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A Schlumberger Company

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NMOCD ARTESIA

DIRECTIONAL SURVEY REPORT

30-015-40127

YATES PETROLEUM

NANCY 'ALH' FEDERAL COM #1H

EDDY COUNTY, NEW MEXICO

PREPARED BY: MARCUS MITCHAM

Pathfinder

6213 WCR. 112
Midland, Texas. 79706-3725, USA
Tel. (432) 687-1647
Fax (432) 687-1544



DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: . PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) SEAN MOORE
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 7-30-12 TO 8-20-12
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY, NM
7. TYPE OF SURVEY(S) PERFORMED: GAMMA-RAY
8. COMPLETE IDENTIFICATION OF WELL:

YATES PETROLEUM
NANCY 'ALH' FEDERAL COM #1H
EDDY COUNTY, NM
RIG: SILVER OAK 10
9. SURVEY CERTIFIED FROM: 936 TO 10,541 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 4,184.44 FEET ON A BEARING OF 354.93 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 10,591 FEET,
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

A handwritten signature in black ink, appearing to read "MARCUS MITCHAM".

MARCUS MITCHAM
MWD COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 07/30/2012
Date Completed: 08/20/2012

YATES PETROLEUM CORP
NANCY ALH FED COM 1H
EDDY COUNTY, NM
Rig:SILVER OAK 10
PathFinder Office Supervisor: J. ALCOCER
PathFinder Field Engineers:S. MOORE
C. BUNDICK

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.27.32.0404 N LON:103.43.26.4270 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 729275.9370 Y: 531215.1490
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.21° EAST TO GRID
Vertical Section Plane: 355.19
Survey Vert. Reference: 18.00' Kelly Bushing To Ground
Altitude:3634.00' Ground To MSL

Measured Depth	10591.00	(feet)
Inclination	90.92	(deg)
Azimuth	355.60	(deg)
True Vertical Depth	7101.76	(feet)
Vertical Section	4184.40	(feet)
Survey X cord	728905.94	(feet)
Survey Y cord	535383.18	(feet)
Survey Lat	32.47036236 N	(deg)
Survey Lon	103.72513004 W	(deg)
Rectangular Corr. N/S	4168.05 N	(feet)
Rectangular Corr. E/W	369.98 W	(feet)
Closure Distance	4184.44	(feet)
Direction of Closure	354.93	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORP

