.37	0.52
5,814.43	4.82	220.68	5,801.48	-98.56	-126.71	-91.11	0.37	0.37	0.37
5,828.00	4.88	220.70	5,815.00	-99.43	-127.45	-91.94	0.44	0.44	0.15
5,841.57	4.93	220.69	5,828.52	-100.31	-128.21	-92.77	0.37	0.37	-0.07
5,855.14	4.98	220.64	5,842.04	-101.19	-128.97	-93.62	0.37	0.37	-0.37
5,868.71	5.03	220.56	5,855.56	-102.09	-129.75	-94.47	0.37	0.37	-0.59
5,882.29	5.08	220.46	5,869.09	-103.00	-130.52	-95.33	0.37	0.37	-0.74
5,895.86	5.12	220.33	5,882.61	-103.92	-131.30	-96.21	0.31	0.29	-0.96
5,909.43	5.16	220.18	5,896.12	-104.85	-132.09	-97.09	0.31	0.29	-1.11
5,923.00	5.20	219.98	5,909.64	-105.79	-132.88	-97.98	0.32	0.29	-1.47
5,936.43	5.22	219.72	5,923.01	-106.72	-133.66	-98.87	0.23	0.15	-1.94
5,949.86	5.24	219.43	5,936.38	-107.67	-134.44	-99.76	0.25	0.15	-2.16
5,963.29	5.26	219.11	5,949.76	-108.62	-135.22	-100.67	0.26	0.15	-2.38
5,976.71	5.27	218.80	5,963.12	-109.58	-135.99	-101.58	0.22	0.07	-2.31
5,990.14	5.28	218.51	5,976.49	-110.54	-136.76	-102.50	0.21	0.07	-2.16
6,003.57	5.30	218.24	5,989.87	-111.51	-137.53	-103.42	0.24	0.15	-2.01
6,017.00	5.31	218.03	6,003.24	-112.49	-138.30	-104.35	0.16	0.07	-1.56
6,030.57	5.33	217.90	6,016.75	-113.48	-139.07	-105.30	0.17	0.15	-0.96
6,044.14	5.36	217.82	6,030.26	-114.48	-139.85	-106.25	0.23	0.22	-0.59
6,057.71	5.38	217.78	6,043.77	-115.48	-140.63	-107.21	0.15	0.15	-0.29
6,071.29	5.40	217.77	6,057.29	-116.49	-141.41	-108.17	0.15	0.15	-0.07



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
6,084.86	5.43	217.77	6,070.80	-117.50	-142.19	-109.14	0.22	0.22	0.00
6,098.43	5.45	217.78	6,084.31	-118.52	-142.98	-110.11	0.15	0.15	0.07
6,112.00	5.48	217.80	6,097.82	-119.54	-143.77	-111.08	0.22	0.22	0.15
6,125.43	5.50	217.82	6,111.19	-120.56	-144.56	-112.05	0.15	0.15	0.15
6,138.86	5.52	217.84	6,124.56	-121.57	-145.35	-113.02	0.15	0.15	0.15
6,152.29	5.54	217.87	6,137.92	-122.60	-146.15	-113.99	0.15	0.15	0.22
6,165.71	5.57	217.90	6,151.28	-123.62	-146.94	-114.97	0.22	0.22	0.22
6,179.14	5.59	217.93	6,164.65	-124.65	-147.75	-115.96	0.15	0.15	0.22
6,192.57	5.61	217.97	6,178.01	-125.68	-148.55	-116.94	0.15	0.15	0.30
6,206.00	5.49	218.76	6,191.38	-126.70	-149.36	-117.91	1.06	-0.89	5.88
6,219.57	5.26	219.12	6,204.89	-127.69	-150.16	-118.85	1.71	-1.69	2.65
6,233.14	5.72	214.56	6,218.40	-128.73	-150.93	-119.85	4.67	3.39	-33.60
6,246.71	6.73	220.71	6,231.89	-129.89	-151.83	-120.95	8.91	7.44	45.32
6,260.29	7.19	229.17	6,245.37	-131.05	-153.00	-122.04	8.26	3.39	62.30
6,273.86	7.23	229.35	6,258.83	-132.16	-154.29	-123.08	0.34	0.29	1.33
6,287.43	7.27	229.54	6,272.29	-133.27	-155.59	-124.11	0.34	0.29	1.40
6,301.00	7.32	229.70	6,285.75	-134.39	-156.90	-125.15	0.40	0.37	1.18
6,314.43	7.37	229.81	6,299.07	-135.50	-158.21	-126.18	0.39	0.37	0.82
6,327.86	7.42	229.88	6,312.39	-136.61	-159.53	-127.22	0.38	0.37	0.52
6,341.29	7.48	229.94	6,325.71	-137.74	-160.86	-128.26	0.45	0.45	0.45
6,354.71	7.54	229.98	6,339.01	-138.86	-162.21	-129.31	0.45	0.45	0.30
6,368.14	7.59	230.02	6,352.32	-140.00	-163.56	-130.37	0.37	0.37	0.30
6,381.57	7.65	230.08	6,365.64	-141.14	-164.93	-131.43	0.45	0.45	0.45
6,395.00	7.71	230.15	6,378.95	-142.30	-166.30	-132.50	0.45	0.45	0.52
6,408.57	7.76	230.27	6,392.39	-143.46	-167.71	-133.59	0.39	0.37	0.88
6,422.14	7.81	230.40	6,405.84	-144.64	-169.12	-134.68	0.39	0.37	0.96
6,435.71	7.86	230.54	6,419.28	-145.81	-170.55	-135.77	0.39	0.37	1.03
6,449.29	7.90	230.68	6,432.73	-147.00	-171.99	-136.87	0.33	0.29	1.03
6,462.86	7.94	230.79	6,446.17	-148.18	-173.44	-137.97	0.32	0.29	0.81
6,476.43	7.98	230.88	6,459.61	-149.37	-174.89	-139.07	0.31	0.29	0.66
6,490.00	8.02	230.91	6,473.05	-150.56	-176.36	-140.18	0.30	0.29	0.22
6,503.43	8.04	230.87	6,486.35	-151.74	-177.81	-141.27	0.15	0.15	-0.30
6,516.86	8.07	230.78	6,499.65	-152.93	-179.27	-142.38	0.24	0.22	-0.67
6,530.29	8.09	230.66	6,512.94	-154.13	-180.73	-143.48	0.19	0.15	-0.89
6,543.71	8.11	230.54	6,526.23	-155.33	-182.20	-144.60	0.20	0.15	-0.89
6,557.14	8.13	230.44	6,539.52	-156.53	-183.66	-145.72	0.18	0.15	-0.74
6,570.57	8.16	230.35	6,552.82	-157.75	-185.13	-146.85	0.24	0.22	-0.67
6,584.00	8.19	230.33	6,566.11	-158.96	-186.60	-147.98	0.22	0.22	-0.15
6,597.57	8.23	230.38	6,579.54	-160.20	-188.09	-149.13	0.30	0.29	0.37
6,611.14	8.28	230.49	6,592.97	-161.44	-189.59	-150.28	0.39	0.37	0.81
6,624.71	8.33	230.62	6,606.40	-162.69	-191.10	-151.44	0.39	0.37	0.96
6,638.29	8.39	230.76	6,619.84	-163.94	-192.63	-152.60	0.47	0.44	1.03
6,651.86	8.44	230.88	6,633.26	-165.19	-194.17	-153.76	0.39	0.37	0.88
6,665.43	8.50	230.97	6,646.68	-166.45	-195.72	-154.93	0.45	0.44	0.66



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
6,679.00	8.58	231.86	6,660.10	-167.71	-197.30	-156.09	1.14	0.59	6.56
6,692.43	8.63	234.41	6,673.38	-168.91	-198.90	-157.21	2.86	0.37	18.99
6,705.86	8.11	241.51	6,686.67	-169.95	-200.56	-158.15	8.61	-3.87	52.87
6,719.29	8.10	242.45	6,699.96	-170.84	-202.23	-158.94	0.99	-0.07	7.00
6,732.71	8.17	242.23	6,713.25	-171.72	-203.91	-159.72	0.57	0.52	-1.64
6,746.14	8.23	241.98	6,726.54	-172.62	-205.60	-160.52	0.52	0.45	-1.86
6,759.57	8.29	241.72	6,739.83	-173.53	-207.30	-161.33	0.53	0.45	-1.94
6,773.00	8.34	241.48	6,753.12	-174.45	-209.01	-162.15	0.45	0.37	-1.79
6,786.57	8.37	241.26	6,766.55	-175.40	-210.74	-163.00	0.32	0.22	-1.62
6,800.14	8.39	241.07	6,779.97	-176.35	-212.48	-163.85	0.25	0.15	-1.40
6,813.71	8.40	240.89	6,793.40	-177.31	-214.21	-164.71	0.21	0.07	-1.33
6,827.29	8.41	240.72	6,806.83	-178.28	-215.94	-165.58	0.20	0.07	-1.25
6,840.86	8.42	240.56	6,820.25	-179.26	-217.67	-166.45	0.19	0.07	-1.18
6,854.43	8.43	240.41	6,833.68	-180.23	-219.40	-167.33	0.18	0.07	-1.11
6,868.00	8.46	240.26	6,847.10	-181.22	-221.13	-168.21	0.27	0.22	-1.11
6,881.57	8.49	240.13	6,860.52	-182.21	-222.87	-169.11	0.26	0.22	-0.96
6,895.14	8.54	240.01	6,873.94	-183.22	-224.61	-170.01	0.39	0.37	-0.88
6,908.71	8.59	239.92	6,887.36	-184.23	-226.36	-170.92	0.38	0.37	-0.66
6,922.29	8.64	239.86	6,900.79	-185.25	-228.12	-171.84	0.37	0.37	-0.44
6,935.86	8.69	239.84	6,914.20	-186.28	-229.89	-172.76	0.37	0.37	-0.15
6,949.43	8.56	241.97	6,927.62	-187.27	-231.67	-173.64	2.54	-0.96	15.70
6,963.00	8.13	248.27	6,941.05	-188.10	-233.45	-174.37	7.44	-3.17	46.43
6,976.43	7.92	252.21	6,954.35	-188.73	-235.21	-174.90	4.38	-1.56	29.34
6,989.86	7.95	252.62	6,967.65	-189.29	-236.98	-175.36	0.48	0.22	3.05
7,003.29	7.99	253.09	6,980.95	-189.84	-238.76	-175.81	0.57	0.30	3.50
7,016.71	8.02	253.58	6,994.24	-190.38	-240.55	-176.24	0.56	0.22	3.65
7,030.14	8.05	254.05	7,007.53	-190.90	-242.35	-176.66	0.54	0.22	3.50
7,043.57	8.08	254.46	7,020.83	-191.41	-244.16	-177.06	0.48	0.22	3.05
7,057.00	8.10	254.78	7,034.13	-191.91	-245.99	-177.46	0.37	0.15	2.38
7,070.57	8.11	254.92	7,047.56	-192.41	-247.83	-177.85	0.16	0.07	1.03
7,084.14	8.11	254.95	7,061.00	-192.91	-249.68	-178.24	0.03	0.00	0.22
7,097.71	8.11	254.91	7,074.43	-193.41	-251.53	-178.63	0.04	0.00	-0.29
7,111.29	8.11	254.83	7,087.88	-193.91	-253.38	-179.03	0.08	0.00	-0.59
7,124.86	8.12	254.71	7,101.31	-194.41	-255.23	-179.42	0.14	0.07	-0.88
7,138.43	8.13	254.58	7,114.74	-194.92	-257.08	-179.82	0.15	0.07	-0.96
7,152.00	8.15	254.45	7,128.18	-195.43	-258.93	-180.23	0.20	0.15	-0.96
7,165.57	8.18	254.33	7,141.61	-195.95	-260.79	-180.64	0.25	0.22	-0.88
7,179.14	8.21	254.21	7,155.04	-196.47	-262.65	-181.06	0.25	0.22	-0.88
7,192.71	8.26	254.10	7,168.47	-197.00	-264.52	-181.48	0.39	0.37	-0.81
7,206.29	8.30	253.99	7,181.91	-197.54	-266.40	-181.91	0.32	0.29	-0.81
7,219.86	8.35	253.87	7,195.34	-198.09	-268.29	-182.34	0.39	0.37	-0.88
7,233.43	8.40	253.75	7,208.76	-198.64	-270.18	-182.78	0.39	0.37	-0.88
7,247.00	8.44	253.61	7,222.18	-199.19	-272.09	-183.23	0.33	0.29	-1.03



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
7,260.43	8.48	253.46	7,235.47	-199.75	-273.99	-183.68	0.34	0.30	-1.12
7,273.86	8.52	253.29	7,248.75	-200.32	-275.89	-184.14	0.35	0.30	-1.27
7,287.29	8.56	253.12	7,262.03	-200.90	-277.80	-184.60	0.35	0.30	-1.27
7,300.71	8.59	252.94	7,275.30	-201.48	-279.71	-185.08	0.30	0.22	-1.34
7,314.14	8.62	252.77	7,288.58	-202.08	-281.63	-185.56	0.29	0.22	-1.27
7,327.57	8.65	252.61	7,301.86	-202.68	-283.56	-186.05	0.29	0.22	-1.19
7,341.00	8.67	252.47	7,315.14	-203.28	-285.48	-186.54	0.22	0.15	-1.04
7,354.57	8.69	252.35	7,328.55	-203.90	-287.44	-187.05	0.20	0.15	-0.88
7,368.14	8.70	252.26	7,341.96	-204.52	-289.39	-187.56	0.12	0.07	-0.66
7,381.71	8.71	252.16	7,355.38	-205.15	-291.35	-188.07	0.13	0.07	-0.74
7,395.29	8.72	252.07	7,368.80	-205.78	-293.31	-188.59	0.12	0.07	-0.66
7,408.86	8.73	251.97	7,382.21	-206.42	-295.26	-189.11	0.13	0.07	-0.74
7,422.43	8.74	251.85	7,395.63	-207.06	-297.22	-189.64	0.15	0.07	-0.88
7,436.00	8.75	251.71	7,409.04	-207.70	-299.18	-190.17	0.17	0.07	-1.03
7,449.43	8.76	251.51	7,422.31	-208.35	-301.12	-190.70	0.24	0.07	-1.49
7,462.86	8.76	251.29	7,435.59	-209.00	-303.06	-191.24	0.25	0.00	-1.64
7,476.29	8.77	251.06	7,448.86	-209.66	-305.00	-191.79	0.27	0.07	-1.71
7,489.71	8.77	250.81	7,462.12	-210.33	-306.93	-192.35	0.28	0.00	-1.86
7,503.14	8.78	250.57	7,475.39	-211.01	-308.86	-192.91	0.28	0.07	-1.79
7,516.57	8.79	250.34	7,488.67	-211.69	-310.80	-193.49	0.27	0.07	-1.71
7,530.00	8.79	250.14	7,501.94	-212.39	-312.73	-194.07	0.23	0.00	-1.49
7,543.43	8.78	249.96	7,515.21	-213.09	-314.66	-194.65	0.22	-0.07	-1.34
7,556.86	8.78	249.82	7,528.48	-213.79	-316.58	-195.25	0.16	0.00	-1.04
7,570.29	8.79	249.69	7,541.76	-214.50	-318.51	-195.85	0.17	0.07	-0.97
7,583.71	8.81	249.59	7,555.02	-215.22	-320.43	-196.45	0.19	0.15	-0.75
7,597.14	8.85	249.52	7,568.29	-215.94	-322.36	-197.06	0.31	0.30	-0.52
7,610.57	8.92	249.47	7,581.56	-216.66	-324.31	-197.67	0.52	0.52	-0.37
7,624.00	9.05	249.48	7,594.82	-217.40	-326.27	-198.29	0.97	0.97	0.07
7,637.57	9.25	249.54	7,608.22	-218.15	-328.29	-198.93	1.48	1.47	0.44
7,651.14	9.51	249.64	7,621.61	-218.93	-330.36	-199.58	1.92	1.92	0.74
7,664.71	9.79	249.74	7,634.99	-219.71	-332.50	-200.25	2.07	2.06	0.74
7,678.29	10.07	249.82	7,648.36	-220.52	-334.69	-200.93	2.06	2.06	0.59
7,691.86	10.33	249.86	7,661.72	-221.35	-336.95	-201.62	1.92	1.92	0.29
7,705.43	9.59	248.61	7,675.09	-222.18	-339.15	-202.33	5.68	-5.45	-9.21
7,719.00	9.04	247.85	7,688.48	-223.00	-341.19	-203.02	4.15	-4.05	-5.60
7,732.43	8.91	247.42	7,701.74	-223.80	-343.12	-203.71	1.09	-0.97	-3.20
7,745.86	9.02	247.09	7,715.01	-224.60	-345.05	-204.41	0.90	0.82	-2.46
7,759.29	9.11	246.72	7,728.27	-225.43	-347.00	-205.12	0.80	0.67	-2.76
7,772.71	9.19	246.33	7,741.52	-226.28	-348.96	-205.86	0.75	0.60	-2.91
7,786.14	9.25	245.95	7,754.78	-227.15	-350.92	-206.61	0.64	0.45	-2.83
7,799.57	9.30	245.60	7,768.03	-228.04	-352.90	-207.39	0.56	0.37	-2.61
7,813.00	9.33	245.33	7,781.28	-228.95	-354.88	-208.18	0.39	0.22	-2.01
7,826.57	9.35	245.15	7,794.67	-229.87	-356.88	-208.98	0.26	0.15	-1.33



