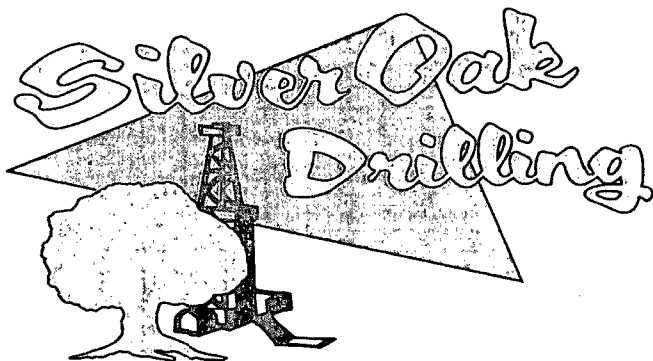




PO Box 1370
Artesia, NM 88211-1370
(505) 748-1288

30-015-41773

February 20, 2014

Yates Petroleum Corporation
105 S. 4th
Artesia, NM 88211-1395

RE: Abundance AVZ #3H
250' FNL & 1880' FEL
Sec. 22, T19S, R25E
Eddy County, New Mexico

Dear Sir,

The attached is the Deviation Survey for the above captioned well.

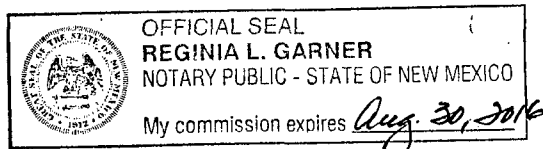
Very truly yours,

A handwritten signature in black ink, appearing to read "Eddie C. LaRue". The signature is fluid and cursive, with a large, stylized "E" and "L".

Eddie C. LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 20th day of February, 2014.

A handwritten signature in black ink, appearing to read "Regina L. Garner". The signature is cursive and elegant, with a large, stylized "R" and "G".
Notary Public

ABUNDANCE AVZ #3H

Date	Depth	Deviation	Direction	TVD	Horiz
2/8/2014	222	1.20	0.00	0.00	0.00
2/8/2014	471	1.30	0.00	0.00	0.00
2/8/2014	721	0.60	0.00	0.00	0.00
2/8/2014	940	0.70	0.00	0.00	0.00
2/10/2014	1110	0.60	337.10	1109.88	0.00
2/10/2014	1296	0.70	335.80	1295.87	0.00
2/10/2014	1484	0.70	357.90	1483.86	0.00
2/10/2014	1672	0.70	358.80	1671.84	0.00
2/10/2014	1858	1.00	352.10	1857.82	0.00
2/10/2014	2045	0.90	345.40	2044.79	0.00
2/10/2014	2139	1.10	351.40	2138.78	0.00
2/11/2014	2170	0.80	347.10	2169.78	0.00
2/11/2014	2201	2.30	10.50	2200.76	0.00
2/11/2014	2233	7.00	5.50	2232.65	0.00
2/11/2014	2264	12.40	7.40	2263.20	0.00
2/11/2014	2295	17.50	4.80	2293.14	0.00
2/11/2014	2326	21.90	3.20	2322.32	0.00
2/11/2014	2357	26.10	2.80	2350.63	0.00
2/11/2014	2388	29.60	1.20	2378.03	0.00
2/11/2014	2420	33.00	1.00	2405.37	0.00
2/11/2014	2451	36.10	0.20	2430.90	0.00
2/11/2014	2482	39.10	359.10	2455.46	0.00
2/11/2014	2513	42.20	357.70	2473.98	0.00
2/11/2014	2544	44.60	356.60	2501.50	0.00
2/11/2014	2575	47.60	355.80	2522.91	0.00
2/11/2014	2606	50.50	355.90	2543.31	0.00
2/11/2014	2637	54.10	356.40	2562.26	0.00
2/11/2014	2669	51.50	357.00	2580.25	0.00
2/11/2014	2700	60.70	356.70	2596.17	0.00
2/11/2014	2731	63.70	356.30	2610.62	0.00
2/11/2014	2762	67.00	355.90	2622.55	0.00
2/11/2014	2793	69.90	356.60	2634.94	0.00
2/11/2014	2825	72.20	357.60	2645.33	0.00
2/11/2014	2856	74.30	358.00	2654.26	0.00
2/11/2014	2887	77.20	357.70	2661.89	0.00
2/12/2014	2918	80.60	357.30	2667.86	0.00
2/12/2014	2950	83.80	357.10	2672.20	0.00
2/12/2014	2979	88.00	357.80	2674.27	0.00
2/12/2014	3010	70.50	357.40	2674.68	0.00
2/12/2014	3104	90.00	358.20	2674.27	0.00
2/13/2014	3197	89.10	357.50	2674.00	0.00
2/13/2014	3291	89.30	358.30	2676.31	0.00
2/13/2014	3384	89.30	358.80	2677.45	0.00

