



Agate PWU 21 #5H Eddy Co, NM

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	86.86	0.00	0.00	0.00	0.00	0.00	0.00	
2	6352.12	0.00	86.86	6352.12	0.00	0.00	0.00	0.00	0.00	
3	7242.82	89.07	86.86	6925.00	30.92	562.81	10.00	86.86	563.66	
4	11310.05	89.07	86.86	6991.00	254.00	4623.38	0.00	0.00	4630.35	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
PWU 21 #5H	0.00	0.00	600344.08	617059.34	32°39'00.537N	104°05'14.325W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	6991.00	254.00	4623.38	600598.08	621682.72	Point

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

SITE DETAILS

Agate PWU 21 #5H

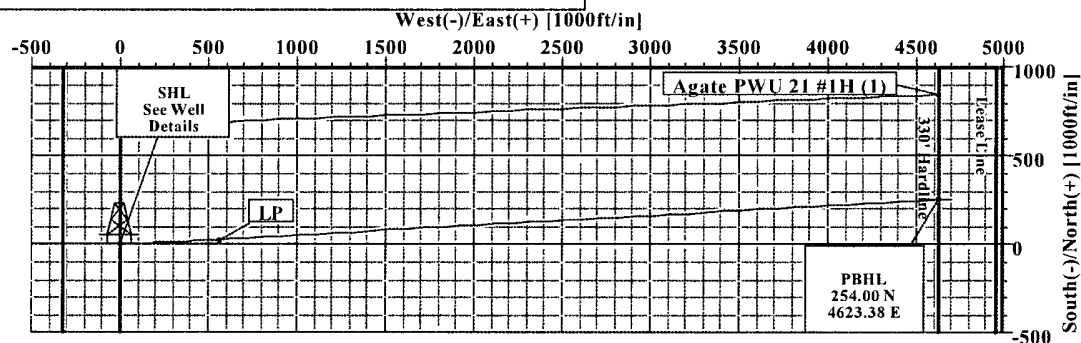
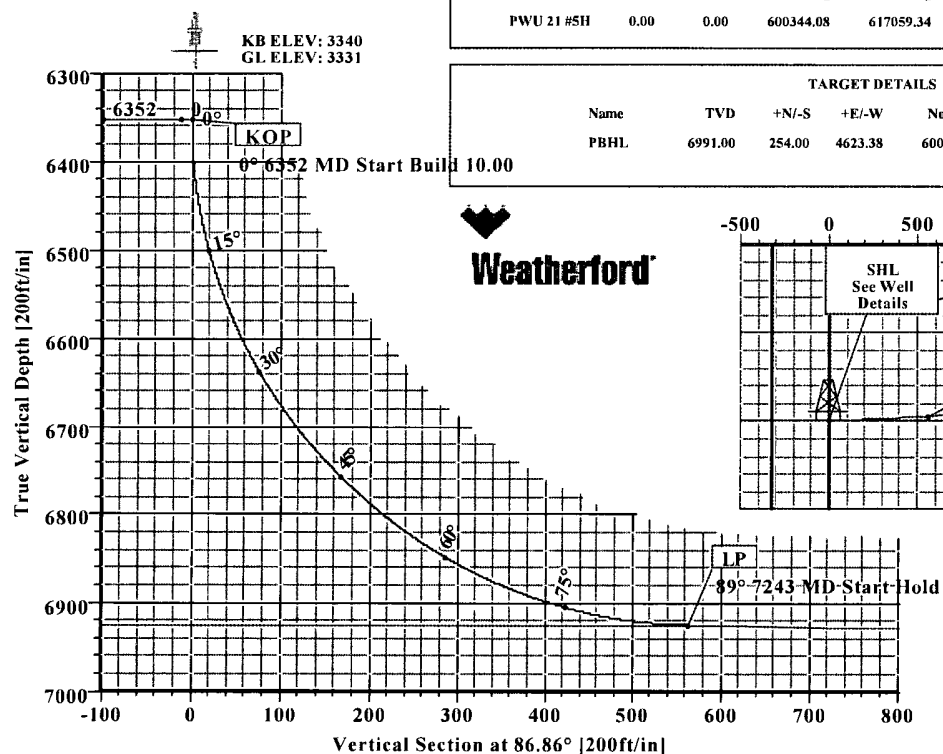
Site Centre Northing: 600344.08

