

30-015-38475



Weatherford

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Drilling Services

Proposal



devon

DIAMOND PWU 22-2H

EDDY COUNTY, NM

WELL FILE: **PLAN 1**

February 18, 2011

Weatherford International, Ltd.

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SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	90.28	0.00	0.00	0.00	0.00	0.00	0.00	
2	7357.10	90.28	7357.10	7357.10	0.00	0.00	0.00	0.00	0.00	
3	8249.80	89.17	90.28	7930.00	-2.78	564.65	10.00	90.28	564.65	PBHL
4	12388.71	89.17	90.28	7930.00	-23.12	4704.08	0.00	0.00	4704.14	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
2H	0.00	0.00	599787.40	622258.59	37°38'54.905N	104°04'13.528W	N/A

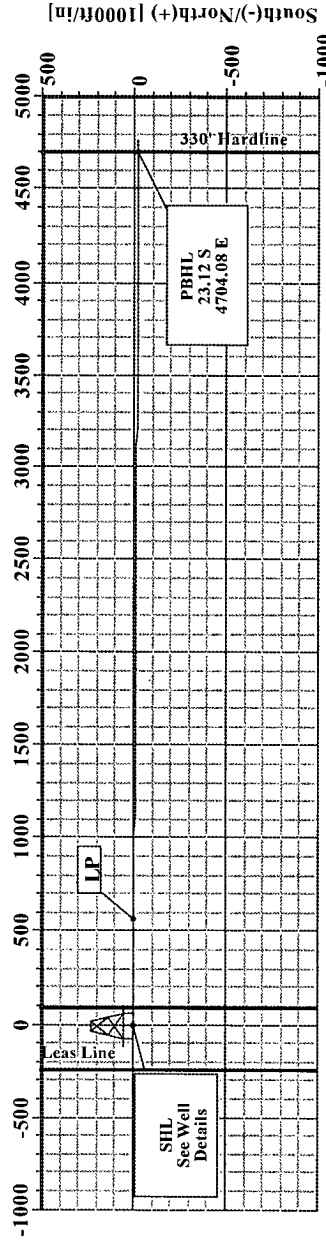
TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	7990.00	-23.12	4704.08	599764.28	626962.67	Point

KB ELEV: 3355
GL ELEV: 3330

0° 7357 MD Start Build 10.00

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



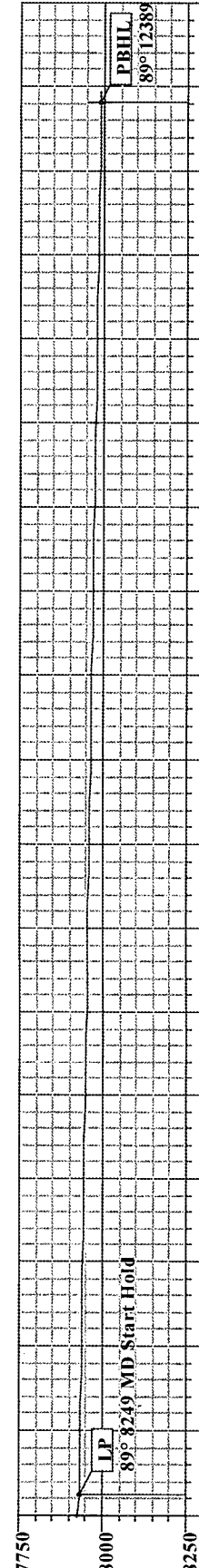
SITE DETAILS

Diamond PWU 22 2H
Site Centre Northing: 599787.40
Easting: 622258.59
Ground Level: 3330.00
Positional Uncertainty: 0.00
Convergence: 0.14



Vertical Section at 90.28° [200ft/in]

True Vertical Depth [500ft/in]

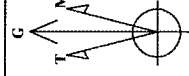


Vertical Section at 90.28° [500ft/in]

Plan: Plan #1 (2H/1)

Created By: Keith Noack

Date: 2/17/2011



Azimuths to Grid North
True North: -0.14°
Magnetic North: -7.68°
Magnetic Field
Strength: 48.81 μT
Declination: -60.49°
Date: 9/15/2011
Model: IGRF2010
Total Correction to Grid North: 7.68°

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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WFT Plan Report - X & Y's



Weatherford

Company: Devon Energy Date: 2/17/2011 Time: 14:56:02 Page: 1
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well: 2H, Grid North
Site: Diamond PWU 22 2H Vertical (TVD) Reference: SITE 3355.0
Well: 2H Section (VS) Reference: Well (0.00N,0.00E,90.28Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #1 Date Composed: 2/17/2011
Principal: Yes Version: 1
Tied-to: From Surface

Field: Eddy Co., NM (NAD 83)

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Well Centre
Geomagnetic Model: IGRF2010

Site: Diamond PWU 22 2H

Site Position: Northing: 599787.40 ft Latitude: 32 38 54.905 N
From: Map Easting: 622258.59 ft Longitude: 104 4 13.528 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3330.00 ft Grid Convergence: 0.14 deg