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
7,840.14	9.36	245.05	7,808.06	-230.80	-358.88	-209.79	0.14	0.07	-0.74
7,853.71	9.35	245.01	7,821.45	-231.73	-360.88	-210.61	0.09	-0.07	-0.29
7,867.29	9.34	245.01	7,834.85	-232.66	-362.88	-211.42	0.07	-0.07	0.00
7,880.86	9.32	245.04	7,848.24	-233.59	-364.87	-212.24	0.15	-0.15	0.22
7,894.43	9.33	245.10	7,861.63	-234.52	-366.86	-213.05	0.10	0.07	0.44
7,908.00	9.37	245.19	7,875.02	-235.44	-368.86	-213.86	0.31	0.29	0.66
7,921.43	9.33	245.32	7,888.27	-236.36	-370.85	-214.65	0.34	-0.30	0.97
7,934.86	9.29	245.47	7,901.53	-237.26	-372.82	-215.44	0.35	-0.30	1.12
7,948.29	9.24	245.64	7,914.78	-238.15	-374.79	-216.22	0.42	-0.37	1.27
7,961.71	8.81	248.28	7,928.04	-238.98	-376.73	-216.94	4.45	-3.20	19.67
7,975.14	8.50	250.45	7,941.31	-239.69	-378.62	-217.54	3.35	-2.31	16.16
7,988.57	8.47	250.62	7,954.60	-240.35	-380.48	-218.09	0.29	-0.22	1.27
8,002.00	8.47	250.75	7,967.88	-241.01	-382.35	-218.64	0.14	0.00	0.97
8,015.57	8.49	250.80	7,981.30	-241.67	-384.24	-219.19	0.16	0.15	0.37
8,029.14	8.52	250.81	7,994.72	-242.33	-386.14	-219.74	0.22	0.22	0.07
8,042.71	8.56	250.82	8,008.14	-242.99	-388.04	-220.29	0.29	0.29	0.07
8,056.29	8.60	250.85	8,021.57	-243.65	-389.95	-220.84	0.30	0.29	0.22
8,069.86	8.63	250.94	8,034.99	-244.32	-391.87	-221.40	0.24	0.22	0.66
8,083.43	8.64	251.12	8,048.40	-244.98	-393.80	-221.95	0.21	0.07	1.33
8,097.00	8.62	251.45	8,061.82	-245.63	-395.73	-222.49	0.39	-0.15	2.43
8,110.57	8.55	252.04	8,075.24	-246.27	-397.65	-223.01	0.83	-0.52	4.35
8,124.14	8.10	249.39	8,088.66	-246.92	-399.51	-223.55	4.36	-3.32	-19.53
8,137.71	7.95	250.02	8,102.10	-247.57	-401.28	-224.11	1.28	-1.11	4.64
8,151.29	7.76	250.40	8,115.55	-248.20	-403.03	-224.63	1.45	-1.40	2.80
8,164.86	7.61	251.49	8,129.00	-248.79	-404.75	-225.13	1.54	-1.11	8.03
8,178.43	7.48	252.53	8,142.45	-249.34	-406.44	-225.58	1.39	-0.96	7.66
8,192.00	7.37	253.39	8,155.91	-249.86	-408.12	-225.99	1.15	-0.81	6.34
8,205.57	7.30	253.80	8,169.37	-250.35	-409.78	-226.39	0.64	-0.52	3.02
8,219.14	7.26	253.98	8,182.83	-250.82	-411.43	-226.77	0.34	-0.29	1.33
8,232.71	7.25	254.01	8,196.29	-251.30	-413.08	-227.15	0.08	-0.07	0.22
8,246.29	7.25	253.94	8,209.76	-251.77	-414.72	-227.52	0.07	0.00	-0.52
8,259.86	7.26	253.81	8,223.22	-252.25	-416.37	-227.90	0.14	0.07	-0.96
8,273.43	7.28	253.64	8,236.69	-252.73	-418.02	-228.29	0.22	0.15	-1.25
8,287.00	7.30	253.46	8,250.15	-253.22	-419.67	-228.68	0.22	0.15	-1.33
8,300.43	7.32	253.29	8,263.47	-253.70	-421.31	-229.08	0.22	0.15	-1.27
8,313.86	7.34	253.12	8,276.79	-254.20	-422.95	-229.48	0.22	0.15	-1.27
8,327.29	7.36	252.96	8,290.11	-254.70	-424.59	-229.88	0.21	0.15	-1.19
8,340.71	7.38	252.80	8,303.42	-255.21	-426.24	-230.29	0.21	0.15	-1.19
8,354.14	7.39	252.64	8,316.73	-255.72	-427.89	-230.71	0.17	0.07	-1.19
8,367.57	7.40	252.48	8,330.05	-256.24	-429.53	-231.13	0.17	0.07	-1.19
8,381.00	7.41	252.32	8,343.37	-256.76	-431.18	-231.56	0.17	0.07	-1.19
8,394.43	7.40	252.17	8,356.69	-257.29	-432.83	-231.99	0.16	-0.07	-1.12
8,407.86	7.39	252.03	8,370.01	-257.82	-434.48	-232.43	0.15	-0.07	-1.04
8,421.29	7.37	251.91	8,383.33	-258.35	-436.12	-232.87	0.19	-0.15	-0.89



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
8,434.71	7.35	251.83	8,396.63	-258.89	-437.75	-233.31	0.17	-0.15	-0.60
8,448.14	7.33	251.81	8,409.95	-259.42	-439.38	-233.75	0.15	-0.15	-0.15
8,461.57	7.30	251.88	8,423.28	-259.96	-441.01	-234.19	0.23	-0.22	0.52
8,475.00	7.27	252.08	8,436.60	-260.48	-442.63	-234.62	0.29	-0.22	1.49
8,488.57	7.23	252.52	8,450.06	-261.01	-444.26	-235.05	0.50	-0.29	3.24
8,502.14	7.20	253.08	8,463.52	-261.51	-445.89	-235.46	0.56	-0.22	4.13
8,515.71	7.15	253.71	8,476.98	-261.99	-447.51	-235.85	0.69	-0.37	4.64
8,529.29	7.10	254.36	8,490.46	-262.46	-449.13	-236.21	0.70	-0.37	4.79
8,542.86	7.04	254.96	8,503.93	-262.90	-450.74	-236.56	0.70	-0.44	4.42
8,556.43	6.97	255.47	8,517.40	-263.32	-452.34	-236.89	0.69	-0.52	3.76
8,570.00	6.88	252.82	8,530.87	-263.77	-453.91	-237.25	2.45	-0.66	-19.53
8,583.43	6.74	250.44	8,544.20	-264.27	-455.42	-237.66	2.35	-1.04	-17.72
8,596.86	6.59	250.28	8,557.54	-264.79	-456.89	-238.10	1.13	-1.12	-1.19
8,610.29	6.43	249.99	8,570.88	-265.31	-458.33	-238.54	1.22	-1.19	-2.16
8,623.71	6.26	249.62	8,584.22	-265.82	-459.72	-238.97	1.30	-1.27	-2.76
8,637.14	6.08	249.22	8,597.57	-266.33	-461.07	-239.40	1.38	-1.34	-2.98
8,650.57	5.91	250.85	8,610.93	-266.81	-462.39	-239.80	1.79	-1.27	12.14
8,664.00	5.75	250.55	8,624.29	-267.26	-463.67	-240.17	1.21	-1.19	-2.23
8,677.43	5.65	250.40	8,637.66	-267.71	-464.93	-240.55	0.75	-0.74	-1.12
8,690.86	5.51	250.43	8,651.02	-268.14	-466.16	-240.91	1.04	-1.04	0.22
8,704.29	5.38	250.54	8,664.39	-268.57	-467.36	-241.27	0.97	-0.97	0.82
8,717.71	5.25	250.70	8,677.75	-268.98	-468.54	-241.61	0.97	-0.97	1.19
8,731.14	5.12	250.89	8,691.13	-269.38	-469.68	-241.95	0.98	-0.97	1.41
8,744.57	4.99	251.10	8,704.51	-269.77	-470.80	-242.27	0.98	-0.97	1.56
8,758.00	4.85	251.33	8,717.89	-270.14	-471.89	-242.57	1.05	-1.04	1.71
8,771.57	4.70	251.51	8,731.41	-270.50	-472.96	-242.87	1.11	-1.11	1.33
8,785.14	4.55	251.68	8,744.94	-270.84	-474.00	-243.16	1.11	-1.11	1.25
8,798.71	4.39	251.84	8,758.46	-271.17	-475.00	-243.43	1.18	-1.18	1.18
8,812.29	4.23	251.96	8,772.01	-271.49	-475.97	-243.69	1.18	-1.18	0.88
8,825.86	4.08	252.04	8,785.54	-271.79	-476.91	-243.94	1.11	-1.11	0.59
8,839.43	3.93	252.04	8,799.08	-272.09	-477.81	-244.18	1.11	-1.11	0.00
8,853.00	3.79	251.91	8,812.62	-272.37	-478.68	-244.41	1.03	-1.03	-0.96
8,866.43	3.67	251.56	8,826.02	-272.64	-479.51	-244.64	0.91	-0.89	-2.61
8,879.86	3.56	251.05	8,839.42	-272.91	-480.31	-244.86	0.85	-0.82	-3.80
8,893.29	3.45	250.44	8,852.83	-273.19	-481.09	-245.09	0.86	-0.82	-4.54
8,906.71	3.35	249.74	8,866.22	-273.46	-481.83	-245.32	0.81	-0.75	-5.22
8,920.14	3.26	248.98	8,879.63	-273.73	-482.56	-245.55	0.75	-0.67	-5.66
8,933.57	3.18	248.19	8,893.04	-274.00	-483.26	-245.78	0.68	-0.60	-5.88
8,947.00	3.10	247.41	8,906.45	-274.28	-483.94	-246.02	0.68	-0.60	-5.81
8,960.57	3.02	246.79	8,920.00	-274.56	-484.61	-246.26	0.64	-0.59	-4.57
8,974.14	2.96	246.19	8,933.55	-274.85	-485.26	-246.51	0.50	-0.44	-4.42
8,987.71	2.90	245.60	8,947.10	-275.13	-485.89	-246.75	0.49	-0.44	-4.35
9,001.29	2.84	245.00	8,960.67	-275.41	-486.51	-247.00	0.49	-0.44	-4.42



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
9,014.86	2.80	244.36	8,974.22	-275.70	-487.11	-247.25	0.38	-0.29	-4.72
9,028.43	2.77	243.66	8,987.77	-275.99	-487.71	-247.51	0.33	-0.22	-5.16
9,042.00	2.76	242.87	9,001.33	-276.28	-488.29	-247.77	0.29	-0.07	-5.82
9,056.71	2.78	241.86	9,016.02	-276.61	-488.92	-248.06	0.36	0.14	-6.87
9,071.43	2.81	240.76	9,030.72	-276.96	-489.55	-248.37	0.42	0.20	-7.47
9,086.14	2.85	239.60	9,045.41	-277.32	-490.18	-248.69	0.47	0.27	-7.89
9,100.86	2.90	238.38	9,060.12	-277.70	-490.81	-249.04	0.54	0.34	-8.29
9,115.57	2.95	237.07	9,074.81	-278.10	-491.45	-249.40	0.57	0.34	-8.91
9,130.29	2.99	235.60	9,089.51	-278.52	-492.08	-249.79	0.58	0.27	-9.99
9,145.00	3.02	233.83	9,104.20	-278.97	-492.71	-250.19	0.66	0.20	-12.03
9,157.80	3.01	231.70	9,116.98	-279.37	-493.25	-250.57	0.88	-0.08	-16.64
9,170.60	3.00	229.65	9,129.76	-279.80	-493.77	-250.96	0.84	-0.08	-16.02
9,183.40	3.02	228.22	9,142.54	-280.24	-494.27	-251.38	0.61	0.16	-11.17
9,196.20	3.08	228.04	9,155.33	-280.70	-494.78	-251.80	0.47	0.47	-1.41
9,209.00	3.22	229.78	9,168.11	-281.16	-495.31	-252.23	1.32	1.09	13.59
9,222.43	3.56	233.72	9,181.51	-281.65	-495.93	-252.69	3.07	2.53	29.34
9,235.86	3.99	237.88	9,194.91	-282.14	-496.67	-253.14	3.79	3.20	30.98
9,249.29	4.45	241.28	9,208.31	-282.64	-497.52	-253.59	3.90	3.43	25.32
9,262.71	4.77	250.75	9,221.68	-283.08	-498.50	-253.96	6.14	2.38	70.57
9,276.14	5.55	268.05	9,235.06	-283.28	-499.68	-254.10	12.89	5.81	128.82
9,289.57	7.11	280.06	9,248.41	-283.16	-501.15	-253.89	15.18	11.62	89.43
9,303.00	9.32	282.10	9,261.70	-282.79	-503.03	-253.41	16.60	16.46	15.19
9,316.57	11.51	285.79	9,275.05	-282.19	-505.41	-252.68	16.86	16.14	27.19
9,330.14	13.56	290.55	9,288.29	-281.26	-508.20	-251.59	16.90	15.11	35.08
9,343.71	15.17	296.74	9,301.44	-279.90	-511.27	-250.06	16.38	11.86	45.62
9,357.29	16.74	302.11	9,314.50	-278.06	-514.52	-248.04	15.86	11.56	39.54
9,370.86	18.19	306.10	9,327.44	-275.78	-517.89	-245.56	13.85	10.69	29.40
9,384.43	18.70	309.11	9,340.31	-273.16	-521.28	-242.75	7.96	3.76	22.18
9,398.00	18.21	312.38	9,353.19	-270.36	-524.54	-239.77	8.44	-3.61	24.10
9,411.43	19.31	317.87	9,365.90	-267.29	-527.58	-236.54	15.48	8.19	40.88
9,424.86	20.03	320.82	9,378.55	-263.86	-530.52	-232.94	9.13	5.36	21.97
9,438.29	21.50	325.82	9,391.11	-260.04	-533.36	-228.97	17.14	10.95	37.23
9,451.71	23.13	330.86	9,403.52	-255.71	-536.02	-224.48	18.72	12.15	37.56
9,465.14	25.09	333.18	9,415.78	-250.86	-538.59	-219.50	16.21	14.59	17.27
9,478.57	27.14	335.07	9,427.84	-245.54	-541.17	-214.04	16.47	15.26	14.07
9,492.00	29.01	338.20	9,439.69	-239.74	-543.67	-208.10	17.72	13.92	23.31
9,505.57	30.63	341.78	9,451.46	-233.40	-545.97	-201.64	17.73	11.94	26.38
9,519.14	32.18	345.19	9,463.05	-226.62	-547.98	-194.76	17.37	11.42	25.13
9,532.71	34.32	346.68	9,474.39	-219.41	-549.78	-187.45	16.88	15.77	10.98
9,545.15	36.04	347.95	9,484.56	-212.41	-551.36	-180.38	15.03	13.84	10.20
FTP: 9545.15' MD, 36.04° Inc									
9,546.29	36.20	348.06	9,485.48	-211.76	-551.49	-179.72	15.03	13.90	9.74
9,559.86	37.17	349.07	9,496.36	-203.81	-553.10	-171.69	8.42	7.15	7.44



