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Drilling Services

Proposal



devon

ONYX PWU 29 #1H

EDDY COUNTY, NM

WELL FILE: **PLAN 1**

SEPTEMBER 2, 2011

Weatherford International, Ltd.

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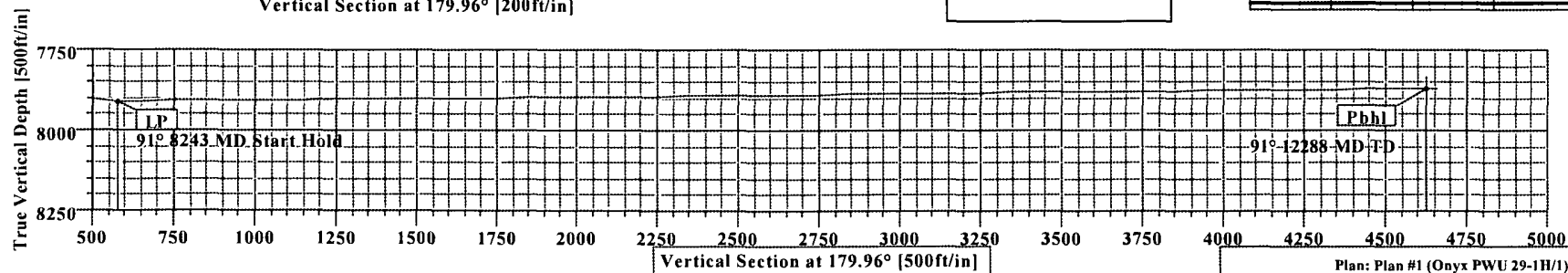
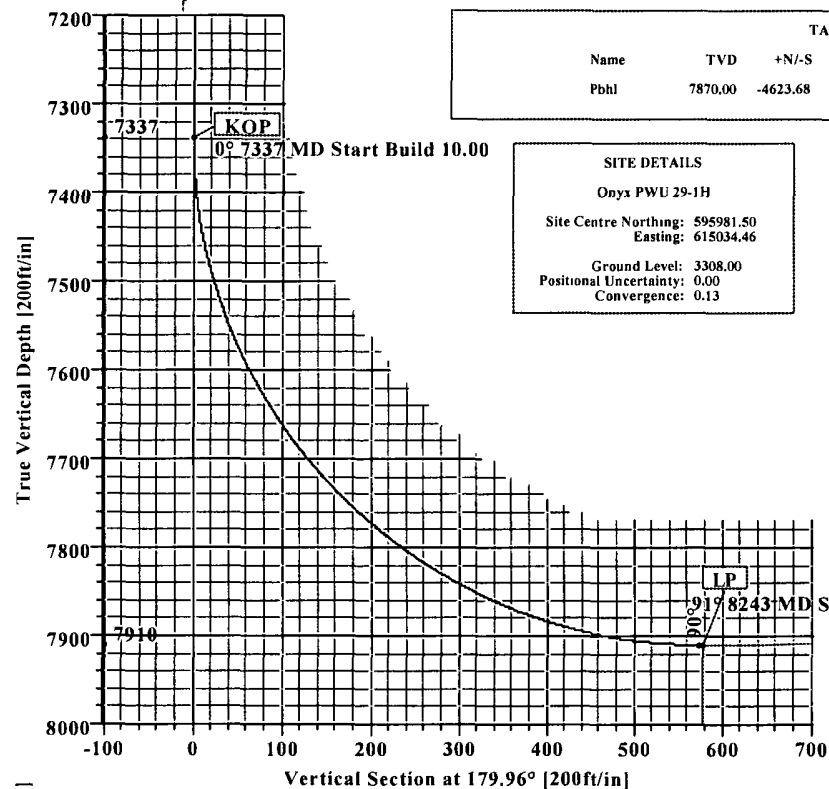
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Onyx PWU 29 #1H
Eddy Co, NM

KB ELEV: 3333
GL ELEV: 3308



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	179.96	0.00	0.00	0.00	0.00	0.00	0.00	
2	7337.07	0.00	179.96	7337.07	0.00	0.00	0.00	0.00	0.00	
3	8242.74	90.57	179.96	7910.00	-578.62	0.45	10.00	179.96	578.62	
4	12287.99	90.57	179.96	7870.00	-4623.68	3.60	0.00	0.00	4623.68	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Onyx PWU 29-1H	0.00	0.00	595981.50	615034.46	32°38'17.413N	104°05'38.124W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	7870.00	-4623.68	3.60	591357.82	615038.06	Point

