



30015 42490

June 10, 2015

Devon Energy Production Co., L. P.
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010

NM OIL CONSERVATION
ARTESIA DISTRICT

Attn: Megan Moravec

OCT 05 2015

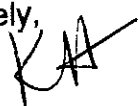
RECEIVED

Re: **Strawberry 7 Federal Com 11H**

Please find enclosed a copy of the survey from 0' to 7231.33' ran on the above referenced well.

If I can be of any further service please do not hesitate to call me at 800-606-4976.

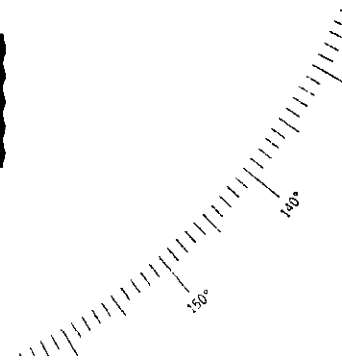
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

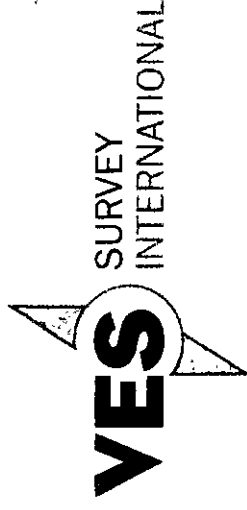
This instrument was acknowledged before me on the 10 day of June,
A.D., 2015, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas





Company: Devon Energy
Lease/Well: Strawberry 7 Federal Com/11H



Rig Name: Cactus 138
State/County: New Mexico/Eddy
VS-Azi: 0.00 Degrees
Latitude: 32.68217, Longitude: -103.90013
Grid Convergence Applied = -0.23 degs (NAD 83)
Grid North = True North -0.23 degs

Depth Reference : RKB = 25 Foot

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: ... 7 fed com 11h_gyro survey.ut
Minimum Curvature Method
Report Date/Time: 6/10/2015 / 13:51

VES Survey International
West Texas
(432) 563-5444

Surveyor: Gene Heiss

Strawberry 7 Federal Com 11H / API 30-015-42490

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
46.29	0.37	31.78	46.29	0.13	0.08	0.13	0.15	31.78	0.81
140.83	0.36	15.92	140.83	0.68	0.32	0.68	0.75	25.60	0.11
235.37	0.31	8.03	235.37	1.21	0.44	1.21	1.29	19.93	0.07
329.91	0.27	339.29	329.90	1.68	0.40	1.68	1.72	13.37	0.16
424.45	0.27	327.04	424.44	2.07	0.20	2.07	2.08	5.46	0.06
518.99	0.25	299.78	518.98	2.36	-0.10	2.36	2.36	357.55	0.13
613.53	0.14	307.61	613.52	2.53	-0.37	2.53	2.56	351.71	0.11
708.07	0.13	267.52	708.06	2.60	-0.57	2.60	2.66	347.74	0.10
802.61	0.11	316.03	802.60	2.66	-0.73	2.66	2.76	344.63	0.10
897.15	0.12	211.08	897.14	2.64	-0.84	2.64	2.77	342.31	0.19
991.69	0.09	137.66	991.68	2.51	-0.84	2.51	2.64	341.41	0.13
1086.23	0.18	99.02	1086.22	2.43	-0.65	2.43	2.51	345.10	0.13
1180.77	0.30	81.00	1180.76	2.44	-0.26	2.44	2.46	354.03	0.15
1275.31	0.35	73.55	1275.30	2.56	0.26	2.56	2.58	5.81	0.07
1369.85	0.42	61.72	1369.84	2.81	0.84	2.81	2.93	16.70	0.12
1464.39	0.51	53.11	1464.37	3.23	1.49	3.23	3.55	24.74	0.12

