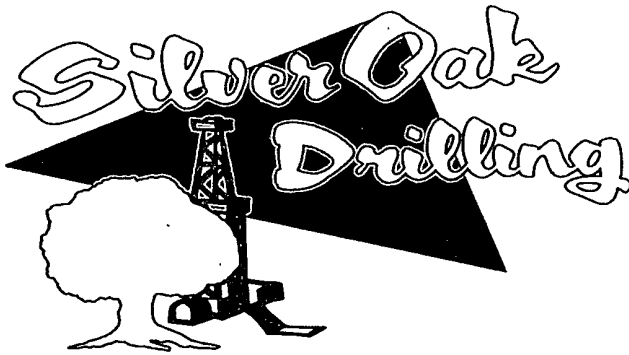
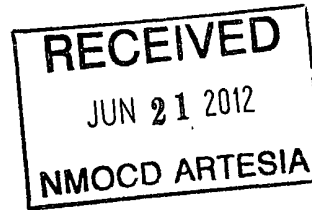




PO Box 1370
Artesia, NM 88211-1370
(505) 748-1288

30-015-39511



RECEIVED

APR 25 2012

YPLA
MAIL ROOM

April 17, 2012

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

RE: Hanagan APL Federal Com #2H
1600' FSL & 330' FWL
Sec. 31, T19S, R30E
Eddy County, New Mexico

Dear Sir,

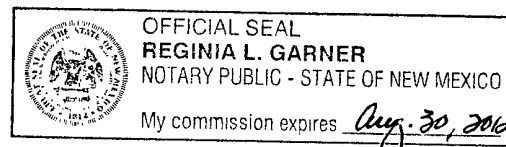
The attached is the Deviation Survey for the above captioned well.

Very truly yours,

Eddie LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 17th day of April, 2012.

Notary Public

Pason DataHub Deviation Survey

Well Dossier 1331144800 - HANAGAN APL FEDERAL #2-H

#

#	Date	Depth	Deviation	Direction	TVD	Horiz
	3/8/2012	318	0.30	0.00	0.00	0.00
	3/16/2012	515	0.60	0.00	0.00	0.00
	3/16/2012	737	0.70	0.00	0.00	0.00
	3/16/2012	947	1.10	0.00	0.00	0.00
	3/17/2012	1130	1.50	0.00	0.00	0.00
	3/17/2012	1326	1.30	0.00	0.00	0.00
	3/18/2012	1510	1.20	0.00	0.00	0.00
	3/21/2012	1885	0.79	76.04	0.00	0.00
	3/21/2012	2075	1.32	86.45	0.00	0.00
	3/21/2012	2265	0.70	140.98	2264.00	0.00
	3/21/2012	2456	0.79	152.48	2455.00	0.00
	3/22/2012	2646	0.79	153.27	2645.00	0.00
	3/22/2012	2836	1.49	162.63	28.35	0.00
	3/22/2012	3026	1.67	161.61	3025.00	0.00
	3/22/2012	3216	0.97	166.35	3215.00	0.00
	3/23/2012	3406	1.14	222.99	3405.00	0.53
	3/23/2012	3471	1.23	225.58	3470.00	0.16
	3/26/2012	3815	0.60	0.00	0.00	0.00
	3/26/2012	4089	0.60	0.00	0.00	0.00
	3/26/2012	4439	0.30	0.00	0.00	0.00
	3/27/2012	4780	0.30	0.00	0.00	0.00
	3/27/2012	5095	1.10	0.00	0.00	0.00
	3/27/2012	5394	1.10	0.00	0.00	0.00
	3/27/2012	5701	1.10	0.00	0.00	0.00
	3/28/2012	5980	1.00	0.00	0.00	0.00
	3/28/2012	6282	1.50	0.00	0.00	0.00
	3/28/2012	6588	1.10	0.00	0.00	0.00
	3/29/2012	6900	1.60	0.00	0.00	0.00
	3/30/2012	7208	0.90	0.00	0.00	0.00
	3/30/2012	7430	0.70	0.00	0.00	0.00
	3/31/2012	7504	1.60	238.97	7502.00	0.00
	4/1/2012	7598	1.23	238.99	7596.54	0.00
	4/2/2012	7785	0.79	138.84	7783.51	0.00
	4/2/2012	7847	0.88	128.45	7845.50	0.00
	4/2/2012	7878	0.79	132.99	7876.50	0.00
	4/2/2012	7910	1.06	110.23	7908.49	0.00
	4/2/2012	7940	2.90	93.63	7938.00	27.00
	4/2/2012	7971	6.24	91.63	7969.00	24.00
	4/2/2012	8003	9.58	89.54	8001.00	20.00
	4/2/2012	8034	12.75	87.13	8031.00	0.00
	4/2/2012	8065	16.18	86.35	8061.00	0.00

