

Weatherford®

Drilling Services

30-015-41135

Proposal - APD Attachment



devon

LONE TREE DRAW 13 STATE COM 5H

EDDY COUNTY, NM

WELL FILE: **PLAN 1**

FEBRUARY 13, 2013

Weatherford International, Ltd.

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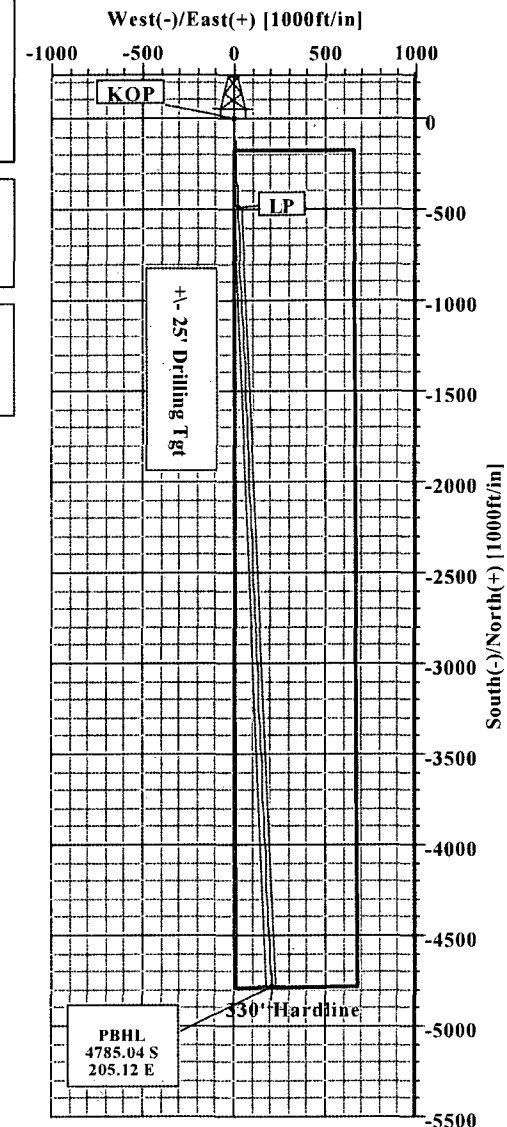
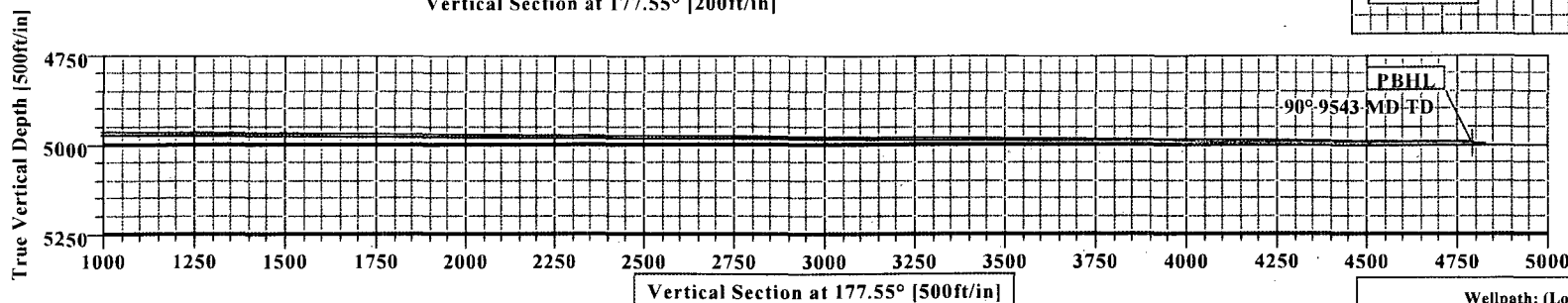
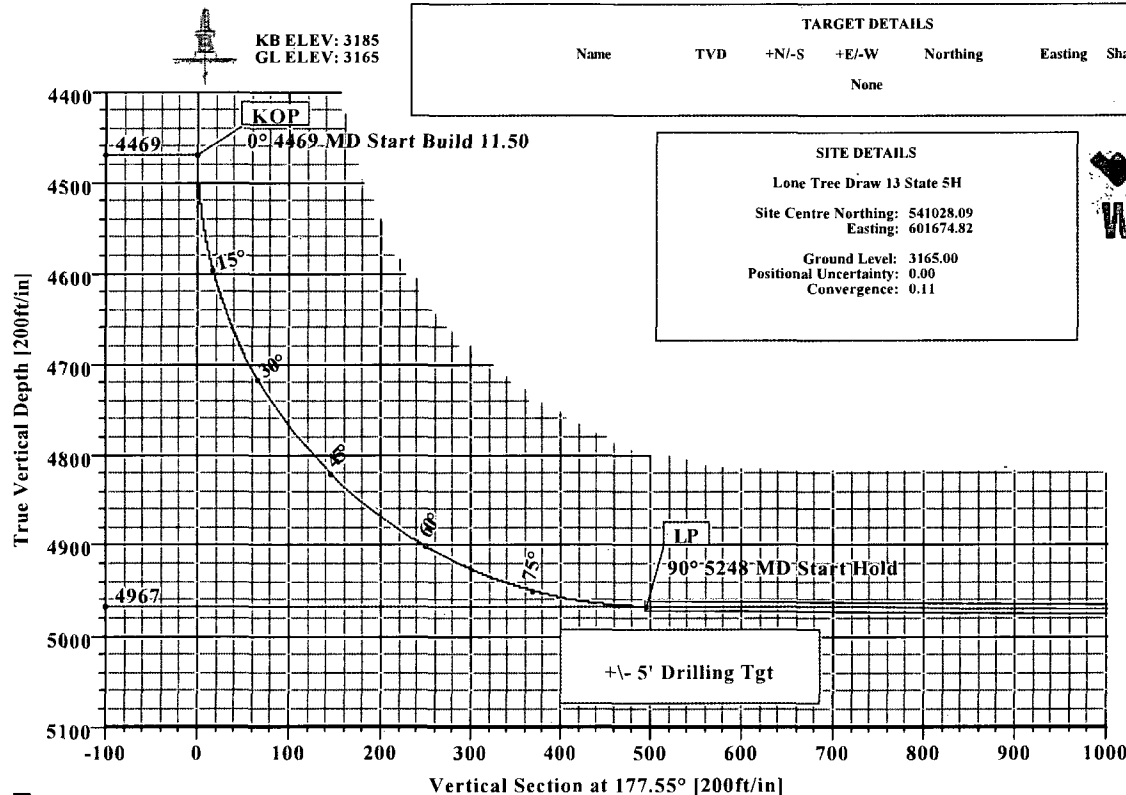
Lone Tree Draw 13 State 5H Eddy County, New Mexico

