



Weatherford[®]

Evaluation, Drilling & Intervention
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Devon Energy
333 W. Sheridan Ave
Oklahoma City, OK, 73102

Date: March 9, 2015

HOBBS OCD

AUG 04 2015

RECEIVED

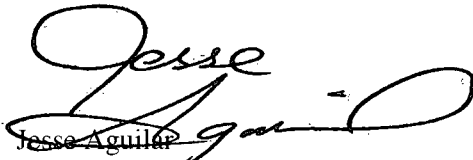
Attention: Ryan Dzurisin

Re: Devon Energy
Well: Hognose Viper 23 Fed 1H
Lea County, New Mexico

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:

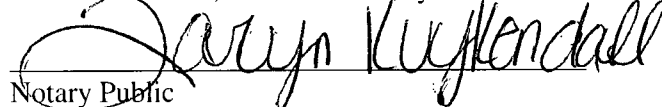
Name & Title Of Surveyor	Well Number	Surveyed Depths	Dates Performed	Type of Survey
Andrew Schmidt	1H	10611 MD	2/28/2015	Measurement
MWD Supervisor		15676 MD	3/7/2015	While Drilling

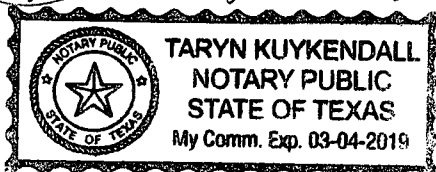
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


Jesse Aguilar
MWD Ops Coordinator

On this, the 24th day of March, 2015, before me a notary public, the undersigned officer, personally appeared Jesse 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



28
SEP 25 2015

5D Survey Report

Devon Energy

Field Name: *Lea Co, NM Nad 83 NMEZ*
Site Name: *Hognose Viper 23 Fed 1,2H Pad*
Well Name: *Hognose Viper 23 Fed 1H*
Survey: *Wft MWD Svy*

09 March 2015

**Weatherford®**

Hognose Viper 23 Fed 1H

Field Name Lea Co, NM Nad 83 NMEZ	Map Units : US ft Vertical Reference Datum (VRD) : Mean Sea Level Projected Coordinate System : NAD83 / New Mexico East (ftUS) Comment :	Company Name : Devon Energy
Site Name Hognose Viper 23 Fed 1,2H Pad	Units : US ft Position Elevation above Mean Sea Level: 3682.00 US ft Comment :	North Reference : Grid Northing : 467745.91 US ft Easting : 783748.35 US ft Convergence Angle : 0.42 Latitude : 32° 17' 0.50" Longitude : -103° 32' 56.11"
Slot Name Hognose Viper 23 Fed 1H	Position (Offsets relative to Site Centre) +N / -S : 0.00 US ft Northing : 467745.91 US ft Latitude : 32°17'0.50" +E / -W : 0.00 US ft Easting : 783748.35 US ft Longitude : -103°32'56.11" Slot TVD Reference : Ground Elevation Elevation above Mean Sea Level : 3682.00 US ft Comment :	
Well Name Hognose Viper 23 Fed 1H	Type : Main well Rig Height Drill Floor : 25.00 US ft Relative to Mean Sea Level: 3707.00 US ft Closure Distance : 4754.58 US ft Vertical Section (Position of Origin Relative to Slot) +N / -S : 0.00 US ft +E / -W : 0.00 US ft Az : 357.28°	
UWI : Comment : Closure Azimuth : 357.046°		

Target Set

Name : Hognose Viper 23 Fed 1H Lat
Number of Targets : 1

Comment :

Target Name: PBHL #H Lat Shape: Cuboid	Position (Relative to Slot centre) +N / -S : 4752.59US ft Northing : 472498.50 US ft Latitude : 32°17'47.54" +E / -W : -226.08 US ft Easting : 783522.27US ft Longitude : -103°32'58.34" TVD (Drill Floor) : 11209.40 US ft Orientation Azimuth : 357.37° Inclination : 0.50° Dimensions Length : 3200.00 US ft Breadth : 50.00 US ft Height : 30.00 US ft
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Survey Name :Wft MWD Svy