NANCY ALH FED COM 1H

EDDY COUNTY, NM

Rig:SILVER OAK 10

PathFinder Office Supervisor: J. ALCOCER

PathFinder Field Engineers: S. MOORE

C. BUNDICK

Survey Horiz. Reference:WELLHEAD

Ref Coordinates: LAT:32.27.32.0404 N LON:103.43.26.4270 W

GRID Reference:NAD83 new mexico east Transverse Mercator

Ref GRID Coord: X: 729275.9370 Y: 531215.1490

North Aligned To:GRID NORTH

Total Magnetic Correction: 7.21° EAST TO GRID

Vertical Section Plane: 355.19

Survey Vert. Reference: 18.00' Kelly Bushing To Ground

Altitude:3634.00' Ground To MSL

Survey Calculations by RX5 V6.04A using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
200.00	0.17	186.12	200.00	0.00	-0.29	0.30 S	0.03 W	0.30@	185.52	0.00
400.00	0.22	173.23	400.00	200.00	-0.97	0.97 S	0.01 W	0.97@	180.88	0.03
600.00	0.44	159.22	599.99	200.00	-2.09	2.07 S	0.30 E	2.09@	171.68	0.12
800.00	0.89	233.63	799.98	200.00	-3.64	3.71 S	0.68 W	3.77@	190.32	0.44
** TIED-IN TO MULTISHOT GYRO SURVEYS AT 878' MD.										
878.00	1.10	244.67	877.97	78.00	-4.22	4.39 S	1.84 W	4.76@	202.74	0.36
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
936.00	0.88	230.19	935.96	58.00	-4.67	4.91 S	2.69 W	5.60@	208.66	0.57
997.00	0.44	223.86	996.96	61.00	-5.09	5.38 S	3.21 W	6.27@	210.79	0.73
1061.00	0.44	331.53	1060.96	64.00	-5.03	5.34 S	3.49 W	6.38@	213.19	1.11
1155.00	0.62	21.89	1154.95	94.00	-4.25	4.55 S	3.48 W	5.73@	217.36	0.51
1251.00	0.70	9.06	1250.95	96.00	-3.21	3.49 S	3.19 W	4.73@	222.42	0.17
1346.00	0.09	123.93	1345.94	95.00	-2.70	2.96 S	3.04 W	4.24@	225.73	0.78
1441.00	0.35	201.54	1440.94	95.00	-3.00	3.27 S	3.08 W	4.50@	223.28	0.36
1536.00	0.26	152.67	1535.94	95.00	-3.46	3.73 S	3.09 W	4.85@	219.61	0.28
1631.00	0.09	346.12	1630.94	95.00	-3.59	3.85 S	3.01 W	4.89@	217.99	0.37
1726.00	0.26	111.01	1725.94	95.00	-3.61	3.86 S	2.83 W	4.78@	216.22	0.34
1821.00	0.18	140.10	1820.94	95.00	-3.82	4.05 S	2.53 W	4.77@	211.98	0.14
1916.00	0.09	195.65	1915.94	95.00	-4.02	4.24 S	2.45 W	4.90@	210.07	0.16
2011.00	0.44	49.84	2010.94	95.00	-3.87	4.07 S	2.19 W	4.63@	208.32	0.54
2107.00	0.44	44.65	2106.94	96.00	-3.42	3.57 S	1.65 W	3.94@	204.84	0.04
2202.00	0.53	53.18	2201.93	95.00	-2.95	3.05 S	1.05 W	3.22@	198.92	0.12
2297.00	0.79	74.62	2296.93	95.00	-2.60	2.61 S	0.06 W	2.61@	181.37	0.37
2392.00	0.88	72.16	2391.92	95.00	-2.31	2.22 S	1.26 E	2.55@	150.32	0.10
2488.00	0.70	25.49	2487.91	96.00	-1.64	1.46 S	2.22 E	2.66@	123.38	0.67
2583.00	0.62	356.84	2582.90	95.00	-0.63	0.42 S	2.44 E	2.48@	99.86	0.35

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORP
NANCY ALH FED COM 1H
EDDY COUNTY, NM
RIG:SILVER OAK 10

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
2678.00	0.26	18.81	2677.90	95.00	0.08	0.29 N	2.48 E	2.50@	83.25	0.41
2774.00	0.09	201.98	2773.90	96.00	0.22	0.43 N	2.52 E	2.56@	80.33	0.36
2868.00	0.44	91.32	2867.90	94.00	0.11	0.35 N	2.86 E	2.88@	82.96	0.51
2963.00	0.62	103.54	2962.89	95.00	-0.09	0.22 N	3.72 E	3.73@	86.55	0.22
3059.00	0.44	74.09	3058.89	96.00	-0.18	0.20 N	4.58 E	4.58@	87.46	0.33
3154.00	0.53	332.58	3153.89	95.00	0.29	0.69 N	4.73 E	4.78@	81.65	0.79
3249.00	0.88	318.61	3248.88	95.00	1.29	1.63 N	4.04 E	4.36@	68.03	0.41
3344.00	0.44	319.05	3343.87	95.00	2.17	2.45 N	3.32 E	4.13@	53.54	0.46
3440.00	0.62	307.71	3439.87	96.00	2.82	3.05 N	2.67 E	4.05@	41.19	0.22
3534.00	0.44	296.81	3533.87	94.00	3.35	3.52 N	1.94 E	4.02@	28.89	0.22
3630.00	1.14	329.42	3629.86	96.00	4.40	4.51 N	1.13 E	4.65@	14.05	0.84
3725.00	2.90	344.89	3724.80	95.00	7.62	7.65 N	0.02 E	7.65@	0.17	1.92
3820.00	5.28	354.50	3819.55	95.00	14.35	14.32 N	1.02 W	14.35@	355.91	2.60
3916.00	7.56	357.52	3914.94	96.00	25.08	25.03 N	1.72 W	25.08@	356.07	2.40
4011.00	9.32	357.30	4008.91	95.00	39.01	38.95 N	2.35 W	39.03@	356.54	1.85
4106.00	10.73	357.50	4102.45	95.00	55.54	55.47 N	3.10 W	55.56@	356.80	1.48
4202.00	11.43	356.89	4196.66	96.00	73.98	73.90 N	4.01 W	74.01@	356.90	0.74
4297.00	11.26	357.38	4289.81	95.00	92.65	92.57 N	4.94 W	92.70@	356.94	0.21
4387.00	11.08	357.28	4378.10	90.00	110.08	109.98 N	5.75 W	110.13@	357.01	0.20
4482.00	12.05	358.07	4471.17	95.00	129.10	129.01 N	6.52 W	129.18@	357.11	1.03
4577.00	12.49	354.47	4564.00	95.00	149.28	149.15 N	7.84 W	149.35@	356.99	0.93
4672.00	12.31	354.03	4656.79	95.00	169.68	169.44 N	9.89 W	169.73@	356.66	0.21
4768.00	12.13	354.90	4750.61	96.00	189.99	189.67 N	11.85 W	190.04@	356.43	0.27
4862.00	11.26	353.24	4842.66	94.00	209.04	208.62 N	13.81 W	209.08@	356.21	0.99
4957.00	11.96	352.36	4935.72	95.00	228.14	227.59 N	16.21 W	228.16@	355.93	0.76
5052.00	11.17	355.78	5028.79	95.00	247.18	246.52 N	18.19 W	247.19@	355.78	1.10
5147.00	11.17	355.17	5121.99	95.00	265.58	264.86 N	19.65 W	265.59@	355.76	0.12
5242.00	10.29	355.96	5215.33	95.00	283.27	282.50 N	21.02 W	283.28@	355.74	0.94