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSoc	Target
1	0.00	0.00	177.55	0.00	0.00	0.00	0.00	0.00	0.00	
2	4468.79	0.00	177.55	4468.79	0.00	0.00	0.00	0.00	0.00	
3	5248.15	89.63	177.55	4967.00	-494.52	21.20	11.50	177.55	494.98	
4	9542.70	89.63	177.55	4995.00	-4785.04	205.12	0.00	0.00	4789.43	PBHL

WELL DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Lone Tree Draw 13 State 5H	0.00	0.00	541028.09	601674.82	32°29'13.895N	104°08'15.546W

TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
						None

SITE DETAILS	
Lone Tree Draw 13 State 5H	
Site Centre Northing:	541028.09
Easting:	601674.82
Ground Level:	3165.00
Positional Uncertainty:	0.00
Convergence:	0.11





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Wft Plan Report X Y's.



Company: Devon Energy	Date: 2/12/2013	Time: 16:24:25	Page: 1
Field: Eddy Co., NM (NAD:83)	Co-ordinate(NE) Reference: Well: Lone Tree Draw 13 State 5H		
Site: Lone Tree Draw 13 State 5H	Vertical (TVD) Reference: SITE 3185.0		
Well: Lone Tree Draw 13 State 5H	Section (VS) Reference: Well (0.00N,0.00E,177.55Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Plan: Plan #1	Date Composed: 2/12/2013
Principal: Yes	Version: 1
	Tied-to: From Surface

Site: Lone Tree Draw 13 State 5H
Site Position: Northing: 541028.09 ft Latitude: 32 29 13.895 N
From: Map Easting: 601674.82 ft Longitude: 104 8 15.546 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3165.00 ft Grid Convergence: 0.11 deg