SITE DETAILS

Onyx PWU 29-1H
Site Centre Northing: 595981.50
Easting: 615034.46
Ground Level: 3308.00
Positional Uncertainty: 0.00
Convergence: 0.13



Azimuths to Grid North
True North: -0.13°
Magnetic North: 7.63°

Magnetic Field
Strength: 48750nT
Dip Angle: 60.46°
Date: 4/15/2012
Model: IGRF2010

Total Correction to Grid North: 7.63°

FIELD DETAILS

Eddy Co., NM (NAD 83)

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010

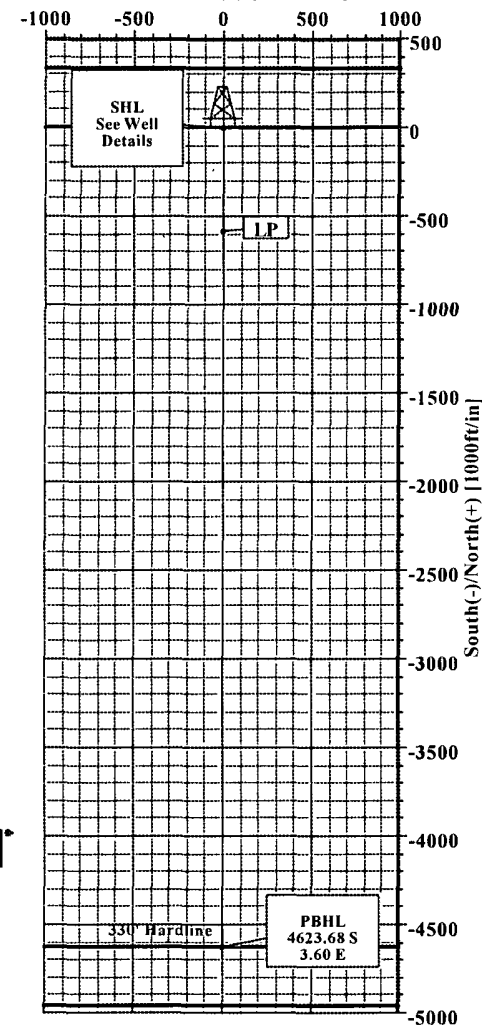
System Datum: Mean Sea Level
Local North: Grid North

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LEGEND

1 Plan #1

West(-)/East(+) [1000ft/in]



Plan: Plan #1 (Onyx PWU 29-1H/1)

Created By: Russell W. Joyner

Date: 9/2/2011



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WFT Plan Report - X & Y's



Company: Devon Energy Date: 9/2/2011 Time: 11:22:51 Page: 1
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well, Onyx PWU 29-1H, Grid North
Site: Onyx PWU 29-1H Vertical (TVD) Reference: SITE 3333 0
Well: Onyx PWU 29-1H Section (VS) Reference: Well (0 00N, 0 00E, 179 96Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #1 Date Composed: 9/2/2011
Principal: Yes Version: 1
Tied-to: From Surface

Field: Eddy Co., NM (NAD 83)

Map System: US State Plane Coordinate System 1983 Map Zone: New Mexico, Eastern Zone
Geo Datum: GRS 1980 Coordinate System: Well Centre
Sys Datum: Mean Sea Level Geomagnetic Model: IGRF2010

Site: Onyx PWU 29-1H

Site Position: Northing: 595981 50 ft Latitude: 32 38 17.413 N
From: Map Easting: 615034.46 ft Longitude: 104 5 38.124 W
Position Uncertainty: 0 00 ft North Reference: Grid
Ground Level: 3308 00 ft Grid Convergence: 0 13 deg

Well: Onyx PWU 29-1H Slot Name:
Well Position: +N/-S 0 00 ft Northing: 595981 50 ft Latitude: 32 38 17 413 N
+E/-W 0 00 ft Easting: 615034 46 ft Longitude: 104 5 38 124 W
Position Uncertainty: 0 00 ft

Wellpath: 1 Drilled From: Surface
Current Datum: SITE Height 3333 00 ft Tie-on Depth: 0 00 ft
Magnetic Data: 4/15/2012 Above System Datum: Mean Sea Level
Field Strength: 48750 nT Declination: 7 76 deg
Vertical Section: Depth From (TVD) +N/-S Mag Dip Angle: 60 46 deg
ft +E/-W Direction
deg
0.00 0 00 0 00 179 96