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Survey Report

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NANCY ALH FED COM 1H
EDDY COUNTY, NM
RIG:SILVER OAK 10

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
5337.00	11.17	354.47	5308.66	95.00	300.95	300.12 N	22.50 W	300.96@	355.71	0.97
5432.00	11.96	352.36	5401.74	95.00	319.98	319.04 N	24.70 W	319.99@	355.57	0.94
5528.00	11.26	356.93	5495.77	96.00	339.29	338.26 N	26.52 W	339.29@	355.52	1.20
5623.00	11.08	356.05	5588.97	95.00	357.69	356.62 N	27.65 W	357.69@	355.57	0.26
5718.00	10.02	357.98	5682.37	95.00	375.07	373.99 N	28.57 W	375.08@	355.63	1.18
5813.00	10.82	356.75	5775.80	95.00	392.24	391.15 N	29.37 W	392.25@	355.71	0.87
5908.00	11.61	356.14	5868.98	95.00	410.71	409.59 N	30.51 W	410.73@	355.74	0.84
6004.00	10.73	354.55	5963.17	96.00	429.30	428.13 N	32.01 W	429.32@	355.72	0.97
6099.00	10.38	353.15	6056.56	95.00	446.70	445.43 N	33.87 W	446.72@	355.65	0.46
6194.00	10.99	352.97	6149.91	95.00	464.30	462.91 N	36.00 W	464.31@	355.55	0.64
6290.00	10.99	350.42	6244.15	96.00	482.57	481.02 N	38.65 W	482.57@	355.41	0.51
6358.00	10.55	354.20	6310.95	68.00	495.25	493.60 N	40.35 W	495.25@	355.33	1.22
6451.00	9.76	357.02	6402.50	93.00	511.64	509.95 N	41.62 W	511.64@	355.33	1.00
6546.00	10.46	355.96	6496.02	95.00	528.31	526.59 N	42.65 W	528.31@	355.37	0.76
6639.00	11.17	356.40	6587.37	93.00	545.76	544.00 N	43.81 W	545.76@	355.40	0.77
6732.00	11.70	355.43	6678.52	93.00	564.19	562.39 N	45.13 W	564.20@	355.41	0.61
6762.00	11.96	355.08	6707.88	30.00	570.35	568.52 N	45.64 W	570.35@	355.41	0.90
6793.00	12.40	355.43	6738.19	31.00	576.89	575.04 N	46.18 W	576.89@	355.41	1.44
6825.00	15.30	356.22	6769.25	32.00	584.54	582.68 N	46.73 W	584.55@	355.41	9.08
6856.00	18.99	356.84	6798.87	31.00	593.68	591.80 N	47.28 W	593.68@	355.43	11.92
6887.00	22.77	356.75	6827.83	31.00	604.72	602.83 N	47.90 W	604.73@	355.46	12.19
6918.00	26.73	355.87	6855.98	31.00	617.69	615.78 N	48.74 W	617.70@	355.47	12.83
6949.00	30.86	354.99	6883.14	31.00	632.62	630.66 N	49.94 W	632.63@	355.47	13.39
6980.00	35.26	355.26	6909.11	31.00	649.53	647.50 N	51.37 W	649.54@	355.46	14.20
7012.00	39.66	355.17	6934.51	32.00	668.99	666.89 N	52.99 W	668.99@	355.46	13.75
7043.00	44.05	355.43	6957.59	31.00	689.67	687.50 N	54.69 W	689.67@	355.45	14.17
7074.00	47.57	355.96	6979.20	31.00	711.89	709.66 N	56.35 W	711.90@	355.46	11.42
7104.00	50.91	356.05	6998.78	30.00	734.61	732.33 N	57.93 W	734.62@	355.48	11.14