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
9,573.43	37.59	351.76	9,507.15	-195.69	-554.47	-163.50	12.43	3.10	19.82
9,587.00	38.08	355.18	9,517.87	-187.42	-555.42	-155.20	15.87	3.61	25.20
9,600.43	38.66	357.88	9,528.40	-179.10	-555.92	-146.86	13.20	4.32	20.10
9,613.86	38.76	357.56	9,538.88	-170.71	-556.25	-138.46	1.67	0.74	-2.38
9,627.29	40.17	356.70	9,549.25	-162.18	-556.68	-129.93	11.26	10.50	-6.40
9,640.71	41.40	356.54	9,559.41	-153.43	-557.20	-121.16	9.20	9.17	-1.19
9,654.14	42.26	357.05	9,569.41	-144.49	-557.70	-112.20	6.89	6.40	3.80
9,667.57	43.84	357.22	9,579.23	-135.33	-558.16	-103.04	11.80	11.76	1.27
9,681.00	43.77	356.94	9,588.92	-126.05	-558.63	-93.74	1.53	-0.52	-2.08
9,694.57	44.51	357.79	9,598.66	-116.61	-559.07	-84.29	6.98	5.45	6.26
9,708.14	45.96	357.88	9,608.21	-106.98	-559.43	-74.66	10.70	10.69	0.66
9,721.71	45.70	357.64	9,617.67	-97.26	-559.81	-64.93	2.30	-1.92	-1.77
9,735.29	46.57	358.54	9,627.08	-87.47	-560.14	-55.14	7.99	6.41	6.63
9,748.86	47.14	358.17	9,636.36	-77.57	-560.42	-45.24	4.65	4.20	-2.73
9,762.43	48.43	358.36	9,645.48	-67.53	-560.72	-35.20	9.56	9.51	1.40
9,776.00	48.73	358.60	9,654.45	-57.36	-560.99	-25.03	2.58	2.21	1.77
9,789.57	48.89	358.90	9,663.39	-47.15	-561.22	-14.82	2.04	1.18	2.21
9,803.14	50.51	359.38	9,672.17	-36.80	-561.37	-4.48	12.24	11.94	3.54
9,816.71	52.05	359.76	9,680.66	-26.21	-561.45	6.09	11.56	11.35	2.80
9,830.29	51.86	0.12	9,689.02	-15.52	-561.46	16.77	2.51	-1.40	2.65
9,843.86	52.81	1.56	9,697.32	-4.78	-561.30	27.48	10.93	7.00	10.61
9,857.43	53.89	3.15	9,705.42	6.10	-560.85	38.32	12.32	7.96	11.72
9,871.00	55.25	4.42	9,713.28	17.13	-560.12	49.29	12.59	10.02	9.36
9,884.57	56.86	5.00	9,720.86	28.35	-559.20	60.44	12.38	11.86	4.27
9,898.14	58.57	5.21	9,728.11	39.78	-558.18	71.79	12.67	12.60	1.55
9,911.71	60.29	5.49	9,735.01	51.41	-557.09	83.34	12.80	12.68	2.06
9,925.29	61.89	5.15	9,741.58	63.24	-555.99	95.09	11.98	11.78	-2.50
9,938.86	62.85	5.12	9,747.87	75.22	-554.91	106.98	7.08	7.07	-0.22
9,952.43	64.01	5.00	9,753.94	87.31	-553.84	118.99	8.58	8.55	-0.88
9,966.00	63.95	4.85	9,759.89	99.46	-552.79	131.06	1.09	-0.44	-1.11
9,979.57	63.95	4.68	9,765.85	111.61	-551.78	143.13	1.13	0.00	-1.25
9,993.14	63.98	4.50	9,771.81	123.76	-550.80	155.21	1.21	0.22	-1.33
10,006.71	64.01	4.33	9,777.76	135.92	-549.87	167.29	1.15	0.22	-1.25
10,020.29	64.62	3.66	9,783.64	148.13	-549.01	179.43	6.32	4.49	-4.93
10,033.86	64.67	3.43	9,789.45	160.37	-548.26	191.61	1.58	0.37	-1.69
10,047.43	64.52	3.32	9,795.27	172.61	-547.53	203.78	1.33	-1.11	-0.81
10,061.00	64.79	2.81	9,801.08	184.85	-546.88	215.97	3.94	1.99	-3.76
10,074.43	65.76	1.90	9,806.70	197.04	-546.38	228.11	9.49	7.22	-6.78
10,087.86	64.94	1.98	9,812.30	209.24	-545.96	240.27	6.13	-6.11	0.60
10,101.29	64.10	2.08	9,818.08	221.35	-545.53	252.34	6.29	-6.25	0.74
10,114.71	65.29	1.33	9,823.82	233.48	-545.17	264.42	10.21	8.87	-5.59
10,128.14	66.73	0.76	9,829.28	245.75	-544.95	276.66	11.40	10.72	-4.24
10,141.57	68.00	0.00	9,834.44	258.14	-544.87	289.03	10.80	9.46	-5.66
10,155.00	69.49	359.56	9,839.31	270.66	-544.92	301.52	11.51	11.09	-3.28



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
10,168.43	71.52	359.68	9,843.79	283.32	-545.00	314.17	15.14	15.12	0.89
10,181.86	73.66	359.26	9,847.81	296.13	-545.12	326.97	16.21	15.93	-3.13
10,195.29	75.90	359.23	9,851.34	309.09	-545.29	339.91	16.68	16.68	-0.22
10,208.71	78.10	359.51	9,854.36	322.16	-545.43	352.97	16.52	16.39	2.09
10,222.14	80.16	359.99	9,856.89	335.35	-545.49	366.14	15.74	15.34	3.57
10,235.57	82.26	359.88	9,858.94	348.62	-545.51	379.39	15.66	15.64	-0.82
10,249.00	84.47	359.86	9,860.49	361.96	-545.54	392.71	16.46	16.46	-0.15
10,262.57	86.62	0.48	9,861.55	375.49	-545.50	406.22	16.49	15.84	4.57
10,276.14	88.52	0.58	9,862.12	389.05	-545.37	419.74	14.02	14.00	0.74
10,289.71	88.68	0.54	9,862.45	402.61	-545.24	433.28	1.22	1.18	-0.29
10,303.29	88.68	0.44	9,862.77	416.19	-545.12	446.82	0.74	0.00	-0.74
10,316.86	88.69	0.34	9,863.08	429.75	-545.03	460.36	0.74	0.07	-0.74
10,330.43	88.71	0.25	9,863.39	443.32	-544.96	473.90	0.68	0.15	-0.66
10,344.00	88.76	0.18	9,863.69	456.89	-544.91	487.44	0.63	0.37	-0.52
10,353.50	88.80	0.16	9,863.89	466.39	-544.88	496.93	0.47	0.42	-0.21
10,363.00	88.91	0.16	9,864.08	475.88	-544.85	506.41	1.16	1.16	0.00
10,377.29	89.30	0.16	9,864.30	490.17	-544.81	520.67	2.73	2.73	0.00
10,391.57	89.86	0.19	9,864.41	504.45	-544.77	534.92	3.93	3.92	0.21
10,405.86	90.53	0.23	9,864.36	518.74	-544.72	549.18	4.70	4.69	0.28
10,420.14	91.23	0.27	9,864.14	533.02	-544.66	563.44	4.91	4.90	0.28
10,434.43	91.92	0.33	9,863.75	547.30	-544.58	577.69	4.85	4.83	0.42
10,448.71	92.54	0.40	9,863.19	561.57	-544.49	591.93	4.37	4.34	0.49
10,463.00	93.01	0.47	9,862.50	575.84	-544.38	606.17	3.33	3.29	0.49
10,476.57	93.21	0.55	9,861.76	589.39	-544.26	619.70	1.59	1.47	0.59
10,490.14	93.27	0.65	9,860.99	602.94	-544.12	633.21	0.86	0.44	0.74
10,503.71	93.04	0.48	9,860.25	616.49	-543.99	646.73	2.11	-1.69	-1.25
10,517.29	92.77	0.48	9,859.56	630.05	-543.87	660.26	1.99	-1.99	0.00
10,530.86	92.13	0.48	9,858.98	643.61	-543.76	673.79	4.72	-4.72	0.00
10,544.43	91.40	0.36	9,858.56	657.17	-543.66	687.33	5.45	-5.38	-0.88
10,558.00	90.79	0.10	9,858.30	670.74	-543.61	700.87	4.89	-4.50	-1.92
10,571.43	90.30	359.85	9,858.17	684.17	-543.61	714.28	4.10	-3.65	-1.86
10,584.86	90.00	359.46	9,858.14	697.60	-543.69	727.69	3.66	-2.23	-2.90
10,598.29	89.67	359.18	9,858.18	711.03	-543.85	741.10	3.22	-2.46	-2.08
10,611.71	89.71	359.29	9,858.25	724.45	-544.03	754.51	0.87	0.30	0.82
10,625.14	89.27	359.00	9,858.37	737.87	-544.23	767.93	3.92	-3.28	-2.16
10,638.57	88.77	359.19	9,858.60	751.30	-544.44	781.34	3.98	-3.72	1.41
10,652.00	88.03	359.25	9,858.98	764.72	-544.63	794.76	5.53	-5.51	0.45
10,665.57	87.32	358.86	9,859.53	778.28	-544.85	808.30	5.97	-5.23	-2.87
10,679.14	86.57	358.40	9,860.25	791.83	-545.17	821.85	6.48	-5.53	-3.39
10,692.71	85.98	358.06	9,861.13	805.36	-545.59	835.38	5.02	-4.35	-2.51
10,706.29	85.43	357.96	9,862.15	818.90	-546.06	848.92	4.12	-4.05	-0.74
10,719.86	84.91	357.48	9,863.29	832.41	-546.60	862.44	5.21	-3.83	-3.54
10,733.43	84.49	356.91	9,864.54	845.90	-547.26	875.95	5.20	-3.10	-4.20



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
10,747.00	84.21	356.37	9,865.88	859.38	-548.05	889.46	4.47	-2.06	-3.98
10,760.14	84.15	355.91	9,867.21	872.43	-548.93	902.53	3.51	-0.46	-3.50
10,773.29	84.25	355.57	9,868.54	885.47	-549.90	915.61	2.68	0.76	-2.59
10,786.43	84.27	355.80	9,869.85	898.51	-550.89	928.68	1.75	0.15	1.75
10,799.57	84.46	356.04	9,871.15	911.55	-551.82	941.76	2.32	1.45	1.83
10,812.71	84.76	356.14	9,872.38	924.60	-552.71	954.84	2.41	2.28	0.76
10,825.86	85.20	356.56	9,873.53	937.68	-553.54	967.94	4.62	3.35	3.19
10,839.00	85.63	357.11	9,874.58	950.76	-554.27	981.03	5.30	3.27	4.19
10,852.43	85.83	357.66	9,875.58	964.13	-554.88	994.43	4.35	1.49	4.10
10,865.86	85.92	358.27	9,876.55	977.52	-555.35	1,007.82	4.58	0.67	4.54
10,879.29	85.92	358.46	9,877.50	990.91	-555.74	1,021.21	1.41	0.00	1.41
10,892.71	85.94	358.63	9,878.45	1,004.29	-556.08	1,034.59	1.27	0.15	1.27
10,906.14	86.18	358.82	9,879.38	1,017.69	-556.37	1,047.98	2.28	1.79	1.41
10,919.57	86.43	359.34	9,880.24	1,031.09	-556.59	1,061.37	4.29	1.86	3.87
10,933.00	86.68	359.52	9,881.05	1,044.49	-556.72	1,074.76	2.29	1.86	1.34
10,946.43	86.80	359.54	9,881.81	1,057.90	-556.83	1,088.15	0.91	0.89	0.15
10,959.86	86.96	0.01	9,882.54	1,071.31	-556.89	1,101.54	3.69	1.19	3.50
10,973.29	87.16	0.78	9,883.23	1,084.72	-556.79	1,114.93	5.92	1.49	5.73
10,986.71	87.34	1.10	9,883.88	1,098.13	-556.57	1,128.29	2.73	1.34	2.38
11,000.14	87.52	1.15	9,884.48	1,111.54	-556.31	1,141.67	1.39	1.34	0.37
11,013.57	87.72	1.66	9,885.04	1,124.95	-555.98	1,155.04	4.08	1.49	3.80
11,027.00	88.27	2.33	9,885.51	1,138.37	-555.51	1,168.41	6.45	4.10	4.99
11,040.29	88.80	2.86	9,885.85	1,151.64	-554.91	1,181.62	5.64	3.99	3.99
11,053.57	89.40	3.10	9,886.06	1,164.90	-554.22	1,194.82	4.87	4.52	1.81
11,066.86	89.68	2.67	9,886.16	1,178.17	-553.55	1,208.03	3.86	2.11	-3.24
11,080.14	89.68	2.52	9,886.24	1,191.44	-552.95	1,221.24	1.13	0.00	-1.13
11,093.43	89.43	2.76	9,886.34	1,204.71	-552.34	1,234.46	2.61	-1.88	1.81
11,106.71	88.77	3.00	9,886.55	1,217.98	-551.67	1,247.66	5.29	-4.97	1.81
11,120.00	88.88	3.28	9,886.82	1,231.24	-550.94	1,260.87	2.26	0.83	2.11
11,133.43	88.93	3.51	9,887.08	1,244.65	-550.15	1,274.20	1.75	0.37	1.71
11,146.86	88.91	4.13	9,887.33	1,258.04	-549.25	1,287.53	4.62	-0.15	4.62
11,160.29	88.59	4.65	9,887.62	1,271.43	-548.23	1,300.83	4.55	-2.38	3.87
11,173.71	88.45	4.86	9,887.97	1,284.80	-547.11	1,314.12	1.88	-1.04	1.56
11,187.14	88.43	5.08	9,888.34	1,298.18	-545.95	1,327.40	1.64	-0.15	1.64
11,200.57	88.41	5.37	9,888.71	1,311.55	-544.73	1,340.68	2.16	-0.15	2.16
11,214.00	88.24	5.82	9,889.10	1,324.91	-543.42	1,353.94	3.58	-1.27	3.35
11,227.14	87.95	5.91	9,889.54	1,337.97	-542.08	1,366.91	2.31	-2.21	0.68
11,240.29	87.92	5.65	9,890.01	1,351.04	-540.75	1,379.88	1.99	-0.23	-1.98
11,253.43	88.17	5.68	9,890.46	1,364.11	-539.46	1,392.86	1.92	1.90	0.23
11,266.57	88.72	5.60	9,890.81	1,377.18	-538.17	1,405.83	4.23	4.19	-0.61
11,279.71	88.79	5.58	9,891.10	1,390.26	-536.89	1,418.81	0.55	0.53	-0.15
11,292.86	88.53	5.55	9,891.41	1,403.34	-535.61	1,431.80	1.99	-1.98	-0.23
11,306.00	88.19	5.28	9,891.78	1,416.42	-534.37	1,444.78	3.30	-2.59	-2.05