# Date	Depth	Deviation	Direction	TVD	Horiz
4/2/2012	8097	19.79	86.12	8091.00	4.00
4/2/2012	8128	23.21	84.96	8120.00	15.00
4/3/2012	8159	26.47	84.49	8149.00	28.00
4/3/2012	8190	29.72	83.39	8176.00	43.00
4/3/2012	8221	32.81	83.20	8202.00	58.00
4/3/2012	8253	36.14	83.47	8229.00	76.00
4/3/2012	8284	39.39	82.23	8253.00	96.00
4/3/2012	8346	46.34	79.45	8299.00	137.00
4/4/2012	8377	49.86	78.37	8319.00	160.00
4/4/2012	8408	53.82	78.35	8338.00	184.00
4/4/2012	8439	57.33	79.36	8356.00	210.00
4/4/2012	8471	61.82	80.60	8372.00	237.00
4/4/2012	8502	66.92	82.68	8386.00	265.00
4/4/2012	8611	85.76	85.90	8412.00	371.00
4/6/2012	8563	76.41	85.87	8407.00	320.00
4/6/2012	8594	81.78	87.59	8413.00	350.00
4/6/2012	8625	83.36	88.69	8417.00	381.00
4/6/2012	8718	90.04	88.25	8422.39	474.09
4/7/2012	8812	89.96	87.87	8422.39	567.97
4/7/2012	8905	89.87	85.34	8422.53	660.93
4/7/2012	8999	90.40	82.68	8422.00	754.00
4/7/2012	9092	91.19	81.72	8421.00	847.00
4/7/2012	9186	89.87	81.89	8420.00	941.00
4/7/2012	9280	89.34	82.08	8420.79	1035.48
4/7/2012	9373	89.69	81.38	8421.58	1128.27
4/7/2012	9466	90.04	81.70	8421.80	1221.08
4/8/2012	9559	89.78	81.28	8421.95	1313.88
4/8/2012	9652	90.13	81.62	8422.02	1406.68
4/8/2012	9745	89.34	81.37	8422.45	1499.49
4/8/2012	9839	89.69	81.47	8423.00	1593.00
4/8/2012	9932	88.11	81.09	8425.00	1686.00
4/8/2012	10025	88.37	88.66	8427.89	1778.79
4/8/2012	10118	88.64	82.47	8430.31	1871.62
4/9/2012	10213	89.43	83.79	8431.91	1966.54
4/9/2012	10306	89.78	83.78	8432.55	2059.51
4/9/2012	10400	90.48	84.84	8432.34	2153.50
4/9/2012	10493	90.84	85.19	8431.27	2246.44
4/9/2012	10587	90.66	85.39	8430.04	2340.48
4/9/2012	10681	90.04	86.38	8429.46	2434.47
4/9/2012	10773	90.31	87.09	8429.18	2526.44
4/9/2012	10868	90.04	86.70	8428.89	2621.40
4/10/2012	11054	90.13	86.76	8428.25	2807.32
4/10/2012	11148	89.43	87.60	8428.61	2901.27
4/10/2012	11241	89.43	86.80	8429.54	2994.20
4/10/2012	11334	89.69	87.06	8430.25	3087.16

#	Date	Depth	Deviation	Direction	TVD	Horiz
	4/10/2012	11428	89.87	87.58	8430.61	3181.09
	4/10/2012	11520	90.04	87.88	8430.69	3273.00
	4/10/2012	11614	90.22	87.94	8430.47	3366.90
	4/11/2012	11707	89.08	87.62	8431.04	3459.80
	4/11/2012	11800	89.25	87.69	8432.40	3552.70
	4/11/2012	11983	89.60	87.89	8433.00	3445.00
	4/11/2012	11987	89.96	88.04	8433.00	3739.00
	4/11/2012	12079	89.60	87.74	8434.00	3831.00
	4/11/2012	12173	89.96	87.87	8434.00	3925.00
	4/12/2012	12266	89.60	87.19	8434.76	4018.22
	4/12/2012	12359	90.04	87.30	8435.05	4111.16
	4/12/2012	12453	89.87	86.36	8435.13	4205.12
	4/12/2012	12546	90.40	86.27	8434.91	4298.10
	4/12/2012	12639	89.78	86.14	8434.76	4391.08
	4/12/2012	12732	90.04	86.20	8434.91	4484.08
	4/12/2012	12754	90.04	86.34	8434.89	4506.07

EOF



Job Number: SVCO-120435
 Company: Yates Petroleum Corporation
 Lease/Well: HANAGAN APL FED COM 2H
 Location: Eddy County, NM
 Rig Name: Silver Oak #10
 RKB: 18'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.56°
 Grid: East To Grid North
 File name: F:\SURVEY\2012SU~1\YATES\CONROE\HANAGA~1\2H.SVY
 Date/Time: 30-Mar-12 / 14:14
 Curve Name: Surface- 7430' M.D. (Gyroscopic)

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 85.20
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 7,430' MD is, to the best of
 our knowledge a true and accurate account of the
 well bore
 Sammy Smith 3/30/12
 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
200.00	.25	316.34	200.00	.32	-.30	-.27	.44	316.34	.12
400.00	.50	341.90	400.00	1.46	-.87	-.75	1.70	329.12	.15
600.00	.50	293.45	599.99	2.64	-1.95	-1.72	3.28	323.59	.21
800.00	.25	318.20	799.98	3.31	-3.04	-2.75	4.49	317.47	.15
1000.00	.75	32.75	999.98	4.74	-2.62	-2.21	5.41	331.06	.36
1200.00	2.25	41.36	1199.90	8.78	.68	1.42	8.81	4.45	.76
1400.00	2.00	54.11	1399.77	13.78	6.10	7.24	15.07	23.90	.27
1600.00	2.00	69.74	1599.65	17.03	12.21	13.59	20.95	35.63	.27
1800.00	1.25	48.56	1799.57	19.68	17.12	18.70	26.08	41.01	.47