Well: 2H Slot Name:
Well Position: +N/-S 0.00 ft Northing: 599787.40 ft Latitude: 32 38 54.905 N
+E/-W 0.00 ft Easting: 622258.59 ft Longitude: 104 4 13.528 W
Position Uncertainty: 0.00 ft

Wellpath: 1 Drilled From: Surface
Current Datum: SITE Height 3355.00 ft Tie-on Depth: 0.00 ft
Magnetic Data: 9/15/2011 Above System Datum: Mean Sea Level
Field Strength: 48817 nT Declination: 7.82 deg
Vertical Section: Depth From (TVD) +N/-S +E/-W Mag Dip Angle: 60.49 deg
ft ft ft deg
7990.00 0.00 0.00 90.28

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	90.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7357.10	0.00	90.28	7357.10	0.00	0.00	0.00	0.00	0.00	0.00	
8248.80	89.17	90.28	7930.00	-2.78	564.65	10.00	10.00	0.00	90.28	
12388.71	89.17	90.28	7990.00	-23.12	4704.08	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	90.28	7300.00	0.00	0.00	0.00	0.00	599787.40	622258.59	
7357.10	0.00	90.28	7357.10	0.00	0.00	0.00	0.00	599787.40	622258.59	KOP
7400.00	4.29	90.28	7399.96	-0.01	1.61	1.61	10.00	599787.39	622260.20	
7500.00	14.29	90.28	7498.52	-0.09	17.73	17.73	10.00	599787.31	622276.32	
7600.00	24.29	90.28	7592.79	-0.25	50.72	50.72	10.00	599787.15	622309.31	
7700.00	34.29	90.28	7679.89	-0.49	99.58	99.58	10.00	599786.91	622358.17	
7800.00	44.29	90.28	7757.19	-0.80	162.82	162.83	10.00	599786.60	622421.41	
7900.00	54.29	90.28	7822.33	-1.17	238.53	238.53	10.00	599786.23	622497.12	
8000.00	64.29	90.28	7873.34	-1.59	324.40	324.40	10.00	599785.81	622582.99	
8100.00	74.29	90.28	7908.65	-2.05	417.81	417.82	10.00	599785.35	622676.40	
8200.00	84.29	90.28	7927.21	-2.54	515.95	515.95	10.00	599784.86	622774.54	
8248.80	89.17	90.28	7930.00	-2.78	564.65	564.65	10.00	599784.62	622823.24	LP
8300.00	89.17	90.28	7930.74	-3.03	615.85	615.85	0.00	599784.37	622874.44	
8400.00	89.17	90.28	7932.19	-3.52	715.83	715.84	0.00	599783.88	622974.42	
8500.00	89.17	90.28	7933.64	-4.01	815.82	815.83	0.00	599783.39	623074.41	
8600.00	89.17	90.28	7935.09	-4.50	915.81	915.82	0.00	599782.90	623174.40	
8700.00	89.17	90.28	7936.54	-4.99	1015.80	1015.81	0.00	599782.41	623274.39	



Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Diamond PWU 22 2H
Well: 2H
Wellpath: 1