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
11,319.43	88.44	4.91	9,892.18	1,429.79	-533.18	1,458.07	3.32	1.86	-2.76
11,332.86	88.68	5.35	9,892.52	1,443.16	-531.98	1,471.35	3.73	1.79	3.28
11,346.29	88.73	5.20	9,892.82	1,456.53	-530.75	1,484.62	1.18	0.37	-1.12
11,359.71	89.10	4.81	9,893.07	1,469.90	-529.58	1,497.90	4.01	2.76	-2.91
11,373.14	89.10	4.48	9,893.28	1,483.28	-528.49	1,511.20	2.46	0.00	-2.46
11,386.57	89.60	3.80	9,893.44	1,496.68	-527.52	1,524.52	6.28	3.72	-5.06
11,400.00	90.05	3.25	9,893.48	1,510.08	-526.69	1,537.85	5.29	3.35	-4.10
11,413.29	90.49	3.08	9,893.41	1,523.35	-525.96	1,551.06	3.55	3.31	-1.28
11,426.57	90.51	2.25	9,893.30	1,536.61	-525.34	1,564.26	6.25	0.15	-6.25
11,439.86	90.64	1.74	9,893.17	1,549.90	-524.88	1,577.50	3.96	0.98	-3.84
11,453.14	90.54	1.08	9,893.03	1,563.17	-524.55	1,590.73	5.03	-0.75	-4.97
11,466.43	90.44	0.46	9,892.92	1,576.46	-524.37	1,603.99	4.73	-0.75	-4.67
11,479.71	90.35	359.78	9,892.82	1,589.74	-524.35	1,617.24	5.17	-0.68	-5.12
11,493.00	90.46	359.07	9,892.73	1,603.03	-524.48	1,630.52	5.41	0.83	-5.34
11,506.29	90.52	358.56	9,892.62	1,616.31	-524.75	1,643.80	3.86	0.45	-3.84
11,519.57	90.66	358.49	9,892.48	1,629.59	-525.10	1,657.07	1.18	1.05	-0.53
11,532.86	90.58	358.71	9,892.34	1,642.87	-525.42	1,670.35	1.76	-0.60	1.66
11,546.14	90.46	359.09	9,892.21	1,656.15	-525.68	1,683.62	3.00	-0.90	2.86
11,559.43	90.27	359.84	9,892.13	1,669.44	-525.80	1,696.90	5.82	-1.43	5.64
11,572.71	90.20	0.86	9,892.08	1,682.72	-525.72	1,710.15	7.70	-0.53	7.68
11,586.00	90.30	0.85	9,892.02	1,696.01	-525.52	1,723.40	0.76	0.75	-0.08
11,599.29	90.48	0.40	9,891.93	1,709.30	-525.38	1,736.66	3.65	1.35	-3.39
11,612.57	90.55	0.69	9,891.81	1,722.58	-525.25	1,749.91	2.25	0.53	2.18
11,625.86	90.28	0.72	9,891.71	1,735.86	-525.09	1,763.17	2.04	-2.03	0.23
11,639.14	90.41	0.72	9,891.63	1,749.14	-524.92	1,776.42	0.98	0.98	0.00
11,652.43	90.42	0.67	9,891.54	1,762.43	-524.76	1,789.67	0.38	0.08	-0.38
11,665.71	90.40	0.96	9,891.44	1,775.71	-524.57	1,802.92	2.19	-0.15	2.18
11,679.00	90.36	1.59	9,891.35	1,789.00	-524.27	1,816.17	4.75	-0.30	4.74
11,692.43	90.47	2.35	9,891.26	1,802.42	-523.81	1,829.54	5.72	0.82	5.66
11,705.86	90.57	3.37	9,891.13	1,815.83	-523.14	1,842.89	7.63	0.74	7.59
11,719.29	90.64	4.47	9,890.99	1,829.23	-522.22	1,856.21	8.21	0.52	8.19
11,732.71	90.68	5.33	9,890.84	1,842.60	-521.08	1,869.50	6.41	0.30	6.41
11,746.14	90.76	5.50	9,890.67	1,855.97	-519.81	1,882.77	1.40	0.60	1.27
11,759.57	90.73	5.48	9,890.49	1,869.34	-518.53	1,896.04	0.27	-0.22	-0.15
11,773.00	90.64	6.18	9,890.33	1,882.69	-517.16	1,909.30	5.25	-0.67	5.21
11,786.57	90.56	6.77	9,890.19	1,896.18	-515.63	1,922.67	4.39	-0.59	4.35
11,800.14	90.37	7.20	9,890.08	1,909.65	-513.98	1,936.03	3.46	-1.40	3.17
11,813.71	90.37	7.54	9,889.99	1,923.10	-512.24	1,949.36	2.51	0.00	2.51
11,827.29	90.47	7.33	9,889.89	1,936.57	-510.48	1,962.70	1.71	0.74	-1.55
11,840.86	90.29	6.87	9,889.80	1,950.03	-508.81	1,976.05	3.64	-1.33	-3.39
11,854.43	90.04	6.24	9,889.76	1,963.52	-507.26	1,989.42	4.99	-1.84	-4.64
11,868.00	89.49	6.04	9,889.82	1,977.01	-505.81	2,002.81	4.31	-4.05	-1.47
11,881.57	89.70	5.42	9,889.92	1,990.51	-504.45	2,016.21	4.82	1.55	-4.57
11,895.14	89.64	4.77	9,889.99	2,004.03	-503.25	2,029.63	4.81	-0.44	-4.79



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
11,908.71	89.61	3.85	9,890.08	2,017.56	-502.23	2,043.08	6.78	-0.22	-6.78
11,922.29	89.55	3.00	9,890.18	2,031.11	-501.41	2,056.57	6.27	-0.44	-6.26
11,935.86	89.60	1.88	9,890.28	2,044.67	-500.84	2,070.07	8.26	0.37	-8.25
11,949.43	89.73	0.64	9,890.36	2,058.24	-500.54	2,083.60	9.19	0.96	-9.14
11,963.00	89.87	359.51	9,890.41	2,071.81	-500.52	2,097.14	8.39	1.03	-8.33
11,976.57	90.05	358.59	9,890.42	2,085.37	-500.75	2,110.70	6.91	1.33	-6.78
11,990.14	90.22	357.96	9,890.39	2,098.94	-501.15	2,124.27	4.81	1.25	-4.64
12,003.71	90.23	358.48	9,890.33	2,112.50	-501.58	2,137.83	3.83	0.07	3.83
12,017.29	90.21	358.77	9,890.28	2,126.08	-501.90	2,151.40	2.14	-0.15	2.14
12,030.86	90.14	359.03	9,890.24	2,139.64	-502.16	2,164.96	1.98	-0.52	1.92
12,044.43	89.88	359.65	9,890.24	2,153.21	-502.32	2,178.52	4.95	-1.92	4.57
12,058.00	89.68	359.66	9,890.29	2,166.78	-502.40	2,192.07	1.48	-1.47	0.07
12,071.43	89.63	359.37	9,890.37	2,180.21	-502.51	2,205.48	2.19	-0.37	-2.16
12,084.86	89.69	359.73	9,890.45	2,193.64	-502.62	2,218.90	2.72	0.45	2.68
12,098.29	90.10	359.43	9,890.48	2,207.07	-502.72	2,232.31	3.78	3.05	-2.23
12,111.71	90.29	359.54	9,890.43	2,220.49	-502.84	2,245.72	1.64	1.42	0.82
12,125.14	90.44	359.54	9,890.34	2,233.92	-502.95	2,259.13	1.12	1.12	0.00
12,138.57	90.25	359.72	9,890.26	2,247.35	-503.03	2,272.54	1.95	-1.41	1.34
12,152.00	89.99	0.09	9,890.24	2,260.78	-503.05	2,285.95	3.37	-1.94	2.76
12,165.57	89.83	0.48	9,890.26	2,274.35	-502.99	2,299.49	3.11	-1.18	2.87
12,179.14	89.71	0.72	9,890.31	2,287.92	-502.85	2,313.03	1.98	-0.88	1.77
12,192.71	89.55	0.36	9,890.40	2,301.49	-502.72	2,326.57	2.90	-1.18	-2.65
12,206.29	89.41	359.89	9,890.52	2,315.07	-502.69	2,340.13	3.61	-1.03	-3.46
12,219.86	89.46	359.13	9,890.66	2,328.63	-502.80	2,353.68	5.61	0.37	-5.60
12,233.43	89.61	358.13	9,890.77	2,342.20	-503.13	2,367.24	7.45	1.11	-7.37
12,247.00	89.64	357.17	9,890.85	2,355.76	-503.68	2,380.81	7.08	0.22	-7.07
12,260.43	89.93	356.53	9,890.90	2,369.17	-504.42	2,394.24	5.23	2.16	-4.77
12,273.86	90.01	356.38	9,890.91	2,382.57	-505.25	2,407.67	1.27	0.60	-1.12
12,287.29	90.13	355.73	9,890.90	2,395.97	-506.18	2,421.10	4.92	0.89	-4.84
12,300.71	90.14	355.46	9,890.86	2,409.35	-507.21	2,434.51	2.01	0.07	-2.01
12,314.14	90.21	355.84	9,890.82	2,422.74	-508.23	2,447.94	2.88	0.52	2.83
12,327.57	90.38	355.73	9,890.75	2,436.14	-509.21	2,461.37	1.51	1.27	-0.82
12,341.00	90.47	355.85	9,890.65	2,449.53	-510.20	2,474.80	1.12	0.67	0.89
12,354.57	90.43	356.07	9,890.55	2,463.06	-511.16	2,488.37	1.65	-0.29	1.62
12,368.14	90.45	356.16	9,890.44	2,476.60	-512.07	2,501.94	0.68	0.15	0.66
12,381.71	90.70	356.45	9,890.31	2,490.14	-512.95	2,515.50	2.82	1.84	2.14
12,395.29	90.43	356.75	9,890.17	2,503.70	-513.75	2,529.08	2.97	-1.99	2.21
12,408.86	90.15	357.09	9,890.10	2,517.25	-514.48	2,542.65	3.25	-2.06	2.51
12,422.43	89.99	357.61	9,890.09	2,530.80	-515.11	2,556.22	4.01	-1.18	3.83
12,436.00	89.90	357.42	9,890.10	2,544.36	-515.70	2,569.79	1.55	-0.66	-1.40
12,449.57	89.83	357.41	9,890.13	2,557.92	-516.31	2,583.36	0.52	-0.52	-0.07
12,463.14	89.94	356.68	9,890.16	2,571.47	-517.01	2,596.93	5.44	0.81	-5.38
12,476.71	90.26	356.04	9,890.14	2,585.01	-517.87	2,610.50	5.27	2.36	-4.72



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
12,490.29	90.25	355.46	9,890.08	2,598.56	-518.88	2,624.08	4.27	-0.07	-4.27
12,503.86	90.18	355.28	9,890.03	2,612.08	-519.97	2,637.64	1.42	-0.52	-1.33
12,517.43	90.35	354.89	9,889.96	2,625.60	-521.14	2,651.21	3.14	1.25	-2.87
12,531.00	90.45	354.76	9,889.87	2,639.11	-522.36	2,664.77	1.21	0.74	-0.96
12,544.43	90.40	354.70	9,889.77	2,652.49	-523.59	2,678.19	0.58	-0.37	-0.45
12,557.86	90.12	354.53	9,889.71	2,665.86	-524.85	2,691.61	2.44	-2.08	-1.27
12,571.29	90.29	354.79	9,889.66	2,679.23	-526.10	2,705.03	2.31	1.27	1.94
12,584.71	90.28	355.25	9,889.59	2,692.60	-527.27	2,718.45	3.43	-0.07	3.43
12,598.14	90.01	355.71	9,889.56	2,705.99	-528.33	2,731.88	3.97	-2.01	3.43
12,611.57	89.49	356.40	9,889.62	2,719.39	-529.25	2,745.30	6.43	-3.87	5.14
12,625.00	89.12	357.03	9,889.78	2,732.79	-530.02	2,758.73	5.44	-2.76	4.69
12,638.57	89.11	356.94	9,889.99	2,746.34	-530.73	2,772.30	0.67	-0.07	-0.66
12,652.14	89.16	356.52	9,890.19	2,759.89	-531.51	2,785.87	3.12	0.37	-3.10
12,665.71	88.99	356.56	9,890.41	2,773.43	-532.33	2,799.44	1.29	-1.25	0.29
12,679.29	89.14	356.54	9,890.63	2,786.99	-533.14	2,813.02	1.11	1.10	-0.15
12,692.86	89.14	356.34	9,890.84	2,800.53	-533.99	2,826.58	1.47	0.00	-1.47
12,706.43	89.37	356.45	9,891.02	2,814.07	-534.84	2,840.15	1.88	1.69	0.81
12,720.00	89.05	356.93	9,891.20	2,827.62	-535.62	2,853.72	4.25	-2.36	3.54
12,733.57	88.83	357.56	9,891.45	2,841.17	-536.28	2,867.29	4.92	-1.62	4.64
12,747.14	88.71	357.87	9,891.74	2,854.72	-536.82	2,880.85	2.45	-0.88	2.28
12,760.71	88.65	358.12	9,892.06	2,868.28	-537.29	2,894.42	1.89	-0.44	1.84
12,774.29	88.54	358.07	9,892.39	2,881.85	-537.74	2,907.99	0.89	-0.81	-0.37
12,787.86	88.77	357.75	9,892.71	2,895.41	-538.24	2,921.55	2.90	1.69	-2.36
12,801.43	88.75	357.87	9,893.00	2,908.96	-538.76	2,935.12	0.90	-0.15	0.88
12,815.00	88.62	357.86	9,893.31	2,922.52	-539.26	2,948.68	0.96	-0.96	-0.07
12,828.43	88.60	358.15	9,893.64	2,935.94	-539.73	2,962.10	2.16	-0.15	2.16
12,841.86	88.77	358.01	9,893.95	2,949.36	-540.18	2,975.52	1.64	1.27	-1.04
12,855.29	88.87	357.25	9,894.22	2,962.77	-540.73	2,988.95	5.71	0.74	-5.66
12,868.71	88.71	356.92	9,894.51	2,976.17	-541.42	3,002.37	2.73	-1.19	-2.46
12,882.14	88.71	357.24	9,894.81	2,989.58	-542.10	3,015.79	2.38	0.00	2.38
12,895.57	89.08	356.81	9,895.07	3,002.99	-542.80	3,029.22	4.22	2.76	-3.20
12,909.00	89.35	356.77	9,895.25	3,016.40	-543.55	3,042.65	2.03	2.01	-0.30
12,922.57	89.48	357.13	9,895.39	3,029.95	-544.27	3,056.22	2.82	0.96	2.65
12,936.14	89.67	357.41	9,895.49	3,043.50	-544.92	3,069.79	2.49	1.40	2.06
12,949.71	89.60	358.04	9,895.58	3,057.06	-545.46	3,083.35	4.67	-0.52	4.64
12,963.29	89.59	358.40	9,895.67	3,070.64	-545.88	3,096.93	2.65	-0.07	2.65
12,976.86	89.24	358.82	9,895.81	3,084.20	-546.21	3,110.49	4.03	-2.58	3.10
12,990.43	88.97	359.68	9,896.03	3,097.77	-546.38	3,124.05	6.64	-1.99	6.34
13,004.00	88.96	359.36	9,896.27	3,111.33	-546.50	3,137.60	2.36	-0.07	-2.36
13,017.57	89.23	358.98	9,896.48	3,124.90	-546.69	3,151.15	3.43	1.99	-2.80
13,031.14	89.29	358.34	9,896.66	3,138.47	-547.01	3,164.71	4.74	0.44	-4.72
13,044.71	89.23	357.98	9,896.84	3,152.03	-547.45	3,178.28	2.69	-0.44	-2.65
13,058.29	89.01	358.24	9,897.04	3,165.60	-547.90	3,191.85	2.51	-1.62	1.91