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	
2000.00	.75	80.12	1999.54	21.35	20.04	21.76	29.28	43.19	.36
2200.00	.75	144.02	2199.52	20.52	22.10	23.74	30.16	47.13	.40
2400.00	1.00	115.13	2399.50	18.72	24.45	25.93	30.79	52.56	.25
2600.00	.75	110.94	2599.48	17.51	27.25	28.62	32.39	57.28	.13
2800.00	1.25	156.50	2799.45	15.04	29.34	30.50	32.97	62.86	.45
3000.00	1.50	134.06	2999.39	11.22	32.09	32.92	34.00	70.73	.29
3200.00	1.00	142.88	3199.34	8.01	35.03	35.58	35.93	77.12	.27
3400.00	1.25	194.42	3399.31	4.50	35.54	35.79	35.82	82.78	.50
3600.00	1.25	189.26	3599.26	.24	34.64	34.54	34.65	89.61	.06
3800.00	1.00	188.44	3799.22	-3.64	34.04	33.61	34.23	96.11	.13
4000.00	1.25	203.66	3999.19	-7.37	32.91	32.17	33.72	102.62	.19
4200.00	1.00	224.83	4199.15	-10.60	30.80	29.80	32.57	109.00	.24
4400.00	.50	275.04	4399.13	-11.76	28.70	27.61	31.02	112.29	.39
4600.00	.50	218.19	4599.13	-12.37	27.29	26.16	29.97	114.39	.24
4800.00	.25	262.34	4799.12	-13.12	26.32	25.13	29.41	116.49	.18
5000.00	.75	231.56	4999.11	-13.99	24.86	23.60	28.53	119.37	.28
5200.00	.75	241.37	5199.10	-15.43	22.69	21.32	27.44	124.22	.06
5400.00	1.25	264.52	5399.07	-16.27	19.37	17.94	25.29	130.03	.32
5600.00	1.25	250.67	5599.02	-17.20	15.14	13.64	22.91	138.65	.15
5800.00	1.00	226.88	5798.98	-19.11	11.80	10.16	22.46	148.30	.26
6000.00	1.25	275.03	5998.95	-20.11	8.36	6.64	21.78	157.44	.47
6200.00	1.25	253.16	6198.90	-20.55	4.10	2.36	20.96	168.73	.24
6400.00	1.00	272.30	6398.86	-21.12	.26	-1.50	21.12	179.28	.22
6600.00	1.25	260.44	6598.82	-21.41	-3.63	-5.41	21.71	189.63	.17
6800.00	1.75	281.60	6798.76	-21.16	-8.77	-10.51	22.90	202.52	.37
7000.00	1.75	280.29	6998.66	-20.00	-14.77	-16.39	24.86	216.45	.02
7200.00	1.00	269.98	7198.60	-19.45	-19.52	-21.08	27.56	225.10	.39
7400.00	1.00	213.67	7398.58	-20.91	-22.23	-23.90	30.52	226.76	.47

Last Survey Depth Recorded

7430.00	1.00	231.45	7428.57	-21.29	Page 2	-22.58	-24.28	31.03	226.69	1.03
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Surface- 7430' M.D. (Gyroscopic) File: F:\SURVEY\2012SU-11YATES\CONROE\HANAGA-12H.SVY



Yates Petroleum Corp.

Eddy County (NAD 83)
Hanagan "APL" Federal Com
#2H
OH

Design: OH

PathfinderX & Y Report

16 April, 2012

PATHFINDER[®]
A Schlumberger Company



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 18 @ 3342 0usft (Silver Oak 10)
Site:	Hanagan "APL" Federal Com	MD Reference:	KB = 18 @ 3342 0usft (Silver Oak 10)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 1 Single User Db

Project	Eddy County (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Hanagan "APL" Federal Com				
Site Position:	Northing:	587,277 193 usft	Latitude:	32 614	
From:	Map	Easting:	638,196 401 usft	Longitude:	-104.019
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0 17 °

Well	#2H					
Well Position	+N/-S	0.0 usft	Northing:	587,277 193 usft	Latitude:	32 614
	+E/-W	0.0 usft	Easting:	638,196 401 usft	Longitude:	-104.019
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	3,324 0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF200510	2/9/2012	7 73	60 48	48,776

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.0	0.0	226 69	



Pathfinder PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 18 @ 3342.0usft (Silver Oak 10)
Site:	Hanagan "APL" Federal Com	MD Reference:	KB = 18 @ 3342.0usft (Silver Oak 10)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey Program		Date	4/16/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
200.0	7,430.0	Gyro #1 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	
7,504.0	12,834.0	MWD #1 (OH)	MWD	MWD - Standard	

