



Weatherford®

Drilling Services

30-015-39374

Proposal


devon

AGATE PWU21 #3H

EDDY COUNTY, NM

WELL FILE: **PLAN 1**

AUGUST 30, 2011

Weatherford International, Ltd.

P.O. Box 61028

Midland, TX 79711 USA

+1.432.561.8892 Main

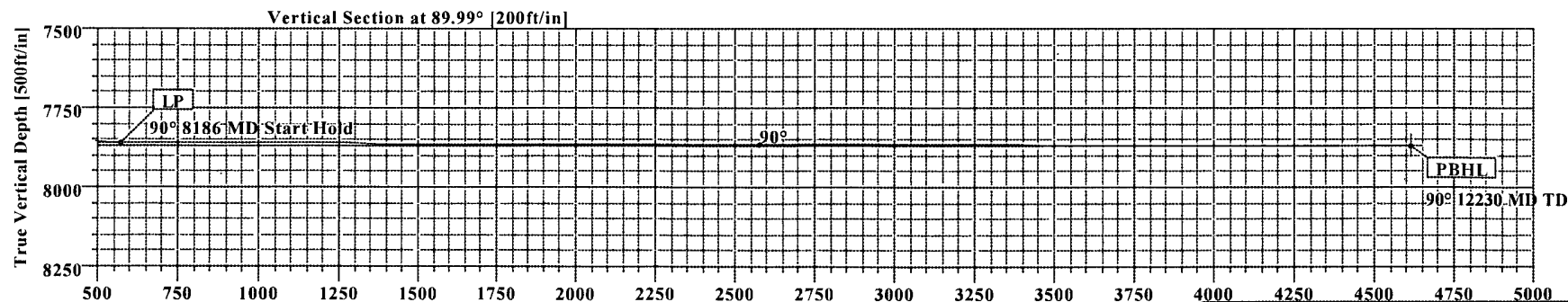
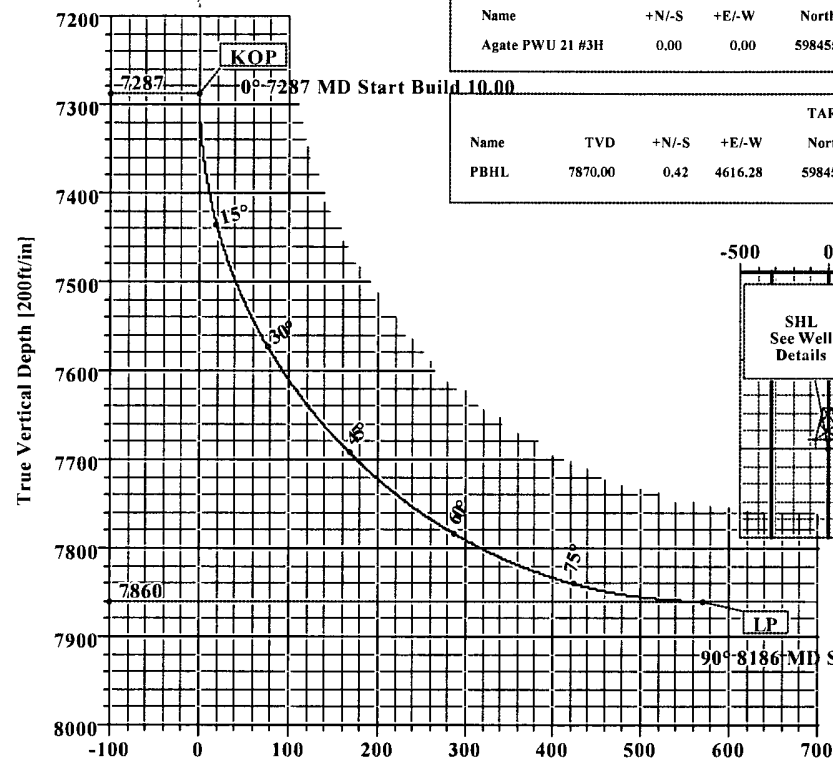
+1.432.561.8895 Fax