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
13,071.86	88.76	358.14	9,897.31	3,179.16	-548.32	3,205.42	1.98	-1.84	-0.74
13,085.43	88.73	357.83	9,897.60	3,192.72	-548.80	3,218.98	2.29	-0.22	-2.28
13,099.00	88.78	357.56	9,897.90	3,206.27	-549.35	3,232.54	2.02	0.37	-1.99
13,112.57	89.28	357.56	9,898.13	3,219.83	-549.92	3,246.11	3.68	3.68	0.00
13,126.14	89.65	358.01	9,898.26	3,233.39	-550.45	3,259.68	4.29	2.73	3.32
13,139.71	89.86	358.57	9,898.31	3,246.95	-550.85	3,273.24	4.41	1.55	4.13
13,153.29	89.94	359.03	9,898.34	3,260.53	-551.14	3,286.81	3.44	0.59	3.39
13,166.86	89.96	0.11	9,898.35	3,274.10	-551.24	3,300.37	7.96	0.15	7.96
13,180.43	90.11	1.06	9,898.34	3,287.67	-551.10	3,313.90	7.09	1.11	7.00
13,194.00	90.14	1.58	9,898.31	3,301.24	-550.79	3,327.43	3.84	0.22	3.83
13,207.43	90.12	1.67	9,898.28	3,314.66	-550.41	3,340.81	0.69	-0.15	0.67
13,220.86	89.80	1.91	9,898.29	3,328.08	-549.99	3,354.19	2.98	-2.38	1.79
13,234.29	89.53	2.19	9,898.37	3,341.50	-549.51	3,367.56	2.90	-2.01	2.08
13,247.71	89.57	1.45	9,898.47	3,354.92	-549.08	3,380.93	5.52	0.30	-5.51
13,261.14	89.84	0.60	9,898.54	3,368.34	-548.84	3,394.32	6.64	2.01	-6.33
13,274.57	90.22	359.68	9,898.54	3,381.77	-548.81	3,407.72	7.41	2.83	-6.85
13,288.00	90.49	358.86	9,898.45	3,395.20	-548.98	3,421.14	6.43	2.01	-6.11
13,301.57	90.68	358.25	9,898.32	3,408.77	-549.32	3,434.70	4.71	1.40	-4.50
13,315.14	90.58	357.78	9,898.17	3,422.33	-549.79	3,448.27	3.54	-0.74	-3.46
13,328.71	90.49	357.99	9,898.04	3,435.89	-550.29	3,461.83	1.68	-0.66	1.55
13,342.29	90.20	358.25	9,897.96	3,449.46	-550.74	3,475.41	2.87	-2.14	1.91
13,355.86	90.20	358.12	9,897.91	3,463.02	-551.17	3,488.97	0.96	0.00	-0.96
13,369.43	90.39	358.09	9,897.84	3,476.59	-551.62	3,502.54	1.42	1.40	-0.22
13,383.00	90.22	358.41	9,897.77	3,490.15	-552.03	3,516.10	2.67	-1.25	2.36
13,396.43	90.11	358.54	9,897.73	3,503.58	-552.39	3,529.53	1.27	-0.82	0.97
13,409.86	90.10	358.54	9,897.70	3,517.00	-552.73	3,542.95	0.07	-0.07	0.00
13,423.29	90.06	358.59	9,897.69	3,530.43	-553.07	3,556.37	0.48	-0.30	0.37
13,436.71	90.05	358.94	9,897.67	3,543.84	-553.36	3,569.79	2.61	-0.07	2.61
13,450.14	89.98	358.73	9,897.67	3,557.27	-553.63	3,583.21	1.65	-0.52	-1.56
13,463.57	89.75	358.66	9,897.70	3,570.70	-553.94	3,596.63	1.79	-1.71	-0.52
13,477.00	89.56	358.57	9,897.78	3,584.12	-554.26	3,610.05	1.57	-1.41	-0.67
13,490.57	89.49	358.47	9,897.89	3,597.69	-554.61	3,623.61	0.90	-0.52	-0.74
13,504.14	89.84	358.16	9,897.97	3,611.25	-555.01	3,637.18	3.45	2.58	-2.28
13,517.71	90.14	358.03	9,897.98	3,624.81	-555.46	3,650.74	2.41	2.21	-0.96
13,531.29	90.55	358.44	9,897.89	3,638.39	-555.88	3,664.32	4.27	3.02	3.02
13,544.86	90.71	358.43	9,897.75	3,651.95	-556.25	3,677.88	1.18	1.18	-0.07
13,558.43	90.84	358.37	9,897.56	3,665.52	-556.63	3,691.44	1.06	0.96	-0.44
13,572.00	90.82	358.53	9,897.37	3,679.08	-557.00	3,705.01	1.19	-0.15	1.18
13,585.43	90.72	359.56	9,897.18	3,692.51	-557.22	3,718.42	7.70	-0.74	7.67
13,598.86	90.52	0.71	9,897.04	3,705.93	-557.19	3,731.83	8.69	-1.49	8.56
13,612.29	90.26	1.88	9,896.95	3,719.36	-556.88	3,745.22	8.92	-1.94	8.71
13,625.71	90.15	2.56	9,896.90	3,732.77	-556.36	3,758.57	5.13	-0.82	5.07
13,639.14	90.16	2.95	9,896.86	3,746.18	-555.72	3,771.93	2.90	0.07	2.90
13,652.57	90.14	3.25	9,896.83	3,759.60	-554.99	3,785.27	2.24	-0.15	2.23



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
13,666.00	89.62	3.67	9,896.86	3,773.00	-554.18	3,798.61	4.98	-3.87	3.13
13,679.57	89.23	3.90	9,896.99	3,786.54	-553.29	3,812.08	3.34	-2.87	1.69
13,693.14	89.37	3.23	9,897.16	3,800.08	-552.44	3,825.55	5.04	1.03	-4.94
13,706.71	89.46	2.66	9,897.30	3,813.63	-551.75	3,839.04	4.25	0.66	-4.20
13,720.29	89.50	2.18	9,897.42	3,827.20	-551.17	3,852.55	3.55	0.29	-3.53
13,733.86	89.46	2.17	9,897.54	3,840.76	-550.66	3,866.06	0.30	-0.29	-0.07
13,747.43	90.04	1.64	9,897.60	3,854.32	-550.21	3,879.57	5.79	4.27	-3.91
13,761.00	90.26	0.81	9,897.57	3,867.89	-549.92	3,893.10	6.33	1.62	-6.12
13,774.43	90.71	0.32	9,897.45	3,881.32	-549.78	3,906.50	4.95	3.35	-3.65
13,787.86	90.66	0.33	9,897.29	3,894.75	-549.71	3,919.90	0.38	-0.37	0.07
13,801.29	90.62	0.81	9,897.14	3,908.18	-549.57	3,933.30	3.59	-0.30	3.57
13,814.71	90.60	1.23	9,897.00	3,921.59	-549.33	3,946.68	3.13	-0.15	3.13
13,828.14	90.74	1.15	9,896.84	3,935.02	-549.06	3,960.07	1.20	1.04	-0.60
13,841.57	90.39	1.46	9,896.71	3,948.45	-548.75	3,973.45	3.48	-2.61	2.31
13,855.00	90.28	1.48	9,896.63	3,961.87	-548.41	3,986.84	0.83	-0.82	0.15
13,868.57	90.35	1.71	9,896.56	3,975.44	-548.03	4,000.36	1.77	0.52	1.69
13,882.14	90.35	1.43	9,896.47	3,989.00	-547.66	4,013.88	2.06	0.00	-2.06
13,895.71	90.35	0.53	9,896.39	4,002.57	-547.42	4,027.41	6.63	0.00	-6.63
13,909.29	90.44	359.92	9,896.30	4,016.15	-547.37	4,040.96	4.54	0.66	-4.49
13,922.86	90.41	359.67	9,896.20	4,029.72	-547.42	4,054.51	1.86	-0.22	-1.84
13,936.43	90.39	359.74	9,896.10	4,043.29	-547.49	4,068.07	0.54	-0.15	0.52
13,950.00	90.50	0.24	9,896.00	4,056.86	-547.49	4,081.61	3.77	0.81	3.68
13,963.43	90.73	0.33	9,895.85	4,070.28	-547.42	4,095.02	1.84	1.71	0.67
13,976.86	91.01	0.42	9,895.65	4,083.71	-547.34	4,108.42	2.19	2.08	0.67
13,990.29	90.74	0.80	9,895.44	4,097.14	-547.19	4,121.81	3.47	-2.01	2.83
14,003.71	90.80	1.50	9,895.26	4,110.56	-546.92	4,135.19	5.23	0.45	5.22
14,017.14	90.97	1.89	9,895.06	4,123.98	-546.53	4,148.57	3.17	1.27	2.90
14,030.57	91.17	1.86	9,894.81	4,137.40	-546.09	4,161.94	1.51	1.49	-0.22
14,044.00	91.24	2.79	9,894.52	4,150.82	-545.54	4,175.30	6.94	0.52	6.92
14,057.57	91.17	3.47	9,894.24	4,164.36	-544.80	4,188.79	5.04	-0.52	5.01
14,071.14	90.91	3.91	9,893.99	4,177.90	-543.93	4,202.25	3.77	-1.92	3.24
14,084.71	90.70	4.25	9,893.80	4,191.44	-542.96	4,215.71	2.94	-1.55	2.51
14,098.29	90.59	4.08	9,893.65	4,204.98	-541.98	4,229.17	1.49	-0.81	-1.25
14,111.86	90.44	4.21	9,893.53	4,218.51	-541.00	4,242.63	1.46	-1.11	0.96
14,125.43	90.16	3.35	9,893.45	4,232.05	-540.10	4,256.10	6.66	-2.06	-6.34
14,139.00	89.91	2.22	9,893.45	4,245.61	-539.44	4,269.59	8.53	-1.84	-8.33
14,152.43	89.76	1.29	9,893.49	4,259.03	-539.03	4,282.97	7.01	-1.12	-6.92
14,165.86	89.65	1.36	9,893.55	4,272.46	-538.72	4,296.35	0.97	-0.82	0.52
14,179.29	89.79	0.67	9,893.62	4,285.88	-538.48	4,309.75	5.24	1.04	-5.14
14,192.71	89.89	359.96	9,893.66	4,299.30	-538.41	4,323.14	5.34	0.75	-5.29
14,206.14	89.76	359.64	9,893.70	4,312.73	-538.46	4,336.55	2.57	-0.97	-2.38
14,219.57	89.86	359.26	9,893.74	4,326.16	-538.59	4,349.96	2.93	0.74	-2.83
14,233.00	89.97	358.85	9,893.76	4,339.59	-538.81	4,363.38	3.16	0.82	-3.05



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
14,246.57	90.11	359.24	9,893.75	4,353.16	-539.03	4,376.94	3.05	1.03	2.87
14,260.14	90.31	0.18	9,893.70	4,366.73	-539.10	4,390.49	7.08	1.47	6.93
14,273.71	90.35	1.27	9,893.63	4,380.30	-538.93	4,404.03	8.04	0.29	8.03
14,287.29	90.19	1.85	9,893.56	4,393.87	-538.56	4,417.56	4.43	-1.18	4.27
14,300.86	89.94	2.74	9,893.55	4,407.43	-538.02	4,431.06	6.81	-1.84	6.56
14,314.43	89.76	3.76	9,893.58	4,420.98	-537.25	4,444.55	7.63	-1.33	7.52
14,328.00	89.56	4.62	9,893.66	4,434.51	-536.26	4,458.00	6.51	-1.47	6.34
14,341.43	89.32	5.20	9,893.79	4,447.89	-535.11	4,471.29	4.67	-1.79	4.32
14,354.86	88.91	5.58	9,894.00	4,461.26	-533.85	4,484.57	4.16	-3.05	2.83
14,368.29	88.74	4.95	9,894.28	4,474.63	-532.61	4,497.84	4.86	-1.27	-4.69
14,381.71	88.68	3.87	9,894.58	4,488.01	-531.58	4,511.14	8.06	-0.45	-8.05
14,395.14	88.77	2.70	9,894.88	4,501.41	-530.81	4,524.48	8.74	0.67	-8.71
14,408.57	88.98	1.44	9,895.14	4,514.83	-530.33	4,537.85	9.51	1.56	-9.38
14,422.00	89.11	0.26	9,895.36	4,528.26	-530.13	4,551.24	8.84	0.97	-8.79
14,435.57	89.29	359.26	9,895.55	4,541.83	-530.18	4,564.79	7.49	1.33	-7.37
14,449.14	89.50	358.49	9,895.70	4,555.39	-530.45	4,578.35	5.88	1.55	-5.67
14,462.71	89.68	358.81	9,895.79	4,568.96	-530.77	4,591.91	2.71	1.33	2.36
14,476.29	89.90	359.28	9,895.84	4,582.54	-531.00	4,605.48	3.82	1.62	3.46
14,489.86	89.76	359.37	9,895.88	4,596.11	-531.16	4,619.03	1.23	-1.03	0.66
14,503.43	89.75	359.38	9,895.94	4,609.67	-531.30	4,632.59	0.10	-0.07	0.07
14,517.00	89.75	359.26	9,896.00	4,623.24	-531.47	4,646.14	0.88	0.00	-0.88
14,530.43	89.55	359.17	9,896.08	4,636.67	-531.65	4,659.56	1.63	-1.49	-0.67
14,543.86	89.67	359.02	9,896.18	4,650.10	-531.86	4,672.98	1.43	0.89	-1.12
14,557.29	89.52	358.92	9,896.27	4,663.53	-532.10	4,686.40	1.34	-1.12	-0.74
14,570.71	89.54	358.76	9,896.38	4,676.94	-532.38	4,699.81	1.20	0.15	-1.19
14,584.14	89.55	358.51	9,896.49	4,690.37	-532.70	4,713.23	1.86	0.07	-1.86
14,597.57	89.57	358.26	9,896.59	4,703.79	-533.07	4,726.65	1.87	0.15	-1.86
14,611.00	89.74	358.01	9,896.67	4,717.22	-533.51	4,740.08	2.25	1.27	-1.86
14,624.57	89.72	357.71	9,896.74	4,730.78	-534.02	4,753.65	2.22	-0.15	-2.21
14,638.14	89.53	357.27	9,896.82	4,744.33	-534.61	4,767.21	3.53	-1.40	-3.24
14,651.71	89.88	356.87	9,896.89	4,757.89	-535.31	4,780.78	3.92	2.58	-2.95
14,665.29	90.42	356.44	9,896.86	4,771.44	-536.10	4,794.36	5.08	3.98	-3.17
14,678.86	90.82	355.93	9,896.71	4,784.98	-537.00	4,807.93	4.78	2.95	-3.76
14,692.43	90.87	355.34	9,896.51	4,798.51	-538.03	4,821.50	4.36	0.37	-4.35
14,706.00	90.89	354.89	9,896.30	4,812.03	-539.19	4,835.06	3.32	0.15	-3.32
14,719.57	91.08	354.63	9,896.07	4,825.54	-540.43	4,848.62	2.37	1.40	-1.92
14,733.14	91.36	354.36	9,895.78	4,839.05	-541.73	4,862.18	2.87	2.06	-1.99
14,746.71	91.46	354.10	9,895.45	4,852.54	-543.09	4,875.73	2.05	0.74	-1.92
14,760.29	91.60	354.08	9,895.08	4,866.05	-544.49	4,889.29	1.04	1.03	-0.15
14,773.86	91.72	354.06	9,894.69	4,879.54	-545.89	4,902.84	0.90	0.88	-0.15
14,787.43	91.25	354.08	9,894.34	4,893.03	-547.29	4,916.39	3.47	-3.46	0.15
14,801.00	90.72	354.07	9,894.11	4,906.53	-548.69	4,929.95	3.91	-3.91	-0.07
14,814.43	90.36	354.03	9,893.98	4,919.88	-550.09	4,943.36	2.70	-2.68	-0.30