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
0.0	0.00	0.00	0.0	-3,342.0	0.0	0.0	0.0	0.00	587,277.19	638,196.40	
200.0	0.25	316.34	200.0	-3,142.0	0.3	-0.3	0.0	0.12	587,277.51	638,196.10	
400.0	0.50	341.90	400.0	-2,942.0	1.5	-0.9	-0.4	0.15	587,278.65	638,195.53	
600.0	0.50	293.45	600.0	-2,742.0	2.6	-1.9	-0.4	0.21	587,279.83	638,194.46	
800.0	0.25	318.20	800.0	-2,542.0	3.3	-3.0	-0.1	0.15	587,280.50	638,193.36	
1,000.0	0.75	32.75	1,000.0	-2,342.0	4.7	-2.6	-1.3	0.36	587,281.93	638,193.78	
1,200.0	2.25	41.36	1,199.9	-2,142.1	8.8	0.7	-6.5	0.76	587,285.98	638,197.08	
1,400.0	2.00	54.11	1,399.8	-1,942.2	13.8	6.1	-13.9	0.27	587,290.97	638,202.51	
1,600.0	2.00	69.74	1,599.6	-1,742.4	17.0	12.2	-20.6	0.27	587,294.22	638,208.61	
1,800.0	1.25	48.56	1,799.6	-1,542.4	19.7	17.1	-26.0	0.47	587,296.88	638,213.52	
2,000.0	0.75	80.12	1,999.5	-1,342.5	21.4	20.0	-29.2	0.36	587,298.55	638,216.44	
2,200.0	0.75	144.02	2,199.5	-1,142.5	20.5	22.1	-30.2	0.40	587,297.71	638,218.50	
2,400.0	1.00	115.13	2,399.5	-942.5	18.7	24.4	-30.6	0.25	587,295.91	638,220.85	
2,600.0	0.75	110.94	2,599.5	-742.5	17.5	27.3	-31.8	0.13	587,294.70	638,223.65	
2,800.0	1.25	156.50	2,799.4	-542.6	15.0	29.3	-31.7	0.45	587,292.23	638,225.74	
3,000.0	1.50	134.06	2,999.4	-342.6	11.2	32.1	-31.0	0.29	587,288.41	638,228.50	
3,200.0	1.00	142.88	3,199.3	-142.7	8.0	35.0	-31.0	0.27	587,285.20	638,231.43	
3,400.0	1.25	194.42	3,399.3	57.3	4.5	35.5	-28.9	0.50	587,281.70	638,231.94	
3,600.0	1.25	189.26	3,599.3	257.3	0.2	34.6	-25.4	0.06	587,277.43	638,231.05	
3,800.0	1.00	188.44	3,799.2	457.2	-3.6	34.0	-22.3	0.13	587,273.55	638,230.44	
4,000.0	1.25	203.66	3,999.2	657.2	-7.4	32.9	-18.9	0.19	587,269.83	638,229.31	



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well: #2H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 18 @ 3342.0usft (Silver Oak 10)
Site:	Hanagan "APL" Federal Com	MD Reference:	KB = 18 @ 3342.0usft (Silver Oak 10)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 1:Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (%/100usft)	Northing (usft)	Easting (usft)
4,200.0	1.00	224.83	4,199.1	857.1	-10.6	30.8	-15.1	0.24	587,266.59	638,227.20
4,400.0	0.50	275.04	4,399.1	1,057.1	-11.8	28.7	-12.8	0.39	587,265.43	638,225.10
4,600.0	0.50	218.19	4,599.1	1,257.1	-12.4	27.3	-11.4	0.24	587,264.82	638,223.69
4,800.0	0.25	262.34	4,799.1	1,457.1	-13.1	26.3	-10.2	0.18	587,264.08	638,222.72
5,000.0	0.75	231.56	4,999.1	1,657.1	-14.0	24.9	-8.5	0.28	587,263.20	638,221.26
5,200.0	0.75	241.37	5,199.1	1,857.1	-15.4	22.7	-5.9	0.06	587,261.76	638,219.09
5,400.0	1.25	264.52	5,399.1	2,057.1	-16.3	19.4	-2.9	0.32	587,260.93	638,215.77
5,600.0	1.25	250.67	5,599.0	2,257.0	-17.2	15.1	0.8	0.15	587,260.00	638,211.54
5,800.0	1.00	226.88	5,799.0	2,457.0	-19.1	11.8	4.5	0.26	587,258.08	638,208.21
6,000.0	1.25	275.03	5,998.9	2,656.9	-20.1	8.4	7.7	0.47	587,257.08	638,204.76
6,200.0	1.25	253.16	6,198.9	2,856.9	-20.6	4.1	11.1	0.24	587,256.64	638,200.50
6,400.0	1.00	272.30	6,398.9	3,056.9	-21.1	0.3	14.3	0.22	587,256.08	638,196.67
6,600.0	1.25	260.44	6,598.8	3,256.8	-21.4	-3.6	17.3	0.17	587,255.78	638,192.77
6,800.0	1.75	281.60	6,798.8	3,456.8	-21.2	-8.8	20.9	0.37	587,256.04	638,187.63
7,000.0	1.75	280.29	6,998.7	3,656.7	-20.0	-14.8	24.5	0.02	587,257.20	638,181.63
7,200.0	1.00	269.98	7,198.6	3,856.6	-19.5	-19.5	27.5	0.39	587,257.74	638,176.88
7,400.0	1.00	213.67	7,398.6	4,056.6	-20.9	-22.2	30.5	0.47	587,256.29	638,174.17
7,430.0	1.00	231.45	7,428.6	4,086.6	-21.3	-22.6	31.0	1.03	587,255.91	638,173.82
7,507.0	1.06	238.97	7,505.6	4,163.6	-22.1	-23.7	32.4	0.19	587,255.12	638,172.68
7,601.0	1.23	238.99	7,599.5	4,257.5	-23.0	-25.3	34.2	0.18	587,254.15	638,171.07
7,695.0	1.23	234.43	7,693.5	4,351.5	-24.1	-27.0	36.2	0.10	587,253.05	638,169.39
7,788.0	0.79	138.84	7,786.5	4,444.5	-25.2	-27.4	37.2	1.64	587,251.98	638,169.00
7,850.0	0.88	128.45	7,848.5	4,506.5	-25.8	-26.7	37.2	0.28	587,251.37	638,169.65
7,881.0	0.79	132.99	7,879.5	4,537.5	-26.1	-26.4	37.1	0.36	587,251.07	638,169.99
7,913.0	1.06	110.23	7,911.5	4,569.5	-26.4	-26.0	37.0	1.41	587,250.82	638,170.43
7,943.0	2.90	93.63	7,941.5	4,599.5	-26.5	-24.9	36.3	6.36	587,250.67	638,171.45
KOP: 7943.0 MD: 7941.5 TVD: -26.5 N: -24.9 E										