Date	Depth	Deviation	Direction	TVD	Horiz
2/13/2014	3477	89.70	357.60	0.00	0.00
2/13/2014	3571	89.70	357.80	0.00	0.00
2/13/2014	3665	89.80	357.90	0.00	0.00
2/13/2014	3758	90.10	358.10	2674.24	0.00
2/13/2014	3852	89.20	356.60	2679.82	0.00
2/13/2014	3945	88.80	357.00	2681.44	0.00
2/14/2014	4039	89.60	357.00	2682.75	0.00
2/14/2014	4133	89.60	356.60	2683.41	0.00
2/14/2014	4227	89.80	357.10	2683.90	0.00
2/14/2014	4321	90.30	357.80	0.00	0.00
2/14/2014	4415	90.20	357.70	0.00	0.00
2/14/2014	4508	90.30	357.60	0.00	0.00
2/15/2014	4602	90.40	358.00	0.00	0.00
2/15/2014	4696	89.70	358.00	0.00	0.00
2/15/2014	4789	89.20	358.50	0.00	0.00
2/15/2014	4883	89.20	357.20	0.00	0.00
2/15/2014	4976	89.00	357.50	2686.01	0.00
2/15/2014	5070	89.50	356.10	2687.24	0.00
2/15/2014	5163	90.70	356.30	2687.08	0.00
2/15/2014	5257	90.20	356.20	2686.34	0.00
2/16/2014	5350	91.20	357.60	2685.21	0.00
2/16/2014	5444	90.90	358.40	2683.48	0.00
2/16/2014	5537	90.50	358.90	2682.35	0.00
2/16/2014	5630	90.40	358.90	2681.62	0.00
2/16/2014	5724	91.30	356.70	0.00	0.00
2/16/2014	5817	91.40	356.60	0.00	0.00
2/16/2014	5911	90.80	356.90	0.00	0.00
2/16/2014	6004	90.50	357.70	0.00	0.00
2/16/2014	6098	90.20	358.40	2674.60	0.00
2/16/2014	6192	89.40	356.80	2674.93	0.00
2/17/2014	6286	88.90	357.50	2676.32	0.00
2/17/2014	6379	89.00	357.80	2678.02	0.00
2/17/2014	6472	88.40	357.80	2680.13	0.00
2/17/2014	6566	89.70	357.00	2681.69	0.00
2/17/2014	6659	90.10	355.80	2681.85	0.00
2/17/2014	6753	90.00	356.10	2681.77	0.00
2/17/2014	6846	89.50	356.60	2682.02	0.00
2/17/2014	6940	90.70	356.00	2682.01	0.00
2/17/2014	7034	90.50	355.60	2681.03	0.00
2/17/2014	7127	89.90	357.00	0.00	0.00
2/17/2014	7221	89.80	357.40	0.00	0.00
2/17/2014	7314	90.70	357.10	0.00	0.00
2/17/2014	7408	90.40	357.40	0.00	0.00