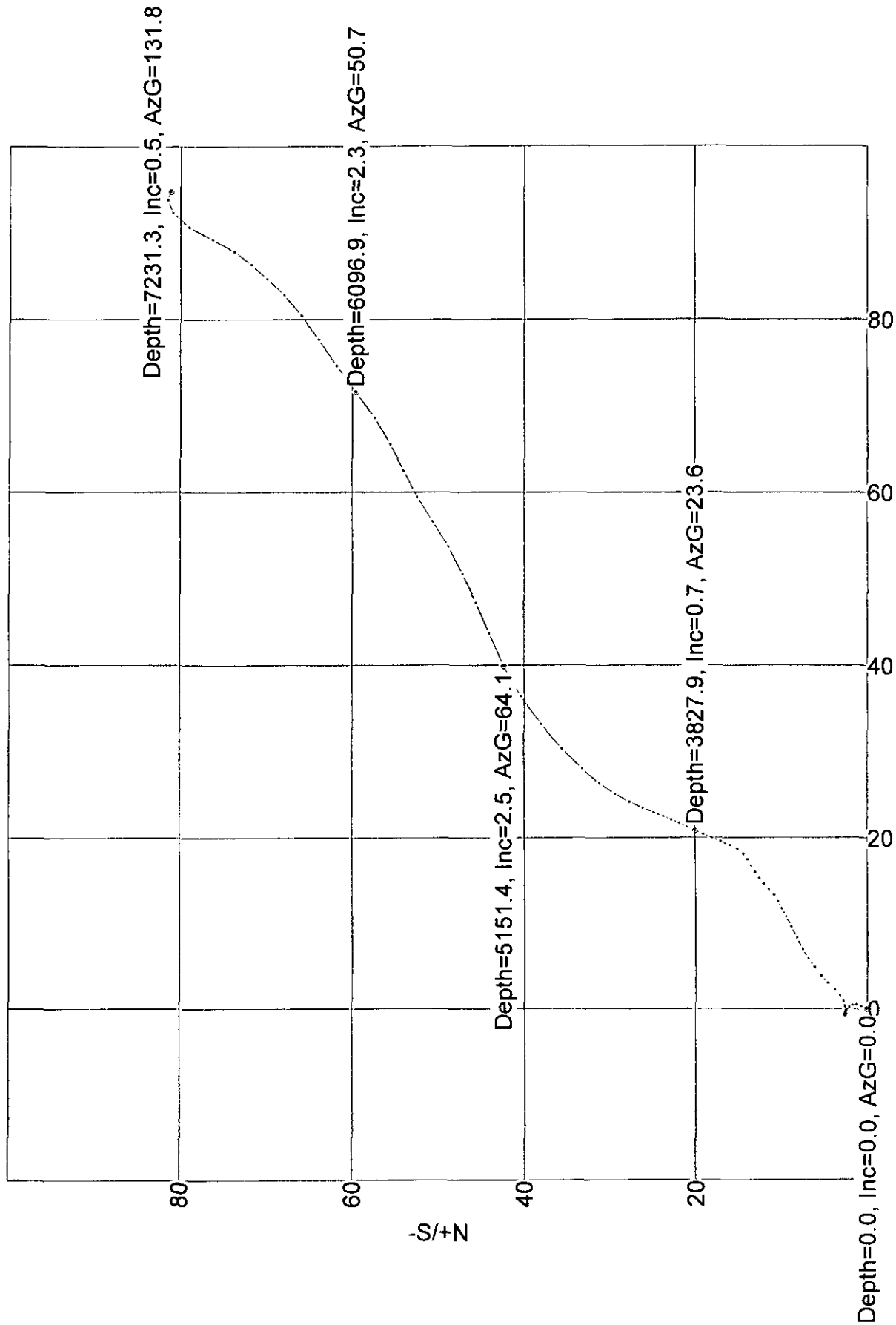
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1558.93	0.62	46.43	1558.91	3.83	2.19	3.83	4.41	29.79	0.13
1653.47	0.73	45.44	1653.44	4.61	2.99	4.61	5.49	33.01	0.12
1748.01	0.68	49.36	1747.98	5.40	3.85	5.40	6.63	35.50	0.08
1842.55	0.81	51.45	1842.51	6.18	4.80	6.18	7.82	37.83	0.14
1937.09	0.78	59.25	1937.04	6.92	5.87	6.92	9.08	40.31	0.12
2031.63	0.88	61.88	2031.57	7.59	7.07	7.59	10.37	42.94	0.11
2126.17	0.89	64.74	2126.10	8.25	8.37	8.25	11.76	45.42	0.05
2220.71	0.86	62.51	2220.63	8.89	9.67	8.89	13.14	47.40	0.05
2315.25	0.72	63.08	2315.16	9.49	10.83	9.49	14.40	48.78	0.15
2409.79	0.59	60.75	2409.69	10.00	11.79	10.00	15.46	49.69	0.14
2504.33	0.55	61.86	2504.23	10.45	12.61	10.45	16.38	50.35	0.04
2598.87	0.51	52.62	2598.76	10.92	13.34	10.92	17.24	50.71	0.10
2693.41	0.57	43.37	2693.30	11.52	14.00	11.52	18.13	50.56	0.11
2787.95	0.50	52.96	2787.83	12.10	14.65	12.10	19.00	50.44	0.12
2882.49	0.53	55.63	2882.37	12.59	15.33	12.59	19.84	50.60	0.04
2977.03	0.48	50.32	2976.91	13.09	16.00	13.09	20.67	50.70	0.07
3071.57	0.55	65.83	3071.44	13.53	16.72	13.53	21.51	51.01	0.17
3166.11	0.48	61.74	3165.98	13.91	17.49	13.91	22.34	51.50	0.09
3260.65	0.52	38.97	3260.52	14.43	18.11	14.43	23.15	51.45	0.21
3355.19	0.57	37.84	3355.05	15.13	18.66	15.13	24.03	50.97	0.06
3449.73	0.67	20.60	3449.59	16.03	19.15	16.03	24.97	50.08	0.23
3544.27	0.69	22.27	3544.12	17.07	19.56	17.07	25.96	48.89	0.03
3638.81	0.67	23.57	3638.65	18.10	20.00	18.10	26.97	47.84	0.03
3733.35	0.60	22.79	3733.19	19.06	20.41	19.06	27.93	46.95	0.07
3827.89	0.68	23.59	3827.72	20.04	20.83	20.04	28.90	46.11	0.08
3922.43	0.63	24.67	3922.25	21.02	21.27	21.02	29.90	45.33	0.06
4016.97	0.60	25.51	4016.79	21.94	21.70	21.94	30.86	44.68	0.03
4111.51	0.57	24.35	4111.32	22.82	22.11	22.82	31.77	44.09	0.04
4206.05	0.67	20.68	4205.86	23.77	22.50	23.77	32.73	43.42	0.12
4300.59	0.78	22.12	4300.39	24.89	22.94	24.89	33.85	42.66	0.11
4395.13	0.94	21.16	4394.92	26.20	23.46	26.20	35.17	41.83	0.17
4489.67	1.11	27.79	4489.45	27.73	24.16	27.73	36.78	41.06	0.22
4584.21	1.26	30.57	4583.96	29.44	25.12	29.44	38.70	40.47	0.18
4678.75	1.39	37.44	4678.48	31.24	26.34	31.24	40.87	40.14	0.21
4773.29	1.77	42.02	4772.98	33.24	28.02	33.24	43.47	40.13	0.43
4867.83	2.23	46.48	4867.47	35.59	30.32	35.59	46.75	40.44	0.51
4962.37	2.38	51.73	4961.93	38.07	33.20	38.07	50.51	41.09	0.28
5056.91	2.41	56.48	5056.39	40.38	36.40	40.38	54.37	42.03	0.21
5151.45	2.52	64.09	5150.84	42.39	39.93	42.39	58.23	43.29	0.36