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Survey Report

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NANCY ALH FED COM 1H
EDDY COUNTY, NM
RIG:SILVER OAK 10

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
7136.00	54.52	356.58	7018.16	32.00	760.06	757.73 N	59.57 W	760.07@	355.51	11.36
7167.00	58.04	355.55	7035.37	31.00	785.84	783.45 N	61.34 W	785.85@	355.52	11.69
7198.00	61.03	355.29	7051.08	31.00	812.55	810.08 N	63.48 W	812.57@	355.52	9.67
7229.00	62.87	355.11	7065.66	31.00	839.91	837.34 N	65.76 W	839.92@	355.51	5.96
7260.00	64.72	355.23	7079.35	31.00	867.72	865.06 N	68.11 W	867.74@	355.50	5.98
7292.00	66.39	355.32	7092.59	32.00	896.85	894.09 N	70.51 W	896.87@	355.49	5.23
7323.00	68.24	355.65	7104.55	31.00	925.45	922.60 N	72.76 W	925.47@	355.49	6.05
7354.00	70.35	355.64	7115.51	31.00	954.45	951.51 N	74.96 W	954.46@	355.50	6.81
7386.00	71.93	355.52	7125.85	32.00	984.73	981.70 N	77.29 W	984.74@	355.50	4.95
7417.00	73.78	355.54	7134.99	31.00	1014.35	1011.24 N	79.60 W	1014.36@	355.50	5.97
7447.00	75.71	355.70	7142.88	30.00	1043.29	1040.09 N	81.81 W	1043.31@	355.50	6.45
7478.00	78.26	355.60	7149.86	31.00	1073.49	1070.21 N	84.10 W	1073.51@	355.51	8.23
7509.00	81.87	355.32	7155.21	31.00	1104.02	1100.64 N	86.52 W	1104.04@	355.51	11.68
7540.00	86.79	355.21	7158.27	31.00	1134.86	1131.37 N	89.06 W	1134.88@	355.50	15.87
7596.00	90.66	355.30	7159.52	56.00	1190.83	1187.16 N	93.69 W	1190.85@	355.49	6.91
7658.00	90.57	356.16	7158.85	62.00	1252.83	1248.98 N	98.31 W	1252.85@	355.50	1.40
7751.00	91.01	355.36	7157.57	93.00	1345.81	1341.72 N	105.19 W	1345.84@	355.52	0.98
7845.00	90.92	355.78	7155.99	94.00	1439.80	1435.42 N	112.45 W	1439.82@	355.52	0.46
7938.00	90.48	356.40	7154.85	93.00	1532.78	1528.20 N	118.79 W	1532.81@	355.56	0.82
8032.00	91.01	356.18	7153.63	94.00	1626.75	1621.99 N	124.87 W	1626.79@	355.60	0.61
8126.00	91.71	355.64	7151.40	94.00	1720.72	1715.73 N	131.57 W	1720.76@	355.61	0.94
8219.00	91.45	356.12	7148.83	93.00	1813.68	1808.45 N	138.25 W	1813.73@	355.63	0.59
8313.00	91.28	357.00	7146.59	94.00	1907.62	1902.26 N	143.89 W	1907.69@	355.67	0.95
8407.00	92.07	355.97	7143.85	94.00	2001.55	1996.04 N	149.65 W	2001.64@	355.71	1.38
8500.00	92.07	357.30	7140.49	93.00	2094.46	2088.81 N	155.10 W	2094.56@	355.75	1.43
8594.00	91.28	355.93	7137.74	94.00	2188.39	2182.61 N	160.65 W	2188.51@	355.79	1.68
8687.00	91.36	355.30	7135.60	93.00	2281.36	2275.31 N	167.76 W	2281.48@	355.78	0.68
8780.00	91.36	354.84	7133.39	93.00	2374.34	2367.94 N	175.75 W	2374.45@	355.76	0.49