Date : 02/Mar/2015 **Survey Tool :** MWD **Comment :** **Company :** Wft

Magnetic Model

Model Name: BGGM **Date:** 18/Feb/2015 **Field Strength:** 48263.6 nT **Declination:** 7.30° **Dip:** 60.15°

Tie Point

MD: 10562 **Inclination:** 1.49 **Azimuth:** 276.94 **TVD:** 10552.7 **North Offset:** -17.1115 **East Offset:** 151.627

Well/path created using minimum curvature

5D Survey Report

Survey Points (Relative to Slot centre, TVD relative to Drill Floor)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	PLS (%/100 US ft)	Northing (US ft)	Easting (US ft)	Survey Tool	Comment
10611.00	1.64	273.48	10601.67	-16.99	150.30	-24.11	0.00	467728.92	783898.65	MWD	First Wft Svy
10684.00	1.95	316.40	10674.64	-16.03	148.40	-23.05	1.84	467729.88	783896.75	MWD	
10715.00	5.53	333.82	10705.57	-14.31	147.37	-21.28	11.99	467731.60	783895.72	MWD	
10747.00	9.16	339.84	10737.30	-10.53	145.81	-17.44	11.58	467735.38	783894.16	MWD	
10778.00	12.88	340.25	10767.73	-4.96	143.80	-11.78	12.00	467740.95	783892.15	MWD	
10810.00	16.85	340.11	10798.65	2.76	141.01	-3.93	12.41	467748.67	783889.36	MWD	
10841.00	21.10	339.81	10827.96	12.23	137.56	5.69	13.71	467758.14	783885.91	MWD	
10873.00	25.09	340.86	10857.39	24.05	133.34	17.69	12.53	467769.96	783881.69	MWD	
10904.00	29.19	340.09	10884.97	37.37	128.61	31.23	13.27	467783.28	783876.96	MWD	
10936.00	32.50	338.03	10912.44	52.68	122.73	46.80	10.86	467798.59	783871.08	MWD	
10967.00	36.72	336.82	10937.95	68.93	115.97	63.35	13.79	467814.84	783864.32	MWD	Cross 330 HL
10999.00	40.92	336.57	10962.87	87.35	108.03	82.13	13.13	467833.26	783856.38	MWD	
11030.00	44.53	338.19	10985.64	106.77	99.95	101.90	12.17	467852.68	783848.30	MWD	
11062.00	46.58	340.19	11008.05	128.12	91.84	123.62	7.81	467874.03	783840.19	MWD	
11066.00	46.97	340.37	11010.79	130.87	90.86	126.41	10.39	467876.78	783839.21	MWD	
11093.00	49.64	341.54	11028.75	149.92	84.29	145.75	10.39	467895.83	783832.64	MWD	
11125.00	51.31	343.73	11049.11	173.48	76.93	169.63	7.42	467919.39	783825.28	MWD	
11156.00	54.20	344.71	11067.87	197.22	70.22	193.67	9.66	467943.13	783818.57	MWD	
11188.00	57.36	344.31	11085.87	222.72	63.15	219.47	9.93	467968.63	783811.50	MWD	
11219.00	61.01	344.35	11101.75	248.35	55.96	245.41	11.77	467994.26	783804.31	MWD	
11251.00	65.25	344.50	11116.20	275.84	48.30	273.24	13.26	468021.75	783796.65	MWD	
11283.00	69.57	344.05	11128.49	304.27	40.29	302.02	13.56	468050.18	783788.64	MWD	
11313.00	74.20	344.62	11137.82	331.72	32.60	329.80	15.54	468077.63	783780.95	MWD	
11345.00	78.89	346.43	11145.26	361.84	24.83	360.26	15.65	468107.75	783773.18	MWD	
11376.00	82.92	348.49	11150.16	391.72	18.19	390.41	14.56	468137.63	783766.54	MWD	
