

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB NO 1004-0137
Expires July 31, 2010

S

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff Resvr.
Other: _____

2 Name of Operator
Yates Petroleum Corporation

3 Address
105 S. 4th Str., Artesia, NM 88210

3a Phone No (include area code)
575-748-1471

4 Location of Well (Report location clearly and in accordance with Federal requirements)*

At Surface 1880'FSL & 300'FEL (Unit I, NESE)

JAN 26 2009

At top prod Interval reported below

BHL 1745'FSL & 690'FWL (Unit L, NWSW)

5 Lease Serial No

NM-10266

6 If Indian, Allottee or Tribe Name

7 Unit or CA Agreement Name and No

8 Lease Name and Well No

Link BKT Federal Com #3H

9 API Well No

30-015-36397

10 Field and Pool or Exploratory

Cottonwood Creek; Wolfcamp

11 Sec., T., R., M., on Block and
Survey or Area

Section 15-T16S-R25E

12 County or Parish

13 State

Eddy

New Mexico

14 Date Spudded
RH 9/5/08 RT 9/7/08

15 Date T.D. Reached
9/30/08

16 Date Completed 11/2/08
☐ D & A ☒ Ready to Prod

17 Elevations (DF, RKB, RT, GL)*

3474'GL 3457'KB

18 Total Depth MD 9120'
TVD NA

19 Plug Back T.D. MD 9120'
TVD NA

20 Depth Bridge Plug Set MD NA
TVD NA

21 Type Electric & Other Mechanical Logs Run (Submit copy of each)

Cement Bond Variable Density Log
w/Gamma Ray/CCL

22 Was Well cored? ☒ No ☐ Yes (Submit analysis)Was DST run? ☒ No ☐ Yes (Submit report)Directional Survey? ☐ No ☒ Yes (Submit copy) (Attached)

23 Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft)	Top (MD)	Bottom (MD)	State Cementer Depth	No of Sks & Type of Cement	Slurry Vol (BBL)	Cement Top*	Amount Pulled
	20"	Cond.	Surface	40'		Redi-mix		Surface	
17-1/2"	13-3/8"	48#	Surface	415'		550 sx		Surface	
12-1/4"	8-5/8"	24#.32#	Surface	1010'		750 sx		Surface	
7-7/8"	5-1/2"	15.5#.17#	Surface	9120'		1173 sx		Surface	

24 Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8"	4390'							

25 Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No Holes	Perf Status
A) Wolfcamp	5260'	9055'				
B)						
C)						
D)						

SEE ATTACHED SHEET

27 Acid, Fracture, Treatment, Cement Squeeze, Etc

Depth Interval	Amount and Type of Material

SEE ATTACHED SHEET

28 Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
11/3/08	12/22/08	24	→	0	1621	33	NA	NA	Flowing
Choke Size	Tbg Press Flwg	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
42/64"	450 psi	500 psi	→	0	1621	33	NA		
28a Production - Interval B									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

ACCEPTED FOR RECORD

Producing
JAN 22 2009JERRY FANT
PETROLEUM GEOLOGIST

*(See instructions and spaces for additional data on page 2)

Accepted for record - NMOCD

28b Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
Choke Size	Tbg Press Flwg	Csg Press	24 Hr Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
Choke Size	Tbg Press Flwg	Csg Press	24 Hr Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29 Disposition of Gas (Sold, used for fuel, vented, etc.)

Sold

30 Summary of Porous Zones (Include Aquifers)

Show all important zones of porosity and contents thereof Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries

31 Formation (Log) Markers

Formation	Top	Bottom	Description, Contents, etc	Name	Top Meas Depth
Potential uphole completion or major aquifers				San Andres	650'
Horizontal well - only Gamma Ray Log				Glorieta	1980'
No cores or DST's run				Tubb	3284'
				Abo	3960'
				Wolfcamp	4926'

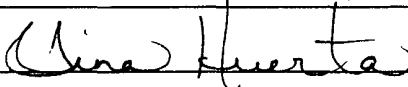
32 Additional remarks (include plugging procedure)

33 Indicate which items have been attached by placing a check in the appropriate boxes

- ☒ Electrical/Mechanical Logs (1 full set req'd)
 ☐ Geologic Report
 ☐ DST Report
 ☒ Directional Survey
- ☐ Sundry Notice for plugging and cement verification
 ☐ Core Analysis
 ☒ Other Deviation Survey

34 I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Tina Huerta Title Regulatory Compliance Supervisor

Signature  Date December 30, 2008

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully 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

(Continued on page 3)

(Form 3160-4, page2)

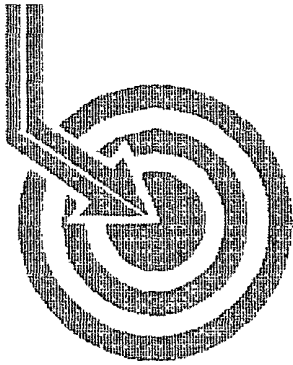
Yates Petroleum Corporation
Link BKT Federal Com #3H
Section 15-T16S-R25E
Eddy County, New Mexico
Page 3

Form 3160-4 Continued:

26. Perforation Record			
Perforated Interval	Size	No. Holes	Perf. Status
9055'			Producing
8802'			Producing
8549'			Producing
8296'			Producing
8043'			Producing
7790'			Producing
7537'			Producing
7284'			Producing
7031'			Producing
6778'			Producing
6525'			Producing
6272'			Producing
6019'			Producing
5766'			Producing
5513'			Producing
5260'			Producing

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.	
Depth Interval	Amount and Type of Material
8296'-9055'	Frac w/2561# 100 mesh sand and 79,403# 40/70 Jordan-Unimin and 114,453# 20/40 Jordan-Unimin
7284'-8043'	Frac w/2246# 100 mesh sand and 80,758# 40/70 Jordan-Unimin and 103,542# 20/40 Jordan-Unimin
6272'-7031'	Frac w/2223# 100 mesh sand and 79,517# 40/70 Jordan-Unimin and 103,232# 20/40 Jordan-Unimin
5260'-6019'	Frac w/2478# 100 mesh sand and 79,621# 40/70 Jordan-Unimin and 134,320# 20/40 Jordan-Unimin


Regulatory Compliance Supervisor
December 30, 2008



Scientific Drilling

YATES PETROLEUM

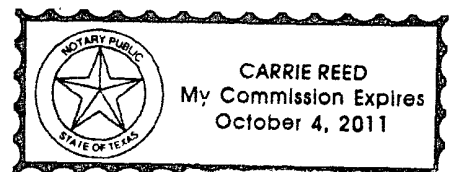
Field: Wildcat
Site: Eddy County, NM
Well: Link BKT Federal Com #3H
Wellpath: VH - Job #32K0908723
Survey: 09/18/08

This survey is correct to the best of my knowledge
and is supported by actual field data.

Richardson.....Company Representative

Notorized this date 14th of October, 2008.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific Drilling International Survey Report

Company: YATES PETROLEUM	Date: 10/13/2008	Time: 10:01:42	Page: 1
Field: Wildcat	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Link BKT Federal Com #3H	Section (VS) Reference:	Well (0.00N,0.00E,271.09Azi)	
Wellpath: VH - Job #32K0908723	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 09/18/08	Start Date: 09/18/2008
Company: Scientific Drilling Internatio	Engineer: Melendez w/GeoGyro
Tool: Keeper;Keeper Gyro	Tied-to: From Surface

