

30015 42709



Weatherford

Evaluation, Drilling & Intervention
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Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

Devon Energy
333 W. Sherridan Ave
Oklahoma City, OK, 73102

Date: August 5, 2015

Attention: Scott Schmidt

Re: Devon Energy
Well: Cerf 10 State 7H
Eddy County, New Mexico

NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 13 2016

RECEIVED

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

Name & Title Of Surveyor	Well Number	Surveyed Depths	Dates Performed	Type of Survey
Jesus Lopez	7H	888 MD	7/10/2015	Measurement
MWD Supervisor		11490 MD	7/25/2015	While Drilling

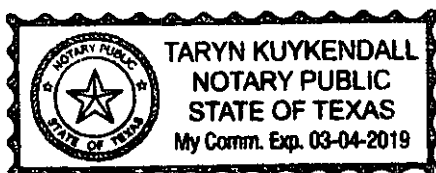
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Jesus Aguilar
MWD Coordinator

On this, the 14th day of September, 2015, before me a notary public, the undersigned officer, personally appeared Jesus Aguilar, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

Notary Public



**5D Survey Report****Devon Energy**

Field Name: *Eddy Co, NM (Nad 83 NME)*
Site Name: *Cedar 11 State 1H, Cerf 10 State 7H Pad*
Well Name: *Cerf 10 State 7H*
Survey: *Wft MWD Svy*

26 July 2015





Cerf 10 State 7H

Field Name: Eddy Co, NM (Nad 83 NME)	Map Units: US ft		Company Name: Devon Energy		
	Vertical Reference Datum (VRD): Mean Sea Level				
	Projected Coordinate System: NAD83 / New Mexico East (ftUS)				
	Comment:				
Site: Cedar 11 State 1H, Cerf 10 State 7H Pad	Units: US ft	North Reference: Grid	Convergence Angle: 0.09		
	Position:	Northing: 542465.05US ft	Latitude: 32° 29' 28.28"		
		Easting: 592170.38US ft	Longitude: -104° 10' 6.47"		
	Elevation above MSL: 3281.00 US ft				
Comment:					
Slot: Cerf 10 State 7H	Position (Relative to Site Centre)				
	+N/-S: -0.29US ft	Northing: 542464.76US ft	Latitude: 32°29'28.28"		
	+E/-W: -50.01US ft	Easting: 592120.37US ft	Longitude: -104°10'7.06"		
	Elevation above MSL: 3283.00US ft				
Comment:					
Well: Cerf 10 State 7H	Type: Main well		UWI:		
	File Number:	Comment:			
	Closure Distance: 5222.15US ft		Closure Azimuth: 279.51°		
	Vertical Section: Position of Origin (Relative to Slot centre)				
	+N/-S: 0.00US ft		+E/-W: 0.00US ft	Az: 270.00°	

Drill floor: Survey Name: Wft MWD Svy
Rig Height (Kelly Bushing): Elevation above MSL: 25.00us ft 3308.00us ft **Inclination:** 0.00° **Azimuth:** 0.00°

Survey Name: Wft MWD Svy

Date: 15/Jul/2015 **Survey Tool:** MWD **Comment:** **Company:**

Magnetic Model:
Model Name: BGGM **Date:** 30/Jul/2015 **Field Strength:** 48257.7nT **Declination:** 7.57° **Dip:** 60.22°

Tie Point:
MD: 713.00 US ft **Inclination:** 0.20° **Azimuth:** 56.00° **TVD:** 712.99 US ft **North Offset:** 0.00 US ft **East Offset:** 3.00 US ft

Wellpath created using minimum curvature.