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100

5245.99	2.41	67.60	5245.29	44.06	43.64	44.06	62.01	44.73	0.20
5340.53	2.30	65.68	5339.75	45.60	47.21	45.60	65.64	46.00	0.15
5435.07	2.20	62.22	5434.22	47.23	50.55	47.23	69.17	46.94	0.18
5529.61	2.11	62.70	5528.69	48.87	53.70	48.87	72.61	47.70	0.09
5624.15	2.03	52.66	5623.17	50.68	56.58	50.68	75.96	48.14	0.39
5718.69	2.05	63.04	5717.65	52.46	59.41	52.46	79.26	48.55	0.39
5813.23	2.09	62.78	5812.13	54.02	62.46	54.02	82.57	49.14	0.05
5907.77	2.13	61.55	5906.61	55.64	65.53	55.64	85.96	49.66	0.06
6002.31	2.20	57.85	6001.08	57.44	68.60	57.44	89.48	50.06	0.16
6096.85	2.28	50.72	6095.55	59.60	71.59	59.60	93.15	50.22	0.31
6191.39	2.26	57.10	6190.01	61.80	74.62	61.80	96.89	50.37	0.27
6285.93	2.17	53.63	6284.48	63.88	77.62	63.88	100.52	50.55	0.17
6380.47	2.08	54.14	6378.96	65.94	80.45	65.94	104.02	50.66	0.10
6475.01	1.75	44.92	6473.44	67.97	82.86	67.97	107.17	50.64	0.48
6569.55	1.53	41.13	6567.95	69.94	84.71	69.94	109.85	50.46	0.25
6664.09	1.43	42.34	6662.45	71.76	86.33	71.76	112.26	50.27	0.11
6758.63	1.58	33.68	6756.96	73.72	87.85	73.72	114.69	50.00	0.29
6853.17	1.94	24.35	6851.46	76.27	89.24	76.27	117.39	49.48	0.49
6947.71	1.84	32.90	6945.95	79.00	90.72	79.00	120.30	48.95	0.32
7042.25	1.23	50.74	7040.45	80.92	92.33	80.92	122.78	48.77	0.81
7136.79	0.85	97.13	7134.98	81.48	93.82	81.48	124.26	49.03	0.94
7231.33	0.48	131.85	7229.51	81.13	94.81	81.13	124.78	49.44	0.56



VES Survey International
West Texas
(432) 563-5444
Surveyor: Gene Heiss
Strawberry 7 Federal Com 11H / API 30-015-42490



-W/+E
VES Survey Date: 6/5/2015



Weatherford[®]

Evaluation, Drilling & Intervention
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

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

Date: June 16, 2015

Attention: Art Alarcon

Re: Devon Energy
Well: Strawberry 7 Fed Com 11H
Eddy 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:

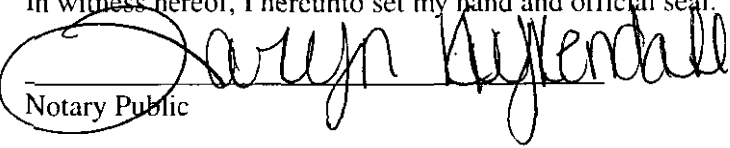
Name & Title <u>Of Surveyor</u>	Well <u>Number</u>	Surveyed <u>Depths</u>	Dates <u>Performed</u>	Type of <u>Survey</u>
Aaron Adcox	11H	7300 MD	5/28/2015	Measurement
MWD Supervisor		12358 MD	6/13/2015	While Drilling