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	179 96	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
7337 07	0 00	179 96	7337 07	0 00	0 00	0 00	0 00	0 00	0 00	
8242 74	90 57	179.96	7910 00	-578 62	0 45	10.00	10 00	0.00	179 96	
12287 99	90 57	179 96	7870 00	-4623 68	3 60	0.00	0 00	0.00	0 00	Pbhl

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
7300 00	0 00	179 96	7300 00	0 00	0 00	0 00	0.00	595981 50	615034 46	KOP
7337 07	0 00	179 96	7337 07	0 00	0 00	0 00	0 00	595981 50	615034 46	
7400 00	6 29	179 96	7399 87	-3.45	0 00	3 45	10 00	595978 05	615034 46	
7500 00	16 29	179 96	7497 81	-23 01	0 02	23 01	10 00	595958 49	615034 48	
7600 00	26 29	179 96	7590 87	-59 28	0.05	59.28	10 00	595922.22	615034.51	
7700 00	36 29	179 96	7676 21	-111 15	0.09	111 15	10 00	595870 35	615034 55	LP
7800 00	46 29	179 96	7751 25	-177 06	0.14	177 06	10.00	595804 44	615034.60	
7900 00	56 29	179 96	7813.71	-254 99	0.20	254 99	10.00	595726 51	615034 66	
8000 00	66 29	179 96	7861 68	-342.59	0 27	342 59	10 00	595638 91	615034.73	
8100 00	76 29	179 96	7893 71	-437 19	0 34	437 19	10 00	595544 31	615034 80	
8200 00	86 29	179 96	7908 83	-535 91	0 42	535 91	10 00	595445 59	615034 88	
8242 74	90 57	179 96	7910 00	-578.62	0 45	578.62	10 00	595402 88	615034 91	
8300 00	90 57	179 96	7909 44	-635 88	0 50	635 88	0.00	595345 62	615034.96	
8400 00	90 57	179 96	7908 45	-735 88	0 57	735 88	0.00	595245.62	615035.03	
8500 00	90 57	179 96	7907 46	-835 87	0.65	835.87	0 00	595145 63	615035 11	
8600 00	90 57	179 96	7906.47	-935 87	0.73	935 87	0 00	595045.63	615035.19	
8700 00	90 57	179 96	7905 48	-1035 86	0.81	1035 86	0 00	594945 64	615035.27	



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WFT Plan Report - X & Y's



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Onyx PWU 29-1H
Well: Onyx PWU 29-1H
Wellpath: 1

Date: 9/2/2011
Co-ordinate(NE) Reference: Well: Onyx PWU 29-1H, Grd North
Vertical (TVD) Reference: SITE 3333.0
Section (VS) Reference: Well (0 00N,0.00E,179.96Azi)
Survey Calculation Method: Minimum Curvature