Survey Points: (Relative to Slot centre)(TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100US ft)	Northing (US ft)	Easting (US ft)	Comment
713.00	0.20	56.00	712.99	0.00	3.00	-3.00	0.00	542464.76	592123.37	Tie On NOV
888.00	0.31	148.00	887.99	-0.23	3.50	-3.50	0.21	542464.53	592123.87	First Wft Svy
982.00	0.49	339.63	981.99	-0.07	3.50	-3.50	0.85	542464.69	592123.87	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100US ft)	Northing (US ft)	Easting (US ft)	Comment
1077.00	1.09	329.21	1076.98	1.09	2.89	-2.89	0.65	542465.85	592123.26	
1171.00	0.99	318.65	1170.96	2.47	1.90	-1.90	0.23	542467.23	592122.27	
1265.00	0.94	315.02	1264.95	3.62	0.82	-0.82	0.08	542468.38	592121.19	
1360.00	0.91	318.38	1359.94	4.74	-0.23	0.23	0.07	542469.50	592120.14	
1454.00	0.85	317.48	1453.93	5.81	-1.20	1.20	0.07	542470.57	592119.17	
1549.00	0.88	315.11	1548.92	6.84	-2.19	2.19	0.05	542471.60	592118.18	
1643.00	1.09	319.11	1642.90	8.03	-3.29	3.29	0.23	542472.79	592117.08	
1737.00	1.03	314.18	1736.89	9.30	-4.48	4.48	0.12	542474.06	592115.89	
1831.00	0.91	314.09	1830.87	10.40	-5.62	5.62	0.13	542475.16	592114.75	
1925.00	0.70	320.40	1924.86	11.37	-6.52	6.52	0.24	542476.13	592113.85	
2019.00	0.72	308.41	2018.86	12.17	-7.35	7.35	0.16	542476.93	592113.02	
2113.00	0.60	315.15	2112.85	12.89	-8.16	8.16	0.15	542477.65	592112.21	
2207.00	0.40	283.86	2206.85	13.32	-8.83	8.83	0.35	542478.08	592111.54	
2301.00	0.51	270.79	2300.84	13.40	-9.56	9.56	0.16	542478.16	592110.81	
2395.00	0.47	280.37	2394.84	13.48	-10.36	10.36	0.10	542478.24	592110.01	
2489.00	0.47	273.52	2488.84	13.57	-11.12	11.12	0.06	542478.33	592109.25	
2584.00	0.59	264.88	2583.83	13.55	-12.00	12.00	0.15	542478.31	592108.37	
2678.00	0.70	278.61	2677.83	13.59	-13.05	13.05	0.20	542478.35	592107.32	
2741.00	0.63	268.46	2740.82	13.64	-13.78	13.78	0.22	542478.40	592106.59	
2902.00	0.85	262.88	2901.81	13.47	-15.85	15.85	0.14	542478.23	592104.52	
2997.00	1.50	339.83	2996.79	14.55	-16.97	16.97	1.63	542479.31	592103.40	
3091.00	3.46	358.18	3090.70	18.54	-17.49	17.49	2.22	542483.30	592102.88	
3185.00	4.97	1.27	3184.45	25.45	-17.49	17.49	1.62	542490.21	592102.88	
3279.00	6.76	0.32	3277.95	35.05	-17.37	17.37	1.91	542499.81	592103.00	
3373.00	8.96	359.31	3371.06	47.90	-17.42	17.42	2.34	542512.66	592102.95	
3467.00	9.79	359.76	3463.81	63.22	-17.55	17.55	0.89	542527.98	592102.82	
3561.00	10.07	1.31	3556.40	79.42	-17.39	17.39	0.41	542544.18	592102.98	
3655.00	10.34	1.80	3648.91	96.07	-16.94	16.94	0.30	542560.83	592103.43	
3750.00	10.66	3.28	3742.32	113.36	-16.17	16.17	0.44	542578.12	592104.20	
3843.00	9.32	1.23	3833.91	129.48	-15.51	15.51	1.49	542594.24	592104.86	
3938.00	8.65	359.08	3927.74	144.32	-15.46	15.46	0.79	542609.08	592104.91	
4032.00	8.52	356.76	4020.69	158.34	-15.97	15.97	0.39	542623.10	592104.40	
4126.00	8.41	357.17	4113.66	172.15	-16.70	16.70	0.13	542636.91	592103.67	
4220.00	8.39	357.41	4206.66	185.87	-17.35	17.35	0.04	542650.63	592103.02	
4314.00	8.46	357.67	4299.64	199.63	-17.94	17.94	0.08	542664.39	592102.43	
4409.00	8.34	356.82	4393.62	213.49	-18.61	18.61	0.18	542678.25	592101.76	
4503.00	9.10	4.62	4486.54	227.71	-18.39	18.39	1.49	542692.47	592101.98	
4597.00	9.34	6.39	4579.32	242.70	-16.94	16.94	0.40	542707.46	592103.43	
4691.00	9.63	359.96	4672.04	258.14	-16.10	16.10	1.17	542722.90	592104.27	
4785.00	9.87	357.11	4764.68	274.05	-16.51	16.51	0.57	542738.81	592103.86	
4879.00	10.04	357.79	4857.27	290.28	-17.23	17.23	0.22	542755.04	592103.14	
4973.00	10.00	357.58	4949.84	306.63	-17.89	17.89	0.06	542771.39	592102.48	
5067.00	10.06	357.17	5042.40	322.98	-18.64	18.64	0.10	542787.74	592101.73	
5161.00	8.92	359.08	5135.11	338.47	-19.17	19.17	1.26	542803.23	592101.20	
5255.00	8.46	359.37	5228.03	352.67	-19.36	19.36	0.49	542817.43	592101.01	
5350.00	8.07	359.68	5322.05	366.32	-19.47	19.47	0.41	542831.08	592100.90	
5444.00	7.64	358.21	5415.16	379.17	-19.70	19.70	0.50	542843.93	592100.67	