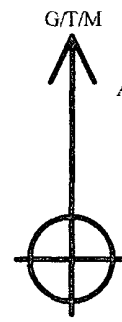
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.12	259.83	100.00	0.10	-0.02	-0.10	0.12	0.10	259.83
200.00	0.05	309.39	200.00	0.24	-0.01	-0.24	0.10	0.24	267.78
300.00	0.27	225.51	300.00	0.44	-0.15	-0.44	0.27	0.47	251.62
400.00	0.54	203.94	400.00	0.79	-0.74	-0.80	0.31	1.09	227.17
500.00	0.64	207.85	499.99	1.22	-1.67	-1.25	0.11	2.09	216.93
600.00	0.83	200.06	599.98	1.71	-2.84	-1.76	0.21	3.34	211.81
700.00	0.98	237.71	699.97	2.66	-3.98	-2.73	0.60	4.83	214.50
800.00	1.73	235.00	799.94	4.59	-5.30	-4.69	0.75	7.08	221.52
900.00	2.43	213.80	899.88	6.96	-7.93	-7.11	1.03	10.65	221.88
1000.00	2.51	209.00	999.79	9.13	-11.61	-9.35	0.22	14.90	218.86
1100.00	2.44	207.51	1099.69	11.10	-15.41	-11.39	0.10	19.16	216.48
1200.00	2.43	205.44	1199.60	12.92	-19.21	-13.29	0.09	23.36	214.67
1300.00	2.40	208.07	1299.51	14.74	-22.97	-15.18	0.11	27.54	213.46
1400.00	2.08	213.09	1399.44	16.66	-26.34	-17.16	0.38	31.44	213.08
1500.00	2.24	207.51	1499.37	18.49	-29.59	-19.05	0.26	35.20	212.78
1600.00	2.12	208.81	1599.29	20.22	-32.95	-20.85	0.13	38.99	212.32
1700.00	1.76	202.05	1699.24	21.63	-35.99	-22.32	0.43	42.35	211.80
1800.00	1.57	196.92	1799.19	22.55	-38.73	-23.29	0.24	45.19	211.02
1900.00	1.40	202.27	1899.16	23.37	-41.17	-24.15	0.22	47.73	210.40
2000.00	1.21	205.39	1999.13	24.24	-43.25	-25.07	0.20	49.99	210.10
2100.00	0.83	198.10	2099.12	24.89	-44.89	-25.75	0.40	51.75	209.83
2200.00	0.77	207.08	2199.11	25.39	-46.18	-26.28	0.14	53.13	209.64
2300.00	0.48	211.42	2299.10	25.90	-47.14	-26.80	0.29	54.22	209.62
2400.00	0.43	255.52	2399.10	26.47	-47.59	-27.38	0.34	54.90	209.92
2500.00	0.56	255.51	2499.10	27.31	-47.80	-28.22	0.13	55.51	210.55
2600.00	0.57	265.47	2599.09	28.27	-47.97	-29.19	0.10	56.15	211.32
2700.00	0.37	264.34	2699.09	29.09	-48.04	-30.01	0.20	56.64	211.99
2800.00	0.46	275.25	2799.08	29.81	-48.03	-30.73	0.12	57.02	212.61
2900.00	0.56	282.99	2899.08	30.69	-47.89	-31.60	0.12	57.37	213.42
3000.00	0.72	282.27	2999.07	31.78	-47.64	-32.69	0.16	57.78	214.46
3100.00	0.72	275.32	3099.07	33.02	-47.45	-33.93	0.09	58.33	215.57
3200.00	0.54	287.47	3199.06	34.10	-47.25	-35.01	0.22	58.81	216.53
3300.00	0.69	290.09	3299.05	35.12	-46.90	-36.02	0.15	59.14	217.53
3400.00	0.81	297.50	3399.05	36.33	-46.37	-37.21	0.15	59.46	218.75
3500.00	0.50	317.20	3499.04	37.26	-45.72	-38.14	0.38	59.54	219.83
3600.00	0.56	332.82	3599.04	37.80	-44.97	-38.66	0.16	59.30	220.69
3700.00	0.56	345.62	3699.03	38.16	-44.06	-39.00	0.12	58.84	221.52
3800.00	0.43	1.31	3799.03	38.29	-43.21	-39.12	0.19	58.29	222.15
3900.00	0.53	34.08	3899.02	38.03	-42.45	-38.85	0.29	57.54	222.46
4000.00	1.00	43.95	3999.01	37.19	-41.44	-37.98	0.49	56.21	222.51
4100.00	1.26	46.48	4098.99	35.81	-40.06	-36.58	0.26	54.25	222.40
4200.00	1.75	49.37	4198.96	33.89	-38.30	-34.62	0.50	51.63	222.11
4300.00	2.30	46.99	4298.90	31.31	-35.94	-32.00	0.56	48.12	221.68
4400.00	2.92	50.13	4398.79	27.94	-32.94	-28.58	0.64	43.61	220.94
4420.00	2.70	50.20	4418.77	27.20	-32.31	-27.82	1.10	42.64	220.73



Scientific
Drilling

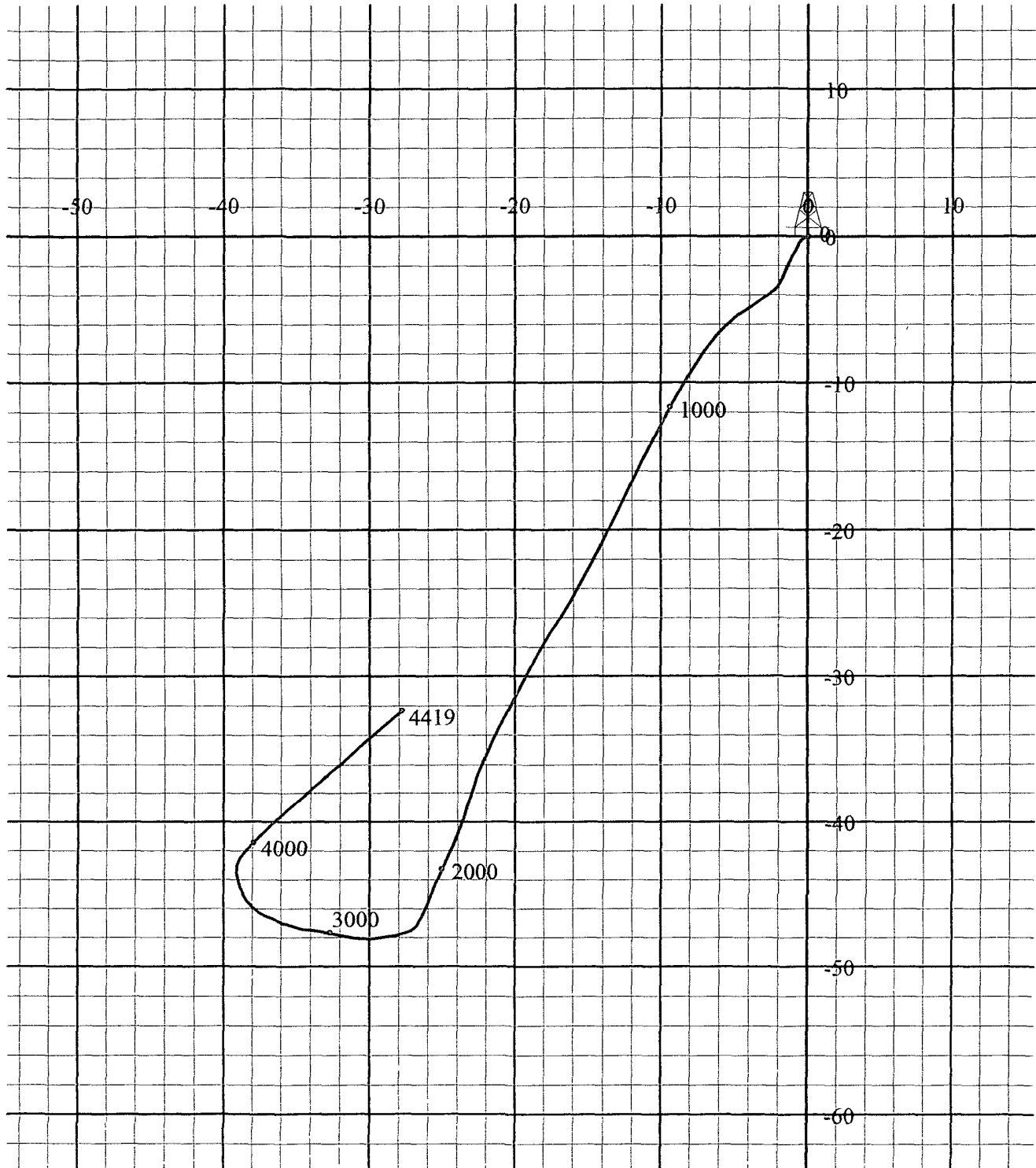
Field: Wildcat
Site: Eddy County, NM
Well: Link BKT Federal Com #3H
Wellpath: VH - Job #32K0908723
Survey: 09/18/08



Azimuths to Grid North
True North: 0.00°
Magnetic North: 0.00°

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 10/13/2008
Model: Wmm_95

West(-)/East(+) [10ft/in]



South(-)/North(+) [10ft/in]



Yates Petroleum Corp.