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
14,827.86	90.38	353.96	9,893.89	4,933.24	-551.49	4,956.78	0.54	0.15	-0.52
14,841.29	90.39	353.88	9,893.80	4,946.59	-552.91	4,970.19	0.60	0.07	-0.60
14,854.71	90.35	353.80	9,893.72	4,959.93	-554.35	4,983.59	0.67	-0.30	-0.60
14,863.02	90.33	353.75	9,893.67	4,968.20	-555.25	4,991.89	0.67	-0.30	-0.60
SL: 14863.02' MD									
14,868.14	90.31	353.72	9,893.64	4,973.29	-555.81	4,997.01	0.67	-0.30	-0.60
14,881.57	90.32	353.65	9,893.56	4,986.63	-557.29	5,010.42	0.53	0.07	-0.52
14,895.00	90.35	353.59	9,893.49	4,999.98	-558.78	5,023.83	0.50	0.22	-0.45
14,908.57	90.41	353.56	9,893.40	5,013.46	-560.30	5,037.38	0.49	0.44	-0.22
14,922.14	90.43	353.55	9,893.30	5,026.95	-561.82	5,050.93	0.16	0.15	-0.07
14,935.71	90.64	353.55	9,893.17	5,040.43	-563.35	5,064.47	1.55	1.55	0.00
14,949.29	91.07	353.56	9,892.97	5,053.92	-564.87	5,078.03	3.17	3.17	0.07
14,962.86	91.37	353.58	9,892.68	5,067.41	-566.39	5,091.58	2.22	2.21	0.15
14,976.43	91.47	353.60	9,892.34	5,080.89	-567.91	5,105.13	0.75	0.74	0.15
14,990.00	91.33	353.82	9,892.01	5,094.37	-569.39	5,118.67	1.92	-1.03	1.62
15,003.57	91.24	354.11	9,891.71	5,107.86	-570.82	5,132.22	2.24	-0.66	2.14
15,017.14	91.06	354.30	9,891.43	5,121.36	-572.19	5,145.78	1.93	-1.33	1.40
15,030.71	90.77	354.50	9,891.22	5,134.86	-573.51	5,159.34	2.60	-2.14	1.47
15,044.29	90.61	354.66	9,891.05	5,148.38	-574.80	5,172.90	1.67	-1.18	1.18
15,057.86	90.42	355.00	9,890.93	5,161.90	-576.02	5,186.47	2.87	-1.40	2.51
15,071.43	90.38	355.27	9,890.84	5,175.42	-577.17	5,200.03	2.01	-0.29	1.99
15,085.00	90.35	355.51	9,890.75	5,188.94	-578.26	5,213.60	1.78	-0.22	1.77
15,098.43	90.38	355.70	9,890.66	5,202.33	-579.29	5,227.02	1.43	0.22	1.41
15,111.86	90.48	355.86	9,890.56	5,215.73	-580.28	5,240.45	1.40	0.74	1.19
15,125.29	90.60	356.04	9,890.44	5,229.12	-581.23	5,253.88	1.61	0.89	1.34
15,138.71	90.80	356.19	9,890.27	5,242.51	-582.14	5,267.30	1.86	1.49	1.12
15,152.14	91.13	356.50	9,890.05	5,255.91	-582.99	5,280.73	3.37	2.46	2.31
15,165.57	91.00	356.48	9,889.80	5,269.31	-583.81	5,294.15	0.98	-0.97	-0.15
15,179.00	90.81	356.54	9,889.59	5,282.72	-584.63	5,307.58	1.48	-1.41	0.45
15,192.57	90.48	356.85	9,889.43	5,296.26	-585.41	5,321.15	3.34	-2.43	2.28
15,206.14	90.27	357.06	9,889.34	5,309.81	-586.13	5,334.72	2.19	-1.55	1.55
15,219.71	90.16	357.05	9,889.29	5,323.37	-586.83	5,348.29	0.81	-0.81	-0.07
15,233.29	90.11	357.18	9,889.26	5,336.93	-587.51	5,361.87	1.03	-0.37	0.96
15,246.86	90.22	357.40	9,889.22	5,350.48	-588.16	5,375.44	1.81	0.81	1.62
15,260.43	90.48	357.68	9,889.14	5,364.04	-588.74	5,389.01	2.82	1.92	2.06
15,274.00	90.52	357.90	9,889.02	5,377.60	-589.26	5,402.58	1.65	0.29	1.62
15,287.57	90.29	357.97	9,888.92	5,391.16	-589.75	5,416.14	1.77	-1.69	0.52
15,301.14	90.12	358.04	9,888.88	5,404.72	-590.22	5,429.71	1.35	-1.25	0.52
15,314.71	89.98	358.08	9,888.86	5,418.29	-590.68	5,443.27	1.07	-1.03	0.29
15,328.29	89.90	358.04	9,888.88	5,431.86	-591.14	5,456.85	0.66	-0.59	-0.29
15,341.86	89.97	358.08	9,888.89	5,445.42	-591.60	5,470.42	0.59	0.52	0.29
15,355.43	89.10	358.11	9,889.00	5,458.98	-592.05	5,483.98	6.42	-6.41	0.22
15,369.00	88.37	358.34	9,889.30	5,472.54	-592.47	5,497.54	5.64	-5.38	1.69
15,382.43	88.42	358.76	9,889.68	5,485.96	-592.81	5,510.96	3.15	0.37	3.13



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
15,395.86	88.86	359.08	9,890.00	5,499.39	-593.07	5,524.38	4.05	3.28	2.38
15,409.29	89.20	359.31	9,890.23	5,512.81	-593.25	5,537.79	3.06	2.53	1.71
15,422.71	89.38	359.53	9,890.39	5,526.23	-593.39	5,551.20	2.12	1.34	1.64
15,436.14	89.63	359.83	9,890.51	5,539.66	-593.47	5,564.61	2.91	1.86	2.23
15,449.57	89.70	0.29	9,890.59	5,553.09	-593.45	5,578.02	3.46	0.52	3.43
15,463.00	89.35	0.61	9,890.70	5,566.52	-593.35	5,591.42	3.53	-2.61	2.38
15,476.57	88.65	0.89	9,890.94	5,580.09	-593.17	5,604.95	5.56	-5.16	2.06
15,490.14	88.00	1.23	9,891.33	5,593.65	-592.92	5,618.48	5.41	-4.79	2.51
15,503.71	87.70	1.43	9,891.84	5,607.20	-592.60	5,631.99	2.66	-2.21	1.47
15,517.29	87.56	1.55	9,892.40	5,620.77	-592.25	5,645.51	1.36	-1.03	0.88
15,530.86	87.51	1.77	9,892.99	5,634.32	-591.86	5,659.02	1.66	-0.37	1.62
15,544.43	87.57	2.01	9,893.57	5,647.87	-591.41	5,672.52	1.82	0.44	1.77
15,558.00	87.65	2.09	9,894.13	5,661.42	-590.93	5,686.02	0.83	0.59	0.59
15,571.43	87.74	2.16	9,894.67	5,674.83	-590.43	5,699.38	0.85	0.67	0.52
15,584.86	87.98	2.19	9,895.18	5,688.24	-589.92	5,712.74	1.80	1.79	0.22
15,598.29	88.60	2.24	9,895.58	5,701.65	-589.40	5,726.10	4.63	4.62	0.37
15,611.71	88.60	2.23	9,895.90	5,715.06	-588.88	5,739.46	0.07	0.00	-0.07
15,625.14	88.79	2.26	9,896.21	5,728.48	-588.35	5,752.82	1.43	1.41	0.22
15,638.57	89.03	2.24	9,896.47	5,741.89	-587.82	5,766.18	1.79	1.79	-0.15
15,652.00	89.33	2.43	9,896.66	5,755.31	-587.28	5,779.55	2.64	2.23	1.41
15,665.57	89.13	2.38	9,896.84	5,768.87	-586.71	5,793.05	1.52	-1.47	-0.37
15,679.14	88.52	2.31	9,897.12	5,782.42	-586.15	5,806.55	4.52	-4.50	-0.52
15,692.71	88.05	2.25	9,897.52	5,795.98	-585.61	5,820.05	3.49	-3.46	-0.44
15,706.29	87.96	2.10	9,898.00	5,809.54	-585.10	5,833.56	1.29	-0.66	-1.10
15,719.86	87.91	2.00	9,898.49	5,823.09	-584.61	5,847.06	0.82	-0.37	-0.74
15,733.43	87.90	1.93	9,898.98	5,836.64	-584.15	5,860.57	0.52	-0.07	-0.52
15,747.00	88.10	1.89	9,899.46	5,850.20	-583.69	5,874.07	1.50	1.47	-0.29
15,760.43	88.66	1.92	9,899.84	5,863.62	-583.25	5,887.44	4.18	4.17	0.22
15,773.86	89.32	2.00	9,900.07	5,877.04	-582.79	5,900.81	4.95	4.91	0.60
15,787.29	89.88	2.09	9,900.17	5,890.46	-582.31	5,914.18	4.22	4.17	0.67
15,800.71	89.98	2.13	9,900.18	5,903.87	-581.82	5,927.54	0.80	0.75	0.30
15,814.14	90.07	2.25	9,900.18	5,917.29	-581.30	5,940.91	1.12	0.67	0.89
15,827.57	90.33	2.31	9,900.13	5,930.71	-580.77	5,954.28	1.99	1.94	0.45
15,841.00	90.84	2.35	9,899.99	5,944.12	-580.22	5,967.64	3.81	3.80	0.30
15,854.57	91.27	2.32	9,899.74	5,957.68	-579.67	5,981.15	3.18	3.17	-0.22
15,868.14	90.86	2.44	9,899.49	5,971.24	-579.11	5,994.65	3.15	-3.02	0.88
15,881.71	90.38	2.30	9,899.34	5,984.79	-578.55	6,008.15	3.68	-3.54	-1.03
15,895.29	90.02	2.16	9,899.30	5,998.36	-578.02	6,021.67	2.84	-2.65	-1.03
15,908.86	89.69	2.10	9,899.33	6,011.92	-577.51	6,035.18	2.47	-2.43	-0.44
15,922.43	89.57	2.00	9,899.42	6,025.49	-577.03	6,048.69	1.15	-0.88	-0.74
15,936.00	89.89	1.97	9,899.48	6,039.05	-576.56	6,062.20	2.37	2.36	-0.22
15,949.57	90.31	2.03	9,899.46	6,052.61	-576.08	6,075.71	3.13	3.10	0.44
15,963.14	90.35	2.21	9,899.38	6,066.17	-575.58	6,089.22	1.36	0.29	1.33



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
15,976.71	90.27	2.42	9,899.31	6,079.73	-575.03	6,102.73	1.66	-0.59	1.55
15,990.29	90.16	2.49	9,899.26	6,093.30	-574.45	6,116.24	0.96	-0.81	0.52
16,003.86	90.14	2.56	9,899.22	6,106.85	-573.85	6,129.74	0.54	-0.15	0.52
16,017.43	90.30	2.67	9,899.17	6,120.41	-573.23	6,143.23	1.43	1.18	0.81
16,031.00	90.29	2.78	9,899.10	6,133.96	-572.59	6,156.73	0.81	-0.07	0.81
16,044.43	90.26	2.80	9,899.03	6,147.38	-571.94	6,170.08	0.27	-0.22	0.15
16,057.86	90.16	2.81	9,898.99	6,160.79	-571.28	6,183.44	0.75	-0.74	0.07
16,071.29	90.02	2.82	9,898.96	6,174.20	-570.62	6,196.79	1.05	-1.04	0.07
16,084.71	90.06	2.79	9,898.95	6,187.61	-569.96	6,210.14	0.37	0.30	-0.22
16,098.14	90.16	2.73	9,898.93	6,201.02	-569.32	6,223.49	0.87	0.74	-0.45
16,111.57	90.23	2.68	9,898.88	6,214.44	-568.68	6,236.85	0.64	0.52	-0.37
16,125.00	90.30	2.62	9,898.82	6,227.85	-568.06	6,250.20	0.69	0.52	-0.45
16,138.57	90.50	2.61	9,898.73	6,241.41	-567.44	6,263.70	1.48	1.47	-0.07
16,152.14	90.45	2.64	9,898.61	6,254.96	-566.82	6,277.20	0.43	-0.37	0.22
16,165.71	90.19	2.63	9,898.54	6,268.52	-566.20	6,290.70	1.92	-1.92	-0.07
16,179.29	90.03	2.61	9,898.51	6,282.09	-565.58	6,304.20	1.19	-1.18	-0.15
16,192.86	89.88	2.66	9,898.52	6,295.64	-564.95	6,317.70	1.17	-1.11	0.37
16,206.43	89.79	2.69	9,898.56	6,309.20	-564.32	6,331.20	0.70	-0.66	0.22
16,220.00	89.70	2.71	9,898.62	6,322.75	-563.68	6,344.69	0.68	-0.66	0.15
16,233.57	89.60	2.74	9,898.71	6,336.31	-563.03	6,358.19	0.77	-0.74	0.22
16,247.14	89.62	2.80	9,898.80	6,349.86	-562.38	6,371.68	0.47	0.15	0.44
16,260.71	89.71	2.79	9,898.88	6,363.41	-561.72	6,385.18	0.67	0.66	-0.07
16,274.29	89.89	2.82	9,898.92	6,376.98	-561.05	6,398.68	1.34	1.33	0.22
16,287.86	90.10	2.86	9,898.93	6,390.53	-560.38	6,412.17	1.58	1.55	0.29
16,301.43	90.16	2.89	9,898.89	6,404.08	-559.70	6,425.66	0.49	0.44	0.22
16,315.00	90.24	2.93	9,898.85	6,417.63	-559.01	6,439.15	0.66	0.59	0.29
16,328.43	90.31	2.96	9,898.78	6,431.05	-558.32	6,452.50	0.57	0.52	0.22
16,341.86	90.34	3.00	9,898.71	6,444.46	-557.62	6,465.85	0.37	0.22	0.30
16,355.29	90.28	3.06	9,898.63	6,457.87	-556.91	6,479.20	0.63	-0.45	0.45
16,368.71	90.41	3.07	9,898.55	6,471.27	-556.19	6,492.54	0.97	0.97	0.07
16,382.14	90.06	3.15	9,898.50	6,484.68	-555.47	6,505.88	2.67	-2.61	0.60
16,395.57	89.86	3.40	9,898.51	6,498.09	-554.70	6,519.23	2.38	-1.49	1.86
16,409.00	90.05	3.45	9,898.52	6,511.49	-553.90	6,532.56	1.46	1.41	0.37
16,422.43	90.25	3.47	9,898.48	6,524.90	-553.09	6,545.90	1.50	1.49	0.15
16,435.86	90.30	3.47	9,898.42	6,538.30	-552.27	6,559.24	0.37	0.37	0.00
16,449.29	90.24	3.41	9,898.36	6,551.71	-551.47	6,572.57	0.63	-0.45	-0.45
16,462.71	90.15	3.39	9,898.31	6,565.11	-550.67	6,585.90	0.69	-0.67	-0.15
16,476.14	90.08	3.38	9,898.28	6,578.51	-549.88	6,599.24	0.53	-0.52	-0.07
16,489.57	90.22	3.38	9,898.25	6,591.92	-549.09	6,612.58	1.04	1.04	0.00
16,503.00	90.45	3.46	9,898.17	6,605.33	-548.29	6,625.92	1.81	1.71	0.60
16,516.57	90.30	3.48	9,898.08	6,618.87	-547.46	6,639.39	1.12	-1.11	0.15
16,530.14	89.84	3.54	9,898.06	6,632.42	-546.63	6,652.87	3.42	-3.39	0.44
16,543.71	89.26	3.63	9,898.17	6,645.96	-545.78	6,666.34	4.33	-4.27	0.66
16,557.29	89.18	3.68	9,898.35	6,659.51	-544.92	6,679.82	0.69	-0.59	0.37



