



A Schlumberger Company

DIRECTIONAL SURVEY REPORT

30-015-38384

YATES PETROLEUM

DOMINO "AOJ" FEDERAL COM #11H - SHC

EDDY COUNTY, 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) PRITHWISH DAS
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 08-03-11 TO 08-08-11
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
DOMINO "AOJ" FEDERAL COM #11H - SHC
EDDY COUNTY, NM
RIG: SILVER OAK 10
9. SURVEY CERTIFIED FROM: 606 TO 3263 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 39.24 FEET ON A BEARING OF 98.91 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 3312 FEET,
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.


FRANCISCO SINISTERRA
MWD COORDINATOR

SHC

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 08/03/2011
Date Completed: 08/08/2011

YATES PETROLEUM CORPORATION
DOMINO "AOJ" FED COM #1H
EDDY COUNTY, NEW MEXICO
Rig: SILVER OAK # 10
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers: P.DAS

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.40.39.5069 N LON: 103.53.56.5465 W
GRID Reference: NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 674964.0400 Y: 610530.2850
North Aligned To: GRID NORTH
Total Magnetic Correction: 7.52° EAST TO GRID
Vertical Section Plane: 93.71
Survey Vert. Reference: 18.00' Kelly Bushing To Ground
Altitude: 3491.00' Ground To MSL

Measured Depth	3312.00	(feet)
Inclination	0.97	(deg)
Azimuth	76.69	(deg)
True Vertical Depth	3311.29	(feet)
Vertical Section	39.08	(feet)
Survey X cord	675002.81	(feet)
Survey Y cord	610524.20	(feet)
Survey Lat	32.67762366 N	(deg)
Survey Lon	103.89891478 W	(deg)
Rectangular Corr. N/S	6.08 S	(feet)
Rectangular Corr. E/W	38.77 E	(feet)
Closure Distance	39.24	(feet)
Direction of Closure	98.91	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION

DOMINO "AOJ" FED COM #1H

EDDY COUNTY, NEW MEXICO

Rig:SILVER OAK # 10

PathFinder Office Supervisor: FRANCISCO SINISTERRA

PathFinder Field Engineers: P.DAS

Survey Horiz. Reference:WELLHEAD

Ref Coordinates: LAT:32.40.39.5069 N LON:103.53.56.5465 W

GRID Reference:NAD83 new mexico east Transverse Mercator

Ref GRID Coord: X: 674964.0400 Y: 610530.2850

North Aligned To:GRID NORTH

Total Magnetic Correction: 7.52° EAST TO GRID

Vertical Section Plane: 93.71

Survey Vert. Reference: 18.00' Kelly Bushing To Ground

Altitude:3491.00' Ground To MSL

Survey Calculations by RX5 V6.03E using Minimum Curvature

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)	
ASSUMING STRAIGHT HOLE TIE-IN @ 506' MD.									
506.00	0.00	0.00	506.00	0.00	-0.00	0.00	0.00	0.00@ 0.00	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.									
606.00	0.09	54.81	606.00	100.00	0.06	0.05 N	0.06 E	0.08@ 54.81	0.09
698.00	0.53	192.09	698.00	92.00	0.06	0.33 S	0.03 E	0.33@ 174.08	0.65
788.00	0.53	185.41	787.99	90.00	-0.02	1.15 S	0.09 W	1.15@ 184.59	0.07
879.00	0.88	182.25	878.99	91.00	-0.01	2.27 S	0.16 W	2.27@ 184.02	0.39
969.00	0.79	180.05	968.98	90.00	0.04	3.58 S	0.19 W	3.58@ 182.99	0.11
1061.00	0.97	166.25	1060.97	92.00	0.32	4.97 S	0.00 W	4.97@ 180.03	0.30
1153.00	0.88	167.22	1152.96	92.00	0.75	6.41 S	0.34 E	6.42@ 176.98	0.10
1312.00	0.70	169.50	1311.94	159.00	1.34	8.56 S	0.79 E	8.60@ 174.75	0.12
1502.00	0.88	157.46	1501.92	190.00	2.27	11.05 S	1.56 E	11.16@ 171.98	0.13
1692.00	1.76	146.12	1691.87	190.00	4.69	14.82 S	3.74 E	15.28@ 165.83	0.48
1882.00	1.06	147.53	1881.81	190.00	7.51	18.72 S	6.31 E	19.76@ 161.37	0.37
2072.00	2.02	81.35	2071.75	190.00	11.82	19.70 S	10.57 E	22.36@ 151.80	0.98
2263.00	2.64	66.85	2262.60	191.00	19.03	17.47 S	17.94 E	25.04@ 134.24	0.45
2357.00	2.29	70.36	2356.51	94.00	22.69	15.99 S	21.70 E	26.95@ 126.38	0.41
2453.00	1.32	50.23	2452.46	96.00	25.25	14.63 S	24.36 E	28.41@ 121.00	1.19
2547.00	1.14	38.19	2546.44	94.00	26.57	13.21 S	25.77 E	28.95@ 117.14	0.33
2642.00	1.14	44.17	2641.42	95.00	27.71	11.79 S	27.01 E	29.47@ 113.57	0.13
2737.00	1.23	66.06	2736.40	95.00	29.23	10.69 S	28.60 E	30.53@ 110.50	0.48
2832.00	1.14	58.76	2831.38	95.00	30.91	9.79 S	30.34 E	31.88@ 107.88	0.19
2927.00	1.32	73.35	2926.36	95.00	32.71	8.99 S	32.20 E	33.43@ 105.60	0.38
3022.00	1.06	65.97	3021.34	95.00	34.51	8.32 S	34.05 E	35.05@ 103.72	0.32
3117.00	1.14	58.76	3116.32	95.00	36.06	7.47 S	35.66 E	36.43@ 101.83	0.17
3212.00	0.97	60.34	3211.30	95.00	37.51	6.58 S	37.16 E	37.74@ 100.04	0.18