Well: Lone Tree Draw 13 State 5H	Slot Name:
Well Position: +N/-S 0.00 ft Northing: 541028.09 ft Latitude: 32 29 13.895 N	
+E/-W 0.00 ft Easting: 601674.82 ft Longitude: 104 8 15.546 W	
Position Uncertainty: 0.00 ft	

Wellpath: 1	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 4/15/2013	Above System Datum: Mean Sea Level
Field Strength: 48554 nT	Declination: 7.64 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 60.29 deg
ft	+N/-S Direction
	ft deg
0.00	0.00 0.00 177.55

Plan Section Information

MD	Incl	Azim	TVD	+N/-S	+E/-W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
0.00	0.00	177.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4468.79	0.00	177.55	4468.79	0.00	0.00	0.00	0.00	0.00	0.00	
5248.15	89.63	177.55	4967.00	-494.52	21.20	11.50	11.50	0.00	177.55	
9542.70	89.63	177.55	4995.00	-4785.04	205.12	0.00	0.00	0.00	0.00	PBHL

Survey

MD	Incl	Azim	TVD	N/S	E/W	VS	DLS	MapN	MapE	Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	ft	
4400.00	0.00	177.55	4400.00	0.00	0.00	0.00	0.00	541028.09	601674.82	
4468.79	0.00	177.55	4468.79	0.00	0.00	0.00	0.00	541028.09	601674.82	KOP
4475.00	0.71	177.55	4475.00	-0.04	0.00	0.04	11.50	541028.05	601674.82	
4500.00	3.59	177.55	4499.98	-0.98	0.04	0.98	11.50	541027.11	601674.86	
4525.00	6.46	177.55	4524.88	-3.16	0.14	3.17	11.50	541024.93	601674.96	
4550.00	9.34	177.55	4549.64	-6.60	0.28	6.60	11.50	541021.49	601675.10	
4575.00	12.21	177.55	4574.20	-11.27	0.48	11.28	11.50	541016.82	601675.30	
4600.00	15.09	177.55	4598.49	-17.16	0.74	17.18	11.50	541010.93	601675.56	
4625.00	17.96	177.55	4622.45	-24.27	1.04	24.29	11.50	541003.82	601675.86	
4650.00	20.84	177.55	4646.03	-32.56	1.40	32.59	11.50	540995.53	601676.22	
4675.00	23.71	177.55	4669.16	-42.03	1.80	42.07	11.50	540986.06	601676.62	
4700.00	26.59	177.55	4691.79	-52.64	2.26	52.69	11.50	540975.45	601677.08	
4725.00	29.46	177.55	4713.86	-64.38	2.76	64.44	11.50	540963.71	601677.58	
4750.00	32.34	177.55	4735.30	-77.21	3.31	77.28	11.50	540950.88	601678.13	
4775.00	35.21	177.55	4756.08	-91.09	3.90	91.17	11.50	540937.00	601678.72	
4800.00	38.09	177.55	4776.14	-106.00	4.54	106.10	11.50	540922.09	601679.36	
4825.00	40.96	177.55	4795.42	-121.89	5.23	122.01	11.50	540906.20	601680.05	
4850.00	43.84	177.55	4813.88	-138.73	5.95	138.86	11.50	540889.36	601680.77	
4875.00	46.71	177.55	4831.47	-156.48	6.71	156.62	11.50	540871.61	601681.53	
4900.00	49.59	177.55	4848.15	-175.08	7.51	175.24	11.50	540853.01	601682.33	
4925.00	52.46	177.55	4863.87	-194.50	8.34	194.68	11.50	540833.59	601683.16	
4950.00	55.34	177.55	4878.60	-214.68	9.20	214.88	11.50	540813.41	601684.02	
4975.00	58.21	177.55	4892.29	-235.57	10.10	235.79	11.50	540792.52	601684.92	



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Wft Plan Report X Y's.