Eddy County
Link "BKT" Federal Com
#3H
OH

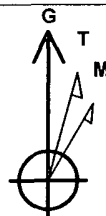
Survey: MWD #1

Pathfinder X & Y Survey Report

30 September, 2008

PATHFINDER
ENERGY SERVICES

Yates Petroleum Corporation



Azimuths to Grid North
True North: 0.07°
Magnetic North: 8.45°

Magnetic Field
Strength: 49244.3snT
Dip Angle: 60.76°
Date: 2008/08/06
Model: IGRF200510

PATHFINDER ENERGY SERVICES

EOW

WELL DETAILS: #3H

Ground Elevation: 3472.00
RKB Elevation: WELL @ 3472.00ft (Original Well Elev)
Rig Name: Original Well Elev

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	698704.334	500857.276	32° 55' 14.458 N	104° 27' 54.918 W	

SECTION DETAILS

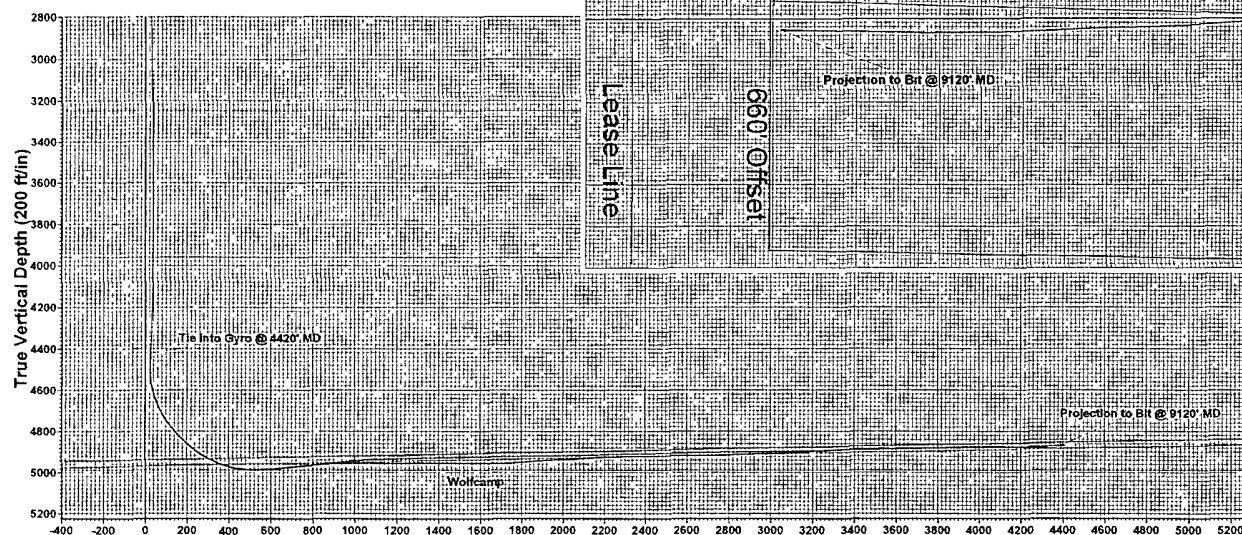
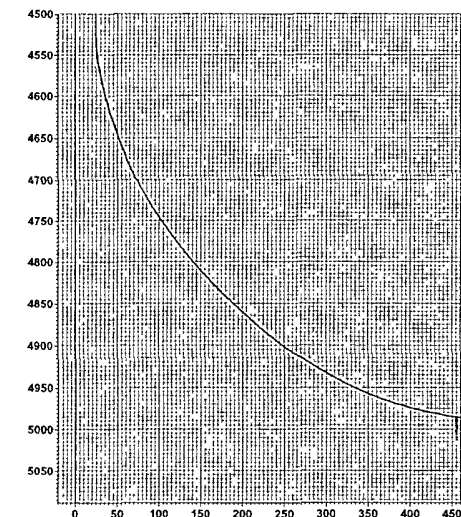
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	5254.00	87.67	276.66	4989.92	-9.76	-505.20	0.00	0.00	504.93	
2	5328.85	95.92	270.19	4987.58	-5.28	-579.78	14.00	-38.04	579.57	
3	5351.96	95.92	270.19	4985.20	-5.21	-602.77	0.00	0.00	602.56	
4	5751.33	95.92	270.19	4944.00	-3.88	-1000.00	0.00	0.00	999.75	TGT 1 (#3) @ 1000'VS
5	5916.76	91.13	271.50	4933.83	-1.44	-1165.05	3.00	164.65	1164.81	
6	9144.71	91.13	271.50	4870.00	83.17	-4391.26	0.00	0.00	4392.04	PBHL OH (3H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

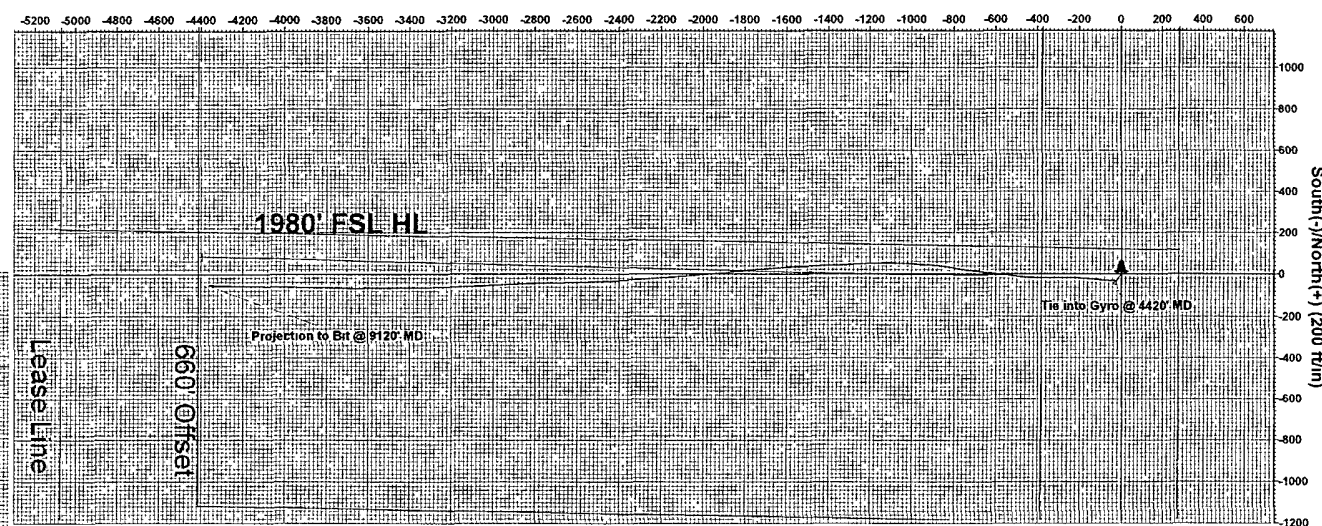
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL OH (3H)	4870.00	83.17	-4391.26	698704.334	500857.276	Point
Tgt 2 (#3) @ 1500' VS	4928.00	7.85	-1500.00	698712.184	499357.276	Point
TGT 1 (#3) @ 1000' VS	994.00	-3.88	-1000.00	698700.454	499857.276	Point

Project: Eddy County
Site: Link "BKT" Federal Com
Well: #3H
Wellbore: OH
Plan: Plan #4 (#3H/OH)

West(-)/East(+) (200 ft/in)



Vertical Section at 271.09° (200 ft/in)



PROJECT DETAILS, Eddy County
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: Grd

Plan: Plan #4 (#3H/OH)

Created By: Nate Bingham Date: 13:54, September 30 2008

Checked: _____ Date: _____



Pathfinder Energy Services

Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Eddy County
Site: Link "BKT" Federal Com
Well: #3H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 3472.00ft (Original Well Elev)
MD Reference: WELL @ 3472.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Project: Eddy County
Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Site: Link "BKT" Federal Com

Site Position:
From: Map
Position Uncertainty: 0.00 ft
Northing: 697,709.859 ft
Easting: 484,983.100 ft
Slot Radius: "
Latitude: 32° 55' 4.383 N
Longitude: 104° 31' 1.134 W
Grid Convergence: -0.10 °

Well: #3H
Well Position **+N/-S** 0.00 ft **Northing:** 698,704.334 ft **Latitude:** 32° 55' 14.458 N
+E/-W 0.00 ft **Easting:** 500,857.276 ft **Longitude:** 104° 27' 54.918 W
Position Uncertainty 0.00 ft **Wellhead Elevation:** ft **Ground Level:** 3,472.00 ft

Wellbore: OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2008/08/06	8.38	60.76	49,244

Design: OH

Audit Notes:

Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	271.09



Pathfinder Energy Services

Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Eddy County
Site: Link "BKT" Federal Com
Well: #3H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 3472.00ft (Original Well Elev)
MD Reference: WELL @ 3472.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Survey Program Date 2008/09/30

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100.00	4,420.00	Gyro (OH)	CB-GYRO-MS	Camera based gyro multishot
4,481.00	9,120.00	MWD #1 (OH)	MWD	MWD - Standard