Easting: 617059.34

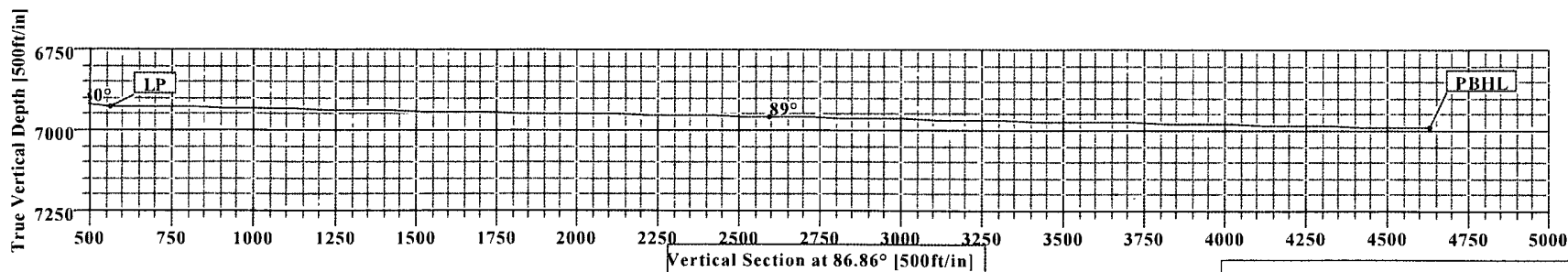
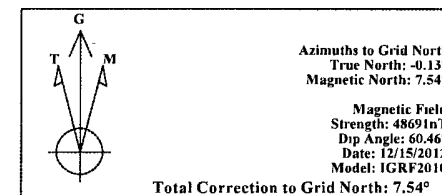
Ground Level: 3322.00

Positional Uncertainty: 0.00

Convergence: 0.13



LEGEND	
	Agate PWU 21 #1H (1)
	Plan #1



Plan: Plan #1 (PWU 21 #5H/1)
Created By: Russell W. Joyner
Date: 7/2/2012

15-40590



Weatherford®

Drilling Services

Proposal



devon

AGATE PWU 21 #5H

EDDY COUNTY, NM

WELL FILE: **PLAN 1**

JULY 2, 2012

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WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy Date: 7/2/2012 Time: 09 13 16 Page: 1
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well. PWU 21 #5H, Gnd North
Site: Agate PWU 21 #5H Vertical (TVD) Reference: SITE 3341 0
Well: PWU 21 #5H Section (VS) Reference: Well (0 00N,0 00E,86.86Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #1 Date Composed: 7/2/2012
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: Agate PWU 21 #5H

Site Position: Northing: 600344.08 ft Latitude: 32 39 0 537 N
From: Map Easting: 617059.34 ft Longitude: 104 5 14 325 W
Position Uncertainty: 0 00 ft North Reference: Gnd
Ground Level: 3322 00 ft Grid Convergence: 0 13 deg

Well: PWU 21 #5H Slot Name:
Well Position: +N/-S 0.00 ft Northing: 600344.08 ft Latitude: 32 39 0 537 N
+E/-W 0.00 ft Easting: 617059.34 ft Longitude: 104 5 14 325 W
Position Uncertainty: 0.00 ft

Wellpath: 1 Drilled From: Surface
Current Datum: SITE Height 3341.00 ft Tie-on Depth: 0 00 ft
Magnetic Data: 12/15/2012 Above System Datum: Mean Sea Level
Field Strength: 48691 nT Declination: 7 67 deg
Vertical Section: Depth From (TVD) +N/-S Mag Dip Angle: 60 46 deg
ft ft ft deg
0 00 0 00 0 00 86 86