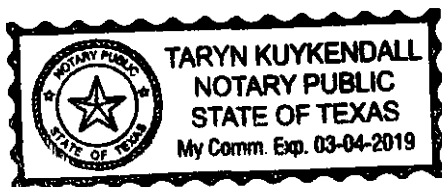
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Jesse Aguilar
MWD Ops Coordinator

On this, the 18th day of June, 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



5D Survey Report**Devon Energy****Field Name:** *Eddy Co, NM (Nad 83 NME)***Site Name:** *Strawberry 7 Fed Com 11H***Well Name:** *Strawberry 7 Fed Com 11H***Survey:** *Wft MWD Svy*

11 June 2015



Strawberry 7 Fed Com 11H

Field Name	Map Units : US ft		Company Name : Devon Energy
Eddy Co, NM (Nad 83 NME)	Vertical Reference Datum (VRD) : Mean Sea Level		
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)		
	Comment :		

Site Name	Units : US ft	North Reference : Grid	Convergence Angle : 0.23
Strawberry 7 Fed Com 11H	Position:	Northing : 611276.81 US ft	Latitude : 32° 40' 46.91"
		Easting : 674504.00 US ft	Longitude : -103° 54' 1.89"
	Elevation above Mean Sea Level: 3494.00 US ft		
	Comment :		

Slot Name	Position (Offsets relative to Site Centre)		
Strawberry 7 Fed Com 11H	+N / -S : 0.00 US ft	Northing : 611276.81 US ft	Latitude : 32° 40' 46.91"
	+E / -W : 0.00 US ft	Easting : 674504.00 US ft	Longitude : -103° 54' 1.89"
	Slot TVD Reference : Ground Elevation		
	Elevation above Mean Sea Level : 3494.00 US ft		
	Comment :		

Well Name	Type : Main well	UWI :
Strawberry 7 Fed Com 11H	Rig Height Well TVD Reference : 25.00 US ft	Comment :
	Relative to Mean Sea Level: 3519.00 US ft	
	Closure Distance : 4755.35 US ft	Closure Azimuth : 268.891°
	Vertical Section (Position of Origin Relative to Slot)	
	+N / -S : 0.00 US ft	+E / -W : 0.00 US ft Az : 268.75°

Survey Name: Wft MWD Svy

Date : 08/Jun/2015 **Survey Tool :** MWD **Comment :** **Company :** Wft

Magnetic Model

Model Name: BGGM **Date:** 25/May/2015 **Field Strength:** 48426.6 nT **Declination:** 7.48° **Dip:** 60.45°

Tie Point

MD: 7231.33 **Inclination:** 0.48 **Azimuth:** 131.85 **TVD:** 7229.51 **North Offset:** 81.13 **East Offset:** 94.81

Well path created using minimum curvature

Survey Points (relative to Slot centre, TVD relative to Well TVD Reference)										
MD (US ft)	Incl (°)	Az (°)	TVD (US ft)	N Offset (US ft)	E Offset (US ft)	VS (US ft)	DLS (ft/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
7231.33	0.48	131.85	7229.51	81.13	94.81	-96.56	0.00	611357.94	674598.81	Tie On VES
7300.00	2.21	227.76	7298.16	80.05	94.04	-95.77	3.36	611356.86	674598.04	First Wft Svy
7332.00	5.52	239.50	7330.09	78.85	92.26	-93.96	10.58	611355.66	674596.26	
7364.00	8.89	248.78	7361.83	77.17	88.63	-90.29	11.11	611353.98	674592.63	
7395.00	11.74	252.18	7392.33	75.34	83.39	-85.02	9.40	611352.15	674587.39	
7427.00	15.24	254.01	7423.44	73.19	76.25	-77.83	11.02	611350.00	674580.25	
7459.00	19.29	254.23	7453.99	70.59	67.11	-68.64	12.66	611347.40	674571.11	
7491.00	22.93	254.03	7483.84	67.44	56.03	-57.49	11.38	611344.25	674560.03	
7522.00	26.40	255.59	7512.01	64.06	43.55	-44.93	11.39	611340.87	674547.55	
7554.00	30.10	253.93	7540.19	60.07	28.94	-30.24	11.82	611336.88	674532.94	
7586.00	33.32	255.10	7567.41	55.58	12.73	-13.94	10.24	611332.39	674516.73	
7618.00	36.73	255.19	7593.61	50.88	-5.02	3.91	10.66	611327.69	674498.98	