EOF,



Job Number: SVMO-140170
 Company: Yates Petroleum Corporation
 Lease/Well: Abundance AVZ 3H
 Location: Eddy County, NM
 Rig Name: Silver Oak #11
 RKB: 18'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.77°
 Grid: East To Grid North
 File name: S:\2014SU-1\YATES\MO\ABUNDA-113H.SVY
 Date/Time: 12-Feb-14 / 14:30
 Curve Name: Surface - 900' M.D. (Rate Gyro)

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane: 357.47
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 900 MD is to the best of
 our knowledge a true and accurate account of
 the well bore.
 Daniel West 2/12/14
 MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.33	2.03	100.00	.29	.01	.29	.29	2.03	.33
200.00	.93	346.79	199.99	1.37	.17	1.37	1.38	353.11	.62
300.00	1.09	345.51	299.98	3.08	.59	3.10	3.13	349.17	.16
400.00	1.10	350.68	399.96	4.94	.98	4.98	5.04	348.77	.10
500.00	.90	6.90	499.94	6.67	-1.04	6.71	6.75	351.11	.34
600.00	1.11	14.75	599.93	8.39	-.70	8.41	8.42	355.22	.25
700.00	.91	5.31	699.91	10.12	-.38	10.12	10.12	357.84	.26
800.00	.80	358.76	799.90	11.60	-.32	11.61	11.61	358.40	.15
Last Survey Depth Recorded									
900.00	.68	351.00	899.89	12.89	-.43	12.89	12.90	358.08	.16



NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 18 2014

RECEIVED

Yates Petroleum Corp.

Eddy County, NM (NAD83 NME)

Abundance AVZ

#3H

WB1/Job #1410175

30-015-41773

Survey: Phoenix MWD Survey

Phoenix Final Survey Report

05 March, 2014



PHOENIX
TECHNOLOGY SERVICES



Phoenix Technology Services

Phoenix Final Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	KB @ 3465.50usft (Silver Oak 11)
Site:	Abundance AVZ	MD Reference:	KB @ 3465.50usft (Silver Oak 11)
Well:	#3H	North Reference:	Grid
Wellbore:	WB1/Job #1410175	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	GCR DB

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	Abundance AVZ		
Site Position:		Northing:	601,335.80 usft
From:	Map	Easting:	505,826.20 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 39' 11.03890 N
		Longitude:	104° 26' 55.37618 W
		Grid Convergence:	-0.06 °

Well	#3H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 39' 10.82963 N
		Longitude:	104° 27' 9.64976 W
		Ground Level:	3,447.00 usft

Wellbore	WB1/Job #1410175		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010_14	01/30/14	7.70
			Dip Angle
			(°)
			60.37
			Field Strength
			(nT)
			48,514

Design	Surveys (Silver Oak 11)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
		Direction	(°)
		357.47	

Survey Program	Date: 03/05/14		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	900.00	MS Gyro Survey (WB1/Job #1410175)	CB-GYRO-MS
1,110.00	7,499.00	Phoenix MWD Survey (WB1/Job #141017	MWD
			Description
			Camera based gyro multishot
			MWD - Standard

Survey			
MD	Inc	Azi (azimuth)	TVD
(usft)	(°)	(°)	(usft)
900.00	0.68	351.00	899.89
		N/S	E/W
		(usft)	(usft)
		12.89	-0.43
		V. Sec	DLeg
		(usft)	(%/100usft)
		12.89	0.00
Tie-on to Gyro			
1,110.00	0.60	337.10	1,109.88
		15.13	-1.05
		15.16	0.08
First Phoenix MWD Survey			
1,296.00	0.70	335.80	1,295.87
		17.07	-1.90
1,484.00	0.70	357.90	1,483.86
		19.26	-2.41
1,672.00	0.70	358.80	1,671.84
		21.56	-2.48
1,858.00	1.00	352.10	1,857.82
		24.30	-2.72
2,045.00	0.90	345.40	2,044.79
		27.34	-3.32
2,139.00	1.10	351.40	2,138.78
		28.94	-3.64
2,170.00	0.80	347.10	2,169.78
		29.45	-3.73
		29.58	0.99



