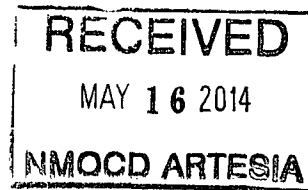


PHOENIX
TECHNOLOGY SERVICES

May 12, 2014

Oil Conservation Division
State of New Mexico
811 S. First St.
District 2- Artesia
Artesia, New Mexico 88210



Attention: Regulatory Department

Re: Yates Petroleum
Southland Royalty APM State #3H
Eddy County, NM
API #30-015- 39858
Job No. 1410414

RD 5/22/14
Accepted for record
NMOCD

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced well by Phoenix Technology Services, Inc. (P-5 No. 664171). Other information required by your office is as follows:

Name & Title of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Anthony Rogers	3H	450	12,759	03/26/14	04/18/14	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Dana Robinson

Dana Robinson
Operations Administrator

Certified mail receipt number: 7011 1570 0001 4365 1936

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER 1410414

OPERATOR Yates Petroleum

WELL NAME Southland Royalty APM State #3H

COUNTY & STATE

Eddy, New Mexico

API WELL NUMBER 30-015-39858

PROPOSED DIRECTION 358.74

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
400 ft	399.99 ft	0.34	158.6 ft	-.76 ft	1.82 ft	Gyro

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
26-Mar-14	450 ft	0.4	172.7

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
18-Apr-14	12,759 ft	90.6	356.1

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
18-Apr-14	12,835 ft	90.6	356.1

Anthony Rogers

PRINT YOUR NAME ABOVE

Anthony Rogers

SIGN YOUR NAME ABOVE

4/18/2014

TODAY'S DATE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.33
DECLINATION OR GRID	GRID

MWD SUPERVISOR 1

Anthony Rogers

DIRECTIONAL DRILLER 1

Greg Puntney

MWD SUPERVISOR 2

Dean Young

DIRECTIONAL DRILLER 2

James Juneke

RECEIVED

MAY 16 2014

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised July 16, 2010

Submit one copy to appropriate
District Office

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

AMOC D ARTESIA
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number		Pool Code	Pool Name
Property Code	Property Name SOUTHLAND ROYALTY "APM" STATE		Well Number 3H
OGRID No. 025575	Operator Name YATES PETROLEUM CORP.		Elevation 3363'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	24	19 S	29 E		200	SOUTH	1800	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	24	19 S	29 E		330	NORTH	1980	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

N.: 601536.7 E.: 632561.9 NAD 83	PROPOSED BOTTOM HOLE LOCATION Lat - N 32°39'08.43" Long - W 104°01'34.42" NMSPCE- N 601189.894 E 635856.379 (NAD-83)	N.: 601509.7 E.: 637835.4 NAD 83	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature _____ Date _____ Printed Name _____ Email Address _____
N.: 596250.9 E.: 632572.2 NAD 83	SURFACE LOCATION Lat - N 32°38'21.43" Long - W 104°01'32.35" NMSPCE- N 596440.560 E 636047.244 (NAD-83)	N.: 596234.0 E.: 637847.4 NAD 83	
Certificate No. Gary L. Jones 7977			SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date Surveyed _____ Signature & Seal of Professional Surveyor _____ W.C. 11/12/06
BASIN SURVEYS 24886			



Yates Petroleum Corp.

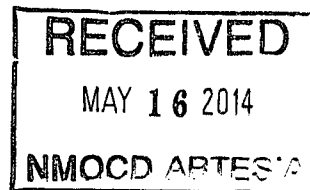
**Eddy County, NM (NAD83 NME)
Southland Royalty APM State
#3H**

WB1/Job #1410414

Design: Surveys (McVay 8)

Standard Survey Report

20 April, 2014





Phoenix Technology Services

Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	KB @ 3381.50usft (McVay 8)
Site:	Southland Royalty APM State	MD Reference:	KB @ 3381.50usft (McVay 8)
Well:	#3H	North Reference:	Grid
Wellbore:	WB1/Job #1410414	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (McVay 8)	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	Southland Royalty APM State		
Site Position:		Northing:	596,440.56 usft
From:	Map	Easting:	636,047.25 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 38' 21.43223 N
		Longitude:	104° 1' 32.35058 W
		Grid Convergence:	0.17 °