Pathfinder

PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 18 @ 3342.0usft (Silver Oak 10)
Site:	Hanagan "APL" Federal Com	MD Reference:	KB = 18 @ 3342.0usft (Silver Oak 10)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V' Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
7,974.0	6.24	91.63	7,972.4	4,630.4	-26.6	-22.5	34.6	10.78	587,250.58	638,173.92
8,006.0	9.58	89.54	8,004.1	4,662.1	-26.6	-18.1	31.4	10.47	587,250.55	638,178.32
8,037.0	12.75	87.13	8,034.5	4,692.5	-26.5	-12.1	26.9	10.33	587,250.74	638,184.32
8,068.0	16.18	86.35	8,064.5	4,722.5	-26.0	-4.4	21.0	11.08	587,251.19	638,192.05
8,100.0	19.79	86.12	8,094.9	4,752.9	-25.4	5.5	13.4	11.28	587,251.84	638,201.91
8,131.0	23.21	84.96	8,123.8	4,781.8	-24.5	16.8	4.5	11.12	587,252.73	638,213.23
8,162.0	26.47	84.49	8,151.9	4,809.9	-23.3	29.8	-5.7	10.54	587,253.93	638,226.20
8,193.0	29.72	83.39	8,179.2	4,837.2	-21.7	44.3	-17.3	10.62	587,255.48	638,240.71
8,224.0	32.80	83.20	8,205.7	4,863.7	-19.8	60.3	-30.3	9.94	587,257.36	638,256.68
8,256.0	36.14	83.47	8,232.1	4,890.1	-17.7	78.3	-44.8	10.45	587,259.46	638,274.67
8,287.0	39.39	82.23	8,256.6	4,914.6	-15.4	97.1	-60.1	10.77	587,261.83	638,293.50
8,318.0	42.65	80.77	8,280.0	4,938.0	-12.3	117.2	-76.8	10.96	587,264.84	638,313.62
8,349.0	46.34	79.45	8,302.1	4,960.1	-8.6	138.6	-95.0	12.27	587,268.58	638,335.02
8,380.0	49.86	78.37	8,322.8	4,980.8	-4.2	161.3	-114.5	11.65	587,273.03	638,357.66
8,411.0	53.82	78.35	8,342.0	5,000.0	0.7	185.1	-135.2	12.77	587,277.94	638,381.52
8,442.0	57.33	79.36	8,359.5	5,017.5	5.7	210.2	-156.9	11.64	587,282.88	638,406.61
8,474.0	61.82	80.60	8,375.7	5,033.7	10.5	237.4	-179.9	14.42	587,287.67	638,433.78
8,505.0	66.92	82.68	8,389.1	5,047.1	14.5	265.0	-202.8	17.53	587,291.72	638,461.42
8,536.0	72.28	84.27	8,399.9	5,057.9	17.8	293.9	-226.1	17.95	587,295.02	638,490.28
8,563.0	76.41	85.87	8,407.2	5,065.2	20.1	319.8	-246.4	16.33	587,297.25	638,516.17
8,594.0	81.78	87.59	8,413.0	5,071.0	21.8	350.1	-269.7	18.16	587,298.98	638,546.55
8,625.0	83.36	88.69	8,417.0	5,075.0	22.8	380.9	-292.8	6.19	587,299.98	638,577.27
8,718.0	90.04	88.25	8,422.4	5,080.4	25.3	473.6	-362.0	7.20	587,302.45	638,670.03
LP: 8718.0° MD: 8422.4° TVD: 25.3° N: 473.6° E										
8,812.0	89.96	87.87	8,422.4	5,080.4	28.4	567.6	-432.5	0.41	587,305.64	638,763.98
8,905.0	89.87	85.34	8,422.5	5,080.5	34.0	660.4	-503.9	2.72	587,311.14	638,856.81
8,999.0	90.40	82.68	8,422.3	5,080.3	43.8	753.9	-578.6	2.89	587,320.95	638,950.28