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
DOMINO "AOJ" FED COM #1H
EDDY COUNTY, NEW MEXICO
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)
3263.00	0.97	76.69	3262.30	51.00	38.28	6.27 S	37.96 E	38.47@	99.37	0.54
STRAIGHT-LINE PROJECTION TO BIT @ 3312' MD.										
3312.00	0.97	76.69	3311.29	49.00	39.08	6.08 S	38.77 E	39.24@	98.91	0.00



SHC

A Schlumberger Company

TIE-IN SURVEY INFORMATION SHEET**CLIENT INFORMATION**

CLIENT:	YATES PETROLEUM		
LEASE / WELL No.:	DOMINO "AOJ" FEDERAL COM	# 11H	
WELL LOCATION:	EDDY COUNTY		
COUNTY / STATE / COUNTRY:	EDDY COUNTY	NEW MEXICO	USA
RIG:	SILVER OAK # 10		
API WELL No:	30-015-38384		
JOB No:	700003195-WT-WT		
P.O. / AFE No.	10-264-0		
DIRECTIONAL COMPANY:	PES		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.52	LWD Calculated:	7 520152
Agreed Upon:		7.52	
X =	674964.040000	Feet	Y = 610530.285000
		Feet	
SITE LATITUDE:		SITE LONGITUDE:	
GRID SYSTEM:	TRUE ☐ UTM ☐ LAMBERT ☒	ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:		93.71	
KELLY BUSHING ELEVATION:		18	
ALTITUDE:	3491	Feet	WATER DEPTH: N/A
		Feet	

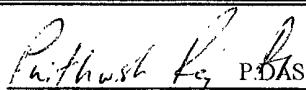
TIE-IN SURVEY

MEASURED DEPTH:	506		
DRIFT ANGLE:	0		
DRIFT DIRECTION:	0		
TRUE VERTICAL DEPTH:	506		
VERTICAL SECTION:	0		
RECTANGULAR COORDINATE (N / S) :	0		
RECTANGULAR COORDINATE (E / W) :	0		
CLOSURE DISTANCE / DIRECTION:	0	0	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY) :			
COPY OF TIE-IN SURVEY REPORT		☐ YES	☐ NO

WELL PLAN

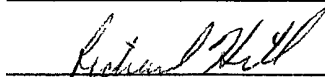
KICKOFF DEPTH:	535	TOTAL DEPTH:	3300
KICKOFF ANGLE:	0	MAX ANGLE:	0

PES Engineers:

 PES

**Signature of both field engineers required if applicable

Directional Driller:



DATE: 08/03/11



A Schlumberger Company **PathFinder Energy Services, Inc.**
Magnetic & Grid Calculations

Yates Petroleum Corporation
Domino AOJ Federal Com #11H
Eddy County, NM
Rig: Silver Oak 10

Mon Aug 01 17:57:47 2011

Coordinates

Latitude: 32.677641 N (32 deg. 40 min. 39.5069 sec.)
Longitude: 103.899041 W (-103 deg. 53 min. 56.5465 sec.)
Elevation: 3509.00 feet.
Calculation Date: Aug/01/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.5472 degrees
Total Magnetic Field: 0.48840 gauss
Magnetic Declination: 7.755306 degrees
Horizontal Intensity: 0.240149 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.755306 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 674964.0400 feet
Y: 610530.2850 feet
True to Grid: (convergence) -0.234483 degrees
Magnetic to Grid: 7.520823 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 7.520823 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

ON LOCATION

YATES PETROLEUM CORPORATION
DOMINO "AOJ" FED COM #1H
HACKBERRY; BONE SPRING NORTH

Wed Aug 03 22:54:11 2011

Coordinates

Latitude: 32.677641 N (32 deg. 40 min. 39.5069 sec.)
Longitude: 103.899041 W (-103 deg. 53 min. 56.5465 sec.)
Elevation: 3509.00 feet.
Calculation Date: Aug/03/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.5470 degrees
Total Magnetic Field: 0.48839 gauss
Magnetic Declination: 7.754635 degrees
Horizontal Intensity: 0.240148 gauss

To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.754635 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 674964.0400 feet
Y: 610530.2850 feet
True to Grid: (convergence) -0.234483 degrees
Magnetic to Grid: 7.520152 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 7.520152 Degr.