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° 38' 21.43223 N
		Longitude:	104° 1' 32.35058 W
		Ground Level:	3,363.00 usft

Wellbore	WB1/Job #1410414		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010_14	03/06/14	7.49
			Dip Angle
			(°)
			60.43
			Field Strength
			(nT)
			48,544

Design	Surveys (McVay 8)		
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
			(°)
			357.70

Survey Program	Date 04/20/14		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	400.00	MS Gyro Survey (WB1/Job #1410414)	CB-GYRO-MS
400.00	12,835.00	Phoenix MWD Survey (WB1/Job #141041)	MWD
			Description
			Camera based gyro multishot
			MWD - Standard

Survey	Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
	Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
	(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100.00	0.45	100.40	100.00	-0.07	0.39	-0.09	0.45	0.45	0.00
	200.00	0.25	118.96	200.00	-0.25	0.96	-0.29	0.23	-0.20	18.56
	300.00	0.33	103.60	300.00	-0.42	1.43	-0.48	0.11	0.08	-15.36
	400.00	0.34	158.60	399.99	-0.76	1.82	-0.84	0.31	0.01	55.00
	Tie-on to MS Gyro Survey									
	450.00	0.40	172.70	449.99	-1.08	1.90	-1.15	0.22	0.12	28.20
	First Phoenix MWD Survey									
	535.00	0.40	161.60	534.99	-1.65	2.03	-1.73	0.09	0.00	-13.06



Phoenix Technology Services

Survey Report



Company: Yates Petroleum Corp.
Project: Eddy County, NM (NAD83, NME)
Site: Southland Royalty APM State
Well: #3H
Wellbore: WB1/Job #1410414
Design: Surveys (McVay 8)

Local Co-ordinate Reference: Well #3H
TVD Reference: KB @ 3381.50usft (McVay 8)
MD Reference: KB @ 3381.50usft (McVay 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR DB

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)
621.00	0.40	131.50	620.99	-2.14	2.35	-2.23	0.24	0.00	-35.00
707.00	0.60	95.70	706.99	-2.38	3.02	-2.50	0.42	0.23	-41.63
795.00	0.70	100.10	794.98	-2.52	4.01	-2.68	0.13	0.11	5.00
880.00	1.50	90.70	879.96	-2.62	5.63	-2.85	0.96	0.94	-11.06
969.00	1.60	97.90	968.93	-2.81	8.03	-3.13	0.25	0.11	8.09
1,065.00	1.40	105.30	1,064.90	-3.30	10.49	-3.72	0.29	-0.21	7.71
1,159.00	0.70	111.90	1,158.88	-3.82	12.13	-4.30	0.75	-0.74	7.02
1,253.00	1.10	278.60	1,252.88	-3.90	11.77	-4.37	1.90	0.43	177.34