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Company: Devon Energy Date: 2/12/2013 Time: 16:24:25 Page: 2
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well: Lone Tree Draw 13 State 5H
Site: Lone Tree Draw 13 State 5H Vertical (TVD) Reference: SITE 3185.0
Well: Lone Tree Draw 13 State 5H Section (VS) Reference: Well (0.00N,0.00E,177.55Azi)
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
5000.00	61.09	177.55	4904.92	-257.12	11.02	257.36	11.50	540770.97	601685.84	
5025.00	63.96	177.55	4916.45	-279.28	11.97	279.54	11.50	540748.81	601686.79	
5050.00	66.84	177.55	4926.86	-301.99	12.95	302.27	11.50	540726.10	601687.77	
5075.00	69.71	177.55	4936.11	-325.19	13.94	325.49	11.50	540702.90	601688.76	
5100.00	72.59	177.55	4944.19	-348.82	14.95	349.14	11.50	540679.27	601689.77	
5125.00	75.46	177.55	4951.07	-372.83	15.98	373.18	11.50	540655.26	601690.80	
5150.00	78.34	177.55	4956.73	-397.16	17.03	397.52	11.50	540630.93	601691.85	
5175.00	81.21	177.55	4961.17	-421.74	18.08	422.12	11.50	540606.35	601692.90	
5200.00	84.09	177.55	4964.37	-446.51	19.14	446.92	11.50	540581.58	601693.96	
5225.00	86.96	177.55	4966.31	-471.40	20.21	471.84	11.50	540556.69	601695.03	
5248.15	89.63	177.55	4967.00	-494.52	21.20	494.98	11.50	540533.57	601696.02	LP
5300.00	89.63	177.55	4967.34	-546.32	23.42	546.82	0.00	540481.77	601698.24	
5400.00	89.63	177.55	4967.99	-646.23	27.70	646.82	0.00	540381.86	601702.52	
5500.00	89.63	177.55	4968.65	-746.13	31.98	746.82	0.00	540281.96	601706.80	
5600.00	89.63	177.55	4969.30	-846.04	36.27	846.82	0.00	540182.05	601711.09	
5700.00	89.63	177.55	4969.95	-945.95	40.55	946.82	0.00	540082.14	601715.37	
5800.00	89.63	177.55	4970.60	-1045.85	44.83	1046.81	0.00	539982.24	601719.65	
5900.00	89.63	177.55	4971.25	-1145.76	49.12	1146.81	0.00	539882.33	601723.94	
6000.00	89.63	177.55	4971.90	-1245.67	53.40	1246.81	0.00	539782.42	601728.22	
6100.00	89.63	177.55	4972.56	-1345.57	57.68	1346.81	0.00	539682.52	601732.50	
6200.00	89.63	177.55	4973.21	-1445.48	61.96	1446.81	0.00	539582.61	601736.78	
6300.00	89.63	177.55	4973.86	-1545.38	66.25	1546.80	0.00	539482.71	601741.07	
6400.00	89.63	177.55	4974.51	-1645.29	70.53	1646.80	0.00	539382.80	601745.35	
6500.00	89.63	177.55	4975.16	-1745.20	74.81	1746.80	0.00	539282.89	601749.63	
6600.00	89.63	177.55	4975.82	-1845.10	79.09	1846.80	0.00	539182.99	601753.91	
6700.00	89.63	177.55	4976.47	-1945.01	83.38	1946.79	0.00	539083.08	601758.20	
6800.00	89.63	177.55	4977.12	-2044.91	87.66	2046.79	0.00	538983.18	601762.48	
6900.00	89.63	177.55	4977.77	-2144.82	91.94	2146.79	0.00	538883.27	601766.76	
7000.00	89.63	177.55	4978.42	-2244.73	96.22	2246.79	0.00	538783.36	601771.04	
7100.00	89.63	177.55	4979.08	-2344.63	100.51	2346.79	0.00	538683.46	601775.33	
7200.00	89.63	177.55	4979.73	-2444.54	104.79	2446.78	0.00	538583.55	601779.61	
7300.00	89.63	177.55	4980.38	-2544.45	109.07	2546.78	0.00	538483.64	601783.89	
7400.00	89.63	177.55	4981.03	-2644.35	113.36	2646.78	0.00	538383.74	601788.18	
7500.00	89.63	177.55	4981.68	-2744.26	117.64	2746.78	0.00	538283.83	601792.46	
7600.00	89.63	177.55	4982.34	-2844.16	121.92	2846.78	0.00	538183.93	601796.74	
7700.00	89.63	177.55	4982.99	-2944.07	126.20	2946.77	0.00	538084.02	601801.02	
7800.00	89.63	177.55	4983.64	-3043.98	130.49	3046.77	0.00	537984.11	601805.31	
7900.00	89.63	177.55	4984.29	-3143.88	134.77	3146.77	0.00	537884.21	601809.59	
8000.00	89.63	177.55	4984.94	-3243.79	139.05	3246.77	0.00	537784.30	601813.87	
8100.00	89.63	177.55	4985.59	-3343.69	143.33	3346.76	0.00	537684.40	601818.15	
8200.00	89.63	177.55	4986.25	-3443.60	147.62	3446.76	0.00	537584.49	601822.44	
8300.00	89.63	177.55	4986.90	-3543.51	151.90	3546.76	0.00	537484.58	601826.72	
8400.00	89.63	177.55	4987.55	-3643.41	156.18	3646.76	0.00	537384.68	601831.00	
8500.00	89.63	177.55	4988.20	-3743.32	160.46	3746.76	0.00	537284.77	601835.28	
8600.00	89.63	177.55	4988.85	-3843.22	164.75	3846.75	0.00	537184.87	601839.57	
8700.00	89.63	177.55	4989.51	-3943.13	169.03	3946.75	0.00	537084.96	601843.85	
8800.00	89.63	177.55	4990.16	-4043.04	173.31	4046.75	0.00	536985.05	601848.13	
8900.00	89.63	177.55	4990.81	-4142.94	177.60	4146.75	0.00	536885.15	601852.42	
9000.00	89.63	177.55	4991.46	-4242.85	181.88	4246.75	0.00	536785.24	601856.70	
9100.00	89.63	177.55	4992.11	-4342.76	186.16	4346.74	0.00	536685.33	601860.98	
9200.00	89.63	177.55	4992.77	-4442.66	190.44	4446.74	0.00	536585.43	601865.26	
9300.00	89.63	177.55	4993.42	-4542.57	194.73	4546.74	0.00	536485.52	601869.55	