5538.00	6.73	357.04	5508.42	390.91	-20.18	20.18	0.98	542855.67	592100.19	
5632.00	6.31	355.96	5601.82	401.57	-20.83	20.83	0.47	542866.33	592099.54	
5726.00	6.20	358.45	5695.26	411.79	-21.33	21.33	0.31	542876.55	592099.04	
5820.00	4.81	352.44	5788.82	420.78	-21.99	21.99	1.60	542885.54	592098.38	
5914.00	4.13	347.11	5882.54	427.98	-23.26	23.26	0.85	542892.74	592097.11	
5945.00	4.06	347.52	5913.46	430.14	-23.75	23.75	0.24	542894.90	592096.62	
5977.00	5.49	338.52	5945.34	432.67	-24.55	24.55	5.03	542897.43	592095.82	
6008.00	7.60	332.95	5976.14	435.88	-26.03	26.03	7.10	542900.64	592094.34	
6039.00	10.31	331.39	6006.76	440.14	-28.29	28.29	8.78	542904.90	592092.08	
6071.00	13.01	331.07	6038.10	445.81	-31.41	31.41	8.44	542910.57	592088.96	
6099.00	15.35	329.88	6065.24	451.77	-34.79	34.79	8.42	542916.53	592085.58	
6133.00	18.32	328.33	6097.78	460.21	-39.86	39.86	8.83	542924.97	592080.51	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Kelly Bushing)										Comment
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100US ft)	Northing (US ft)	Easting (US ft)	
6164.00	21.23	326.12	6126.95	469.02	-45.54	45.54	9.69	542933.78	592074.83	
6193.00	23.82	324.65	6153.74	478.16	-51.86	51.86	9.14	542942.92	592068.51	
6227.00	26.95	322.31	6184.45	489.86	-60.54	60.54	9.67	542954.62	592059.83	
6258.00	30.07	321.05	6211.69	501.46	-69.72	69.72	10.25	542966.22	592050.65	
6287.00	33.14	319.99	6236.38	513.19	-79.39	79.39	10.76	542977.95	592040.98	
6321.00	36.85	319.02	6264.23	528.01	-92.06	92.06	11.03	542992.77	592028.31	
6352.00	40.04	317.88	6288.51	542.42	-104.84	104.84	10.54	543007.18	592015.53	
6383.00	42.98	316.68	6311.72	557.51	-118.78	118.78	9.82	543022.27	592001.59	
6415.00	46.22	315.62	6334.50	573.71	-134.35	134.35	10.39	543038.47	591986.02	
6446.00	49.06	314.01	6355.39	589.85	-150.60	150.60	9.93	543054.61	591969.77	
6477.00	51.84	313.39	6375.13	606.36	-167.88	167.88	9.10	543071.12	591952.49	
6508.00	54.47	312.92	6393.71	623.32	-185.98	185.98	8.57	543088.08	591934.39	
6540.00	56.67	311.99	6411.81	641.13	-205.46	205.46	7.28	543105.89	591914.91	
6571.00	59.00	310.47	6428.31	658.43	-225.19	225.19	8.59	543123.19	591895.18	
6603.00	60.85	309.17	6444.34	676.15	-246.46	246.46	6.77	543140.91	591873.91	
6634.00	63.07	308.33	6458.92	693.28	-267.80	267.80	7.55	543158.04	591852.57	
6662.00	65.16	307.52	6471.14	708.76	-287.67	287.67	7.90	543173.52	591832.70	
6697.00	68.28	306.11	6484.97	728.02	-313.41	313.41	9.65	543192.78	591806.96	
6728.00	70.46	304.18	6495.89	744.71	-337.13	337.13	9.13	543209.47	591783.24	
6756.00	72.02	302.18	6504.90	759.22	-359.32	359.32	8.76	543223.98	591761.05	
6791.00	72.68	300.24	6515.51	776.50	-387.84	387.84	5.61	543241.26	591732.53	
6822.00	74.21	297.93	6524.35	790.94	-413.81	413.81	8.68	543255.70	591706.56	
6850.00	75.36	295.81	6531.70	803.15	-437.91	437.91	8.38	543267.91	591682.46	
6885.00	77.17	293.53	6540.01	817.34	-468.80	468.80	8.17	543282.10	591651.57	
6900.50	77.99	292.45	6543.34	823.25	-482.74	482.74	8.60	543288.01	591637.63	Cross Prod. Box
6916.00	78.81	291.38	6546.46	828.92	-496.82	496.82	8.60	543293.68	591623.55	
6944.00	80.38	289.44	6551.51	838.52	-522.63	522.63	8.82	543303.28	591597.74	
6979.00	81.72	286.30	6556.96	849.12	-555.53	555.53	9.65	543313.88	591564.84	
7010.00	83.06	283.10	6561.07	856.92	-585.25	585.25	11.11	543321.68	591535.12	
7039.00	83.83	280.58	6564.38	862.83	-613.45	613.45	9.03	543327.59	591506.92	
7073.00	85.45	277.58	6567.56	868.17	-646.87	646.87	9.99	543332.93	591473.50	
7100.00	86.50	275.72	6569.45	871.29	-673.62	673.62	7.90	543336.05	591446.75	
7131.00	88.32	272.94	6570.85	873.63	-704.49	704.49	10.71	543338.39	591415.88	
7163.00	89.65	271.26	6571.42	874.80	-736.47	736.47	6.70	543339.56	591383.90	
7257.00	91.12	270.19	6570.79	875.99	-830.45	830.45	1.93	543340.75	591289.92	