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
4,420.00	2.70	50.20	4,418.77	-946.77	-32.31	-27.82	27.20	0.00	698,672.02	500,829.45
Tie into Gyro @ 4420' MD										
4,481.00	2.81	49.60	4,479.70	-1,007.70	-30.42	-25.58	25.00	0.19	698,673.91	500,831.70
4,512.00	1.41	4.71	4,510.68	-1,038.68	-29.55	-24.97	24.40	6.67	698,674.78	500,832.31
4,543.00	4.84	279.40	4,541.64	-1,069.64	-28.96	-26.23	25.67	15.90	698,675.38	500,831.05
4,573.00	10.02	270.45	4,571.38	-1,099.38	-28.73	-30.09	29.54	17.64	698,675.61	500,827.19
4,604.00	14.77	266.12	4,601.65	-1,129.65	-28.98	-36.73	36.18	15.60	698,675.36	500,820.54
4,635.00	18.55	266.15	4,631.34	-1,159.34	-29.57	-45.60	45.03	12.19	698,674.76	500,811.68
4,666.00	20.75	270.17	4,660.53	-1,188.53	-29.89	-56.01	55.43	8.33	698,674.45	500,801.26
4,697.00	24.97	273.98	4,689.09	-1,217.09	-29.42	-68.04	67.47	14.42	698,674.92	500,789.24
4,728.00	29.63	275.33	4,716.63	-1,244.63	-28.25	-82.20	81.65	15.16	698,676.08	500,775.07
4,759.00	33.50	274.80	4,743.04	-1,271.04	-26.82	-98.36	97.84	12.52	698,677.51	500,758.91
4,790.00	36.49	274.68	4,768.43	-1,296.43	-25.35	-116.08	115.58	9.65	698,678.98	500,741.20
4,821.00	39.13	274.92	4,792.92	-1,320.92	-23.76	-135.02	134.54	8.53	698,680.57	500,722.26
4,852.00	43.09	274.73	4,816.28	-1,344.28	-22.05	-155.32	154.88	12.78	698,682.28	500,701.95
4,883.00	45.55	274.83	4,838.45	-1,366.45	-20.25	-176.90	176.49	7.94	698,684.09	500,680.37
4,914.00	47.57	273.94	4,859.77	-1,387.77	-18.53	-199.35	198.96	6.84	698,685.81	500,657.93
4,945.00	50.12	272.34	4,880.17	-1,408.17	-17.26	-222.65	222.28	9.10	698,687.08	500,634.63
4,975.00	54.08	269.86	4,898.59	-1,426.59	-16.82	-246.31	245.95	14.72	698,687.52	500,610.97
5,006.00	57.77	269.11	4,915.96	-1,443.96	-17.05	-271.98	271.61	12.07	698,687.28	500,585.29
5,037.00	60.23	269.94	4,931.93	-1,459.93	-17.27	-298.55	298.17	8.26	698,687.07	500,558.73



Pathfinder Energy Services

Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Eddy County
Site: Link "BKT" Federal Com
Well: #3H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 3472.00ft (Original Well Elev)
MD Reference: WELL @ 3472.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
5,068.00	64.37	270.20	4,946.33	-1,474.33	-17.23	-325.99	325.60	13.38	698,687.10	500,531.28
5,099.00	68.41	270.46	4,958.75	-1,486.75	-17.07	-354.39	354.00	13.05	698,687.27	500,502.89
5,130.00	72.46	270.11	4,969.12	-1,497.12	-16.92	-383.59	383.20	13.11	698,687.41	500,473.68
5,161.00	76.77	271.86	4,977.35	-1,505.35	-16.41	-413.47	413.08	14.93	698,687.93	500,443.81
5,192.00	80.37	273.15	4,983.49	-1,511.49	-15.08	-443.82	443.45	12.31	698,689.26	500,413.46
5,223.00	84.06	274.99	4,987.69	-1,515.69	-12.89	-474.45	474.12	13.28	698,691.44	500,382.83
5,254.00	87.67	276.66	4,989.92	-1,517.92	-9.76	-505.20	504.93	12.82	698,694.58	500,352.07
5,322.00	95.41	277.18	4,988.10	-1,516.10	-1.57	-572.63	572.50	11.41	698,702.76	500,284.64
5,386.00	95.85	276.87	4,981.82	-1,509.82	6.22	-635.85	635.85	0.84	698,710.55	500,221.43
5,449.00	95.76	276.93	4,975.45	-1,503.45	13.75	-698.07	698.20	0.17	698,718.08	500,159.21
5,482.00	95.94	278.41	4,972.08	-1,500.08	18.13	-730.60	730.81	4.49	698,722.46	500,126.67
5,513.00	95.23	279.26	4,969.07	-1,497.07	22.87	-761.09	761.39	3.56	698,727.20	500,096.19
5,576.00	94.09	278.69	4,963.95	-1,491.95	32.66	-823.11	823.58	2.02	698,737.00	500,034.17
5,608.00	93.56	277.41	4,961.81	-1,489.81	37.13	-854.72	855.27	4.32	698,741.47	500,002.55
5,640.00	91.71	276.02	4,960.34	-1,488.34	40.87	-886.47	887.08	7.23	698,745.20	499,970.81
5,671.00	90.48	274.74	4,959.75	-1,487.75	43.78	-917.32	917.99	5.73	698,748.11	499,939.95
5,703.00	90.48	273.58	4,959.48	-1,487.48	46.10	-949.24	949.94	3.62	698,750.43	499,908.04
5,735.00	91.71	273.61	4,958.87	-1,486.87	48.10	-981.17	981.91	3.84	698,752.44	499,876.11
5,798.00	90.75	270.69	4,957.52	-1,485.52	50.47	-1,044.10	1,044.87	4.88	698,754.80	499,813.17
5,830.00	90.75	271.06	4,957.10	-1,485.10	50.95	-1,076.10	1,076.87	1.16	698,755.29	499,781.18
5,894.00	89.60	269.68	4,956.90	-1,484.90	51.37	-1,140.09	1,140.86	2.81	698,755.70	499,717.18
5,957.00	90.31	267.81	4,956.95	-1,484.95	49.99	-1,203.07	1,203.81	3.17	698,754.32	499,654.20
6,020.00	91.80	267.82	4,955.79	-1,483.79	47.59	-1,266.02	1,266.69	2.37	698,751.92	499,591.26
6,115.00	89.34	266.77	4,954.85	-1,482.85	43.10	-1,360.90	1,361.47	2.82	698,747.44	499,496.38
6,179.00	89.60	266.95	4,955.44	-1,483.44	39.60	-1,424.80	1,425.29	0.49	698,743.93	499,432.48
6,242.00	90.40	267.80	4,955.44	-1,483.44	36.71	-1,487.73	1,488.16	1.85	698,741.05	499,369.55
6,305.00	90.40	268.22	4,955.00	-1,483.00	34.53	-1,550.69	1,551.07	0.67	698,738.86	499,306.59