Site: 101, 102, 103, 104

Survey Points (Relative to Slot centre, TVD relative to Well TVD Reference)										
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)	Comment
7649.00	40.74	255.28	7617.79	45.94	-23.77	22.76	12.94	611322.75	674480.23	
7681.00	44.69	255.78	7641.29	40.52	-44.79	43.89	12.39	611317.33	674459.21	
7713.00	48.73	256.68	7663.23	34.98	-67.41	66.63	12.79	611311.79	674436.59	
7745.00	52.80	257.83	7683.47	29.52	-91.58	90.91	13.02	611306.33	674412.42	
7777.00	56.36	258.85	7702.01	24.26	-117.11	116.56	11.42	611301.07	674386.89	
7809.00	58.55	259.30	7719.23	19.14	-143.60	143.15	6.95	611295.95	674360.40	
7840.00	60.35	260.48	7734.98	14.46	-169.88	169.52	6.67	611291.27	674334.12	
7871.00	61.80	262.40	7749.98	10.43	-196.71	196.43	7.16	611287.24	674307.29	
7880.50	62.52	262.87	7754.41	9.35	-205.04	204.79	8.75	611286.16	674298.96	Cross Prod Box
7903.00	64.23	263.96	7764.50	7.04	-225.02	224.81	8.75	611283.85	674278.98	
7935.00	67.90	265.56	7777.48	4.38	-254.14	253.98	12.35	611281.19	674249.86	
7967.00	70.23	265.66	7788.91	2.09	-283.94	283.82	7.29	611278.90	674220.06	
7999.00	72.24	265.89	7799.20	-0.14	-314.15	314.08	6.32	611276.67	674189.85	
8031.00	74.35	266.05	7808.40	-2.29	-344.72	344.69	6.61	611274.52	674159.28	
8062.00	76.64	266.67	7816.17	-4.20	-374.67	374.68	7.64	611272.61	674129.33	
8094.00	79.16	267.11	7822.87	-5.89	-405.91	405.95	7.99	611270.92	674098.09	
8126.00	81.51	268.38	7828.25	-7.13	-437.43	437.48	8.32	611269.68	674066.57	
8215.00	84.19	269.98	7839.32	-8.39	-525.72	525.78	3.50	611268.42	673978.28	
8311.00	87.62	269.77	7846.18	-8.60	-621.46	621.50	3.58	611268.21	673882.54	
8406.00	90.07	268.92	7848.09	-9.69	-716.43	716.47	2.73	611267.12	673787.57	
8501.00	91.26	268.37	7846.99	-11.94	-811.39	811.46	1.38	611264.87	673692.61	
8596.00	92.52	268.13	7843.86	-14.84	-906.29	906.40	1.35	611261.97	673597.71	
8689.00	92.52	267.77	7839.77	-18.16	-999.14	999.30	0.39	611258.65	673504.86	
8782.00	91.68	268.30	7836.36	-21.35	-1092.03	1092.23	1.07	611255.46	673411.97	
8875.00	90.56	269.82	7834.54	-22.87	-1184.99	1185.21	2.03	611253.94	673319.01	
8970.00	90.14	269.75	7833.96	-23.23	-1279.99	1280.19	0.45	611253.58	673224.01	
9065.00	89.16	269.34	7834.54	-23.98	-1374.98	1375.18	1.12	611252.83	673129.02	
9161.00	89.65	269.21	7835.54	-25.20	-1470.97	1471.17	0.53	611251.61	673033.03	
9256.00	90.63	269.11	7835.31	-26.59	-1565.96	1566.17	1.04	611250.22	672938.04	
9352.00	90.35	269.45	7834.49	-27.80	-1661.95	1662.16	0.46	611249.01	672842.05	
9447.00	90.98	269.22	7833.38	-28.90	-1756.93	1757.15	0.71	611247.91	672747.07	
9542.00	89.65	268.16	7832.86	-31.07	-1851.90	1852.14	1.79	611245.74	672652.10	
9638.00	90.56	268.31	7832.68	-34.03	-1947.86	1948.14	0.96	611242.78	672556.14	
9733.00	89.51	267.77	7832.63	-37.28	-2042.80	2043.13	1.24	611239.53	672461.20	
9828.00	89.09	267.71	7833.79	-41.02	-2137.72	2138.10	0.45	611235.79	672366.28	
9923.00	90.00	267.46	7834.54	-45.02	-2232.63	2233.08	0.99	611231.79	672271.37	
10016.00	91.05	267.53	7833.69	-49.09	-2325.54	2326.05	1.13	611227.72	672178.46	
10112.00	90.42	267.37	7832.46	-53.36	-2421.43	2422.02	0.68	611223.45	672082.57	
10207.00	90.28	267.28	7831.88	-57.79	-2516.33	2516.99	0.18	611219.02	671987.67	
10300.00	91.19	266.91	7830.68	-62.51	-2609.20	2609.94	1.06	611214.30	671894.80	
10395.00	91.12	267.82	7828.77	-66.87	-2704.08	2704.89	0.96	611209.94	671799.92	
10490.00	91.12	268.66	7826.91	-69.79	-2799.01	2799.87	0.88	611207.02	671704.99	
10585.00	90.28	268.84	7825.75	-71.86	-2893.98	2894.86	0.90	611204.95	671610.02	
10680.00	90.00	268.81	7825.52	-73.81	-2988.96	2989.86	0.30	611203.00	671515.04	
10775.00	90.56	268.15	7825.06	-76.33	-3083.93	3084.86	0.91	611200.48	671420.07	
10871.00	90.21	269.04	7824.41	-78.68	-3179.90	3180.86	1.00	611198.13	671324.10	
10964.00	90.70	269.41	7823.67	-79.94	-3272.88	3273.85	0.66	611196.87	671231.12	
11059.00	91.47	269.11	7821.87	-81.17	-3367.86	3368.83	0.87	611195.64	671136.14	
11155.00	90.98	269.90	7819.82	-82.00	-3463.83	3464.80	0.97	611194.81	671040.17	
11250.00	90.84	270.67	7818.31	-81.52	-3558.82	3559.75	0.82	611195.29	670945.18	
11345.00	91.61	270.35	7816.28	-80.68	-3653.79	3654.68	0.88	611196.13	670850.21	
11439.00	92.17	270.49	7813.18	-79.99	-3747.74	3748.59	0.61	611196.82	670756.26	
11534.00	91.68	269.65	7809.99	-79.87	-3842.68	3843.51	1.02	611196.94	670661.32	
11628.00	91.33	269.70	7807.52	-80.41	-3936.65	3937.47	0.38	611196.40	670567.35	
11721.00	91.40	269.47	7805.31	-81.08	-4029.62	4030.43	0.26	611195.73	670474.38	
11816.00	90.70	269.40	7803.56	-82.02	-4124.60	4125.41	0.74	611194.79	670379.40	
11911.00	89.86	268.88	7803.10	-83.44	-4219.59	4220.40	1.04	611193.37	670284.41	
12006.00	89.09	269.38	7803.97	-84.89	-4314.57	4315.39	0.97	611191.92	670189.43	