11407.00	85.09	350.69	11153.40	422.04	12.62	420.96	9.94	468167.95	783760.97	MWD	
11470.00	85.59	350.58	11158.52	483.99	2.40	483.33	0.81	468229.90	783750.75	MWD	
11565.00	86.01	350.89	11165.48	577.50	-12.85	577.46	0.55	468323.41	783735.50	MWD	
11659.00	86.50	351.81	11171.62	670.23	-26.96	670.76	1.11	468416.14	783721.39	MWD	
11754.00	87.00	352.94	11177.00	764.24	-39.55	765.25	1.30	468510.15	783708.80	MWD	
11848.00	87.13	354.13	11181.82	857.52	-50.12	858.93	1.27	468603.43	783698.23	MWD	
11943.00	87.41	354.45	11186.34	951.94	-59.56	953.69	0.45	468697.85	783688.79	MWD	
12037.00	87.55	354.92	11190.47	1045.44	-68.26	1047.50	0.52	468791.35	783680.09	MWD	
12131.00	88.25	355.02	11193.92	1139.02	-76.49	1141.36	0.75	468884.93	783671.86	MWD	
12222.00	89.09	355.38	11196.03	1229.67	-84.10	1232.28	1.00	468975.58	783664.25	MWD	
12320.00	89.93	356.43	11196.87	1327.42	-91.10	1330.24	1.37	469073.33	783657.25	MWD	
12414.00	90.70	357.19	11196.35	1421.27	-96.33	1424.24	1.15	469167.18	783652.02	MWD	
12508.00	91.12	357.50	11194.86	1515.15	-100.69	1518.23	0.56	469261.06	783647.66	MWD	
12603.00	90.56	358.33	11193.47	1610.08	-104.14	1613.21	1.05	469355.99	783644.21	MWD	
12698.00	89.51	358.84	11193.41	1705.05	-106.49	1708.18	1.23	469450.96	783641.86	MWD	
12792.00	89.30	357.62	11194.38	1799.00	-109.39	1802.16	1.32	469544.91	783638.96	MWD	
12887.00	89.23	357.66	11195.60	1893.91	-113.30	1897.15	0.08	469639.82	783635.05	MWD	
12981.00	88.53	358.43	11197.44	1987.84	-116.51	1991.13	1.11	469733.75	783631.84	MWD	
13075.00	88.32	357.90	11200.02	2081.75	-119.52	2085.08	0.61	469827.66	783628.83	MWD	
13170.00	87.62	358.31	11203.39	2176.64	-122.66	2180.01	0.85	469922.55	783625.69	MWD	
13264.00	87.56	358.22	11207.34	2270.51	-125.50	2273.91	0.12	470016.42	783622.85	MWD	
13358.00	87.76	358.41	11211.18	2364.39	-128.26	2367.87	0.29	470110.30	783620.09	MWD	
13453.00	87.76	358.33	11214.89	2459.28	-130.96	2462.73	0.08	470205.19	783617.39	MWD	
13547.00	87.20	357.71	11219.03	2553.14	-134.21	2556.63	0.89	470299.05	783614.14	MWD	
13642.00	87.34	358.32	11223.55	2647.97	-137.49	2651.51	0.66	470393.88	783610.86	MWD	
13736.00	88.53	356.87	11226.94	2741.82	-141.44	2745.44	1.99	470487.73	783606.91	MWD	
13831.00	88.88	357.26	11229.09	2836.67	-146.30	2840.42	0.55	470582.58	783602.05	MWD	
13925.00	89.58	356.72	11230.35	2930.53	-151.23	2934.41	0.94	470676.44	783597.12	MWD	
14020.00	89.65	356.46	11230.99	3025.36	-156.89	3029.40	0.28	470771.27	783591.46	MWD	
14114.00	90.63	356.66	11230.76	3119.19	-162.53	3123.39	1.06	470865.10	783585.82	MWD	
14209.00	91.75	356.22	11228.78	3213.99	-168.42	3218.36	1.27	470959.90	783579.93	MWD	