Phoenix Technology Services

Phoenix Final Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3465.50usft (Silver Oak 11)
Site:	Abundance AVZ	MD Reference:	KB @ 3465.50usft (Silver Oak 11)
Well:	#3H	North Reference:	Grid
Wellbore:	WB1/Job #1410175	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	GCR DB

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
2,201.00	2.30	10.50	2,200.76	30.27	-3.67	30.40	5.15
2,233.00	7.00	5.50	2,232.65	32.85	-3.36	32.96	14.73
2,264.00	12.40	7.40	2,263.20	38.03	-2.75	38.11	17.45
2,295.00	17.50	4.80	2,293.14	45.98	-1.93	46.02	16.59
2,326.00	21.90	3.20	2,322.32	56.40	-1.22	56.40	14.30
2,357.00	26.10	2.80	2,350.63	68.99	-0.57	68.95	13.56
2,388.00	29.60	1.20	2,378.03	83.46	-0.07	83.38	11.54
2,420.00	33.00	1.00	2,405.37	100.08	0.25	99.97	10.63
2,451.00	36.10	0.20	2,430.90	117.66	0.43	117.52	10.11
2,482.00	39.10	359.10	2,455.46	136.57	0.30	136.42	9.92
2,513.00	42.20	357.70	2,478.98	156.75	-0.27	156.61	10.42
2,544.00	44.60	356.60	2,501.50	178.02	-1.33	177.91	8.12
2,575.00	47.60	355.80	2,522.99	200.31	-2.82	200.24	9.85
2,606.00	50.50	355.90	2,543.31	223.66	-4.51	223.64	9.36
2,637.00	54.10	356.40	2,562.26	248.13	-6.15	248.16	11.68
2,669.00	57.50	357.00	2,580.25	274.55	-7.67	274.62	10.74
2,700.00	60.70	356.70	2,596.17	301.10	-9.14	301.21	10.36
2,731.00	63.70	356.30	2,610.62	328.47	-10.81	328.63	9.74
2,762.00	67.00	355.90	2,623.55	356.57	-12.73	356.79	10.71
2,793.00	69.90	356.60	2,634.94	385.34	-14.61	385.61	9.59
2,825.00	72.20	357.60	2,645.33	415.57	-16.14	415.88	7.77
2,856.00	74.30	358.00	2,654.26	445.23	-17.28	445.56	6.89
2,887.00	77.20	357.70	2,661.89	475.25	-18.41	475.60	9.40
2,918.00	80.60	357.30	2,667.86	505.64	-19.74	506.02	11.04
2,950.00	83.80	357.10	2,672.20	537.30	-21.28	537.71	10.02
2,979.00	88.00	357.80	2,674.27	566.19	-22.57	566.63	14.68
3,010.00	90.50	357.40	2,674.68	597.16	-23.87	597.63	8.17
3,017.85	90.46	357.47	2,674.61	605.00	-24.22	605.48	1.00
3017.85' MD 330' Cross Point							
3,104.00	90.00	358.20	2,674.27	691.09	-27.48	691.63	1.00
3,197.00	89.10	357.50	2,675.00	784.02	-30.97	784.62	1.23
3,291.00	89.30	358.30	2,676.31	877.94	-34.41	878.61	0.88
3,384.00	89.30	358.80	2,677.45	970.91	-36.76	971.58	0.54
3,477.00	89.70	357.60	2,678.26	1,063.85	-39.68	1,064.57	1.36
3,571.00	89.70	357.80	2,678.75	1,157.78	-43.46	1,158.57	0.21
3,665.00	89.80	357.90	2,679.16	1,251.71	-46.98	1,252.56	0.15
3,758.00	90.10	358.10	2,679.24	1,344.65	-50.23	1,345.56	0.39
3,852.00	89.20	356.60	2,679.82	1,438.55	-54.57	1,439.55	1.86
3,945.00	88.80	357.00	2,681.44	1,531.39	-59.77	1,532.53	0.61
4,039.00	89.60	357.00	2,682.75	1,625.25	-64.68	1,626.52	0.85
4,133.00	89.60	356.60	2,683.41	1,719.10	-69.93	1,720.51	0.43
4,227.00	89.80	357.10	2,683.90	1,812.96	-75.10	1,814.50	0.57
4,321.00	90.30	357.80	2,683.82	1,906.86	-79.28	1,908.50	0.92
4,415.00	90.20	357.70	2,683.41	2,000.79	-82.97	2,002.50	0.15