www.weatherford.com



Agate PWU 21 #3H
Eddy Co, NM

KB ELEV: 3343
GL ELEV: 3318



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	89.99	0.00	0.00	0.00	0.00	0.00	0.00	
2	7287.05	0.00	89.99	7287.05	0.00	0.00	0.00	0.00	0.00	
3	8185.63	89.86	89.99	7860.00	0.05	571.54	10.00	89.99	571.54	
4	12230.38	89.86	89.99	7870.00	0.42	4616.28	0.00	0.00	4616.28	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Agate PWU 21 #3H	0.00	0.00	598455.25	617058.94	32°38'41.846N	104°05'14.381W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7870.00	0.42	4616.28	598455.67	621675.22	32°38'41.741N	104°04'20.389W	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

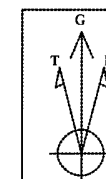
System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

Agate PWU 21 #3H

Site Centre Northing: 598455.25
Easting: 617058.94

Ground Level: 3318.00
Positional Uncertainty: 0.00
Convergence: 0.13



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

Magnetic Field
Strength: 48763nT
Dip Angle: 60.47°
Date: 3/15/2012
Model: IGRF2010

Total Correction to Grid North: 7.63°

Vertical Section at 89.99° [500ft/in]

Plan: Plan #1 (Agate PWU 21 #3H/I)

Created By: Keith Noack

Date: 8/30/2011



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WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy	Date: 8/30/2011	Time: 14:12:55	Page: 1
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference:	Well: Agate PWU 21 #3H, Grid North	
Site: Agate PWU 21 #3H	Vertical (TVD) Reference:	SITE 3343 0	
Well: Agate PWU 21 #3H	Section (VS) Reference:	Well (0 00N,0.00E,89 99Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Plan: Plan #1	Date Composed: 8/30/2011
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: Agate PWU 21 #3H

Site Position:	Northing: 598455 25 ft	Latitude: 32 38 41 846 N
From: Map	Easting: 617058 94 ft	Longitude: 104 5 14 381 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 3318 00 ft		Grid Convergence: 0.13 deg

Well: Agate PWU 21 #3H	Slot Name:	
Well Position: +N/-S 0 00 ft	Northing: 598455 25 ft	Latitude: 32 38 41 846 N
+E/-W 0 00 ft	Easting: 617058 94 ft	Longitude: 104 5 14 381 W
Position Uncertainty: 0 00 ft		

Wellpath: 1	Drilled From: Surface		
Current Datum: SITE	Tie-on Depth: 0 00 ft		
Magnetic Data: 3/15/2012	Above System Datum: Mean Sea Level		
Field Strength: 48763 nT	Declination: 7 76 deg		
Vertical Section: Depth From (TVD)	Mag Dip Angle: 60.47 deg		
ft	+N/-S	+E/-W	Direction
	ft	ft	deg
0.00	0 00	0 00	89.99