5D Survey Report

Survey Points (Relative to Slot centre, TVD relative to Drill Floor)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northing (US ft)	Easting (US ft)	Survey Tool	Comment
14304.00	91.75	355.42	11225.88	3308.69	-175.34	3313.28	0.84	471054.60	783573.01	MWD	
14398.00	90.14	355.51	11224.33	3402.38	-182.78	3407.22	1.72	471148.29	783565.57	MWD	
14493.00	90.77	355.02	11223.58	3497.05	-190.62	3502.16	0.84	471242.96	783557.73	MWD	
14587.00	91.19	355.95	11221.97	3590.74	-198.02	3596.10	1.09	471336.65	783550.33	MWD	
14682.00	90.77	355.63	11220.35	3685.47	-204.99	3691.05	0.56	471431.38	783543.36	MWD	
14776.00	90.56	356.50	11219.25	3779.25	-211.44	3785.02	0.95	471525.16	783536.91	MWD	
14871.00	90.49	357.45	11218.38	3874.11	-216.45	3880.01	1.00	471620.02	783531.90	MWD	
14965.00	90.63	357.64	11217.47	3968.02	-220.48	3974.01	0.25	471713.93	783527.87	MWD	
15060.00	90.77	357.87	11216.31	4062.94	-224.20	4069.00	0.28	471808.85	783524.15	MWD	
15154.00	90.77	358.65	11215.04	4156.88	-227.05	4162.98	0.83	471902.79	783521.30	MWD	
15249.00	91.40	358.46	11213.24	4251.84	-229.45	4257.93	0.69	471997.75	783518.90	MWD	
15343.00	91.26	358.62	11211.06	4345.78	-231.84	4351.89	0.23	472091.69	783516.51	MWD	
15437.00	91.82	358.23	11208.53	4439.71	-234.43	4445.83	0.73	472185.62	783513.92	MWD	
15532.00	92.09	357.67	11205.29	4534.59	-237.82	4540.77	0.65	472280.50	783510.53	MWD	
15626.00	92.45	358.41	11201.57	4628.46	-241.03	4634.69	0.87	472374.37	783507.32	MWD	
15676.00	92.79	357.99	11199.29	4678.39	-242.60	4684.63	1.08	472424.30	783505.75	MWD	Last Wft Svy
15746.00	92.79	357.99	11195.88	4748.26	-245.06	4754.54	0.00	472494.17	783503.29	MWD	Projection to Bit



Hognose Viper 23 Fed 1H
Lea Co, NM

Plan Data for Hognose Viper 23 Fed 1H

Plan Point Information:									
DogLeg Severity Unit: °/100.00ft				Position offsets from Slot centre					
MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	Vsec	DLS
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)
13831.00	88.88	357.26	11229.09	2836.67	-146.30	470582.58	783682.05	2840.42	0.55
14046.38	91.00	357.64	11229.31	3051.83	-155.88	470797.74	783592.47	3055.78	1.00
14606.38	91.00	357.64	11219.54	3611.26	-178.94	471357.17	783569.41	3615.69	0.00
14656.64	90.50	357.63	11218.88	3661.48	-181.01	471407.39	783567.34	3665.94	1.00
15748.72	90.50	357.63	11209.40	4752.59	-226.08	472498.50	783522.27	4757.96	0.00

Plan Data for Hognose Viper 23 Fed 1H

Target Set Information:
Name: Hognose Viper 23 Fed 1H Lat
Position offsets from Slot centre
Name TVD +N/-S +E/-W Northing Easting Shape Comment
(USft) (USft) (USft) (USft) (USft)
PBHL #H Lat 11209.40 4752.59 -226.08 472498.50 783522.27 Cuboid