Pathfinder PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #2H:
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 18 @ 3342.0usft (Silver Oak 10)
Site:	Hanagan "APL" Federal Com	MD Reference:	KB = 18 @ 3342.0usft (Silver Oak 10)
Well:	#2H	North Reference:	Grd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
9,092.0	91.19	81.72	8,421.0	5,079.0	56.4	846.0	-654.3	1.34	587,333.57	639,042.41
9,186.0	89.87	81.89	8,420.1	5,078.1	69.8	939.0	-731.2	1.42	587,346.97	639,135.45
9,280.0	89.34	82.08	8,420.8	5,078.8	82.9	1,032.1	-807.9	0.60	587,360.08	639,228.53
9,373.0	89.69	81.38	8,421.6	5,079.6	96.3	1,124.2	-884.1	0.84	587,373.45	639,320.56
9,466.0	90.04	81.70	8,421.8	5,079.8	109.9	1,216.1	-960.4	0.51	587,387.13	639,412.54
9,559.0	89.78	81.28	8,422.0	5,080.0	123.7	1,308.1	-1,036.7	0.53	587,400.90	639,504.52
9,652.0	90.13	81.62	8,422.0	5,080.0	137.5	1,400.1	-1,113.2	0.52	587,414.72	639,596.49
9,745.0	89.34	81.37	8,422.5	5,080.5	151.3	1,492.1	-1,189.5	0.89	587,428.48	639,688.46
9,839.0	89.69	81.47	8,423.2	5,081.2	165.3	1,585.0	-1,266.8	0.39	587,442.50	639,781.41
9,932.0	88.11	81.09	8,425.0	5,083.0	179.4	1,676.9	-1,343.3	1.75	587,456.60	639,873.31
10,025.0	88.37	81.66	8,427.9	5,085.9	193.3	1,768.8	-1,419.8	0.67	587,470.54	639,965.21
10,118.0	88.64	82.47	8,430.3	5,088.3	206.2	1,860.9	-1,495.6	0.92	587,483.37	640,057.29
10,213.0	89.43	83.79	8,431.9	5,089.9	217.5	1,955.2	-1,572.0	1.62	587,494.73	640,151.59
10,306.0	89.78	83.78	8,432.6	5,090.6	227.6	2,047.6	-1,646.2	0.38	587,504.80	640,244.04
10,400.0	90.48	84.84	8,432.3	5,090.3	236.9	2,141.2	-1,720.6	1.35	587,514.12	640,337.58
10,493.0	90.84	85.19	8,431.3	5,089.3	245.0	2,233.8	-1,793.6	0.54	587,522.20	640,430.22
10,587.0	90.66	85.39	8,430.0	5,088.0	252.7	2,327.5	-1,867.0	0.29	587,529.92	640,523.90
10,681.0	90.04	86.38	8,429.5	5,087.5	259.5	2,421.2	-1,939.9	1.24	587,536.66	640,617.65
10,773.0	90.31	87.09	8,429.2	5,087.2	264.7	2,513.1	-2,010.3	0.83	587,541.90	640,709.50
10,868.0	90.04	86.70	8,428.9	5,086.9	269.9	2,608.0	-2,082.9	0.50	587,547.05	640,804.36
10,961.0	90.31	86.81	8,428.6	5,086.6	275.1	2,700.8	-2,154.0	0.31	587,552.31	640,897.21
11,054.0	90.13	86.76	8,428.3	5,086.3	280.3	2,793.7	-2,225.2	0.20	587,557.53	640,990.06
11,148.0	89.43	87.60	8,428.6	5,086.6	285.0	2,887.5	-2,296.7	1.16	587,562.15	641,083.95
11,241.0	89.43	86.80	8,429.5	5,087.5	289.5	2,980.4	-2,367.4	0.86	587,566.70	641,176.83
11,334.0	89.69	87.06	8,430.3	5,088.3	294.5	3,073.3	-2,438.4	0.40	587,571.68	641,269.69
11,428.0	89.87	87.58	8,430.6	5,088.6	298.9	3,167.2	-2,509.7	0.59	587,576.07	641,363.59
11,520.0	90.04	87.88	8,430.7	5,088.7	302.5	3,259.1	-2,579.1	0.37	587,579.72	641,455.52