Page: 2
Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	MapN ft	MapE ft	Comment
8800.00	90.57	179.96	7904.49	-1135.86	0.88	1135.86	0.00	594845.64	615035.34	
8900.00	90.57	179.96	7903.50	-1235.85	0.96	1235.85	0.00	594745.65	615035.42	
9000.00	90.57	179.96	7902.51	-1335.85	1.04	1335.85	0.00	594645.65	615035.50	
9100.00	90.57	179.96	7901.53	-1435.84	1.12	1435.84	0.00	594545.66	615035.58	
9200.00	90.57	179.96	7900.54	-1535.84	1.20	1535.84	0.00	594445.66	615035.66	
9300.00	90.57	179.96	7899.55	-1635.83	1.27	1635.83	0.00	594345.67	615035.73	
9400.00	90.57	179.96	7898.56	-1735.83	1.35	1735.83	0.00	594245.67	615035.81	
9500.00	90.57	179.96	7897.57	-1835.82	1.43	1835.82	0.00	594145.68	615035.89	
9600.00	90.57	179.96	7896.58	-1935.82	1.51	1935.82	0.00	594045.68	615035.97	
9700.00	90.57	179.96	7895.59	-2035.81	1.59	2035.81	0.00	593945.69	615036.05	
9800.00	90.57	179.96	7894.60	-2135.81	1.66	2135.81	0.00	593845.69	615036.12	
9900.00	90.57	179.96	7893.61	-2235.80	1.74	2235.80	0.00	593745.70	615036.20	
10000.00	90.57	179.96	7892.63	-2335.80	1.82	2335.80	0.00	593645.70	615036.28	
10100.00	90.57	179.96	7891.64	-2435.79	1.90	2435.79	0.00	593545.71	615036.36	
10200.00	90.57	179.96	7890.65	-2535.79	1.97	2535.79	0.00	593445.71	615036.43	
10300.00	90.57	179.96	7889.66	-2635.78	2.05	2635.78	0.00	593345.72	615036.51	
10400.00	90.57	179.96	7888.67	-2735.78	2.13	2735.78	0.00	593245.72	615036.59	
10500.00	90.57	179.96	7887.68	-2835.77	2.21	2835.77	0.00	593145.73	615036.67	
10600.00	90.57	179.96	7886.69	-2935.77	2.29	2935.77	0.00	593045.73	615036.75	
10700.00	90.57	179.96	7885.70	-3035.76	2.36	3035.76	0.00	592945.74	615036.82	
10800.00	90.57	179.96	7884.71	-3135.76	2.44	3135.76	0.00	592845.74	615036.90	
10900.00	90.57	179.96	7883.73	-3235.75	2.52	3235.75	0.00	592745.75	615036.98	
11000.00	90.57	179.96	7882.74	-3335.75	2.60	3335.75	0.00	592645.75	615037.06	
11100.00	90.57	179.96	7881.75	-3435.74	2.68	3435.74	0.00	592545.76	615037.14	
11200.00	90.57	179.96	7880.76	-3535.74	2.75	3535.74	0.00	592445.76	615037.21	
11300.00	90.57	179.96	7879.77	-3635.73	2.83	3635.74	0.00	592345.77	615037.29	
11400.00	90.57	179.96	7878.78	-3735.73	2.91	3735.73	0.00	592245.77	615037.37	
11500.00	90.57	179.96	7877.79	-3835.72	2.99	3835.73	0.00	592145.78	615037.45	
11600.00	90.57	179.96	7876.80	-3935.72	3.06	3935.72	0.00	592045.78	615037.52	
11700.00	90.57	179.96	7875.81	-4035.71	3.14	4035.72	0.00	591945.79	615037.60	
11800.00	90.57	179.96	7874.83	-4135.71	3.22	4135.71	0.00	591845.79	615037.68	
11900.00	90.57	179.96	7873.84	-4235.70	3.30	4235.71	0.00	591745.80	615037.76	
12000.00	90.57	179.96	7872.85	-4335.70	3.38	4335.70	0.00	591645.80	615037.84	
12100.00	90.57	179.96	7871.86	-4435.69	3.45	4435.70	0.00	591545.81	615037.91	
12200.00	90.57	179.96	7870.87	-4535.69	3.53	4535.69	0.00	591445.81	615037.99	
12287.99	90.57	179.96	7870.00	-4623.68	3.60	4623.68	0.00	591357.82	615038.06	Pbhl

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec	<--- Longitude ---> Deg Min Sec
Pbhl			7870.00	-4623.68	3.60	591357.82	615038.06	32 37 31.660 N	104 5 38.203 W

Casing Points

MD	TVD	Diameter	Hole Size	Name



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WFT Plan Report - X & Y's



Company: Devon Energy	Date: 9/2/2011	Time: 11 22 51	Page: 3
Field: Eddy Co , NM (NAD 83)	Co-ordinate(NE) Reference:	Well: Onyx PWU 29-1H, Grid North	
Site: Onyx PWU 29-1H	Vertical (TVD) Reference:	SITE 3333.0	
Well: Onyx PWU 29-1H	Section (VS) Reference:	Well (0.00N,0.00E,179.96Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Annotation

MD ft	TVD ft	
7337.07	7337.07	KOP
8242.74	7910.00	LP
12287.99	7870.00	Pbhl

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: September 02, 2011
Job Number: _____
Customer: Devon Energy
Well Name: Onyx PWU 29-1H
API Number: _____
Rig Name: _____
Location: Eddy Co., NM (NAD 83)
Block: _____
Engineer: RWJ

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 595981.500 USFT	Latitude 32.6381736 DEG
East/West 615034.460 USFT	Longitude -104.0939192 DEG
Grid Convergence: .13°	
Total Correction: +7.63°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.63817° N	32° 38 min 17.425 sec
Longitude =	104.09392° W	104° 5 min 38.109 sec

Magnetic Declination =	7.76°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6660
Local Field Strength =	48746 nT	Magnetic Vector X = 23814 nT
Magnetic Dip =	60.46°	Magnetic Vector Y = 3244 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42409 nT
Spud Date =	Apr 15, 2012	Magnetic Vector H = 24034 nT

Signed: _____

Date: _____