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	89.99	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
7287.05	0.00	89.99	7287 05	0 00	0 00	0 00	0 00	0 00	0 00	
8185.63	89.86	89.99	7860.00	0.05	571 54	10.00	10.00	0.00	89 99	
12230.38	89.86	89 99	7870.00	0.42	4616 28	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
7200.00	0.00	89 99	7200 00	0 00	0 00	0 00	0 00	598455.25	617058 94	KOP
7287.05	0.00	89 99	7287 05	0 00	0 00	0 00	0 00	598455.25	617058 94	
7300 00	1.30	89.99	7300 00	0 00	0 15	0.15	10 00	598455.25	617059 09	
7400 00	11 30	89.99	7399.27	0 00	11 10	11 10	10.00	598455.25	617070 04	
7500 00	21 30	89 99	7495.13	0.00	39.12	39 12	10.00	598455 25	617098 06	
7600 00	31 30	89.99	7584 67	0.01	83 36	83.36	10 00	598455 26	617142 30	LP
7700 00	41 30	89 99	7665 16	0.01	142 48	142.48	10 00	598455 26	617201.42	
7800.00	51.30	89 99	7734 17	0 02	214 68	214.68	10 00	598455 27	617273 62	
7900 00	61.30	89 99	7789.59	0 03	297 77	297 77	10 00	598455 28	617356 71	
8000 00	71.30	89 99	7829 74	0 04	389 21	389.21	10.00	598455 29	617448.15	
8100 00	81.30	89.99	7853 41	0 04	486 24	486.24	10.00	598455.29	617545 18	
8185 63	89.86	89 99	7860 00	0 05	571 54	571.54	10 00	598455.30	617630 48	
8200.00	89 86	89 99	7860.04	0.05	585 91	585 91	0 00	598455 30	617644.85	
8300.00	89.86	89 99	7860.29	0.06	685.91	685.91	0 00	598455 31	617744 85	
8400 00	89 86	89 99	7860 53	0.07	785.91	785.91	0 00	598455 32	617844 85	
8500 00	89 86	89 99	7860 78	0 08	885 91	885.91	0.00	598455 33	617944.85	
8600.00	89 86	89 99	7861 03	0 09	985 91	985 91	0 00	598455 34	618044.85	



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WFT Plan Report - X & Y's

**Weatherford**

Company: Devon Energy	Date: 8/30/2011	Time: 14 12:55	Page: 2
Field: Eddy Co , NM (NAD 83)	Co-ordinate(NE) Reference: Well Agate PWU 21 #3H, Grnd North		
Site: Agate PWU 21 #3H	Vertical (TVD) Reference: SITE 3343 0		
Well: Agate PWU 21 #3H	Section (VS) Reference: Well (0 00N,0 00E,89 99Azi)		
Wellpath: 1	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
8700.00	89.86	89.99	7861.28	0.10	1085.91	1085.91	0.00	598455.35	618144.85	
8800.00	89.86	89.99	7861.52	0.11	1185.91	1185.91	0.00	598455.36	618244.85	
8900.00	89.86	89.99	7861.77	0.12	1285.91	1285.91	0.00	598455.37	618344.85	
9000.00	89.86	89.99	7862.02	0.13	1385.91	1385.91	0.00	598455.38	618444.85	
9100.00	89.86	89.99	7862.26	0.14	1485.91	1485.91	0.00	598455.39	618544.85	
9200.00	89.86	89.99	7862.51	0.14	1585.91	1585.91	0.00	598455.39	618644.85	
9300.00	89.86	89.99	7862.76	0.15	1685.91	1685.91	0.00	598455.40	618744.85	
9400.00	89.86	89.99	7863.01	0.16	1785.91	1785.91	0.00	598455.41	618844.85	
9500.00	89.86	89.99	7863.25	0.17	1885.91	1885.91	0.00	598455.42	618944.85	
9600.00	89.86	89.99	7863.50	0.18	1985.91	1985.91	0.00	598455.43	619044.85	
9700.00	89.86	89.99	7863.75	0.19	2085.91	2085.91	0.00	598455.44	619144.85	
9800.00	89.86	89.99	7863.99	0.20	2185.91	2185.91	0.00	598455.45	619244.85	
9900.00	89.86	89.99	7864.24	0.21	2285.90	2285.90	0.00	598455.46	619344.84	
10000.00	89.86	89.99	7864.49	0.22	2385.90	2385.90	0.00	598455.47	619444.84	
10100.00	89.86	89.99	7864.73	0.23	2485.90	2485.90	0.00	598455.48	619544.84	
10200.00	89.86	89.99	7864.98	0.24	2585.90	2585.90	0.00	598455.49	619644.84	
10300.00	89.86	89.99	7865.23	0.24	2685.90	2685.90	0.00	598455.49	619744.84	
10400.00	89.86	89.99	7865.48	0.25	2785.90	2785.90	0.00	598455.50	619844.84	
10500.00	89.86	89.99	7865.72	0.26	2885.90	2885.90	0.00	598455.51	619944.84	
10600.00	89.86	89.99	7865.97	0.27	2985.90	2985.90	0.00	598455.52	620044.84	
10700.00	89.86	89.99	7866.22	0.28	3085.90	3085.90	0.00	598455.53	620144.84	
10800.00	89.86	89.99	7866.46	0.29	3185.90	3185.90	0.00	598455.54	620244.84	
10900.00	89.86	89.99	7866.71	0.30	3285.90	3285.90	0.00	598455.55	620344.84	
11000.00	89.86	89.99	7866.96	0.31	3385.90	3385.90	0.00	598455.56	620444.84	
11100.00	89.86	89.99	7867.21	0.32	3485.90	3485.90	0.00	598455.57	620544.84	
11200.00	89.86	89.99	7867.45	0.33	3585.90	3585.90	0.00	598455.58	620644.84	
11300.00	89.86	89.99	7867.70	0.34	3685.90	3685.90	0.00	598455.59	620744.84	
11400.00	89.86	89.99	7867.95	0.34	3785.90	3785.90	0.00	598455.59	620844.84	
11500.00	89.86	89.99	7868.19	0.35	3885.90	3885.90	0.00	598455.60	620944.84	
11600.00	89.86	89.99	7868.44	0.36	3985.90	3985.90	0.00	598455.61	621044.84	
11700.00	89.86	89.99	7868.69	0.37	4085.90	4085.90	0.00	598455.62	621144.84	
11800.00	89.86	89.99	7868.94	0.38	4185.90	4185.90	0.00	598455.63	621244.84	
11900.00	89.86	89.99	7869.18	0.39	4285.90	4285.90	0.00	598455.64	621344.84	
12000.00	89.86	89.99	7869.43	0.40	4385.90	4385.90	0.00	598455.65	621444.84	
12100.00	89.86	89.99	7869.68	0.41	4485.90	4485.90	0.00	598455.66	621544.84	
12200.00	89.86	89.99	7869.92	0.42	4585.90	4585.90	0.00	598455.67	621644.84	
12230.38	89.86	89.99	7870.00	0.42	4616.28	4616.28	0.00	598455.67	621675.22	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	0.42	4616.28	598455.67	621675.22	32	38	41.741 N	104	4	20.389 W