Date: 2/17/2011 Time: 14:56:02 Page: 2
Co-ordinate(NE) Reference: Well: 2H, Grid North
Vertical (TVD) Reference: SITE 3355.0
Section (VS) Reference: Well (0.00N,0.00E,90.28Azi)
Survey Calculation Method: Minimum Curvature 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	89.17	90.28	7937.99	-5.48	1115.79	1115.80	0.00	599781.92	623374.38	
8900.00	89.17	90.28	7939.44	-5.98	1215.78	1215.79	0.00	599781.42	623474.37	
9000.00	89.17	90.28	7940.89	-6.47	1315.76	1315.78	0.00	599780.93	623574.35	
9100.00	89.17	90.28	7942.33	-6.96	1415.75	1415.77	0.00	599780.44	623674.34	
9200.00	89.17	90.28	7943.78	-7.45	1515.74	1515.76	0.00	599779.95	623774.33	
9300.00	89.17	90.28	7945.23	-7.94	1615.73	1615.75	0.00	599779.46	623874.32	
9400.00	89.17	90.28	7946.68	-8.43	1715.72	1715.74	0.00	599778.97	623974.31	
9500.00	89.17	90.28	7948.13	-8.92	1815.70	1815.73	0.00	599778.48	624074.29	
9600.00	89.17	90.28	7949.58	-9.42	1915.69	1915.72	0.00	599777.98	624174.28	
9700.00	89.17	90.28	7951.03	-9.91	2015.68	2015.71	0.00	599777.49	624274.27	
9800.00	89.17	90.28	7952.48	-10.40	2115.67	2115.70	0.00	599777.00	624374.26	
9900.00	89.17	90.28	7953.93	-10.89	2215.66	2215.68	0.00	599776.51	624474.25	
10000.00	89.17	90.28	7955.38	-11.38	2315.65	2315.67	0.00	599776.02	624574.24	
10100.00	89.17	90.28	7956.83	-11.87	2415.63	2415.66	0.00	599775.53	624674.22	
10200.00	89.17	90.28	7958.28	-12.36	2515.62	2515.65	0.00	599775.04	624774.21	
10300.00	89.17	90.28	7959.73	-12.86	2615.61	2615.64	0.00	599774.54	624874.20	
10400.00	89.17	90.28	7961.18	-13.35	2715.60	2715.63	0.00	599774.05	624974.19	
10500.00	89.17	90.28	7962.63	-13.84	2815.59	2815.62	0.00	599773.56	625074.18	
10600.00	89.17	90.28	7964.08	-14.33	2915.58	2915.61	0.00	599773.07	625174.17	
10700.00	89.17	90.28	7965.52	-14.82	3015.56	3015.60	0.00	599772.58	625274.15	
10800.00	89.17	90.28	7966.97	-15.31	3115.55	3115.59	0.00	599772.09	625374.14	
10900.00	89.17	90.28	7968.42	-15.80	3215.54	3215.58	0.00	599771.60	625474.13	
11000.00	89.17	90.28	7969.87	-16.30	3315.53	3315.57	0.00	599771.10	625574.12	
11100.00	89.17	90.28	7971.32	-16.79	3415.52	3415.56	0.00	599770.61	625674.11	
11200.00	89.17	90.28	7972.77	-17.28	3515.51	3515.55	0.00	599770.12	625774.10	
11300.00	89.17	90.28	7974.22	-17.77	3615.49	3615.54	0.00	599769.63	625874.08	
11400.00	89.17	90.28	7975.67	-18.26	3715.48	3715.53	0.00	599769.14	625974.07	
11500.00	89.17	90.28	7977.12	-18.75	3815.47	3815.52	0.00	599768.65	626074.06	
11600.00	89.17	90.28	7978.57	-19.24	3915.46	3915.51	0.00	599768.16	626174.05	
11700.00	89.17	90.28	7980.02	-19.74	4015.45	4015.50	0.00	599767.66	626274.04	
11800.00	89.17	90.28	7981.47	-20.23	4115.44	4115.49	0.00	599767.17	626374.03	
11900.00	89.17	90.28	7982.92	-20.72	4215.42	4215.47	0.00	599766.68	626474.01	
12000.00	89.17	90.28	7984.37	-21.21	4315.41	4315.46	0.00	599766.19	626574.00	
12100.00	89.17	90.28	7985.82	-21.70	4415.40	4415.45	0.00	599765.70	626673.99	
12200.00	89.17	90.28	7987.26	-22.19	4515.39	4515.44	0.00	599765.21	626773.98	
12300.00	89.17	90.28	7988.71	-22.68	4615.38	4615.43	0.00	599764.72	626873.97	
12388.71	89.17	90.28	7990.00	-23.12	4704.08	4704.14	0.00	599764.28	626962.67	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			7990.00	-23.12	4704.08	599764.28	626962.67	32	38	54.557 N	104	3	18.508 W

Casing Points

MD	TVD	Diameter	Hole Size	Name



Weatherford International Ltd.

WFT Plan Report - X & Y's



Weatherford

Company:	Devon Energy	Date:	2/17/2011	Time:	14:56:02	Page:	3
Field:	Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference:	Well: 2H, Grid North				
Site:	Diamond PWU 22 2H	Vertical (TVD) Reference:	SITE 3355.0				
Well:	2H	Section (VS) Reference:	Well (0.00N;0.00E,90.28Azi)				
Wellpath:	1	Survey Calculation Method:	Minimum Curvature	Db:	Sybase		

Annotation

MD ft	TVD ft	
7357.10	7357.10	KOP
8248.80	7930.00	LP
12388.71	7990.00	PBHL

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

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

GeoDec v5.03

Report Date: February 18, 2011

Job Number: _____

Customer: Devon Energy

Well Name: Diamon PWU 22-2H

API Number: _____

Rig Name: _____

Location: Eddy Co., NM

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 599787.400 USFT

Latitude 32.6485880 DEG

East/West 622258.590 USFT

Longitude -104.0704203 DEG

Grid Convergence: .14°

Total Correction: +7.68°

Geodetic Location WGS84

Elevation = 0.0 Meters

Latitude = 32.64859° N 32° 38 min 54.917 sec

Longitude = 104.07042° W 104° 4 min 13.513 sec

Magnetic Declination = 7.82° [True North Offset]

Local Gravity = .9988 g CheckSum = 6734

Local Field Strength = 48813 nT Magnetic Vector X = 23823 nT

Magnetic Dip = 60.49° Magnetic Vector Y = 3271 nT

Magnetic Model = IGRF-2010g11 Magnetic Vector Z = 42479 nT

Spud Date = Sep 15, 2011 Magnetic Vector H = 24046 nT

Signed: _____

Date: _____