1,347.00	1.50	276.40	1,346.85	-3.63	9.65	-4.01	0.43	0.43	-2.34
1,441.00	1.80	266.60	1,440.81	-3.58	6.96	-3.85	0.44	0.32	-10.43
1,536.00	1.00	281.40	1,535.79	-3.50	4.66	-3.69	0.92	-0.84	15.58
1,630.00	0.90	274.10	1,629.77	-3.29	3.12	-3.41	0.17	-0.11	-7.77
1,724.00	1.10	255.00	1,723.76	-3.47	1.51	-3.53	0.41	0.21	-20.32
1,818.00	1.40	240.80	1,817.74	-4.26	-0.37	-4.24	0.46	0.32	-15.11
1,912.00	0.80	258.20	1,911.72	-4.96	-2.01	-4.87	0.72	-0.64	18.51
2,007.00	0.90	277.20	2,006.71	-5.00	-3.40	-4.86	0.31	0.11	20.00
2,101.00	1.20	280.70	2,100.69	-4.72	-5.10	-4.51	0.33	0.32	3.72
2,195.00	1.50	283.00	2,194.67	-4.26	-7.27	-3.97	0.32	0.32	2.45
2,289.00	2.00	285.00	2,288.62	-3.56	-10.05	-3.16	0.54	0.53	2.13
2,383.00	1.80	286.50	2,382.57	-2.72	-13.05	-2.19	0.22	-0.21	1.60
2,478.00	1.50	293.20	2,477.53	-1.80	-15.62	-1.18	0.37	-0.32	7.05
2,572.00	1.60	292.40	2,571.50	-0.82	-17.97	-0.10	0.11	0.11	-0.85
2,671.00	1.70	290.10	2,670.46	0.21	-20.62	1.04	0.12	0.10	-2.32
2,765.00	2.10	294.10	2,764.40	1.39	-23.51	2.34	0.45	0.43	4.26
2,858.00	2.20	302.60	2,857.34	3.05	-26.56	4.12	0.36	0.11	9.14
2,952.00	1.50	289.30	2,951.29	4.43	-29.25	5.60	0.87	-0.74	-14.15
3,046.00	1.30	302.60	3,045.26	5.41	-31.31	6.66	0.40	-0.21	14.15
3,141.00	1.40	302.20	3,140.24	6.61	-33.20	7.94	0.11	0.11	-0.42
3,235.00	1.80	288.00	3,234.20	7.68	-35.57	9.10	0.60	0.43	-15.11
3,330.00	1.80	287.90	3,329.15	8.60	-38.41	10.13	0.00	0.00	-0.11
3,424.00	1.80	292.60	3,423.11	9.62	-41.18	11.26	0.16	0.00	5.00
3,518.00	1.80	284.90	3,517.06	10.57	-43.97	12.32	0.26	0.00	-8.19
3,612.00	2.70	279.30	3,610.99	11.30	-47.58	13.20	0.98	0.96	-5.96
3,665.00	2.60	283.70	3,663.93	11.79	-49.98	13.79	0.43	-0.19	8.30
3,781.00	2.50	292.90	3,779.82	13.40	-54.87	15.59	0.36	-0.09	7.93
3,876.00	2.50	281.70	3,874.73	14.62	-58.80	16.97	0.51	0.00	-11.79
3,970.00	1.00	268.70	3,968.68	15.02	-61.63	17.48	1.64	-1.60	-13.83
4,064.00	1.20	106.70	4,062.67	14.72	-61.51	17.18	2.31	0.21	-172.34
4,158.00	2.10	92.90	4,156.63	14.35	-58.84	16.70	1.04	0.96	-14.68
4,271.00	1.80	86.30	4,269.57	14.36	-55.01	16.56	0.33	-0.27	-5.84
4,365.00	1.60	82.80	4,363.53	14.62	-52.23	16.70	0.24	-0.21	-3.72
4,460.00	1.20	63.30	4,458.50	15.23	-50.03	17.23	0.65	-0.42	-20.53
4,554.00	1.20	57.90	4,552.48	16.20	-48.31	18.12	0.12	0.00	-5.74