Casing Points

MD	TVD	Diameter	Hole Size	Name



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WFT Plan Report - X & Y's



Company:	Devon Energy	Date:	8/30/2011	Time:	14 12:55	Page:	3
Field:	Eddy Co , NM (NAD 83)	Co-ordinate(NE) Reference:	Well: Agate PWU 21 #3H, Grid North				
Site:	Agate PWU 21 #3H	Vertical (TVD) Reference:	SITE 3343 0				
Well:	Agate PWU 21 #3H	Section (VS) Reference:	Well (0.00N,0 00E,89.99Azi)				
Wellpath:	1	Survey Calculation Method:	Minimum Curvature	Db:	Sybase		

Annotation

MD ft	TVD ft	
7287.05	7287.05	KOP
8185.63	7860.00	LP
12230.38	7870.00	PBHL

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

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

GeoDec v5.03

Report Date: August 30, 2011
Job Number: _____
Customer: Devon Energy
Well Name: Agate PWU 21 #3H
API Number: _____
Rig Name: _____
Location: Eddy Co., NM (NAD 83)
Block: _____
Engineer: KRN

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 598455.250 USFT	Latitude 32.6449605 DEG
East/West 617058.940 USFT	Longitude -104.0873239 DEG
Grid Convergence: .13°	
Total Correction: +7.63°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.64496° N	32° 38 min 41.858 sec
Longitude =	104.08732° W	104° 5 min 14.366 sec

Magnetic Declination =	7.76°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6695
Local Field Strength =	48759 nT	Magnetic Vector X = 23813 nT
Magnetic Dip =	60.47°	Magnetic Vector Y = 3247 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42425 nT
Spud Date =	Mar 15, 2012	Magnetic Vector H = 24033 nT

Signed: _____

Date: _____