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	86 86	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
6352 12	0 00	86 86	6352 12	0 00	0 00	0 00	0 00	0 00	0 00	
7242 82	89 07	86 86	6925 00	30 92	562 81	10 00	10 00	0 00	86 86	
11310 05	89.07	86.86	6991 00	254.00	4623 38	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
6300 00	0 00	86.86	6300 00	0 00	0 00	0 00	0 00	600344 08	617059.34	
6352.12	0 00	86 86	6352.12	0 00	0 00	0 00	0 00	600344 08	617059 34	KOP
6400 00	4 79	86 86	6399 94	0 11	2 00	2 00	10.00	600344.19	617061 34	
6450.00	9 79	86.86	6449 52	0 46	8 33	8 34	10.00	600344 54	617067 67	
6500.00	14 79	86.86	6498 36	1 04	18.95	18.98	10 00	600345 12	617078 29	
6550 00	19 79	86.86	6546 09	1 86	33.78	33.83	10 00	600345.94	617093 12	
6600 00	24 79	86 86	6592 34	2 90	52 71	52 79	10 00	600346.98	617112 05	
6650 00	29 79	86 86	6636 76	4 15	75 59	75 71	10 00	600348 23	617134 93	
6700 00	34 79	86.86	6679 02	5 62	102 25	102 41	10 00	600349 70	617161 59	
6750 00	39 79	86.86	6718 78	7 28	132 49	132 69	10 00	600351 36	617191.83	
6800 00	44 79	86.86	6755 76	9 12	166 07	166 32	10 00	600353 20	617225.41	
6850 00	49 79	86.86	6789 67	11 14	202.74	203 05	10 00	600355 22	617262.08	
6900 00	54 79	86.86	6820.24	13 31	242 22	242 59	10 00	600357 39	617301 56	
6950 00	59 79	86 86	6847 25	15 61	284 22	284 64	10.00	600359 69	617343 56	
7000 00	64 79	86 86	6870 50	18 04	328 40	328 90	10.00	600362.12	617387 74	
7050 00	69 79	86 86	6889 80	20 57	374 44	375 00	10.00	600364.65	617433 78	
7100 00	74 79	86 86	6905 00	23 18	421 98	422 62	10 00	600367.26	617481 32	



Weatherford WFT Plan Report - X & Y's



Company: Devon Energy
Field: Eddy Co., NM (NAD 83)
Site: Agate PWU 21 #5H
Well: PWU 21 #5H
Wellpath: 1