Phoenix Technology Services
Phoenix Final Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3465.50usft (Silver Oak 11)
Site:	Abundance AVZ	MD Reference:	KB @ 3465.50usft (Silver Oak 11)
Well:	#3H	North Reference:	Grid
Wellbore:	WB1/Job #1410175	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	GCR DB

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
4,508.00	90.30	357.60	2,683.00	2,093.71	-86.78	2,095.50	0.15
4,602.00	90.40	358.00	2,682.43	2,187.64	-90.39	2,189.50	0.44
4,696.00	89.70	358.00	2,682.35	2,281.58	-93.67	2,283.49	0.74
4,789.00	89.20	358.50	2,683.24	2,374.53	-96.51	2,376.48	0.76
4,883.00	89.20	357.20	2,684.55	2,468.46	-100.04	2,470.47	1.38
4,976.00	89.00	357.50	2,686.01	2,561.34	-104.34	2,563.45	0.39
5,070.00	89.50	356.10	2,687.24	2,655.19	-109.58	2,657.44	1.58
5,163.00	90.70	356.30	2,687.08	2,747.98	-115.75	2,750.41	1.31
5,257.00	90.20	356.20	2,686.34	2,841.78	-121.89	2,844.39	0.54
5,350.00	91.20	357.60	2,685.21	2,934.63	-126.92	2,937.37	1.85
5,444.00	90.90	358.40	2,683.48	3,028.56	-130.20	3,031.35	0.91
5,537.00	90.50	358.90	2,682.35	3,121.52	-132.39	3,124.32	0.69
5,630.00	90.40	358.90	2,681.62	3,214.50	-134.18	3,217.29	0.11
5,724.00	91.30	356.30	2,680.22	3,308.40	-138.11	3,311.27	2.93
5,817.00	91.40	356.50	2,678.03	3,401.19	-143.95	3,404.23	0.24
5,911.00	90.80	356.90	2,676.23	3,495.02	-149.36	3,498.20	0.77
6,004.00	90.50	357.70	2,675.17	3,587.91	-153.74	3,591.20	0.92
6,098.00	90.20	358.40	2,674.60	3,681.85	-156.94	3,685.19	0.81
6,192.00	89.40	356.80	2,674.93	3,775.76	-160.88	3,779.19	1.90
6,286.00	88.90	357.50	2,676.32	3,869.64	-165.55	3,873.17	0.92
6,379.00	89.00	357.80	2,678.02	3,962.54	-169.36	3,966.16	0.34
6,472.00	88.40	357.80	2,680.13	4,055.45	-172.93	4,059.13	0.65
6,566.00	89.70	357.00	2,681.69	4,149.34	-177.20	4,153.11	1.62
6,659.00	90.10	355.80	2,681.85	4,242.15	-183.04	4,246.10	1.36
6,753.00	90.00	356.10	2,681.77	4,335.92	-189.67	4,340.06	0.34
6,846.00	89.50	356.30	2,682.18	4,428.71	-195.84	4,433.04	0.58
6,940.00	90.70	356.00	2,682.01	4,522.50	-202.15	4,527.01	1.32
7,034.00	90.50	355.60	2,681.03	4,616.24	-209.03	4,620.97	0.48
7,127.00	89.80	357.00	2,680.79	4,709.04	-215.03	4,713.94	1.68
7,221.00	89.30	357.40	2,681.53	4,802.93	-219.63	4,807.94	0.68
7,314.00	90.70	357.10	2,681.53	4,895.82	-224.09	4,900.94	1.54
7,408.00	90.40	357.40	2,680.62	4,989.70	-228.60	4,994.93	0.45
7,438.00	90.30	357.60	2,680.44	5,019.68	-229.91	5,024.93	0.75
Last Phoenix MWD Survey							
7,499.00	90.30	357.60	2,680.12	5,080.62	-232.46	5,085.93	0.00
Projection to TD							