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
16,570.86	89.25	3.73	9,898.54	6,673.05	-544.04	6,693.29	0.63	0.52	0.37
16,584.43	89.40	3.82	9,898.70	6,686.59	-543.15	6,706.75	1.29	1.11	0.66
16,598.00	89.39	3.80	9,898.84	6,700.13	-542.25	6,720.22	0.16	-0.07	-0.15
16,611.43	89.17	3.75	9,899.01	6,713.53	-541.36	6,733.54	1.68	-1.64	-0.37
16,624.86	88.94	3.67	9,899.23	6,726.93	-540.49	6,746.87	1.81	-1.71	-0.60
16,638.29	88.97	3.57	9,899.48	6,740.33	-539.65	6,760.20	0.78	0.22	-0.74
16,651.71	88.71	3.47	9,899.75	6,753.72	-538.82	6,773.52	2.08	-1.94	-0.75
16,665.14	88.65	3.37	9,900.06	6,767.12	-538.02	6,786.86	0.87	-0.45	-0.74
16,678.57	88.80	3.26	9,900.36	6,780.53	-537.25	6,800.20	1.38	1.12	-0.82
16,692.00	89.06	3.17	9,900.61	6,793.93	-536.49	6,813.54	2.05	1.94	-0.67
16,705.57	88.95	3.09	9,900.85	6,807.48	-535.75	6,827.02	1.00	-0.81	-0.59
16,719.14	88.84	3.02	9,901.11	6,821.03	-535.03	6,840.50	0.96	-0.81	-0.52
16,732.71	88.86	2.95	9,901.38	6,834.58	-534.32	6,853.99	0.54	0.15	-0.52
16,746.29	88.90	2.89	9,901.64	6,848.14	-533.63	6,867.49	0.53	0.29	-0.44
16,759.86	88.96	2.84	9,901.90	6,861.69	-532.95	6,880.98	0.58	0.44	-0.37
16,773.43	89.36	2.74	9,902.10	6,875.24	-532.29	6,894.47	3.04	2.95	-0.74
16,787.00	89.64	2.65	9,902.22	6,888.80	-531.65	6,907.96	2.17	2.06	-0.66
16,800.43	89.66	2.61	9,902.30	6,902.21	-531.04	6,921.32	0.33	0.15	-0.30
16,813.86	89.66	2.58	9,902.38	6,915.63	-530.43	6,934.68	0.22	0.00	-0.22
16,827.29	89.66	2.56	9,902.46	6,929.04	-529.83	6,948.04	0.15	0.00	-0.15
16,840.71	89.66	2.54	9,902.54	6,942.45	-529.23	6,961.39	0.15	0.00	-0.15
16,854.14	89.65	2.52	9,902.62	6,955.87	-528.64	6,974.75	0.17	-0.07	-0.15
16,867.57	89.65	2.49	9,902.70	6,969.28	-528.05	6,988.11	0.22	0.00	-0.22
16,881.00	89.65	2.47	9,902.78	6,982.70	-527.47	7,001.47	0.15	0.00	-0.15
16,894.57	89.67	2.44	9,902.86	6,996.26	-526.89	7,014.98	0.27	0.15	-0.22
16,908.14	89.70	2.41	9,902.94	7,009.82	-526.31	7,028.48	0.31	0.22	-0.22
16,921.71	89.73	2.39	9,903.00	7,023.37	-525.75	7,041.98	0.27	0.22	-0.15
16,935.29	89.76	2.37	9,903.06	7,036.94	-525.18	7,055.49	0.27	0.22	-0.15
16,948.86	89.79	2.37	9,903.12	7,050.50	-524.62	7,069.00	0.22	0.22	0.00
16,962.43	89.80	2.38	9,903.17	7,064.06	-524.06	7,082.50	0.10	0.07	0.07
16,976.00	90.13	2.33	9,903.17	7,077.62	-523.50	7,096.00	2.46	2.43	-0.37
16,989.43	90.55	2.29	9,903.10	7,091.04	-522.96	7,109.37	3.14	3.13	-0.30
17,002.86	90.34	2.36	9,902.99	7,104.46	-522.41	7,122.74	1.65	-1.56	0.52
17,016.29	90.33	2.28	9,902.91	7,117.87	-521.87	7,136.10	0.60	-0.07	-0.60
17,029.71	90.21	2.42	9,902.85	7,131.28	-521.32	7,149.46	1.37	-0.89	1.04
17,043.14	90.19	2.56	9,902.80	7,144.70	-520.74	7,162.82	1.05	-0.15	1.04
17,056.57	90.15	2.63	9,902.76	7,158.12	-520.13	7,176.18	0.60	-0.30	0.52
17,070.00	90.06	2.72	9,902.74	7,171.53	-519.50	7,189.53	0.95	-0.67	0.67
17,083.57	90.02	2.79	9,902.73	7,185.09	-518.85	7,203.03	0.59	-0.29	0.52
17,097.14	90.21	2.72	9,902.70	7,198.64	-518.20	7,216.52	1.49	1.40	-0.52
17,110.71	90.55	2.48	9,902.61	7,212.20	-517.58	7,230.02	3.07	2.51	-1.77
17,124.29	90.51	2.40	9,902.49	7,225.76	-517.00	7,243.53	0.66	-0.29	-0.59
17,137.86	90.38	2.41	9,902.38	7,239.32	-516.43	7,257.03	0.96	-0.96	0.07



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
17,151.43	90.28	2.37	9,902.30	7,252.88	-515.87	7,270.54	0.79	-0.74	-0.29
17,165.00	90.28	2.10	9,902.24	7,266.44	-515.34	7,284.04	1.99	0.00	-1.99
17,178.57	90.18	1.82	9,902.18	7,280.00	-514.88	7,297.56	2.19	-0.74	-2.06
17,192.14	89.77	1.63	9,902.19	7,293.56	-514.47	7,311.07	3.33	-3.02	-1.40
17,205.71	89.68	1.56	9,902.25	7,307.13	-514.09	7,324.60	0.84	-0.66	-0.52
17,219.29	89.92	1.46	9,902.30	7,320.70	-513.73	7,338.13	1.91	1.77	-0.74
17,232.86	90.06	1.39	9,902.30	7,334.27	-513.39	7,351.65	1.15	1.03	-0.52
17,246.43	90.49	1.27	9,902.24	7,347.84	-513.08	7,365.18	3.29	3.17	-0.88
17,260.00	90.95	0.87	9,902.07	7,361.40	-512.83	7,378.71	4.49	3.39	-2.95
17,273.43	91.03	0.44	9,901.83	7,374.83	-512.67	7,392.10	3.26	0.60	-3.20
17,286.86	90.74	0.17	9,901.63	7,388.26	-512.60	7,405.50	2.95	-2.16	-2.01
17,300.29	90.69	359.84	9,901.46	7,401.69	-512.60	7,418.91	2.49	-0.37	-2.46
17,313.71	90.66	359.56	9,901.30	7,415.10	-512.67	7,432.31	2.10	-0.22	-2.09
17,327.14	90.61	359.56	9,901.15	7,428.53	-512.77	7,445.72	0.37	-0.37	0.00
17,340.57	90.58	359.65	9,901.01	7,441.96	-512.87	7,459.14	0.71	-0.22	0.67
17,354.00	90.63	359.27	9,900.87	7,455.39	-512.99	7,472.55	2.85	0.37	-2.83
17,367.57	90.71	359.03	9,900.71	7,468.96	-513.19	7,486.11	1.86	0.59	-1.77
17,381.14	90.78	359.00	9,900.54	7,482.53	-513.43	7,499.66	0.56	0.52	-0.22
17,394.71	90.78	358.76	9,900.35	7,496.09	-513.69	7,513.22	1.77	0.00	-1.77
17,408.29	90.74	358.44	9,900.17	7,509.67	-514.02	7,526.80	2.37	-0.29	-2.36
17,421.86	90.86	358.18	9,899.98	7,523.23	-514.42	7,540.36	2.11	0.88	-1.92
17,435.43	90.90	358.12	9,899.77	7,536.79	-514.86	7,553.92	0.53	0.29	-0.44
17,449.00	90.88	358.18	9,899.56	7,550.35	-515.30	7,567.49	0.47	-0.15	0.44
17,462.43	90.99	358.47	9,899.34	7,563.77	-515.69	7,580.91	2.31	0.82	2.16
17,475.86	91.13	358.86	9,899.09	7,577.20	-516.00	7,594.33	3.08	1.04	2.90
17,489.29	90.80	359.20	9,898.87	7,590.62	-516.23	7,607.75	3.53	-2.46	2.53
17,502.71	90.43	359.50	9,898.72	7,604.04	-516.38	7,621.15	3.55	-2.76	2.24
17,516.14	90.22	359.72	9,898.65	7,617.47	-516.48	7,634.56	2.26	-1.56	1.64
17,529.57	90.03	359.91	9,898.62	7,630.90	-516.52	7,647.97	2.00	-1.41	1.41
17,543.00	89.91	0.13	9,898.63	7,644.33	-516.51	7,661.38	1.87	-0.89	1.64
17,556.57	89.87	0.31	9,898.65	7,657.90	-516.46	7,674.93	1.36	-0.29	1.33
17,570.14	89.85	0.27	9,898.69	7,671.47	-516.39	7,688.47	0.33	-0.15	-0.29
17,583.71	89.85	0.18	9,898.72	7,685.04	-516.34	7,702.01	0.66	0.00	-0.66
17,597.29	89.87	0.07	9,898.75	7,698.62	-516.31	7,715.57	0.82	0.15	-0.81
17,610.86	89.89	359.95	9,898.78	7,712.19	-516.31	7,729.12	0.90	0.15	-0.88
17,624.43	89.90	359.84	9,898.81	7,725.76	-516.33	7,742.67	0.81	0.07	-0.81
17,638.00	89.88	359.62	9,898.83	7,739.33	-516.40	7,756.22	1.63	-0.15	-1.62
17,651.57	89.73	358.69	9,898.88	7,752.90	-516.60	7,769.77	6.94	-1.11	-6.85
17,665.14	89.63	358.17	9,898.96	7,766.46	-516.97	7,783.34	3.90	-0.74	-3.83
17,678.71	89.65	357.51	9,899.04	7,780.02	-517.48	7,796.90	4.87	0.15	-4.86
17,692.29	89.60	356.94	9,899.13	7,793.59	-518.14	7,810.48	4.21	-0.37	-4.20
17,705.86	89.52	356.43	9,899.23	7,807.13	-518.92	7,824.05	3.80	-0.59	-3.76
17,719.43	89.69	355.78	9,899.33	7,820.67	-519.84	7,837.62	4.95	1.25	-4.79



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
17,733.00	90.06	355.36	9,899.36	7,834.20	-520.89	7,851.19	4.12	2.73	-3.10
17,746.43	90.51	355.24	9,899.29	7,847.59	-521.99	7,864.62	3.47	3.35	-0.89
17,759.86	90.41	355.84	9,899.18	7,860.98	-523.04	7,878.04	4.53	-0.74	4.47
17,773.29	90.31	356.49	9,899.10	7,874.38	-523.94	7,891.47	4.90	-0.74	4.84
17,786.71	90.23	357.14	9,899.03	7,887.77	-524.68	7,904.89	4.88	-0.60	4.84
17,800.14	90.18	357.80	9,898.99	7,901.19	-525.27	7,918.32	4.93	-0.37	4.91
17,813.57	90.34	359.19	9,898.93	7,914.62	-525.63	7,931.74	10.42	1.19	10.35
17,827.00	90.60	0.33	9,898.82	7,928.05	-525.68	7,945.15	8.71	1.94	8.49
17,840.43	90.52	1.24	9,898.68	7,941.47	-525.50	7,958.55	6.80	-0.60	6.78
17,853.86	90.56	1.74	9,898.56	7,954.90	-525.15	7,971.93	3.73	0.30	3.72
17,867.29	90.72	1.87	9,898.41	7,968.32	-524.73	7,985.31	1.53	1.19	0.97
17,880.71	90.66	2.22	9,898.25	7,981.73	-524.25	7,998.67	2.65	-0.45	2.61
17,894.14	90.71	1.53	9,898.09	7,995.15	-523.81	8,012.04	5.15	0.37	-5.14
17,907.57	90.80	0.42	9,897.91	8,008.58	-523.58	8,025.43	8.29	0.67	-8.27
17,921.00	90.94	0.20	9,897.70	8,022.01	-523.51	8,038.83	1.94	1.04	-1.64
17,934.57	91.00	0.12	9,897.47	8,035.58	-523.47	8,052.38	0.74	0.44	-0.59
17,948.14	91.01	0.13	9,897.24	8,049.14	-523.44	8,065.92	0.10	0.07	0.07
17,961.71	90.80	0.70	9,897.02	8,062.71	-523.34	8,079.46	4.48	-1.55	4.20
17,975.29	90.66	0.71	9,896.85	8,076.29	-523.17	8,093.01	1.03	-1.03	0.07
17,988.86	90.53	0.59	9,896.71	8,089.86	-523.02	8,106.54	1.30	-0.96	-0.88
18,002.43	90.42	359.92	9,896.60	8,103.43	-522.96	8,120.09	5.00	-0.81	-4.94
18,016.00	90.13	0.03	9,896.53	8,117.00	-522.97	8,133.64	2.29	-2.14	0.81
18,029.43	89.73	359.97	9,896.55	8,130.43	-522.97	8,147.04	3.01	-2.98	-0.45
18,042.86	89.35	359.18	9,896.66	8,143.86	-523.07	8,160.46	6.53	-2.83	-5.88
18,056.29	89.42	358.87	9,896.80	8,157.28	-523.29	8,173.87	2.37	0.52	-2.31
18,069.71	89.55	358.46	9,896.92	8,170.70	-523.61	8,187.29	3.20	0.97	-3.06
18,083.14	89.18	357.14	9,897.07	8,184.12	-524.12	8,200.71	10.21	-2.76	-9.83
18,096.57	88.96	356.10	9,897.29	8,197.52	-524.91	8,214.14	7.91	-1.64	-7.74
18,110.00	88.97	355.16	9,897.53	8,210.91	-525.94	8,227.57	7.00	0.07	-7.00
18,123.57	89.13	354.38	9,897.75	8,224.42	-527.17	8,241.13	5.87	1.18	-5.75
18,137.14	89.84	354.34	9,897.88	8,237.93	-528.51	8,254.68	5.24	5.23	-0.29
18,150.71	90.17	354.98	9,897.88	8,251.44	-529.77	8,268.25	5.31	2.43	4.72
18,164.29	89.85	355.82	9,897.87	8,264.97	-530.86	8,281.82	6.62	-2.36	6.19
18,177.86	89.13	356.90	9,897.99	8,278.52	-531.72	8,295.39	9.56	-5.31	7.96
18,191.43	88.39	357.74	9,898.29	8,292.07	-532.36	8,308.96	8.25	-5.45	6.19
18,205.00	87.89	358.62	9,898.73	8,305.62	-532.79	8,322.51	7.46	-3.68	6.48
18,218.43	88.36	358.94	9,899.17	8,319.04	-533.07	8,335.93	4.23	3.50	2.38
18,231.86	89.42	359.33	9,899.43	8,332.47	-533.27	8,349.34	8.41	7.89	2.90
18,245.29	90.02	0.04	9,899.49	8,345.90	-533.35	8,362.76	6.92	4.47	5.29
18,258.71	90.44	0.98	9,899.44	8,359.32	-533.23	8,376.15	7.67	3.13	7.00
18,272.14	90.37	1.77	9,899.34	8,372.74	-532.91	8,389.53	5.91	-0.52	5.88
18,285.57	90.52	2.41	9,899.24	8,386.16	-532.42	8,402.90	4.89	1.12	4.77
18,299.00	90.76	1.60	9,899.09	8,399.58	-531.95	8,416.27	6.29	1.79	-6.03
18,312.57	90.22	1.46	9,898.97	8,413.15	-531.58	8,429.79	4.11	-3.98	-1.03