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RIG:SILVER OAK 10

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
8874.00	90.75	353.19	7131.66	94.00	2468.30	2461.41 N	185.55 W	2468.39@	355.69	1.87
8969.00	90.40	353.89	7130.70	95.00	2563.25	2555.80 N	196.24 W	2563.32@	355.61	0.82
9063.00	90.66	353.07	7129.84	94.00	2657.20	2649.18 N	206.91 W	2657.25@	355.53	0.92
9157.00	90.40	353.40	7128.97	94.00	2751.15	2742.53 N	217.98 W	2751.17@	355.46	0.45
9250.00	90.57	353.21	7128.18	93.00	2844.09	2834.89 N	228.83 W	2844.11@	355.39	0.27
9344.00	91.01	352.61	7126.88	94.00	2938.01	2928.16 N	240.43 W	2938.01@	355.31	0.79
9437.00	90.57	353.51	7125.60	93.00	3030.93	3020.47 N	251.66 W	3030.93@	355.24	1.08
9531.00	91.36	353.40	7124.02	94.00	3124.88	3113.84 N	262.38 W	3124.88@	355.18	0.85
9624.00	91.01	354.08	7122.09	93.00	3217.83	3206.27 N	272.51 W	3217.83@	355.14	0.82
9717.00	90.57	354.66	7120.81	93.00	3310.81	3298.81 N	281.64 W	3310.81@	355.12	0.78
9811.00	90.66	354.17	7119.80	94.00	3404.79	3392.36 N	290.78 W	3404.80@	355.10	0.53
9904.00	91.54	353.43	7118.02	93.00	3497.75	3484.80 N	300.83 W	3497.76@	355.07	1.24
9998.00	91.28	354.73	7115.70	94.00	3591.70	3578.26 N	310.52 W	3591.71@	355.04	1.41
10091.00	91.10	353.48	7113.77	93.00	3684.66	3670.75 N	320.07 W	3684.68@	355.02	1.36
10185.00	91.89	353.59	7111.32	94.00	3778.59	3764.12 N	330.65 W	3778.61@	354.98	0.85
10279.00	91.63	353.59	7108.43	94.00	3872.51	3857.49 N	341.14 W	3872.54@	354.95	0.28
10372.00	91.19	353.93	7106.14	93.00	3965.45	3949.91 N	351.24 W	3965.49@	354.92	0.60
10466.00	91.36	355.21	7104.05	94.00	4059.42	4043.46 N	360.14 W	4059.47@	354.91	1.37
10541.00	90.92	355.60	7102.56	75.00	4134.40	4118.20 N	366.14 W	4134.45@	354.92	0.78
STRAIGHT LINE PROJECTION TO BIT DEPTH AT 10591' MD.										
10591.00	90.92	355.60	7101.76	50.00	4184.40	4168.05 N	369.98 W	4184.44@	354.93	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.