Pathfinder Energy Services

Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Eddy County
Site: Link "BKT" Federal Com
Well: #3H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 3472.00ft (Original Well Elev)
MD Reference: WELL @ 3472.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
6,368.00	88.20	266.40	4,955.77	-1,483.77	31.57	-1,613.61	1,613.92	4.53	698,735.90	499,243.67
6,432.00	89.52	265.46	4,957.04	-1,485.04	27.03	-1,677.43	1,677.64	2.53	698,731.36	499,179.84
6,495.00	94.44	264.55	4,954.87	-1,482.87	21.55	-1,740.14	1,740.23	7.94	698,725.88	499,117.14
6,558.00	93.91	263.85	4,950.28	-1,478.28	15.20	-1,802.65	1,802.61	1.39	698,719.53	499,054.63
6,622.00	93.21	263.82	4,946.31	-1,474.31	8.34	-1,866.15	1,865.98	1.09	698,712.67	498,991.12
6,685.00	93.83	265.12	4,942.44	-1,470.44	2.28	-1,928.74	1,928.44	2.28	698,706.61	498,928.54
6,749.00	92.95	264.90	4,938.65	-1,466.65	-3.28	-1,992.39	1,991.96	1.42	698,701.06	498,864.89
6,812.00	92.68	265.45	4,935.56	-1,463.56	-8.57	-2,055.09	2,054.55	0.97	698,695.76	498,802.19
6,876.00	93.12	266.12	4,932.32	-1,460.32	-13.27	-2,118.83	2,118.20	1.25	698,691.07	498,738.44
6,939.00	93.12	266.40	4,928.89	-1,456.89	-17.37	-2,181.60	2,180.88	0.44	698,686.96	498,675.67
7,003.00	91.98	266.25	4,926.05	-1,454.05	-21.47	-2,245.41	2,244.59	1.80	698,682.86	498,611.87
7,066.00	91.19	266.17	4,924.30	-1,452.30	-25.63	-2,308.25	2,307.34	1.26	698,678.70	498,549.03
7,129.00	90.75	266.32	4,923.24	-1,451.24	-29.76	-2,371.10	2,370.11	0.74	698,674.58	498,486.17
7,193.00	91.28	267.52	4,922.10	-1,450.10	-33.20	-2,435.00	2,433.93	2.05	698,671.14	498,422.28
7,256.00	91.45	267.94	4,920.60	-1,448.60	-35.69	-2,497.93	2,496.80	0.72	698,668.64	498,359.35
7,320.00	91.01	268.25	4,919.23	-1,447.23	-37.82	-2,561.88	2,560.70	0.84	698,666.52	498,295.40
7,383.00	90.22	268.50	4,918.55	-1,446.55	-39.60	-2,624.85	2,623.62	1.32	698,664.73	498,232.43
7,447.00	90.04	269.05	4,918.41	-1,446.41	-40.97	-2,688.84	2,687.57	0.90	698,663.36	498,168.44
7,478.00	91.45	268.84	4,918.00	-1,446.00	-41.54	-2,719.83	2,718.54	4.60	698,662.79	498,137.45
7,574.00	93.03	267.93	4,914.25	-1,442.25	-44.25	-2,815.71	2,814.36	1.90	698,660.09	498,041.57
7,669.00	92.33	268.06	4,909.81	-1,437.81	-47.57	-2,910.55	2,909.12	0.75	698,656.77	497,946.73
7,764.00	90.57	267.06	4,907.41	-1,435.41	-51.61	-3,005.43	3,003.90	2.13	698,652.72	497,851.85
7,827.00	91.71	267.44	4,906.15	-1,434.15	-54.63	-3,068.34	3,066.75	1.91	698,649.70	497,788.94
7,859.00	93.12	267.19	4,904.80	-1,432.80	-56.13	-3,100.28	3,098.65	4.47	698,648.20	497,757.00
7,954.00	93.83	268.85	4,899.05	-1,427.05	-59.41	-3,195.04	3,193.33	1.90	698,644.93	497,662.23
8,018.00	93.39	268.53	4,895.02	-1,423.02	-60.87	-3,258.90	3,257.15	0.85	698,643.47	497,598.38
8,081.00	93.74	269.74	4,891.10	-1,419.10	-61.82	-3,321.77	3,319.99	2.00	698,642.52	497,535.51



Pathfinder Energy Services

Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Eddy County
Site: Link "BKT" Federal Com
Well: #3H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 3472.00ft (Original Well Elev)
MD Reference: WELL @ 3472.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,145.00	91.89	269.29	4,887.96	-1,415.96	-62.36	-3,385.68	3,383.89	2.97	698,641.98	497,471.59
8,208.00	89.69	268.45	4,887.09	-1,415.09	-63.60	-3,448.66	3,446.83	3.74	698,640.73	497,408.61
8,272.00	90.22	268.95	4,887.14	-1,415.14	-65.05	-3,512.64	3,510.77	1.14	698,639.28	497,344.63
8,335.00	91.98	270.07	4,885.93	-1,413.93	-65.59	-3,575.63	3,573.73	3.31	698,638.74	497,281.65
8,430.00	90.40	269.63	4,883.95	-1,411.95	-65.84	-3,670.60	3,668.69	1.73	698,638.50	497,186.67
8,494.00	92.15	271.22	4,882.53	-1,410.53	-65.36	-3,734.58	3,732.66	3.69	698,638.97	497,122.69
8,589.00	91.19	271.03	4,879.76	-1,407.76	-63.50	-3,829.52	3,827.62	1.03	698,640.83	497,027.75
8,652.00	92.42	271.39	4,877.78	-1,405.78	-62.17	-3,892.47	3,890.59	2.03	698,642.16	496,964.80
8,747.00	90.57	270.55	4,875.30	-1,403.30	-60.56	-3,987.42	3,985.55	2.14	698,643.77	496,869.85
8,811.00	90.22	271.25	4,874.86	-1,402.86	-59.56	-4,051.41	4,049.55	1.22	698,644.78	496,805.86
8,906.00	89.08	270.93	4,875.44	-1,403.44	-57.75	-4,146.39	4,144.54	1.25	698,646.58	496,710.88
8,970.00	88.29	270.93	4,876.91	-1,404.91	-56.71	-4,210.37	4,208.53	1.23	698,647.62	496,646.91
9,069.00	88.20	271.66	4,879.94	-1,407.94	-54.48	-4,309.30	4,307.48	0.74	698,649.86	496,547.98
9,120.00	88.20	271.66	4,881.54	-1,409.54	-53.00	-4,360.25	4,358.45	0.00	698,651.33	496,497.03

Projection to Bit @ 9120' MD @ 1745' FSL, 690' FWL



Pathfinder Energy Services

Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Eddy County
Site: Link "BKT" Federal Com
Well: #3H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 3472.00ft (Original Well Elev)
MD Reference: WELL @ 3472.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Targets

Target Name	hit/miss-target	Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL OH (3H)			0.00	0.00	4,870.00	83.17	-4,391.26	698,787.508	496,466.019	32° 55' 15.224 N	104° 28' 46.437 W
- survey misses by 140.14ft at 9120.00ft MD (4881.54 TVD, -53.00 N, -4360.25 E)											
- Point											
TGT 1 (#3) @ 1000'V:			0.00	360.00	4,944.00	-3.88	-1,000.00	698,700.454	499,857.276	32° 55' 14.407 N	104° 28' 6.650 W
- survey misses by 54.89ft at 5752.19ft MD (4958.40 TVD, 49.07 N, -998.32 E)											
- Point											
Tgt 2(#3) @ 1500' VS			0.00	0.00	4,928.00	7.85	-1,500.00	698,712.184	499,357.276	32° 55' 14.517 N	104° 28' 12.516 W
- survey misses by 39.41ft at 6255.46ft MD (4955.35 TVD, 36.21 N, -1501.18 E)											
- Point											

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
4,420.00	4,418.77	-32.31	-27.82	Tie into Gyro @ 4420' MD
9,120.00	4,881.54	-53.00	-4,360.25	Projection to Bit @ 9120' MD @ 1745' FSL, 690' FWL

Checked By: _____ Approved By: _____ Date: _____

DIRECTIONAL SURVEY REPORT

YATES PETROLEUM
LINK BKT FED COM #3H
EDDY, NEW MEXICO

PREPARED BY: FRANCISCO SINISTERRA

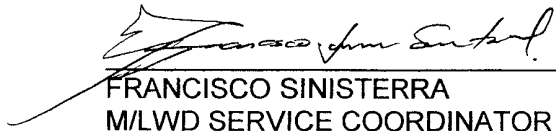
DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) DEREK BOYD
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 9/18/08 TO 10/1/08
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY, NM
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

YATES PETROLEUM
LINK BKT FED COM #3H
EDDY COUNTY, NM
RIG: JW #4

9. SURVEY CERTIFIED FROM: 4481 TO 9069 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 4360.57 FEET ON A BEARING OF 269.30 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 9120.00 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.