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 18 @ 3342.0usft (Silver, Oak 10)
Site:	Hanagan "APL" Federal Com	MD Reference:	KB = 18 @ 3342.0usft (Silver Oak 10)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
11,614.0	90.22	87.94	8,430.5	5,088.5	306.0	3,353.1	-2,649.8	0.20	587,583.14	641,549.45	
11,707.0	89.08	87.62	8,431.0	5,089.0	309.6	3,446.0	-2,719.9	1.27	587,586.75	641,642.38	
11,800.0	89.25	87.69	8,432.4	5,090.4	313.4	3,538.9	-2,790.1	0.20	587,590.55	641,735.29	
11,893.0	89.60	87.89	8,433.3	5,091.3	316.9	3,631.8	-2,860.2	0.43	587,594.14	641,828.22	
11,987.0	89.96	88.04	8,433.7	5,091.7	320.3	3,725.8	-2,930.9	0.41	587,597.48	641,922.16	
12,079.0	89.60	87.74	8,434.0	5,092.0	323.7	3,817.7	-3,000.1	0.51	587,600.86	642,014.10	
12,173.0	89.96	87.87	8,434.4	5,092.4	327.3	3,911.6	-3,070.9	0.41	587,604.46	642,108.03	
12,266.0	89.60	87.19	8,434.8	5,092.8	331.3	4,004.5	-3,141.3	0.83	587,608.47	642,200.94	
12,359.0	90.04	87.30	8,435.1	5,093.1	335.7	4,097.4	-3,211.9	0.49	587,612.94	642,293.83	
12,453.0	89.87	86.36	8,435.1	5,093.1	340.9	4,191.3	-3,283.8	1.02	587,618.14	642,387.69	
12,546.0	90.40	86.27	8,434.9	5,092.9	346.9	4,284.1	-3,355.4	0.58	587,624.12	642,480.49	
12,639.0	89.78	86.14	8,434.8	5,092.8	353.1	4,376.9	-3,427.2	0.68	587,630.27	642,573.29	
12,732.0	90.04	86.20	8,434.9	5,092.9	359.3	4,469.7	-3,498.9	0.29	587,636.48	642,666.08	
12,754.0	90.04	86.34	8,434.9	5,092.9	360.7	4,491.6	-3,515.9	0.64	587,637.92	642,688.03	
12,834.0	90.04	86.34	8,434.8	5,092.8	365.8	4,571.5	-3,577.5	0.00	587,643.02	642,767.87	
BHL - 12834.0 'MD, 8434.8 'TVD, 365.8 'N, 4571.5 'E											

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		
		+N/-S (usft)	+E/-W (usft)	Comment
7,943.0	7,941.5	-26.5	-24.9	KOP - 7943.0 'MD, 7941.5 'TVD, -26.5 'N, -24.9 'E
8,718.0	8,422.4	25.3	473.6	LP - 8718.0 'MD, 8422.4 'TVD, 25.3 'N, 473.6 'E
12,834.0	8,434.8	365.8	4,571.5	BHL - 12834.0 'MD, 8434.8 'TVD, 365.8 'N, 4571.5 'E

Checked By: _____ Approved By: _____ Date: _____



Project: Eddy County (NAD 83)
Site: Hanagan "APL" Federal Com
Well: #2H
Wellbore: OH
Plan: Post Gyro Plan #3

PROJECT DETAILS: Eddy County (NAD 83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid

PATHFINDER[®]
A Schlumberger Company

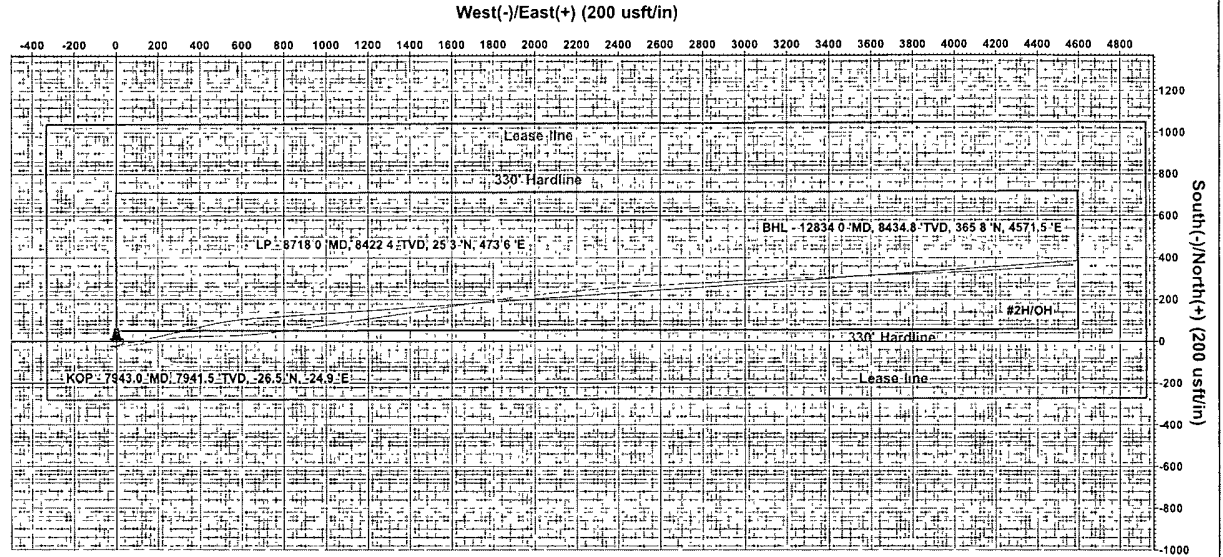
WELL DETAILS #2H

Ground Elevation: 3324.0
RKB Elevation: KB = 18 @ 3342.0usft (Silver Oak 10)
Rig Name: Silver Oak 10

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	587277.193	638196.401	32.614	-104.019	