Phoenix Technology Services Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3381.50usft (McVay 8)
Site:	Southland Royalty APM State	MD Reference:	KB @ 3381.50usft (McVay 8)
Well:	#3H	North Reference:	Grid
Wellbore:	WB1/Job #1410414	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (McVay 8)	Database:	GCR DB

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)
4,648.00	0.90	50.70	4,646.46	17.19	-46.91	19.06	0.35	-0.32	-7.66
4,742.00	0.90	33.10	4,740.45	18.27	-45.93	20.10	0.29	0.00	-18.72
4,836.00	1.00	22.40	4,834.44	19.65	-45.22	21.45	0.22	0.11	-11.38
4,930.00	1.10	29.10	4,928.42	21.20	-44.47	22.97	0.17	0.11	7.13
5,025.00	1.10	21.00	5,023.40	22.85	-43.70	24.58	0.16	0.00	-8.53
5,119.00	1.10	24.40	5,117.39	24.51	-43.00	26.22	0.07	0.00	3.62
5,213.00	0.90	28.70	5,211.37	25.98	-42.27	27.65	0.23	-0.21	4.57
5,308.00	1.10	30.10	5,306.36	27.42	-41.46	29.06	0.21	0.21	1.47
5,402.00	1.00	30.30	5,400.34	28.91	-40.59	30.52	0.11	-0.11	0.21
5,496.00	0.70	1.70	5,494.33	30.19	-40.16	31.78	0.54	-0.32	-30.43
5,591.00	0.80	2.10	5,589.32	31.44	-40.12	33.02	0.11	0.11	0.42
5,685.00	0.70	356.50	5,683.32	32.67	-40.13	34.25	0.13	-0.11	-5.96
5,779.00	0.90	341.00	5,777.31	33.94	-40.41	35.53	0.31	0.21	-16.49
5,873.00	0.30	35.00	5,871.30	34.84	-40.50	36.43	0.81	-0.64	57.45
5,967.00	0.40	29.40	5,965.30	35.32	-40.20	36.91	0.11	0.11	-5.96
6,062.00	0.40	27.90	6,060.30	35.91	-39.88	37.48	0.01	0.00	-1.58
6,156.00	0.60	349.90	6,154.29	36.68	-39.82	38.25	0.40	0.21	-40.43
6,250.00	1.20	355.50	6,248.28	38.15	-39.98	39.72	0.64	0.64	5.96
6,344.00	1.90	344.70	6,342.25	40.63	-40.47	42.22	0.80	0.74	-11.49
6,438.00	2.20	23.40	6,436.19	43.79	-40.16	45.37	1.48	0.32	41.17
6,532.00	2.20	34.80	6,530.12	46.93	-38.42	48.43	0.46	0.00	12.13
6,628.00	1.60	47.50	6,626.07	49.35	-36.38	50.77	0.76	-0.63	13.23
6,723.00	1.20	23.70	6,721.04	51.15	-35.00	52.52	0.73	-0.42	-25.05
6,817.00	0.90	27.10	6,815.03	52.71	-34.27	54.04	0.33	-0.32	3.62
6,911.00	0.90	323.70	6,909.02	53.96	-34.37	55.30	1.01	0.00	-67.45
7,006.00	0.60	306.90	7,004.01	54.86	-35.21	56.23	0.39	-0.32	-17.68
7,100.00	0.70	273.30	7,098.00	55.19	-36.17	56.60	0.41	0.11	-35.74
7,194.00	1.40	299.70	7,191.99	55.79	-37.75	57.26	0.89	0.74	28.09
7,288.00	1.30	273.90	7,285.96	56.43	-39.81	57.99	0.65	-0.11	-27.45
7,383.00	0.50	330.20	7,380.95	56.87	-41.09	58.47	1.16	-0.84	59.26
7,477.00	0.90	303.70	7,474.94	57.63	-41.91	59.27	0.54	0.43	-28.19
7,566.00	0.80	17.50	7,563.94	58.61	-42.30	60.26	1.15	-0.11	82.92
7,597.00	0.80	16.50	7,594.93	59.03	-42.17	60.67	0.05	0.00	-3.23
7,628.00	1.00	49.80	7,625.93	59.41	-41.91	61.04	1.77	0.65	107.42
7,660.00	1.00	57.60	7,657.93	59.74	-41.46	61.36	0.43	0.00	24.38
7,692.00	1.10	59.30	7,689.92	60.05	-40.96	61.64	0.33	0.31	5.31
7,723.00	1.40	49.30	7,720.91	60.44	-40.41	62.02	1.19	0.97	-32.26
7,754.00	2.90	1.50	7,751.89	61.48	-40.11	63.04	7.15	4.84	-154.19
7,786.00	5.90	349.90	7,783.79	63.90	-40.37	65.47	9.73	9.38	-36.25
7,817.00	8.90	347.30	7,814.53	67.81	-41.18	69.41	9.74	9.68	-8.39
7,848.00	12.20	349.20	7,845.00	73.37	-42.32	75.01	10.70	10.65	6.13
7,880.00	15.90	350.40	7,876.04	81.02	-43.69	82.71	11.60	11.56	3.75
7,911.00	20.00	350.70	7,905.53	90.44	-45.25	92.18	13.23	13.23	0.97
7,943.00	22.70	351.70	7,935.33	101.95	-47.03	103.76	8.51	8.44	3.13



Phoenix Technology Services

Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well: #3H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3381.50usft (McVay.8)
Site:	Southland Royalty APM State	MD Reference:	KB @ 3381.50usft (McVay.8)
Well:	#3H	North Reference:	Grid:
Wellbore:	WB1/Job #1410414	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (McVay.8)	Database:	GCR DB