7351.00	92.24	270.99	6568.03	876.95	-924.41	924.41	1.46	543341.71	591195.96	
7445.00	92.59	271.61	6564.07	879.09	-1018.30	1018.30	0.76	543343.85	591102.07	
7539.00	92.87	271.44	6559.59	881.58	-1112.16	1112.16	0.35	543346.34	591008.21	
7633.00	93.50	270.52	6554.37	883.19	-1206.00	1206.00	1.18	543347.95	590914.37	
7727.00	94.06	269.82	6548.17	883.47	-1299.79	1299.79	0.95	543348.23	590820.58	
7821.00	93.57	269.32	6541.92	882.76	-1393.58	1393.58	0.74	543347.52	590726.79	
7915.00	93.71	269.72	6535.95	881.98	-1487.39	1487.39	0.45	543346.74	590632.98	
8009.00	93.36	270.45	6530.15	882.12	-1581.21	1581.21	0.86	543346.88	590539.16	
8103.00	91.61	269.68	6526.08	882.22	-1675.11	1675.11	2.03	543346.98	590445.26	
8197.00	90.98	270.10	6523.95	882.04	-1769.09	1769.09	0.81	543346.80	590351.28	
8291.00	91.75	271.14	6521.72	883.06	-1863.05	1863.05	1.38	543347.82	590257.32	
8386.00	91.40	270.35	6519.10	884.29	-1958.01	1958.01	0.91	543349.05	590162.36	
8480.00	90.91	268.45	6517.21	883.31	-2051.98	2051.98	2.09	543348.07	590068.39	
8574.00	91.40	268.64	6515.31	880.92	-2145.93	2145.93	0.56	543345.68	589974.44	
8668.00	91.33	268.53	6513.08	878.60	-2239.88	2239.88	0.14	543343.36	589880.49	
8762.00	89.86	268.44	6512.10	876.12	-2333.84	2333.84	1.57	543340.88	589786.53	
8857.00	90.07	268.67	6512.16	873.72	-2428.80	2428.80	0.33	543338.48	589691.57	
8951.00	90.42	268.76	6511.76	871.61	-2522.78	2522.78	0.38	543336.37	589597.59	
9045.00	91.47	269.45	6510.21	870.15	-2616.75	2616.75	1.34	543334.91	589503.62	
9139.00	92.73	269.82	6506.76	869.55	-2710.69	2710.69	1.40	543334.31	589409.68	
9233.00	91.47	269.63	6503.32	869.10	-2804.62	2804.62	1.36	543333.86	589315.75	
9327.00	92.03	269.96	6500.45	868.76	-2898.58	2898.58	0.69	543333.52	589221.79	
9421.00	90.77	268.87	6498.15	867.80	-2992.54	2992.54	1.77	543332.56	589127.83	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100US ft)	Northing (US ft)	Easting (US ft)	Comment
9515.00	88.53	268.40	6498.72	865.56	-3086.50	3086.50	2.43	543330.32	589033.87	
9609.00	88.18	268.63	6501.42	863.13	-3180.43	3180.43	0.45	543327.89	588939.94	
9703.00	87.76	269.23	6504.75	861.37	-3274.36	3274.36	0.78	543326.13	588846.01	
9797.00	88.04	269.37	6508.20	860.23	-3368.29	3368.29	0.33	543324.99	588752.08	
9891.00	88.53	269.94	6511.01	859.66	-3462.24	3462.24	0.80	543324.42	588658.13	
9985.00	90.42	270.44	6511.87	859.97	-3556.23	3556.23	2.08	543324.73	588564.14	
10079.00	90.42	269.11	6511.18	859.60	-3650.23	3650.23	1.41	543324.36	588470.14	
10173.00	89.79	267.12	6511.01	856.51	-3744.17	3744.17	2.22	543321.27	588376.20	
10267.00	89.51	265.41	6511.58	850.39	-3837.97	3837.97	1.84	543315.15	588282.40	
10361.00	90.35	265.56	6511.70	842.99	-3931.68	3931.68	0.91	543307.75	588188.69	
10455.00	90.21	265.09	6511.24	835.33	-4025.36	4025.36	0.52	543300.09	588095.01	
10549.00	90.49	266.83	6510.66	828.70	-4119.12	4119.12	1.87	543293.46	588001.25	
10643.00	91.26	268.89	6509.23	825.19	-4213.04	4213.04	2.34	543289.95	587907.33	
10737.00	91.26	270.24	6507.16	824.48	-4307.01	4307.01	1.44	543289.24	587813.36	
10831.00	91.47	271.13	6504.92	825.60	-4400.98	4400.98	0.97	543290.36	587719.39	
10925.00	91.82	272.92	6502.22	828.92	-4494.88	4494.88	1.94	543293.68	587625.49	
11019.00	92.31	271.61	6498.84	832.64	-4588.74	4588.74	1.49	543297.40	587531.63	
11113.00	92.03	272.30	6495.28	835.84	-4682.62	4682.62	0.79	543300.60	587437.75	
11207.00	92.38	272.92	6491.66	840.12	-4776.45	4776.45	0.76	543304.88	587343.92	
11301.00	91.54	273.10	6488.45	845.05	-4870.26	4870.26	0.91	543309.81	587250.11	
11395.00	92.03	273.47	6485.52	850.44	-4964.06	4964.06	0.65	543315.20	587156.31	
11490.00	93.15	273.77	6481.22	856.43	-5058.78	5058.78	1.22	543321.19	587061.59	Last Wft Svy 7H
11561.00	93.15	273.77	6477.32	861.09	-5129.51	5129.51	0.00	543325.85	586990.86	Cross Prod. Box
11582.00	93.15	273.77	6476.17	862.47	-5150.44	5150.44	0.00	543327.23	586969.93	Proj. To Bit