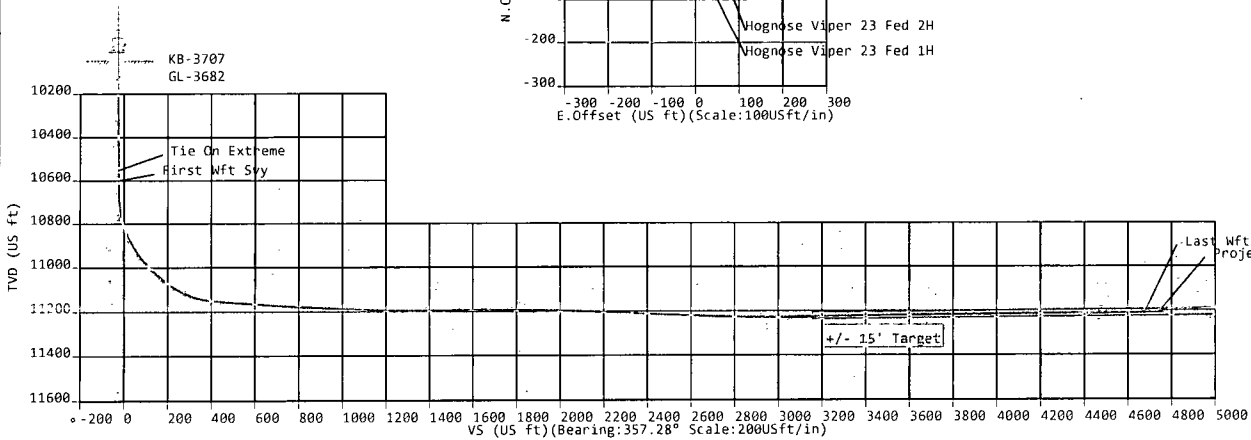
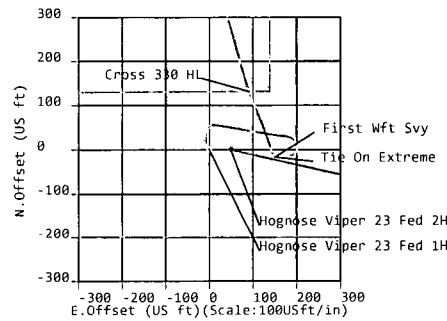
Plan Data for Hognose Viper 23 Fed 1H

Slot: Hognose Viper 23 Fed 1H
Position:
Offset is from Site centre
+N/-S: 0.00USft Northing: 467745.91USft Latitude: 32°17'0.5"
+E/-W: 0.00USft Easting: 783748.35USft Longitude: -103°32'56.1"
Elevation Above VRD: 3682.00USft

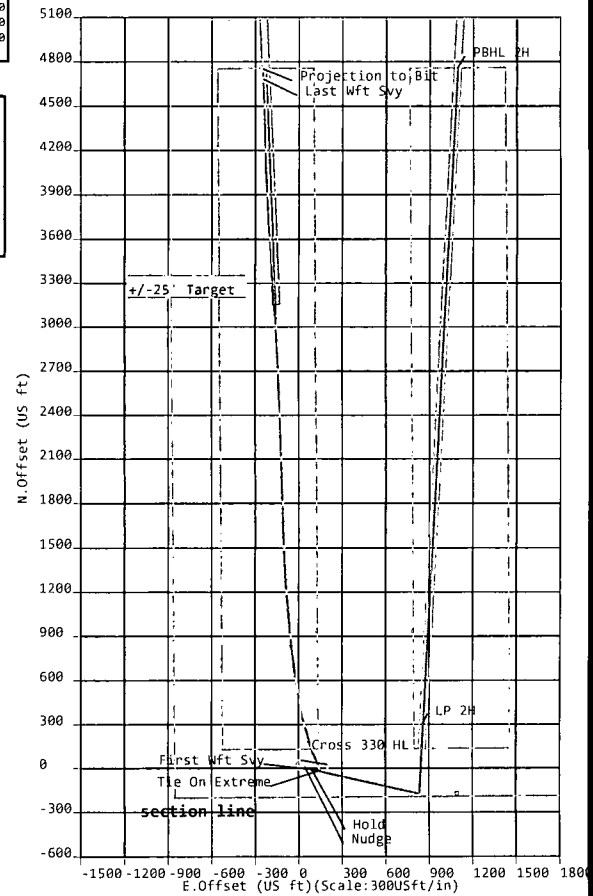
Plan Data for Hognose Viper 23 Fed 1H

Well: Hognose Viper 23 Fed 1H
Type: Main-Well
File Number:
Plan Folder: PG Plan: PG-VI
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.00USft Azimuth: 357.28°
+E/-W: 0.00USft
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
BGM 4R263(nt) 7.30° 60.15° 2015-07-18

Hognose Viper 23 Fed 1H
Hognose Viper 23 Fed 2H
Hognose Viper 23 Fed 1H



Weatherford



Sign Off: Russell Joyner