Site Survey Report

Survey Points (Relative to Slot centre, TVD relative to Well TVD Reference)										
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)	Comment
12101.00	89.58	269.23	7805.07	-86.04	-4409.56	4410.38	0.54	611190.77	670094.44	
12196.00	90.21	268.84	7805.25	-87.64	-4504.54	4505.38	0.78	611189.17	669999.46	
12292.00	90.77	269.02	7804.43	-89.43	-4600.52	4601.38	0.61	611187.38	669903.48	
12358.00	91.33	269.02	7803.22	-90.56	-4666.50	4667.37	0.85	611186.25	669837.50	Last Wft Svy
12406.29	91.33	269.02	7802.10	-91.39	-4714.77	4715.64	0.00	611185.42	669789.23	Cross Prod Box
12446.00	91.33	269.02	7801.17	-92.06	-4754.46	4755.34	0.00	611184.75	669749.54	Proj. To Bit

devon

Strawberry 7 Fed Com 11H
Eddy Co, NM



Plan Data for Strawberry 7 Fed Com 11H

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)	
8126.00	81.51	268.38	7828.25	-7.16	-437.46	611269.65	674066.54	437.51	8.32	
8205.00	84.27	268.87	7838.02	-9.04	-515.82	611267.77	673988.18	515.90	3.55	
8424.71	90.00	268.72	7849.00	-13.65	-735.12	611263.16	673768.88	735.24	2.61	
9209.47	90.00	268.72	7849.00	-31.18	-1519.69	611245.63	672984.31	1520.00	0.00	
9254.04	90.89	268.71	7848.65	-32.18	-1564.24	611244.63	672939.76	1564.57	2.00	
12445.74	90.89	268.71	7799.00	-103.83	-4754.75	611172.98	669749.25	4755.88	0.00	

Plan Data for Strawberry 7 Fed Com 11H

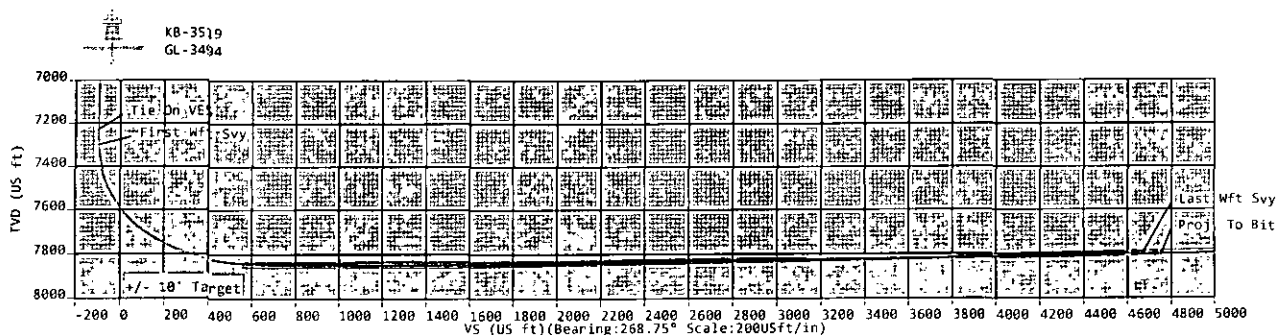
Slot: Strawberry 7 Fed Com 11H
Position:
Offset 1s from Site centre
+N/-S: 0.00USft Northing: 611276.81USft Latitude: 32°40'46.9"
+E/-W: 0.00USft Easting: 674504.00USft Longitude: -103°54'1.9"
Elevation Above VRD: 3494.00USft