Phoenix Technology Services
Phoenix Final Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3465.50usft (Silver Oak 11)
Site:	Abundance AVZ	MD Reference:	KB @ 3465.50usft (Silver Oak 11)
Well:	#3H	North Reference:	Grid
Wellbore:	WB1/Job #1410175	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	GCR DB

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
900.00	899.89	12.89	-0.43	Tie-on to Gyro
1,110.00	1,109.88	15.13	-1.05	First Phoenix MWD Survey
3,017.85	2,674.61	605.00	-24.22	3017.85' MD 330' Cross Point
7,438.00	2,680.44	5,019.68	-229.91	Last Phoenix MWD Survey
7,499.00	2,680.12	5,080.62	-232.46	Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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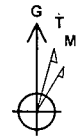


NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 18 2014
RECEIVED

Project: Eddy County, NM (NAD83 NME)
Site: Abundance AVZ
Well: #3H
Wellbore: WB1/Job #1410175
Design: Plan #3 02-10-14
Rig: Silver Oak 11



PHOENIX
TECHNOLOGY SERVICES



Azimuths to Grid North
True North: 0.06°
Magnetic North: 7.76°
Magnetic Field
Strength: 4851.3 Gauss
Dip Angle: 60.37°
Date: 01/30/2014
Model: IGRF2010_14

WELL DETAILS									
	+N/-S	+E/-W	Northing	Ground Level Easting	3447.00	Latitude	Longitude		
	0.00	0.00	601316.00	504605.90		32° 39' 10.82963 N	104° 27' 9.64976 W		

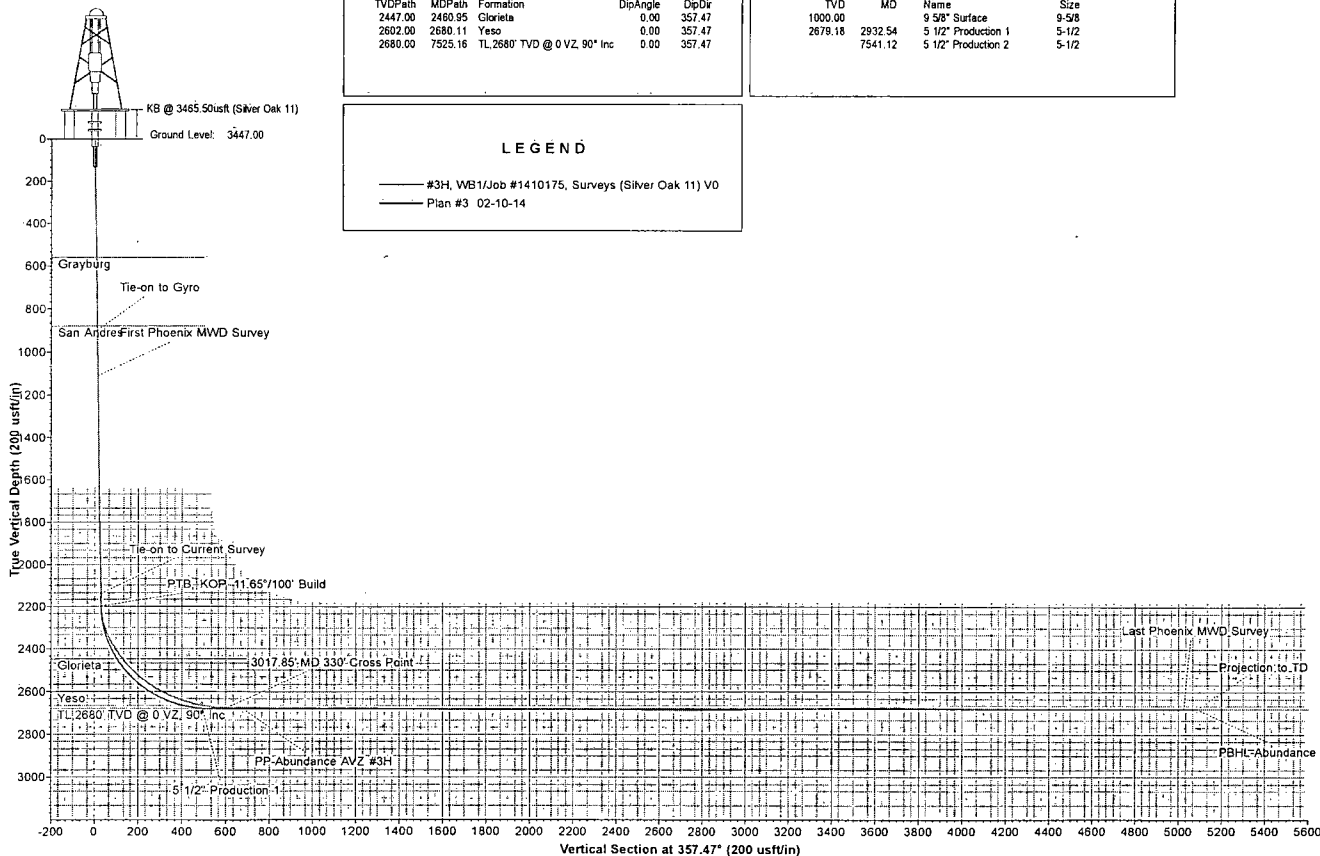
SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace
1	2139.00	1.10	351.40	2138.78	28.94	-3.84	0.00	0.00	29.08
2	2198.00	1.10	351.40	2197.77	30.05	-3.81	0.00	0.00	30.20
3	2860.83	90.00	357.51	2679.99	521.08	-26.13	11.65	6.11	521.72
4	7525.16	90.00	357.51	2680.00	5081.10	-224.30	0.00	0.00	5088.05
PBHL-Abundance AVZ #3H TD at 7525.16									