FRANCISCO SINISTERRA
M/LWD SERVICE COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 09/19/2008
Date Completed: 09/30/2008

YATES PETROLEUM
LINK BKT FED COM #3H
EDDY COUNTY, NM
Rig:JW4

PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers:HAFA DONARUMMA
DEREK BOYD

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.55.14.4582 N LON:104.27.54.9177 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 500857.2760 Y: 698704.3340
North Aligned To:GRID NORTH
Total Magnetic Correction: 8.44° EAST TO GRID
Vertical Section Plane: 271.09
Survey Vert. Reference: 14.00' Kelly Bushing To Ground
Altitude:3485.00' Ground To MSL

Measured Depth	9120.00	(feet)
Inclination	88.20	(deg)
Azimuth	271.66	(deg)
True Vertical Depth	4881.53	(feet)
Vertical Section	4358.45	(feet)
Survey X cord	496497.03	(feet)
Survey Y cord	698651.34	(feet)
Survey Lat	32.92052136 N	(deg)
Survey Lon	104.47946429 W	(deg)
Rectangular Corr. N/S	53.00 S	(feet)
Rectangular Corr. E/W	4360.25 W	(feet)
Closure Distance	4360.57	(feet)
Direction of Closure	269.30	(deg)
Dogleg Severity	0.01	(deg/100ft)

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 09/19/2008
Date Completed: 09/30/2008

YATES PETROLEUM	Survey Horiz. Reference:WELLHEAD
LINK BKT FED COM #3H	Ref Coordinates: LAT:32.55.14.4582 N LON:104.27.54.9177 W
EDDY COUNTY, NM	GRID Reference:NAD83 new mexico east Transverse Mercator
Rig:JW4	Ref GRID Coord: X: 500857.2760 Y: 698704.3340
PathFinder Office Supervisor: FRANCISCO SINISTERRA	North Aligned To:GRID NORTH
PathFinder Field Engineers:HAFA DONARUMMA	Total Magnetic Correction: 8.44° EAST TO GRID
DEREK BOYD	Vertical Section Plane: 271.09
	Survey Vert. Reference: 14.00' Kelly Bushing To Ground
	Altitude:3485.00' Ground To MSL

Measured Depth	9120.00	(feet)
Inclination	88.20	(deg)
Azimuth	271.66	(deg)
True Vertical Depth	4881.53	(feet)
Vertical Section	4358.45	(feet)
Survey X cord	496497.03	(feet)
Survey Y cord	698651.34	(feet)
Survey Lat	32.92052136 N	(deg)
Survey Lon	104.47946429 W	(deg)
Rectangular Corr. N/S	53.00 S	(feet)
Rectangular Corr. E/W	4360.25 W	(feet)
Closure Distance	4360.57	(feet)
Direction of Closure	269.30	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
LINK BKT FED COM #3H
EDDY COUNTY, NM
Rig:JW4

PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers: HAFI DONARUMMA
DEREK BOYD

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.55.14.4582 N LON:104.27.54.9177 W
Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 500857.2760 Y: 698704.3340
North Aligned To:GRID NORTH
Total Magnetic Correction: 8.44° EAST TO GRID
Vertical Section Plane: 271.09
Survey Vert. Reference: 14.00' Kelly Bushing To Ground
Altitude:3485.00' Ground To MSL

Survey Calculations by RX5 V5.11i using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL		Closure		DLS
						Rectangular Offsets (ft)	Rectangular Offsets (ft)	Dist (ft)	Dir (deg)	
TIE IN TO SCIENTIFIC GYRO @ 4420' MD.										
4420.00	2.70	50.20	4418.76	0.00	27.20	32.31 S	27.82 W	42.64@	220.73	0.00
THE FOLLOWING ARE PATHFINDER ENERGY SURVEYS.										
4481.00	2.81	49.60	4479.69	61.00	24.99	30.42 S	25.58 W	39.74@	220.06	0.19
4512.00	1.41	4.71	4510.67	31.00	24.40	29.55 S	24.97 W	38.68@	220.20	6.67
4543.00	4.84	279.40	4541.63	31.00	25.67	28.95 S	26.23 W	39.07@	222.17	15.90
4573.00	10.02	270.45	4571.37	30.00	29.54	28.73 S	30.09 W	41.60@	226.33	17.64
4604.00	14.77	266.12	4601.64	31.00	36.17	28.97 S	36.73 W	46.78@	231.73	15.60
4635.00	18.55	266.15	4631.33	31.00	45.03	29.57 S	45.60 W	54.35@	237.03	12.19
4666.00	20.75	270.17	4660.52	31.00	55.43	29.89 S	56.01 W	63.49@	241.92	8.32
4697.00	24.97	273.98	4689.08	31.00	67.46	29.42 S	68.04 W	74.12@	246.62	14.42
4728.00	29.63	275.33	4716.62	31.00	81.65	28.25 S	82.20 W	86.92@	251.03	15.16
4759.00	33.50	274.80	4743.03	31.00	97.83	26.82 S	98.36 W	101.95@	254.75	12.52
4790.00	36.49	274.68	4768.43	31.00	115.57	25.35 S	116.08 W	118.81@	257.68	9.65
4821.00	39.13	274.92	4792.92	31.00	134.54	23.76 S	135.01 W	137.09@	260.02	8.53
4852.00	43.09	274.73	4816.27	31.00	154.87	22.05 S	155.32 W	156.88@	261.92	12.78
4883.00	45.55	274.83	4838.44	31.00	176.48	20.24 S	176.90 W	178.06@	263.47	7.94
4914.00	47.57	273.94	4859.76	31.00	198.96	18.53 S	199.34 W	200.20@	264.69	6.84
4945.00	50.12	272.34	4880.16	31.00	222.28	17.25 S	222.65 W	223.31@	265.57	9.10
4975.00	54.08	269.86	4898.59	30.00	245.94	16.81 S	246.31 W	246.88@	266.09	14.72
5006.00	57.77	269.11	4915.95	31.00	271.60	17.05 S	271.98 W	272.51@	266.41	12.07
5037.00	60.23	269.94	4931.92	31.00	298.17	17.27 S	298.55 W	299.05@	266.69	8.26
5068.00	64.37	270.20	4946.32	31.00	325.60	17.23 S	325.99 W	326.44@	266.97	13.38
5099.00	68.41	270.46	4958.74	31.00	354.00	17.07 S	354.39 W	354.80@	267.24	13.05

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
LINK BKT FED COM #3H
EDDY COUNTY, NM
RIG:JW4

Page 02/04

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)
5130.00	72.46	270.11	4969.12	31.00	383.20	16.92 S	383.59 W	383.96@	267.47	13.11
5161.00	76.77	271.86	4977.34	31.00	413.08	16.40 S	413.47 W	413.79@	267.73	14.93
5192.00	80.37	273.15	4983.48	31.00	443.45	15.07 S	443.82 W	444.07@	268.05	12.31
5223.00	84.06	274.99	4987.68	31.00	474.12	12.89 S	474.45 W	474.62@	268.44	13.28
5254.00	87.67	276.66	4989.92	31.00	504.92	9.75 S	505.20 W	505.30@	268.89	12.83
5322.00	95.41	277.18	4988.09	68.00	572.50	1.57 S	572.63 W	572.63@	269.84	11.41
5386.00	95.85	276.87	4981.81	64.00	635.85	6.22 N	635.84 W	635.87@	270.56	0.84
5449.00	95.76	276.93	4975.44	63.00	698.20	13.75 N	698.07 W	698.20@	271.13	0.17
5482.00	95.94	278.41	4972.07	33.00	730.81	18.13 N	730.60 W	730.82@	271.42	4.50
5513.00	95.23	279.26	4969.06	31.00	761.38	22.87 N	761.09 W	761.43@	271.72	3.56
5576.00	94.09	278.69	4963.94	63.00	823.58	32.66 N	823.11 W	823.76@	272.27	2.02
5608.00	93.56	277.41	4961.80	32.00	855.27	37.13 N	854.72 W	855.53@	272.49	4.32
5640.00	91.71	276.02	4960.33	32.00	887.08	40.87 N	886.47 W	887.41@	272.64	7.23
5671.00	90.48	274.74	4959.74	31.00	917.99	43.78 N	917.32 W	918.37@	272.73	5.73
5703.00	90.48	273.58	4959.47	32.00	949.94	46.10 N	949.24 W	950.35@	272.78	3.63
5735.00	91.71	273.61	4958.86	32.00	981.90	48.11 N	981.17 W	982.34@	272.81	3.85
5798.00	90.75	270.69	4957.51	63.00	1044.87	50.47 N	1044.10 W	1045.32@	272.77	4.88
5830.00	90.75	271.06	4957.09	32.00	1076.87	50.96 N	1076.09 W	1077.30@	272.71	1.16
5894.00	89.60	269.68	4956.89	64.00	1140.86	51.37 N	1140.09 W	1141.25@	272.58	2.81
5957.00	90.31	267.81	4956.94	63.00	1203.80	49.99 N	1203.07 W	1204.11@	272.38	3.17
6020.00	91.80	267.82	4955.78	63.00	1266.69	47.59 N	1266.01 W	1266.91@	272.15	2.36
6115.00	89.34	266.77	4954.84	95.00	1361.47	43.11 N	1360.89 W	1361.58@	271.81	2.82
6179.00	89.60	266.95	4955.43	64.00	1425.29	39.60 N	1424.79 W	1425.34@	271.59	0.49
6242.00	90.40	267.80	4955.43	63.00	1488.16	36.71 N	1487.73 W	1488.18@	271.41	1.85
6305.00	90.40	268.22	4954.99	63.00	1551.06	34.53 N	1550.69 W	1551.07@	271.28	0.67
6368.00	88.20	266.40	4955.76	63.00	1613.92	31.57 N	1613.61 W	1613.92@	271.12	4.53
6432.00	89.52	265.46	4957.03	64.00	1677.64	27.03 N	1677.43 W	1677.65@	270.92	2.53