Plan Data for Strawberry 7 Fed Com 11H

Target Set Information:						
Name: Strawberry 7 Fed Com 11H						
Position offsets from Slot centre						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape Comment
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	
LP 7849.00	-12.50	-572.82	611264.31	673931.18	Cuboid	
PBHL 11H 7799.00	-103.83	-4754.75	611172.98	669749.25	Cuboid	

Plan Data for Strawberry 7 Fed Com 11H
Well: Strawberry 7 Fed Com 11H
Type: Main-Well
File Number:
Plan Folder: P3 Plan: P3:V1
Vertical Section: Position offset of origin from Slot centre
+N/-S: 0.00USft Azimuth: 268.75°
+E/-W: 0.00USft
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
BGGM 48426(nT) 7.48° 68.45° 2015-05-25

Strawberry 7 Fed Com 11H _____
Strawberry 7 Federal 3 _____
Strawberry 7 Federal 1 _____
Strawberry 7 Fed 2 _____
Strawberry 7 Fed 7 _____
Strawberry 7 Fed Com 11H _____



Sign Off: Russell Joyner



Directional Survey

Well Name: STRAWBERRY 7 FED COM 11H

Sub-Division DELAWARE BASIN WEST		Region SLOPE EAST		Field Name HACKBERRY NORTH		County EDDY		State/Province NM					
Surface Legal Location SEC 7 T19S R31E		API/UMI 3001542480		Latitude (°) 32° 40' 46.483" N		Longitude (°) 103° 54' 0.08" W		Orig KB Elevation (ft) 3,519.20		Ground Elev MSL (ft) 3,494.20		KB - GL (ft) 25.00	
Wellbores													
Wellbore Name OH		Parent Wellbore OH		SAP Well ID 38512		Vertical Section Direction (°)							
Kick Offs & Key Depths													
Date 6/6/2015				Type CURVE				Top Depth (ftKB) 7,288.0					
Actual Deviation Survey NOV FLOW DRIFT , Proposed? No				Definitive? No		Proposed? No		Proposed Deviation Survey					
Deviation Survey													
Date 5/25/2015		Description NOV FLOW DRIFT											
MD Tie In (ftKB)		TVD Tie In (ftKB)		Inclination Tie In (°)		Azimuth Tie In (°)		NSTie In (ft)		EWTie In (ft)			
Survey Data													
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company			
6/5/2015	46.29	0.37	31.78	46.29	-0.08	0.13	0.08	0.80	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	140.83	0.36	15.92	140.83	-0.33	-0.67	0.32	0.11	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	235.37	0.31	8.03	235.37	-0.46	1.21	0.44	0.07	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	329.91	0.27	339.29	329.91	-0.43	1.67	0.40	0.16	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	424.45	0.27	327.04	424.44	-0.24	2.07	0.20	0.06	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	518.99	0.25	299.78	518.98	0.06	2.36	-0.11	0.13	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	613.53	0.14	307.61	613.52	0.33	2.53	-0.38	0.12	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	708.07	0.13	267.52	708.06	0.52	2.60	-0.57	0.10	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	802.61	0.11	316.03	802.60	0.69	2.66	-0.74	0.11	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	897.15	0.12	211.08	897.14	0.81	2.64	-0.86	0.19	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	991.69	0.09	137.66	991.68	0.81	2.50	-0.86	0.14	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	1,086.23	0.18	99.02	1,086.22	0.62	2.42	-0.66	0.13	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	1,180.77	0.30	81.00	1,180.76	0.22	2.43	-0.27	0.15	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	1,275.31	0.35	73.55	1,275.30	0.30	2.56	0.25	0.07	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	1,369.85	0.42	61.72	1,369.84	-0.89	2.80	0.83	0.11	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	1,464.39	0.51	53.11	1,464.37	-1.54	3.22	1.47	0.12	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	1,558.93	0.62	46.43	1,558.91	-2.25	3.82	2.18	0.14	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	1,653.47	0.73	45.44	1,653.44	-3.07	4.60	2.98	0.12	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	1,748.01	0.68	49.36	1,747.98	-3.94	5.39	3.83	0.07	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	1,842.55	0.81	51.45	1,842.51	-4.90	6.17	4.78	0.14	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	1,937.09	0.78	59.25	1,937.04	-5.99	6.91	5.86	0.12	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	2,031.63	0.88	61.88	2,031.57	-7.20	7.58	7.05	0.11	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	2,126.17	0.89	64.74	2,126.10	-8.52	8.24	8.36	0.05	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	2,220.71	0.86	62.51	2,220.63	-9.82	8.88	9.65	0.05	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	2,315.25	0.72	63.08	2,315.16	-10.99	9.48	10.81	0.15	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	2,409.79	0.59	60.75	2,409.69	-11.96	9.98	11.76	0.14	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	2,504.33	0.55	61.86	2,504.23	-12.79	10.44	12.59	0.04	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	2,598.87	0.51	52.62	2,598.76	-13.53	10.91	13.32	0.10	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	2,693.41	0.57	43.37	2,693.30	-14.20	11.50	13.98	0.11	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	2,787.95	0.50	52.96	2,787.83	-14.87	12.09	14.63	0.12	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	2,882.49	0.53	55.63	2,882.37	-15.57	12.59	15.32	0.04	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	2,977.03	0.48	50.32	2,976.91	-16.24	13.09	15.99	0.07	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	3,071.57	0.55	65.83	3,071.44	-16.97	13.53	16.71	0.16	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	3,166.11	0.48	61.74	3,165.98	-17.74	13.90	17.47	0.08	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	3,260.65	0.52	38.97	3,260.52	-18.37	14.42	18.09	0.21	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	3,355.19	0.57	37.84	3,355.05	-18.94	15.13	18.65	0.05	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	3,449.73	0.67	20.60	3,449.59	-19.44	16.01	19.13	0.22	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	3,544.27	0.69	22.27	3,544.12	-19.87	17.06	19.54	0.03	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	3,638.81	0.67	23.57	3,638.65	-20.33	18.09	19.98	0.03	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	3,733.35	0.60	22.79	3,733.19	-20.76	19.06	20.39	0.07	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	3,827.89	0.68	23.59	3,827.72	-21.19	20.03	20.81	0.09	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	3,922.43	0.63	24.67	3,922.25	-21.65	21.01	21.25	0.05	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	4,016.97	0.60	25.51	4,016.79	-22.10	21.93	21.68	0.03	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	4,111.51	0.57	24.35	4,111.32	-22.53	22.81	22.08	0.03	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	4,206.05	0.67	20.68	4,205.86	-22.93	23.75	22.47	0.11	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	4,300.59	0.78	22.12	4,300.39	-23.39	24.87	22.91	0.12	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	4,395.13	0.94	21.16	4,394.92	-23.94	26.18	23.43	0.17	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	4,489.67	1.11	27.79	4,489.45	-24.68	27.72	24.14	0.22	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	4,584.21	1.26	30.57	4,583.97	-25.67	29.42	25.10	0.17	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	4,678.75	1.39	37.44	4,678.48	-26.93	31.23	26.32	0.22	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	4,773.29	1.77	42.02	4,772.98	-28.64	33.22	28.00	0.42	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	4,867.83	2.23	46.48	4,867.47	-31.00	35.57	30.31	0.51	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	4,962.37	2.38	51.73	4,961.93	-33.92	38.06	33.18	0.27	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	5,056.91	2.41	56.48	5,056.39	-37.18	40.37	36.38	0.21	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	5,151.45	2.52	64.09	5,150.84	-40.73	42.38	39.91	0.36	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	5,245.99	2.41	67.60	5,245.29	-44.47	44.04	43.61	0.20	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	5,340.53	2.30	65.68	5,339.75	-48.06	45.58	47.18	0.14	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	5,435.07	2.20	62.22	5,434.22	-51.43	47.21	50.51	0.18	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	5,529.61	2.11	62.70	5,528.69	-54.81	48.85	53.67	0.10	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	5,624.15	2.03	52.66	5,623.17	-57.52	50.67	56.54	0.39	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	5,718.69	2.05	63.04	5,717.65	-60.40	52.45	59.38	0.39	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	5,813.23	2.09	62.78	5,812.13	-63.47	54.00	62.42	0.04	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	5,907.77	2.13	61.55	5,906.61	-66.57	55.63	65.50	0.06	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	6,002.31	2.20	57.85	6,001.08	-69.69	57.43	68.58	0.17	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	6,096.85	2.28	50.72	6,095.55	-72.72	59.59	71.57	0.31	GYRO	VAUHG N ENERGY SERVICES			
6/5/2015	6,191.39	2.26	57.10	6,190.01	-75.79	61.79	74.59	0.27	GYRO	VAUHG N ENERGY SERVICES			