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)
7,974.00	24.70	355.00	7,963.71	114.33	-48.46	116.18	7.74	6.45	10.65
8,005.00	28.00	354.30	7,991.49	128.02	-49.74	129.92	10.69	10.65	-2.26
8,009.20	28.46	354.14	7,995.19	130.00	-49.94	131.90	11.07	10.92	-3.77
8009.20 MD, 330' Crossing Heel Point									
8,037.00	31.50	353.20	8,019.27	143.80	-51.48	145.75	11.07	10.94	-3.39
8,068.00	35.20	351.20	8,045.16	160.68	-53.81	162.71	12.45	11.94	-6.45
8,099.00	41.80	348.80	8,069.41	179.67	-57.18	181.82	21.83	21.29	-7.74
8,131.00	45.40	349.00	8,092.58	201.32	-61.43	203.62	11.26	11.25	0.63
8,162.00	51.90	349.10	8,113.05	224.15	-65.85	226.62	20.97	20.97	0.32
8,193.00	53.70	349.60	8,131.79	248.42	-70.41	251.05	5.95	5.81	1.61
8,225.00	56.10	350.40	8,150.19	274.20	-74.95	276.99	7.77	7.50	2.50
8,256.00	56.40	352.40	8,167.41	299.69	-78.81	302.61	5.45	0.97	6.45
8,287.00	58.50	353.10	8,184.09	325.61	-82.10	328.64	7.04	6.77	2.26
8,319.00	61.10	353.40	8,200.19	353.07	-85.35	356.21	8.17	8.13	0.94
8,350.00	64.00	354.20	8,214.47	380.41	-88.32	383.65	9.63	9.35	2.58
8,381.00	67.30	354.60	8,227.25	408.52	-91.07	411.84	10.71	10.65	1.29
8,424.00	75.10	353.30	8,241.10	448.96	-95.37	452.43	18.36	18.14	-3.02
8,455.00	81.00	351.50	8,247.52	479.01	-99.39	482.61	19.86	19.03	-5.81
8,463.11	82.32	351.27	8,248.69	486.95	-100.59	490.59	16.49	16.25	-2.84
T 500-SR APM #3H									
8,487.00	86.20	350.60	8,251.08	510.41	-104.33	514.19	16.49	16.25	-2.80
8,518.00	88.50	351.20	8,252.52	540.99	-109.23	544.94	7.67	7.42	1.94
8,581.00	94.00	351.90	8,251.14	603.26	-118.48	607.53	8.80	8.73	1.11
8,675.00	95.90	354.90	8,243.03	696.28	-129.25	700.90	3.77	2.02	3.19
8,769.00	97.30	357.80	8,232.22	789.45	-135.20	794.24	3.41	1.49	3.09
8,800.00	98.10	358.90	8,228.07	820.16	-136.08	824.96	4.36	2.58	3.55
8,831.00	99.10	359.20	8,223.44	850.81	-136.59	855.60	3.36	3.23	0.97
8,862.00	97.30	0.20	8,219.01	881.49	-136.75	886.27	6.63	-5.81	3.23
8,893.00	94.90	0.90	8,215.72	912.31	-136.45	917.05	8.06	-7.74	2.26
8,925.00	94.10	1.40	8,213.21	944.20	-135.81	948.89	2.95	-2.50	1.56
8,956.00	94.10	1.30	8,210.99	975.11	-135.08	979.75	0.32	0.00	-0.32
8,980.92	94.34	1.54	8,209.16	999.96	-134.47	1,004.55	1.37	0.97	0.97
T 1000-SR APM #3H									
8,987.00	94.40	1.60	8,208.70	1,006.02	-134.30	1,010.60	1.37	0.97	0.97
9,019.00	95.30	1.60	8,205.99	1,037.89	-133.41	1,042.41	2.81	2.81	0.00
9,050.00	93.90	3.00	8,203.50	1,068.77	-132.17	1,073.21	6.38	-4.52	4.52
9,081.00	92.70	3.50	8,201.72	1,099.66	-130.42	1,104.01	4.19	-3.87	1.61
9,113.00	90.10	3.60	8,200.94	1,131.59	-128.43	1,135.83	8.13	-8.13	0.31
9,144.00	88.90	4.00	8,201.21	1,162.52	-126.38	1,166.66	4.08	-3.87	1.29
9,175.00	89.00	4.20	8,201.78	1,193.44	-124.16	1,197.46	0.72	0.32	0.65
9,207.00	89.70	3.70	8,202.14	1,225.36	-121.96	1,229.27	2.69	2.19	-1.56
9,239.00	90.40	3.40	8,202.11	1,257.30	-119.98	1,261.10	2.38	2.19	-0.94
9,270.00	90.80	3.30	8,201.79	1,288.24	-118.17	1,291.95	1.33	1.29	-0.32
9,301.00	89.90	2.60	8,201.60	1,319.20	-116.57	1,322.81	3.68	-2.90	-2.26