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
PBHL-Abundance AVZ #3H	2680.00	5081.10	-224.30	606397.10	504381.60	32° 40' 1.10642 N	104° 27' 12.34062 W	Point	
- plan hits target center									
PP-Abundance AVZ #3H	2680.00	676.00	-29.84	601992.00	504576.06	32° 39' 17.51856 N	104° 27' 10.00771 W	Point	
- plan misses target center by 3.02usft at 3115.77usft MD (2679.99 TVD, 675.87 N, -32.85 E)									

FORMATION TOP DETAILS					
TVDPath	MDPath	Formation	DipAngle	DipDir	
2447.00	2460.95	Glorieta	0.00	357.47	
2602.00	2680.11	Yeso	0.00	357.47	
2680.00	7525.16	TL2680' TVD @ 0 VZ, 90° Inc	0.00	357.47	

CASING DETAILS				
TVD	MD	Name	Size	
1000.00		9 5/8" Surface	9-5/8	
2678.18	2932.54	5 1/2" Production 1	5-1/2	
	7541.12	5 1/2" Production 2	5-1/2	

LEGEND	
—	#3H, WB1/Job #1410175, Surveys (Silver Oak 11) V0
—	Plan #3 02-10-14



Map System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone Name: New Mexico Eastern Zone
Local Origin: Well #3H, Grid North
Latitude: 32° 39' 10.82963 N
Longitude: 104° 27' 9.64976 W
Grid East: 504605.90
Grid North: 601316.00
Scale Factor: 1.000
Geomagnetic Model: IGRF2010_14
Sample Date: 30-Jan-14
Magnetic Declination: 7.70°
Dip Angle from Horizontal: 60.37°
Magnetic Field Strength: 48514
To convert a Magnetic Direction to a Grid Direction, Add 7.77°
To convert a Magnetic Direction to a True Direction, Add 7.70° East
To convert a True Direction to a Grid Direction, Add 0.06°