A Schlumberger Company

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	YATES PETROLEUM CORP		
LEASE / WELL No.:	NANCY ALH FEDERAL COM	1H	
WELL LOCATION:	EDDY COUNTY		
COUNTY / STATE / COUNTRY:	EDDY COUNTY	NEW MEXICO	USA
RIG:	SILVER OAK 10		
API WELL No:	30-015-40127		
JOB No:	12MLD0343		
P.O. / AFE No.			
DIRECTIONAL COMPANY:	PATHFINDER		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	LWD Calculated:	7.535567	Agreed Upon: 7.535567
X = 729275.937000	Feet	Y = 531215.149000	Feet
SITE LATITUDE: 32.4589	SITE LONGITUDE: 103.724007		
GRID SYSTEM: TRUE ☐ UTM ☐ LAMBERT ☒	ZONE: NEW MEXICO EAST		
PROPOSED DRIFT DIRECTION:	355.19		
KELLY BUSHING ELEVATION:	18		
ALTITUDE: 3654	Feet	WATER DEPTH:	Feet

TIE-IN SURVEY

MEASURED DEPTH:	878		
DRIFT ANGLE:	1.1		
DRIFT DIRECTION:	244.67		
TRUE VERTICAL DEPTH:	877.97		
VERTICAL SECTION:	-4.22		
RECTANGULAR COORDINATE (N / S):	-4.39		
RECTANGULAR COORDINATE (E / W):	-1.84		
CLOSURE DISTANCE / DIRECTION:	4.76	202.78	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	MS SURVEY		
COPY OF TIE-IN SURVEY REPORT	☒ YES		☐ NO

WELL PLAN

KICKOFF DEPTH 3500	TOTAL DEPTH:	10651
KICKOFF ANGLE 0	MAX ANGLE:	91.09

PES Engineers: SEAN MOORE
JUAN ESPARZA

**Signature of both field engineers required if applicable

Directional Driller: RICHARD HILL

DATE: 30-Jul-2012



Company: YATES PETROLEUM CORPORATION	Operator: MCCARROLL
Lease / Well: NANCY "ALH" FED COM 1H	Job Number: SVCO- 121056
County/Parish: EDDY COUNTY	Probe Serial #: 120
State: NEW MEXICO	Proposed Direction: 355.19
Date: 7/28/2012	Mag. Declination: 7.23 EAST TO GRID
API#: N/A	Rig / RKB: SILVER OAK 10/ RKB 18FT
Dir. Company: PATHFINDER	Tie-in From: SURFACE

FIELD USE ONLY, DEFINITIVE SURVEY WILL COME FROM MS Survey OFFICES

TIE-IN Survey					
Measured Depth (ft.)	Inclination	Azimuth Bearing	Vertical Depth	Coordinates (+N/-S)	Coordinates (+E/-W)
0	0.00	0.00	0.00	0.00	0.00

Digital Multi-Shot Survey Report									
Measured Depth (ft.)	Inclination	Azimuth Bearing	Vertical Depth	Vertical Section	Coordinates (+N/-S)	Coordinates (+E/-W)	Dog-Leg / 100 ft.	Closure Distance	Closure Direction
200	0.17	186.12	200.00	-0.29	-0.30	-0.03	0.08	0.30	186.12°
400	0.22	173.23	400.00	-0.97	-0.97	-0.02	0.03	0.97	181.06°
600	0.44	159.22	599.99	-2.09	-2.07	0.30	0.12	2.09	171.76°
800	0.89	233.63	799.98	-3.64	-3.71	-0.68	0.44	3.77	190.37°
878	1.10	244.67	877.97	-4.22	-4.39	-1.84	0.36	4.76	202.78°



A Schlumberger Company

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

Yates Petroleum Corp
Nancy ALH Federal Com #1H
Eddy County, Nm
Rig: Silver Oak 10

Thu Jul 26 18:20:08 2012

Coordinates

Latitude: 32.458900 N (32 deg. 27 min. 32.0404 sec.)
Longitude: 103.724007 W (-103 deg. 43 min. 26.4270 sec.)
Elevation: 3652.00 feet.
Calculation Date: Jul/26/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.3511 degrees
Total Magnetic Field: 0.48628 gauss
Magnetic Declination: 7.536916 degrees
Horizontal Intensity: 0.240557 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.536916 Degs

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 729275.9370 feet
Y: 531215.1490 feet
True to Grid: (convergence) -0.327031 degrees
Magnetic to Grid: 7.209885 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 7.209885 Degs.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM CORP
NANCY ALH FED COM 1H
LOST TANK DELAWARE
Rig:SILVER OAK 10

Mon Jul 30 01:42:50 2012

Coordinates

Latitude: 32.458900 N (32 deg. 27 min. 32.0404 sec.)
Longitude: 103.724007 W (-103 deg. 43 min. 26.4270 sec.)
Elevation: 3652.00 feet.
Calculation Date: Jul/30/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.3508 degrees
Total Magnetic Field: 0.48627 gauss
Magnetic Declination: 7.535567 degrees
Horizontal Intensity: 0.240553 gauss

To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.535567 Degr

Field Copy

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 729275.9370 feet
Y: 531215.1490 feet
True to Grid: (convergence) -0.327031 degrees
Magnetic to Grid: 7.208536 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 7.208536 Degr.