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Wft Plan Report X Y's.



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Company: Devon Energy Date: 2/12/2013 Time: 16:24:25 Page: 3
Field: Eddy Co., NM (NAD 83) Co-ordinate(NE) Reference: Well: Lone Tree Draw 13 State 5H
Site: Lone Tree Draw 13 State 5H Vertical (TVD) Reference: SITE 3185.0
Well: Lone Tree Draw 13 State 5H Section (VS) Reference: Well (0.00N,0.00E,177.55Azi)
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	Comments
9400.00	89.63	177.55	4994.07	-4642.47	199.01	4646.74	0.00	536385.62	601873.83	
9500.00	89.63	177.55	4994.72	-4742.38	203.29	4746.74	0.00	536285.71	601878.11	
9542.70	89.63	177.55	4995.00	-4785.04	205.12	4789.43	0.00	536243.05	601879.94	PBHL

Targets

Name	Description Dip	TVD Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	Latitude Deg Min Sec	Longitude Deg Min Sec
PBHL			4995.00	-4785.04	205.12	536243.05	601879.94	32 28 26.541 N	104 8 13.254 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Annotation

MD ft	TVD ft	
4468.79	4468.79	KOP
5248.15	4967.00	LP
9542.70	4995.00	PBHL

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

GeoDec v5.03

Report Date: February 12, 2013
Job Number: _____
Customer: Devon Energy
Well Name: Lone Tree Draw 13 State 5H
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 541028.090 USFT	Latitude 32.4871961 DEG
East/West 601674.820 USFT	Longitude -104.1376477 DEG
Grid Convergence: 11°	
Total Correction: +7.64°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.48720° N	32° 29 min 13.906 sec
Longitude =	104.13765° W	104° 8 min 15.532 sec

Magnetic Declination =	7.75°	[True North Offset]
Local Gravity =	.9988 g	CheckSum = 6589
Local Field Strength =	48525 nT	Magnetic Vector X = 23863 nT
Magnetic Dip =	60.24°	Magnetic Vector Y = 3248 nT
Magnetic Model =	bggm2012	Magnetic Vector Z = 42127 nT
Spud Date =	Apr 15, 2013	Magnetic Vector H = 24083 nT

Signed: _____

Date: _____