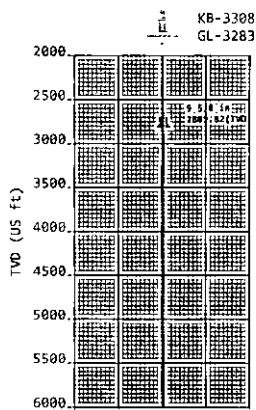
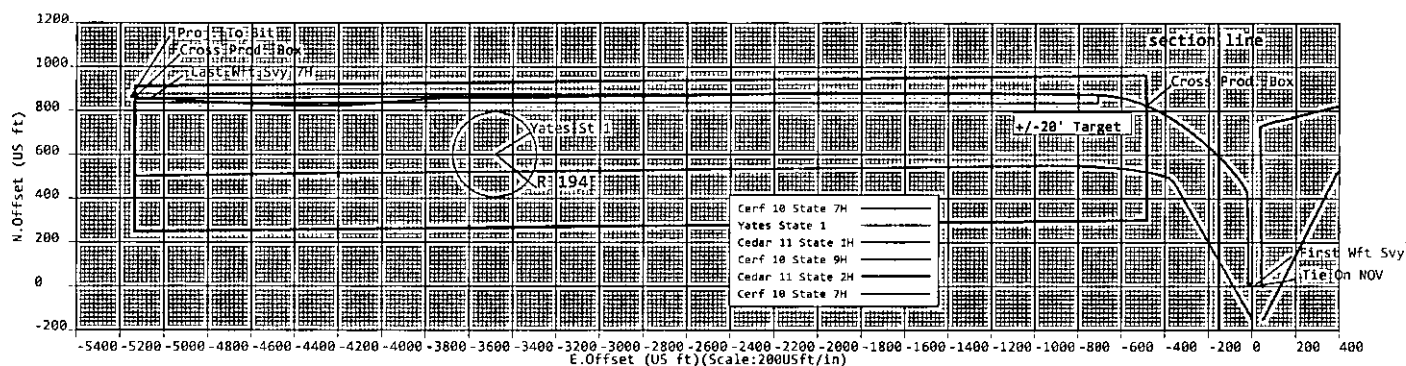
Cerf 10 State 7H
Eddy Co, NM