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
LINK BKT FED COM #3H
EDDY COUNTY, NM
RIG:JW4

Page 03/04

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)
6495.00	94.44	264.55	4954.86	63.00	1740.23	21.55 N	1740.13 W	1740.27@	270.71	7.94
6558.00	93.91	263.85	4950.27	63.00	1802.61	15.20 N	1802.64 W	1802.71@	270.48	1.39
6622.00	93.21	263.82	4946.30	64.00	1865.97	8.34 N	1866.15 W	1866.17@	270.26	1.09
6685.00	93.83	265.12	4942.43	63.00	1928.43	2.28 N	1928.74 W	1928.74@	270.07	2.28
6749.00	92.95	264.90	4938.65	64.00	1991.96	3.28 S	1992.38 W	1992.39@	269.91	1.42
6812.00	92.68	265.45	4935.55	63.00	2054.55	8.57 S	2055.08 W	2055.10@	269.76	0.97
6876.00	93.12	266.12	4932.31	64.00	2118.19	13.27 S	2118.83 W	2118.87@	269.64	1.25
6939.00	93.12	266.40	4928.88	63.00	2180.88	17.37 S	2181.60 W	2181.67@	269.54	0.44
7003.00	91.98	266.25	4926.04	64.00	2244.59	21.47 S	2245.41 W	2245.51@	269.45	1.80
7066.00	91.19	266.17	4924.29	63.00	2307.34	25.63 S	2308.24 W	2308.39@	269.36	1.26
7129.00	90.75	266.32	4923.23	63.00	2370.10	29.76 S	2371.10 W	2371.29@	269.28	0.74
7193.00	91.28	267.52	4922.09	64.00	2433.92	33.19 S	2434.99 W	2435.22@	269.22	2.05
7256.00	91.45	267.94	4920.59	63.00	2496.80	35.69 S	2497.93 W	2498.18@	269.18	0.72
7320.00	91.01	268.25	4919.22	64.00	2560.69	37.82 S	2561.88 W	2562.16@	269.15	0.84
7383.00	90.22	268.50	4918.54	63.00	2623.62	39.60 S	2624.85 W	2625.15@	269.14	1.32
7447.00	90.04	269.05	4918.40	64.00	2687.57	40.97 S	2688.83 W	2689.15@	269.13	0.90
7478.00	91.45	268.84	4918.00	31.00	2718.54	41.54 S	2719.82 W	2720.14@	269.12	4.60
7574.00	93.03	267.93	4914.24	96.00	2814.36	44.24 S	2815.71 W	2816.06@	269.10	1.90
7669.00	92.33	268.06	4909.80	95.00	2909.11	47.56 S	2910.55 W	2910.93@	269.06	0.75
7764.00	90.57	267.06	4907.40	95.00	3003.90	51.61 S	3005.42 W	3005.87@	269.02	2.13
7827.00	91.71	267.44	4906.14	63.00	3066.74	54.63 S	3068.34 W	3068.82@	268.98	1.91
7859.00	93.12	267.19	4904.80	32.00	3098.64	56.13 S	3100.27 W	3100.78@	268.96	4.47
7954.00	93.83	268.85	4899.04	95.00	3193.33	59.40 S	3195.04 W	3195.59@	268.93	1.90
8018.00	93.39	268.53	4895.01	64.00	3257.15	60.86 S	3258.89 W	3259.46@	268.93	0.85
8081.00	93.74	269.74	4891.09	63.00	3319.99	61.81 S	3321.76 W	3322.34@	268.93	2.00
8145.00	91.89	269.29	4887.95	64.00	3383.88	62.36 S	3385.68 W	3386.26@	268.94	2.97
8208.00	89.69	268.45	4887.08	63.00	3446.83	63.60 S	3448.66 W	3449.25@	268.94	3.74

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
LINK BKT FED COM #3H
EDDY COUNTY, NM
RIG:JW4

Page 04/04

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)
8272.00	90.22	268.95	4887.13	64.00	3510.77	65.05 S	3512.64 W	3513.24@	268.94	1.14
8335.00	91.98	270.07	4885.92	63.00	3573.73	65.59 S	3575.62 W	3576.23@	268.95	3.31
8430.00	90.40	269.63	4883.95	95.00	3668.68	65.84 S	3670.60 W	3671.19@	268.97	1.73
8494.00	92.15	271.22	4882.52	64.00	3732.66	65.36 S	3734.58 W	3735.15@	269.00	3.69
8589.00	91.19	271.03	4879.75	95.00	3827.62	63.50 S	3829.52 W	3830.05@	269.05	1.03
8652.00	92.42	271.39	4877.77	63.00	3890.59	62.17 S	3892.47 W	3892.97@	269.08	2.03
8747.00	90.57	270.55	4875.29	95.00	3985.55	60.56 S	3987.42 W	3987.88@	269.13	2.14
8811.00	90.22	271.25	4874.85	64.00	4049.55	59.56 S	4051.41 W	4051.85@	269.16	1.22
8906.00	89.08	270.93	4875.43	95.00	4144.54	57.75 S	4146.39 W	4146.79@	269.20	1.25
8970.00	88.29	270.93	4876.90	64.00	4208.52	56.71 S	4210.36 W	4210.75@	269.23	1.23
9069.00	88.20	271.66	4879.93	99.00	4307.48	54.47 S	4309.29 W	4309.64@	269.28	0.74
STRAIGHT LINE PROJECTION TO BIT @ 9120'MD.										
9120.00	88.20	271.66	4881.53	51.00	4358.45	53.00 S	4360.25 W	4360.57@	269.30	0.00

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM
LINK BKT FED COM #3H
EDDY COUNTY, NM
Rig:JW 4

Fri Sep 12 14:27:52 2008

Coordinates

Latitude: 32.920683 N (32 deg. 55 min. 14.4582 sec.)
Longitude: 104.465255 W (-104 deg. 27 min. 54.9177 sec.)
Elevation: 3485.00 feet.
Calculation Date: Sep/12/2008

Magnetic Calculations

Model: IGRF2005
Dip Angle: 60.7538 degrees
Total Magnetic Field: 0.49234 gauss
Magnetic Declination: 8.365333 degrees
Horizontal Intensity: 0.240541 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 8.365333 Degr.

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 500857.2760 feet
Y: 698704.3340 feet
True to Grid: (convergence) 0.071696 degrees
Magnetic to Grid: 8.437029 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 8.437029 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

FIELD

YATES PETROLEUM
LINK BKT FED COM #3H
EDDY COUNTY, NEW MEXICO
Rig:JW4

Tue Oct 07 11:52:32 2008

Coordinates

Latitude: 32.920683 N (32 deg. 55 min. 14.4582 sec.)
Longitude: 104.465255 W (-104 deg. 27 min. 54.9177 sec.)
Elevation: 3499.00 feet.
Calculation Date: Sep/19/2008

Magnetic Calculations

Model: IGRF2005
Dip Angle: 60.7534 degrees
Total Magnetic Field: 0.49232 gauss
Magnetic Declination: 8.363048 degrees
Horizontal Intensity: 0.240535 gauss

To Convert a Magnetic Dir. to a TRUE North Dir. Add 8.363048 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 500857.2760 feet
Y: 698704.3340 feet
True to Grid: (convergence) 0.071696 degrees
Magnetic to Grid: 8.434744 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 8.434744 Degr.



TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	YATES PETROLEUM		
LEASE / WELL No.:	LINK BKT FED COM	#3H	
WELL LOCATION:	EDDY COUNTY		
COUNTY / STATE / COUNTRY:	EDDY COUNTY	NM	USA
RIG:	JW#4		
API WELL No:	30-015-36397		
JOB No:	101007866-WT-WT		
P.O. / AFE No.			
DIRECTIONAL COMPANY:	PATHFINDER		

WELL SITE INFORMATION

MAGNETIC DECLINATION:	8.44		
On Wall Plat:	8.437	LWD Calculated:	8.437
		Agreed Upon:	8.437
X =	500857.276000	Feet	Y = 648704.334000
			Feet
SITE LATITUDE:	32.920683 N	SITE LONGITUDE:	104.465255 W
GRID SYSTEM:	TRUE ☐ UTM ☒ LAMBERT ☐	ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:	271.09		
KELLY BUSHING ELEVATION:	14		
ALTITUDE:	3485	Feet	WATER DEPTH:
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	4420
DRIFT ANGLE:	2.7
DRIFT DIRECTION:	50.2
TRUE VERTICAL DEPTH:	4418.76
VERTICAL SECTION:	27.2
RECTANGULAR COORDINATE (N / S) :	32.31 S
RECTANGULAR COORDINATE (E / W) :	27.82 W
CLOSURE DISTANCE / DIRECTION:	
SURVEY CALCULATION METHOD:	AA ☐ MC ☒ RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	SCIENTIFIC GYRO
COPY OF TIE-IN SURVEY REPORT	☒ YES ☐ NO

WELL PLAN

KICKOFF DEPTH:	4420	TOTAL DEPTH:	9120
KICKOFF ANGLE:	2.7	MAX ANGLE:	95

PES Engineers:

DONARUMMA

**Signature of both field engineers required if applicable

Directional Driller: PEDRO A. / JOE L.