Phoenix Technology Services Survey Report



Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3381.50usft (McVay.8)
Site:	Southland Royalty APM State	MD Reference:	KB @ 3381.50usft (McVay.8)
Well:	#3H	North Reference:	Grid
Wellbore:	WB1/Job #1410414	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (McVay.8)	Database:	GCR:DB

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)
9,332.00	89.40	2.80	8,201.79	1,350.16	-115.11	1,353.70	1.74	-1.61	0.65
9,364.00	88.30	4.10	8,202.43	1,382.10	-113.19	1,385.53	5.32	-3.44	4.06
9,395.00	88.50	3.70	8,203.29	1,413.01	-111.08	1,416.33	1.44	0.65	-1.29
9,426.00	88.50	4.00	8,204.11	1,443.93	-109.00	1,447.14	0.97	0.00	0.97
9,483.91	89.60	2.90	8,205.06	1,501.73	-105.52	1,504.76	2.69	1.90	-1.90
T-1500-SR APM #3H									
9,489.00	89.70	2.80	8,205.10	1,506.81	-105.26	1,509.82	2.69	1.90	-1.90
9,553.00	91.00	2.10	8,204.70	1,570.75	-102.53	1,573.60	2.31	2.03	-1.09
9,614.00	90.10	2.00	8,204.12	1,631.71	-100.35	1,634.42	1.48	-1.48	-0.16
9,677.00	88.70	1.60	8,204.78	1,694.67	-98.37	1,697.26	2.31	-2.22	-0.63
9,771.00	88.60	1.00	8,206.99	1,788.62	-96.23	1,791.04	0.65	-0.11	-0.64
9,865.00	89.90	0.70	8,208.22	1,882.60	-94.84	1,884.89	1.42	1.38	-0.32
9,959.00	91.80	359.90	8,206.83	1,976.58	-94.35	1,978.78	2.19	2.02	-0.85
9,980.77	91.84	359.81	8,206.14	1,998.34	-94.40	2,000.52	0.45	0.20	-0.40
T-2000-SR APM #3H									
10,009.00	91.90	359.70	8,205.21	2,026.56	-94.52	2,028.72	0.45	0.20	-0.40
10,041.00	92.40	359.50	8,204.01	2,058.54	-94.75	2,060.68	1.68	1.56	-0.63
10,072.00	91.70	359.00	8,202.91	2,089.51	-95.15	2,091.65	2.77	-2.26	-1.61
10,104.00	91.20	359.00	8,202.10	2,121.50	-95.71	2,123.63	1.56	-1.56	0.00
10,135.00	89.70	359.02	8,201.85	2,152.49	-96.24	2,154.62	4.84	-4.84	0.06
10,229.00	87.30	358.60	8,204.31	2,246.43	-98.20	2,248.56	2.59	-2.55	-0.45
10,323.00	88.70	358.30	8,207.59	2,340.34	-100.74	2,342.49	1.52	1.49	-0.32
10,417.00	90.20	358.50	8,208.50	2,434.29	-103.36	2,436.48	1.61	1.60	0.21
10,480.81	90.94	358.77	8,207.86	2,498.08	-104.88	2,500.27	1.23	1.16	0.42
T-2500-SR APM #3H									
10,512.00	91.30	358.90	8,207.25	2,529.26	-105.52	2,531.46	1.23	1.16	0.42
10,606.00	90.10	359.00	8,206.10	2,623.23	-107.24	2,625.42	1.28	-1.28	0.11
10,700.00	91.10	358.10	8,205.12	2,717.20	-109.62	2,719.41	1.43	1.06	-0.96
10,794.00	92.00	357.70	8,202.58	2,811.10	-113.06	2,813.37	1.05	0.96	-0.43
10,888.00	88.90	356.90	8,201.84	2,904.98	-117.49	2,907.35	3.41	-3.30	-0.85
10,980.51	90.18	357.10	8,202.58	2,997.35	-122.33	2,999.85	1.40	1.38	0.21
T-3000-SR APM #3H									
10,982.00	90.20	357.10	8,202.58	2,998.85	-122.41	3,001.34	1.40	1.38	0.21
11,076.00	91.40	356.60	8,201.26	3,092.69	-127.57	3,095.32	1.38	1.28	-0.53
11,170.00	91.60	355.60	8,198.80	3,186.44	-133.96	3,189.25	1.08	0.21	-1.06
11,264.00	91.80	355.30	8,196.01	3,280.10	-141.42	3,283.14	0.38	0.21	-0.32
11,358.00	89.20	356.80	8,195.19	3,373.87	-147.89	3,377.08	3.19	-2.77	1.60
11,452.00	90.40	356.40	8,195.52	3,467.70	-153.47	3,471.06	1.35	1.28	-0.43
11,480.71	90.13	356.67	8,195.39	3,496.35	-155.20	3,499.76	1.35	-0.96	0.96
T-3500-SR APM #3H									
11,546.00	89.50	357.30	8,195.60	3,561.55	-158.63	3,565.05	1.35	-0.96	0.96
11,641.00	90.40	357.10	8,195.69	3,656.44	-163.27	3,660.05	0.97	0.95	-0.21
11,735.00	89.60	356.60	8,195.69	3,750.30	-168.44	3,754.03	1.00	-0.85	-0.53
11,832.00	90.00	356.50	8,196.03	3,847.12	-174.27	3,851.01	0.43	0.41	-0.10