RECEIVED

OCD-ARTESIA

Form 3160-3
(February 2005)

MAR 29 2012

ARTESIA

UNITED STATES

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 20075 Lease Serial No. **NH**
NM-61358 & NM-881586 If Indian, Allottee or Tribe Name
N/AIf Unit or CA Agreement, Name and No.
N/A8 Lease Name and Well No.
Nancy ALH Federal Com. #1H [39139]9 API Well No.
30-015-7012710 Field and Pool, or Exploratory
Lost Tank Deleware [40299]11 Sec., T, R, M, or Blk. And Survey or Area
Sec. 24-T21S-R31E12 County or Parish
Eddy13 State
NM1a. Type of Work ☒ DRILL☐ REENTER1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2 Name of Operator

Yates Petroleum Corporation 025575

3a Address

105 South Fourth Street, Artesia, NM 88210

3b Phone No. (include area code)

575-748-1471

4 Location of well (Report location clearly and in accordance with any State requirements. *)
At surface

750' FSL & 330' FEL, Surface Hole

At proposed prod. zone

330' FNL & 660' FEL, Bottom Hole

14. Distance in miles and direction from the nearest town or post office*

38 miles northeast of Loving, NM

15 Distance from proposed*
location to nearest
property or lease line, ft
(Also to nearest drlg. unit line, if any)

330

16 No. of acres in lease

40.00

17 Spacing Unit dedicated to this well

E2NE, NESE

18 Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft

19. Proposed Depth

8270'

8510' VD & 12100' MD

20. BLM/ BIA Bond No. on file

NATIONWIDE BOND #NMB000434

21 Elevations (Show whether DF, KDB, RT, GL, etc.)

3634' GL

22 Approximate date work will start*

ASAP

23. Estimated duration

50 days

24 Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1 shall be attached to this form

1 Well plat certified by a registered surveyor

2. A Drilling Plan

3 A Surface Use Plan (if the location is on National Forest System Lands, the
SUPO must be filed with the appropriate Forest Service Office)4 Bond to cover the operations unless covered by existing bond on file (see
item 20 above)

5 Operator certification

6. Such other site specific information and/ or plans as may be required by the
BLM

25 Signature

Clifton May

Printed Name

Clifton May

Date

5/17/2010

Title

Land Regulatory Agent

Approved By (Signature)

Is/ Jesse J. Juera

Name (Printed/ Typed)

Date

MAR 20 2012

Title

STATE DIRECTOR

Office

NM STATE OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to cc
operations thereon

Conditions of approval, if any, are attached

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and wilfully to make to any department or agency of the United
States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

* (Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 15, 2000

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

RECEIVED

MAR 29 2012

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAN AMENDED REPORT

API Number 30015-40127	Pool Code 40299	Pool Name Lost Tank Delaware
Property Code 39139	Property Name NANCY "ALH" FEDERAL COM	Well Number 1H
OGRID No. 025575	Operator Name YATES PETROLEUM CORP.	Elevation 3634'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	24	21 S	31 E		750	SOUTH	330	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
A	24	21 S	31 E		330	NORTH	660	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
120			

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

PROPOSED BOTTOM HOLE LOCATION Lat - N 32°28'13.62" Long - W 103°43'30.27" NMSPCE- N 535414.708 E 728922.422 (NAD-83) Project Area Producing Zone Penetration Point 1650' FSL and 330' FEL SURFACE LOCATION Lat - N 32°27'32.04" Long - W 103°43'26.43" NMSPCE- N 531215.149 E 729275.937 (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. Clifton May 5/17/10 Signature Date Clifton May Printed Name
	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. MARY L. JONES MARCH 29, 2012 Data Surveyed Signature & Seal of Professional Surveyor
	Certificate No. Gary L. Jones 7977 BASIN SURVEYS