Phoenix Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

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)
18,326.14	89.71	1.80	9,898.98	8,426.71	-531.20	8,443.31	4.52	-3.76	2.51
18,339.71	90.15	2.17	9,899.00	8,440.28	-530.73	8,456.83	4.24	3.24	2.73
18,353.29	90.10	1.74	9,898.97	8,453.85	-530.27	8,470.35	3.19	-0.37	-3.17
18,366.86	90.05	0.53	9,898.95	8,467.41	-530.00	8,483.88	8.92	-0.37	-8.92
18,380.43	89.90	359.43	9,898.96	8,480.98	-530.00	8,497.43	8.18	-1.11	-8.11
18,394.00	89.33	358.46	9,899.05	8,494.55	-530.25	8,510.98	8.29	-4.20	-7.15
18,407.57	89.23	358.05	9,899.22	8,508.11	-530.66	8,524.55	3.11	-0.74	-3.02
18,421.14	89.18	357.70	9,899.41	8,521.67	-531.17	8,538.11	2.61	-0.37	-2.58
18,434.71	88.84	357.43	9,899.64	8,535.23	-531.74	8,551.68	3.20	-2.51	-1.99
18,448.29	88.85	357.76	9,899.92	8,548.79	-532.31	8,565.26	2.43	0.07	2.43
18,461.86	89.05	358.77	9,900.16	8,562.36	-532.72	8,578.82	7.59	1.47	7.44
18,475.43	88.98	359.94	9,900.40	8,575.92	-532.88	8,592.37	8.64	-0.52	8.62
18,489.00	88.81	0.93	9,900.66	8,589.49	-532.77	8,605.91	7.40	-1.25	7.30
18,575.00	88.06	0.12	9,903.01	8,675.45	-531.99	8,691.69	1.28	-0.87	-0.94
18,670.00	87.90	359.52	9,906.36	8,770.39	-532.28	8,786.49	0.65	-0.17	-0.63
18,764.00	90.94	356.46	9,907.31	8,864.31	-535.58	8,880.44	4.59	3.23	-3.26
18,859.00	90.75	356.05	9,905.91	8,959.09	-541.79	8,975.42	0.48	-0.20	-0.43
18,953.00	89.90	359.30	9,905.37	9,053.00	-545.60	9,069.39	3.57	-0.90	3.46
19,048.00	89.82	354.90	9,905.61	9,147.86	-550.40	9,164.37	4.63	-0.08	-4.63
19,143.00	90.34	357.13	9,905.47	9,242.62	-557.01	9,259.36	2.41	0.55	2.35
19,237.00	90.76	1.53	9,904.57	9,336.59	-558.10	9,353.23	4.70	0.45	4.68
19,332.00	89.83	356.87	9,904.08	9,431.55	-559.43	9,448.11	5.00	-0.98	-4.91
19,426.00	90.09	357.57	9,904.15	9,525.44	-563.99	9,542.11	0.79	0.28	0.74
19,520.00	89.83	354.09	9,904.21	9,619.17	-570.82	9,636.08	3.71	-0.28	-3.70
19,615.00	90.38	354.19	9,904.04	9,713.68	-580.52	9,730.98	0.59	0.58	0.11
19,710.00	89.35	355.84	9,904.26	9,808.31	-588.78	9,825.94	2.05	-1.08	1.74
19,804.00	90.28	358.90	9,904.57	9,902.20	-593.09	9,919.92	3.40	0.99	3.26
19,899.00	90.45	354.29	9,903.96	9,997.01	-598.73	10,014.89	4.86	0.18	-4.85
19,974.00	90.61	357.09	9,903.27	10,071.78	-604.37	10,089.87	3.74	0.21	3.73
Final Phoenix MWD Survey									
20,050.90	90.61	357.09	9,902.45	10,148.58	-608.27	10,166.76	0.00	0.00	0.00
LTP: 20050.90' MD									
20,093.00	90.61	357.09	9,902.00	10,190.62	-610.41	10,208.86	0.00	0.00	0.00
Projection to TD									



Phoenix
Survey Report



Company:	OXY USA INC.	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 24H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	RKB @ 3614.10usft (H&P 620)
Site:	Top Spot 12_13	MD Reference:	RKB @ 3614.10usft (H&P 620)
Well:	Top Spot 12_13 Fed Com 24H	North Reference:	Grid
Wellbore:	OH / 74954	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (H&P 620)	Database:	USAEDMDB

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
863.50	863.49	-2.19	1.65	Tie In
1,005.00	1,004.99	-2.55	1.53	First Phoenix MWD Survey
9,545.15	9,484.56	-212.41	-551.36	FTP: 9545.15' MD, 36.04° Inc
14,863.02	9,893.67	4,968.20	-555.25	SL: 14863.02' MD
19,974.00	9,903.27	10,071.78	-604.37	Final Phoenix MWD Survey
20,050.90	9,902.45	10,148.58	-608.27	LTP: 20050.90' MD
20,093.00	9,902.00	10,190.62	-610.41	Projection to TD

C-105	State of New Mexico	Revised July 9, 2024
Submit Electronically Via OCD Permitting	Energy, Minerals & Natural Resources Department	
OIL CONSERVATION DIVISION		

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

Section 1 - Operator and Well Information

Submittal Type: ☒ New Well ☐ Workover ☐ Deepening ☐ Plugback ☐ Different Reservoir ☐ C-144 Closure Attachment ☐ Other	
Operator Name: OXY USA INC	OGRID: 16696
Property Name and Well Number: TOP SPOT 12-13 FEDERAL COM 24H	Property Code: 329719
Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal	API Number: 30-0 15-47954
Pool Name: Bilbrey Basin; Bone Spring	Pool Code: 5695

Section 2 – Well Location

	UI or lot no.	Section	Township	Range	Lot Id	Feet from	N/S Line	Feet from	E/W Line	County
SHL:	P	13	22S	31E		310	S	1216	E	EDDY
BHL	B	12	22S	31E		58	N	1772	E	EDDY

Section 3 – Completion Information

Date T.D. Reached 07/15/24	Total Measured Depth of Well 20093'MD	Acid Volume (bbls)	☒ Directional Survey Submitted ☐ Deviation Survey Submitted
Date Rig Released 07/17/24	Plug-Back Measured Depth 20053'MD	Completion Fluid Used (bbls) 353594 BBL	Were Logs Ran (Y/N) Y
Completion Date 08/28/24	Perforations (MD and TVD) 9913-19971'MD/9736-9903'TVD	Completion Proppant Used (lbs) 25158718#	List Type of Logs Ran if applicable: CBL, Gamma Ray

Section 4 – Action IDs for Submissions and Order Numbers

Surface Casing Action ID: 392351	UIC Permit/Order (UIC wells only) ☐ Yes ☒ No, Order No.
Intermediate 1 Casing Action ID: 392351	NOI Recomplete Action ID (if applicable):
Intermediate 2 Casing Action ID: NA	NOI Plugback Action ID (if applicable):
Production Casing Action ID: 392351	Cement Squeeze Action ID (if applicable):
Tubing Action ID: 407739	All casing was pressure tested in accordance with NMAC ☒ Yes ☐ No
Liner 1 Action ID: NA	Casing was installed prior to Action ID system (Y/N): N

Section 5 – Test Data

Date First Production 09/07/24	Production Method Gas lift	Well Status Producing	Gas – Oil Ratio 848
Date of Test 10/10/24	Choke Size	Flowing Tubing Pressure	Casing Pressure 582
24 hr Oil (bbls) 3602	24 hr Gas (MCF) 3055	24 hr Water (bbls) 2079	Oil Gravity - API
Disposition of Gas: sold			

Section 6 – Pits

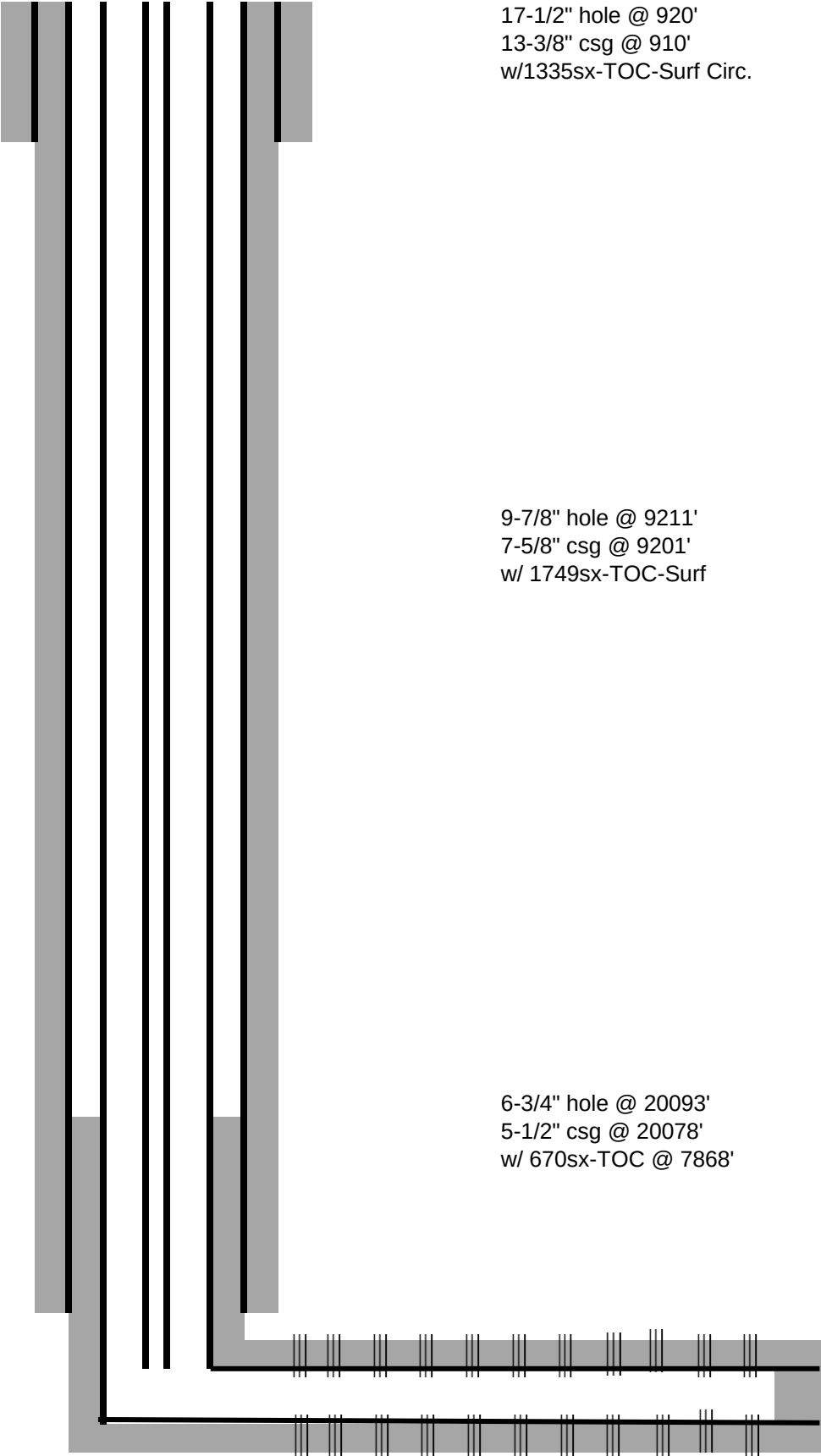
☐ A temporary pit was used at the well. If so, attach a plat with the location of the temporary pit.
☒ A Closed Loop System was used.
☐ If an on-site burial was used at the well, report the exact location of the on-site burial: LAT: _____ LONG: _____

Section 7 - Operator Signature and Certification

☒ I hereby certify that the required Water Use Report has been, or will be, submitted for this well’s completion.	
☒ I hereby certify that the required Fracfocus disclosure has been, or will be, submitted for this well’s completion.	
☒ I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.	
Name Jana Mendiola	<i>Jana Mendiola</i>
Title Regulatory Advisor	Date 12/02/24

South Formations				North Formations			
Formation/Zone	MD	TVD	W/O/G	Formation/Zone	MD	TVD	W/O/G
T. Anhy	857	857	W	T. San Jose			
T. Salt	1183	1183		T. Nacimiento			
B. Salt	3002	3001		T. Ojo Alamo			
T. Yates				T. Kirtland			
T. 7 Rivers				T. Fruitland			
T. Queen				T. Pictured Cliffs			
T. Grayburg				T. Lewis Shale			
T. San Andres				T. Chacra			
T. Glorieta				T. Cliff House			
T. Yeso				T. Menefee			
T. Paddock				T. Point Lookout			
T. Blinebry				T. Mancos			
T.Tubb				T. Gallup			
T. Drinkard				T. Greenhorn			
T. Abo				T. Graneros			
T. Wolfcamp				T. Dakota			
T. Penn				T. Morrison			
T. Cisco				T. Bluff			
T. Canyon				T.Todilto			
T. Strawn				T. Entrada			
T. Atoka				T. Wingate			
T. Morrow				T. Chinle			
T. Barnett Shale				T. Permian			
T. Miss				T. Penn A"			
T. Woodford Shale				T. Penn. "B"			
T. Devonian				T. Penn. "C"			
T. Silurian				T. Penn. "D"			
T. Fusselman				T. Leadville			
T. Montoya				T. Madison			
T. Simpson				T. Elbert			
T. McKee				T. McCracken			
T. Waddell				T. Ignacio Otzte			
T. Connel				T. Granite			
T. Ellenburger				T. Hermosa			
T. Gr. Wash				T. De Chelly			
T. Delaware Sand				T. Pinkerton			
T. Lamar Lime	4504	4498	o/g				
T. Bell Canyon	4529	4523	o/g				
T. Cherry Canyon	5448	5436	o/g				
T. Brushy Canyon	6658	6639	o/g				
T. Bone Springs	8413	8375	o/g				
T. 1st BS Sand	9502	9448	o/g				
T. 2nd BS Carbonate							
T. 2nd BS Sand							
T. 3rd BS Carbonate							
T. 3rd BS Sand							

OXY USA Inc.
Top Spot 12-13 Federal Com 24H
API No. 30-015-47954



2-3/8" tbg & gas lift @ 9726'

17-1/2" hole @ 920'
13-3/8" csg @ 910'
w/1335sx-TOC-Surf Circ.

9-7/8" hole @ 9211'
7-5/8" csg @ 9201'
w/ 1749sx-TOC-Surf

6-3/4" hole @ 20093'
5-1/2" csg @ 20078'
w/ 670sx-TOC @ 7868'

Perfs @ 9913-19971'

TD- 20093'M 9902'V

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

ACKNOWLEDGMENTS

Action 407759

ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 407759
	Action Type: [C-104] Completion Packet - New Well (C-104NW)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.
☒	I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

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Santa Fe, NM 87505

CONDITIONS

Action 407759

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 407759
	Action Type: [C-104] Completion Packet - New Well (C-104NW)

CONDITIONS

Created By	Condition	Condition Date
plmartinez	File 3160-4 Completion Report and 3160-5 Completion Sundry within 10 days of BLM approval.	1/30/2025