Date: 7/2/2012 Time: 09 13 16 Page: 2
Co-ordinate(NE) Reference: Well PWU 21 #5H, Grd North
Vertical (TVD) Reference: SITE 3341 0
Section (VS) Reference: Well (0.00N,0.00E,86 86Azi)
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
7150.00	79.79	86.86	6916.00	25.86	470.67	471.38	10.00	600369.94	617530.01	
7200.00	84.79	86.86	6922.71	28.57	520.13	520.91	10.00	600372.65	617579.47	
7242.82	89.07	86.86	6925.00	30.92	562.81	563.66	10.00	600375.00	617622.15	LP
7300.00	89.07	86.86	6925.93	34.06	619.90	620.83	0.00	600378.14	617679.24	
7400.00	89.07	86.86	6927.55	39.54	719.73	720.82	0.00	600383.62	617779.07	
7500.00	89.07	86.86	6929.18	45.03	819.57	820.80	0.00	600389.11	617878.91	
7600.00	89.07	86.86	6930.80	50.51	919.40	920.79	0.00	600394.59	617978.74	
7700.00	89.07	86.86	6932.42	56.00	1019.24	1020.78	0.00	600400.08	618078.58	
7800.00	89.07	86.86	6934.04	61.48	1119.08	1120.76	0.00	600405.56	618178.42	
7900.00	89.07	86.86	6935.67	66.96	1218.91	1220.75	0.00	600411.04	618278.25	
8000.00	89.07	86.86	6937.29	72.45	1318.75	1320.74	0.00	600416.53	618378.09	
8100.00	89.07	86.86	6938.91	77.93	1418.59	1420.73	0.00	600422.01	618477.93	
8200.00	89.07	86.86	6940.53	83.42	1518.42	1520.71	0.00	600427.50	618577.76	
8300.00	89.07	86.86	6942.16	88.90	1618.26	1620.70	0.00	600432.98	618677.60	
8400.00	89.07	86.86	6943.78	94.39	1718.10	1720.69	0.00	600438.47	618777.44	
8500.00	89.07	86.86	6945.40	99.87	1817.93	1820.67	0.00	600443.95	618877.27	
8600.00	89.07	86.86	6947.02	105.36	1917.77	1920.66	0.00	600449.44	618977.11	
8700.00	89.07	86.86	6948.65	110.84	2017.60	2020.65	0.00	600454.92	619076.94	
8800.00	89.07	86.86	6950.27	116.33	2117.44	2120.63	0.00	600460.41	619176.78	
8900.00	89.07	86.86	6951.89	121.81	2217.28	2220.62	0.00	600465.89	619276.62	
9000.00	89.07	86.86	6953.52	127.30	2317.11	2320.61	0.00	600471.38	619376.45	
9100.00	89.07	86.86	6955.14	132.78	2416.95	2420.59	0.00	600476.86	619476.29	
9200.00	89.07	86.86	6956.76	138.27	2516.79	2520.58	0.00	600482.35	619576.13	
9300.00	89.07	86.86	6958.38	143.75	2616.62	2620.57	0.00	600487.83	619675.96	
9400.00	89.07	86.86	6960.01	149.24	2716.46	2720.55	0.00	600493.32	619775.80	
9500.00	89.07	86.86	6961.63	154.72	2816.29	2820.54	0.00	600498.80	619875.63	
9600.00	89.07	86.86	6963.25	160.21	2916.13	2920.53	0.00	600504.29	619975.47	
9700.00	89.07	86.86	6964.87	165.69	3015.97	3020.51	0.00	600509.77	620075.31	
9800.00	89.07	86.86	6966.50	171.18	3115.80	3120.50	0.00	600515.26	620175.14	
9900.00	89.07	86.86	6968.12	176.66	3215.64	3220.49	0.00	600520.74	620274.98	
10000.00	89.07	86.86	6969.74	182.15	3315.48	3320.48	0.00	600526.23	620374.82	
10100.00	89.07	86.86	6971.36	187.63	3415.31	3420.46	0.00	600531.71	620474.65	
10200.00	89.07	86.86	6972.99	193.12	3515.15	3520.45	0.00	600537.20	620574.49	
10300.00	89.07	86.86	6974.61	198.60	3614.98	3620.44	0.00	600542.68	620674.32	
10400.00	89.07	86.86	6976.23	204.09	3714.82	3720.42	0.00	600548.17	620774.16	
10500.00	89.07	86.86	6977.86	209.57	3814.66	3820.41	0.00	600553.65	620874.00	
10600.00	89.07	86.86	6979.48	215.06	3914.49	3920.40	0.00	600559.14	620973.83	
10700.00	89.07	86.86	6981.10	220.54	4014.33	4020.38	0.00	600564.62	621073.67	
10800.00	89.07	86.86	6982.72	226.02	4114.17	4120.37	0.00	600570.10	621173.51	
10900.00	89.07	86.86	6984.35	231.51	4214.00	4220.36	0.00	600575.59	621273.34	
11000.00	89.07	86.86	6985.97	236.99	4313.84	4320.34	0.00	600581.07	621373.18	
11100.00	89.07	86.86	6987.59	242.48	4413.67	4420.33	0.00	600586.56	621473.01	
11200.00	89.07	86.86	6989.21	247.96	4513.51	4520.32	0.00	600592.04	621572.85	
11300.00	89.07	86.86	6990.84	253.45	4613.35	4620.30	0.00	600597.53	621672.69	
11310.05	89.07	86.86	6991.00	254.00	4623.38	4630.35	0.00	600598.08	621682.72	PBHL

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->		
PBHL			6991.00	254.00	4623.38	600598.08	621682.72	32	39	2 941 N	104	4 20	240 W



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WFT Plan Report - X & Y's



Company: Devon Energy	Date: 7/2/2012	Time: 09.13.16	Page: 3
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference: Well: PWU 21 #5H, Grid North		
Site: Agate PWU 21 #5H	Vertical (TVD) Reference: SITE 3341.0		
Well: PWU 21 #5H	Section (VS) Reference: Well (0.00N,0.00E,86.86Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature Db: Sybase		

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
6352.12	6352.12	KOP
7242.82	6925.00	LP
11310.04	6991.00	PBHL

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

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

GeoDec v5.03

Report Date: July 02, 2012
Job Number: _____
Customer: Devon Energy
Well Name: Agate PWU 21 #5H
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 600344.080 USFT	Latitude 32.6501523 DEG
East/West 617059.340 USFT	Longitude -104.0873084 DEG
Grid Convergence: .13°	
Total Correction: +7.54°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.65015° N	32° 39 min .548 sec
Longitude =	104.08731° W	104° 5 min 14.310 sec

Magnetic Declination =	7.67°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6679
Local Field Strength =	48687 nT	Magnetic Vector X = 23793 nT
Magnetic Dip =	60.46°	Magnetic Vector Y = 3206 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42356 nT
Spud Date =	Dec 15, 2012	Magnetic Vector H = 24008 nT

Signed: _____

Date: _____