DATE: 18-Sep-2008

SCIENTIFIC INFORMATION CONTAINED HEREIN IS UNCLASSIFIED
DATE 05-11-2010 BY 60322 UCBAW

GRAPHER'S SHEET

Geographical Section Legend

FOR

VATES PETROLEUM

Well Number	#	UTCH-311-10000-HOUSE
Well Location	#	KEEL COUNTY, NEW MEXICO
Job Number	#	7200000000
Location Latitude	#	32.530
Survey Date	#	10-07-2006
S. Data Personnel	#	VICTOR HELENDEZ JR
Length Units	#	Feet
North Reference	#	GRID NORTH
Grid Correction	#	5.10 Degrees
Survey Depth Zero	#	REB
Proposed Direction	#	221.00
Calculation Method	#	Minimum Curvature

Remarks: # The Geographical Section will be collected finally.

C O U N C I L

[illegible]

• • •

1. 1. 1. 1. 1.

[illegible][illegible]

Q. I am not sure I understand the question. What is the question?

Tel. 011 31 20 3614675

$$: \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} :$$

Approved: _____ Date: 03.03.05

Depth	Temperature	Salinity	Latitude	Longitude	Day of Year	Depth (m)	Temperature	Salinity	Latitude	Longitude	Day of Year
(Feet)	(F)	(Pct)	(Deg)	(Deg)	(F)	(m)	(F)	(Pct)	(Deg)	(Deg)	(F)
0	19.5	35.2	19.0	155.5	195	19.5	35.2	35.2	19.0	155.5	195
10	19.5	35.2	19.0	155.5	195	19.5	35.2	35.2	19.0	155.5	195
20	19.5	35.2	19.0	155.5	195	19.5	35.2	35.2	19.0	155.5	195
30	19.5	35.2	19.0	155.5	195	19.5	35.2	35.2	19.0	155.5	195
40	19.5	35.2	19.0	155.5	195	19.5	35.2	35.2	19.0	155.5	195
50	19.5	35.2	19.0	155.5	195	19.5	35.2	35.2	19.0	155.5	195
60	19.5	35.2	19.0	155.5	195	19.5	35.2	35.2	19.0	155.5	195
70	19.5	35.2	19.0	155.5	195	19.5	35.2	35.2	19.0	155.5	195
80	19.5	35.2	19.0	155.5	195	19.5	35.2	35.2	19.0	155.5	195
90	19.5	35.2	19.0	155.5	195	19.5	35.2	35.2	19.0	155.5	195
100	19.5	35.2	19.0	155.5	195	19.5	35.2	35.2	19.0	155.5	195

[illegible]

$q_{11}(0,0) = 0.0007$, $q_{12}(0,0) = 0.0001$, $q_{13}(0,0) = 0.0001$, $q_{14}(0,0) = 0.0001$, $q_{15}(0,0) = 0.0001$, $q_{16}(0,0) = 0.0001$, $q_{17}(0,0) = 0.0001$, $q_{18}(0,0) = 0.0001$, $q_{19}(0,0) = 0.0001$, $q_{20}(0,0) = 0.0001$, $q_{21}(0,0) = 0.0001$, $q_{22}(0,0) = 0.0001$, $q_{23}(0,0) = 0.0001$, $q_{24}(0,0) = 0.0001$, $q_{25}(0,0) = 0.0001$, $q_{26}(0,0) = 0.0001$, $q_{27}(0,0) = 0.0001$, $q_{28}(0,0) = 0.0001$, $q_{29}(0,0) = 0.0001$, $q_{30}(0,0) = 0.0001$, $q_{31}(0,0) = 0.0001$, $q_{32}(0,0) = 0.0001$, $q_{33}(0,0) = 0.0001$, $q_{34}(0,0) = 0.0001$, $q_{35}(0,0) = 0.0001$, $q_{36}(0,0) = 0.0001$, $q_{37}(0,0) = 0.0001$, $q_{38}(0,0) = 0.0001$, $q_{39}(0,0) = 0.0001$, $q_{40}(0,0) = 0.0001$, $q_{41}(0,0) = 0.0001$, $q_{42}(0,0) = 0.0001$, $q_{43}(0,0) = 0.0001$, $q_{44}(0,0) = 0.0001$, $q_{45}(0,0) = 0.0001$, $q_{46}(0,0) = 0.0001$, $q_{47}(0,0) = 0.0001$, $q_{48}(0,0) = 0.0001$, $q_{49}(0,0) = 0.0001$, $q_{50}(0,0) = 0.0001$, $q_{51}(0,0) = 0.0001$, $q_{52}(0,0) = 0.0001$, $q_{53}(0,0) = 0.0001$, $q_{54}(0,0) = 0.0001$, $q_{55}(0,0) = 0.0001$, $q_{56}(0,0) = 0.0001$, $q_{57}(0,0) = 0.0001$, $q_{58}(0,0) = 0.0001$, $q_{59}(0,0) = 0.0001$, $q_{60}(0,0) = 0.0001$, $q_{61}(0,0) = 0.0001$, $q_{62}(0,0) = 0.0001$, $q_{63}(0,0) = 0.0001$, $q_{64}(0,0) = 0.0001$, $q_{65}(0,0) = 0.0001$, $q_{66}(0,0) = 0.0001$, $q_{67}(0,0) = 0.0001$, $q_{68}(0,0) = 0.0001$, $q_{69}(0,0) = 0.0001$, $q_{70}(0,0) = 0.0001$, $q_{71}(0,0) = 0.0001$, $q_{72}(0,0) = 0.0001$, $q_{73}(0,0) = 0.0001$, $q_{74}(0,0) = 0.0001$, $q_{75}(0,0) = 0.0001$, $q_{76}(0,0) = 0.0001$, $q_{77}(0,0) = 0.0001$, $q_{78}(0,0) = 0.0001$, $q_{79}(0,0) = 0.0001$, $q_{80}(0,0) = 0.0001$, $q_{81}(0,0) = 0.0001$, $q_{82}(0,0) = 0.0001$, $q_{83}(0,0) = 0.0001$, $q_{84}(0,0) = 0.0001$, $q_{85}(0,0) = 0.0001$, $q_{86}(0,0) = 0.0001$, $q_{87}(0,0) = 0.0001$, $q_{88}(0,0) = 0.0001$, $q_{89}(0,0) = 0.0001$, $q_{90}(0,0) = 0.0001$, $q_{91}(0,0) = 0.0001$, $q_{92}(0,0) = 0.0001$, $q_{93}(0,0) = 0.0001$, $q_{94}(0,0) = 0.0001$, $q_{95}(0,0) = 0.0001$, $q_{96}(0,0) = 0.0001$, $q_{97}(0,0) = 0.0001$, $q_{98}(0,0) = 0.0001$, $q_{99}(0,0) = 0.0001$.

$$41. (a) \text{ yes } \quad (b) \text{ yes } \quad (c) \text{ no } \quad (d) \text{ no } \quad (e) \text{ no } \quad (f) \text{ no } \quad (g) \text{ no } \quad (h) \text{ no } \quad (i) \text{ no } \quad (j) \text{ no}$$
$$5.23 \times 10^{-4} \text{ g/g} \quad 2.16 \times 10^{-4} \text{ g/g} \quad 1.33 \times 10^{-4} \text{ g/g} \quad 9.8 \times 10^{-5} \text{ g/g} \quad 7.5 \times 10^{-5} \text{ g/g} \quad 5.9 \times 10^{-5} \text{ g/g} \quad 4.7 \times 10^{-5} \text{ g/g}$$

77.3, 100	67.39, 69	41.51	2.39	41.53	25.11	25.13	6.35
-----------	-----------	-------	------	-------	-------	-------	------

[illegible][illegible]

The Horizontal Displacement = 0.96 feet + 0.07

He awarded center placement to 62.5% in a collection of 270% to 60000.

[illegible]