Phoenix Technology Services

Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County NM (NAD83 NME)	TVD Reference:	KB @ 3381.50usft (McVay 8)
Site:	Southland Royalty APM State	MD Reference:	KB @ 3381.50usft (McVay 8)
Well:	#3H	North Reference:	Grid
Wellbore:	WB1/Job #1410414	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (McVay 8)	Database:	GCR-DB

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)
11,926.00	90.10	356.30	8,195.94	3,940.93	-180.18	3,944.99	0.24	0.11	-0.21
11,980.63	90.39	356.30	8,195.71	3,995.44	-183.70	3,999.60	0.53	0.53	0.00
T 4000-SR APM #3H									
12,020.00	90.60	356.30	8,195.37	4,034.74	-186.24	4,038.96	0.53	0.53	0.00
12,114.00	90.80	355.80	8,194.22	4,128.51	-192.72	4,132.91	0.57	0.21	-0.53
12,208.00	90.40	354.90	8,193.24	4,222.19	-200.34	4,226.83	1.05	-0.43	-0.96
12,296.00	90.10	355.70	8,192.85	4,309.89	-207.55	4,314.75	0.97	-0.34	0.91
12,390.00	90.90	355.90	8,192.03	4,403.64	-214.43	4,408.69	0.88	0.85	0.21
12,480.42	90.23	356.00	8,191.14	4,493.82	-220.82	4,499.06	0.75	-0.74	0.11
T 4500-SR APM #3H									
12,484.00	90.20	356.00	8,191.13	4,497.40	-221.07	4,502.64	0.75	-0.74	0.11
12,578.00	89.30	356.80	8,191.54	4,591.21	-226.97	4,596.62	1.28	-0.96	0.85
12,673.00	89.80	356.80	8,192.29	4,686.06	-232.27	4,691.60	0.53	0.53	0.00
12,733.72	90.36	356.31	8,192.20	4,746.67	-235.93	4,752.31	1.24	0.93	-0.81
PBHL-SR APM #3H									
12,736.00	90.39	356.29	8,192.18	4,748.94	-236.07	4,754.59	1.24	0.93	-0.81
12736' MD, 330' Crossing Toe Point									
12,759.00	90.60	356.10	8,191.99	4,771.89	-237.60	4,777.58	1.24	0.93	-0.81
Last Phoenix MWD Survey									
12,835.00	90.60	356.10	8,191.19	4,847.71	-242.77	4,853.55	0.00	0.00	0.00
Projection to TD at 100' N & 52' W of BHL									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
400.00	399.99	-0.76	1.82	Tie-on to MS Gyro Survey
450.00	449.99	-1.08	1.90	First Phoenix MWD Survey
8,009.20	7,995.19	130.00	-49.94	8009.20' MD, 330' Crossing Heel Point
12,736.00	8,192.18	4,748.94	-236.07	12736' MD, 330' Crossing Toe Point
12,759.00	8,191.99	4,771.89	-237.60	Last Phoenix MWD Survey
12,835.00	8,191.19	4,847.71	-242.77	Projection to TD at 100' N & 52' W of BHL

Checked By: _____ Approved By: _____ Date: _____