Plan Data for Cerf 10 State 7H

Plan Point Information:
Dogleg Severity Unit: $\frac{1}{100.00\text{ft}}$ Position offsets from Slot centre
MD Inc Az TVD +/-S +/-W Northing Easting VSec DLS
(USft) (°) (°) (USft) (USft) (USft) (USft) (USft) (DLSU)
4480.00 90.91 268.45 6517.21 883.07 -2052.36 543347.83 590608.02 2852.36 2.09
8504.00 90.60 267.27 6516.10 879.93 -2136.29 543344.69 589904.08 2316.29 1.46
8677.53 90.50 269.54 6515.02 876.77 -2249.77 543341.53 589870.60 2249.77 2.00
11558.78 90.50 269.54 6490.00 853.56 -5130.81 543318.32 586989.56 5130.81 0.00

Plan Data for Cerf 10 State 7H

Target Set Information:
Name: Cerf 10 State 7H
Position offsets from Slot centre
Name TVD +/-S +/-W Northing Easting Shape Comment
(USft) (USft) (USft) (USft)
PBHL 7H 6490.00 853.27 -5180.82 543318.32 586989.56 Cuboid

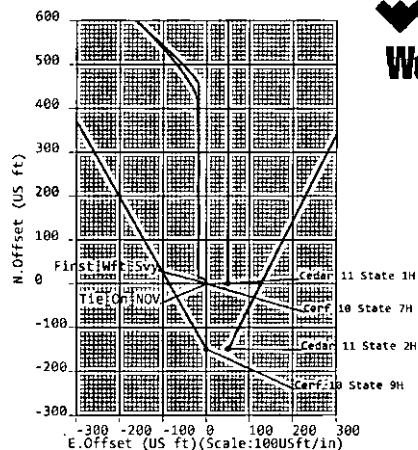


Plan Data for Cerf 10 State 7H

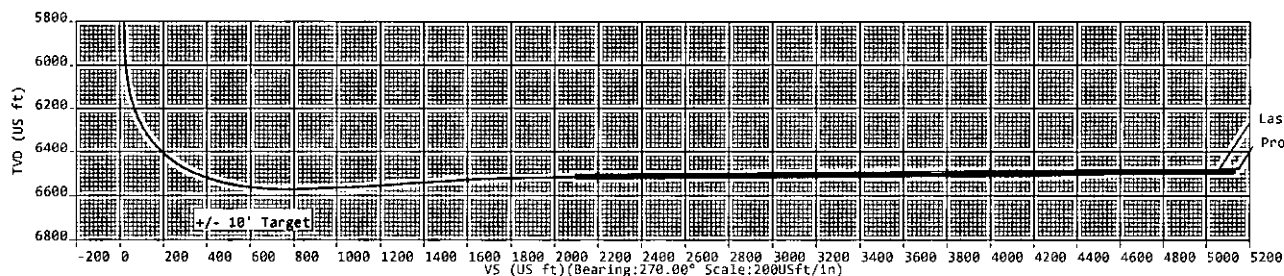
Slot: Cerf 10 State 7H
Position:
Offset is from Site centre
+N/-S: -0.29USft Northing: 542464.76USft Latitude: $32^{\circ}29'28.3''$
+E/-W: -50.01USft Easting: 592120.37USft Longitude: $-104^{\circ}10'7.1''$
Elevation Above VRD: 3283.00USft

Plan Data for Cerf 10 State 7H

Well: Cerf 10 State 7H
Type: Main-Well
File Number:
Plan Folder: P4 Plan: P4:V1
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.00USft Azimuth: 270.00°
+E/-W: 0.00USft
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
BGGM 48257(ni) 7.57° 60.22° 2015-07-30



VS (US ft)(Bearing: 270.00° Scale: 500USft/in)



Sign Off: Russell Joyner