Project: Eddy County (NAD 83)
Site: Hanagan "APL" Federal Com
Well: #2H
Wellbore: OH
Plan: Post Gyro Plan #3 (#2H/OH)

EOW

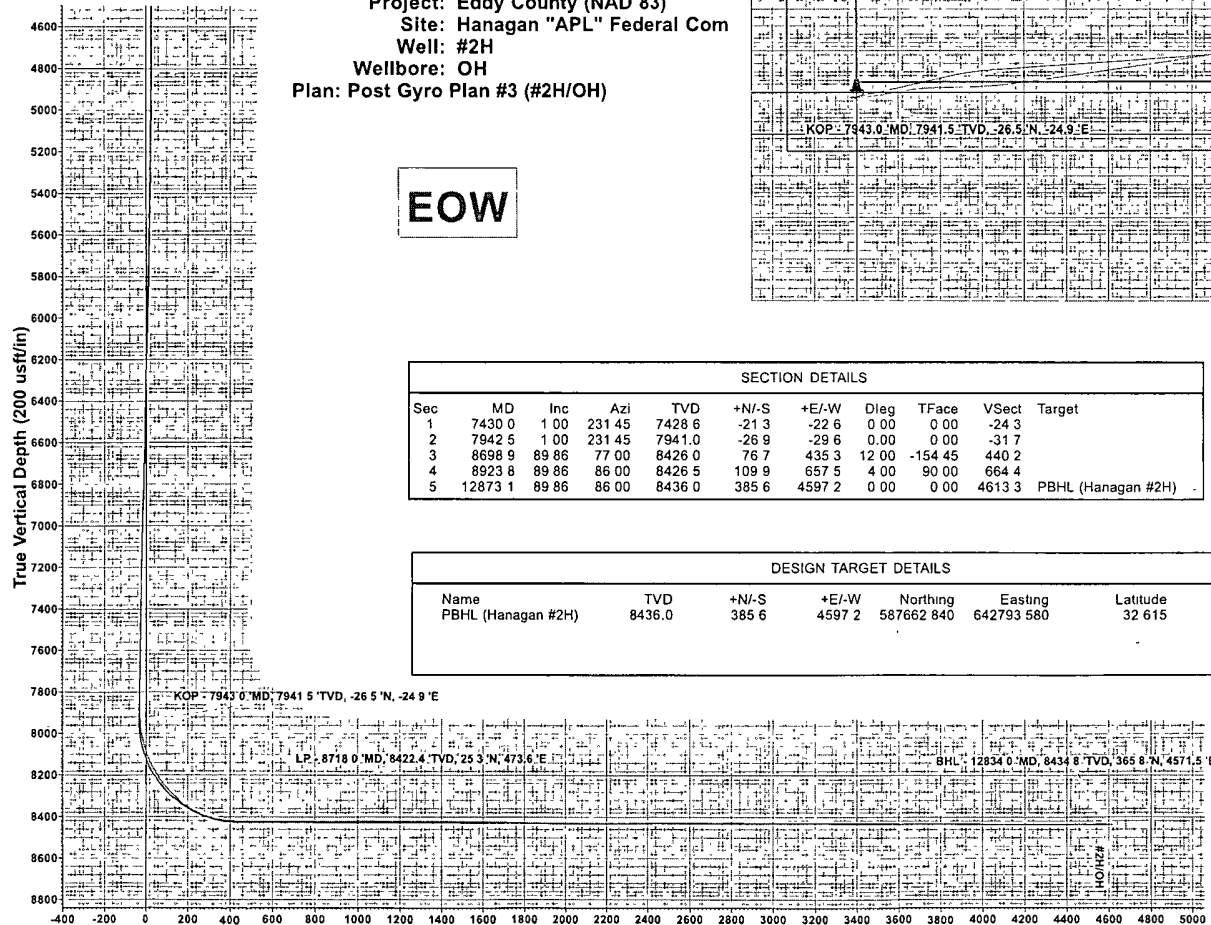


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	7430.0	1.00	231.45	7428.6	-21.3	-22.6	0.00	0.00	-24.3	
2	7942.5	1.00	231.45	7941.0	-26.9	-29.6	0.00	0.00	-31.7	
3	8698.9	89.86	77.00	8426.0	76.7	435.3	12.00	-154.45	440.2	
4	8923.8	89.86	86.00	8426.5	109.9	657.5	4.00	90.00	664.4	
5	12873.1	89.86	86.00	8436.0	385.6	4597.2	0.00	0.00	4613.3	PBHL (Hanagan #2H)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL (Hanagan #2H)	8436.0	385.6	4597.2	587662.840	642793.580	32.615	-104.004



Vertical Section at 85.20° (200 usft/in)



Azimuths to Grid North
True North -0.17°
Magnetic North 7.56°

Magnetic Field
Strength 48776.1snT
Dip Angle 60.48°
Date 2/9/2012
Model IGRF200510

Plan: Post Gyro Plan #3 (#2H/OH)

Created By: Sam Biffle Date: 9/11, April 16 2012

Checked: _____ Date: _____

Pathfinder Corp.
10000 North Central Expressway
Suite 1000
Dallas, Texas 75243
Phone: 972.980.1000
Fax: 972.980.1001