Directional Survey

Well Name: STRAWBERRY 7 FED COM 11H

Sub-Division		Region		Field Name				County		State/Province	
DELAWARE BASIN WEST		SLOPE EAST		HACKBERRY NORTH				EDDY		NM	
Surface Legal Location		API/UM		Latitude (°)		Longitude (°)		Orig KB Elevation (ft)		Ground Elev MSL (ft)	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
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SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
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SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54' 0.08" W		3,519.20		3,494.20	
SEC 7 T19S R31E		3001542490		32° 40' 46.483" N		103° 54'					

Well Name: STRAWBERRY 7 FED COM 11H

Sub-Division DELAWARE BASIN WEST		Region SLOPE EAST		Field Name HACKBERRY NORTH		County EDDY		State/Province NM		
Surface Legal Location SEC 7 T19S R31E		API/WMI 3001542490		Latitude (") 32° 40' 46.483" N	Longitude (") 103° 54' 0.08" W	Orig KB Elevation (ft) 3,519.20		Ground Elev MSL (ft) 3,494.20	KB - GL (ft) 25.00	
Survey Data										
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Survey Tool	Survey Company
6/10/2015	11,911.00	89.86	268.88	7,802.39	4,220.37	-84.01	-4,219.54	1.04	MWD	WEATHERFORD
6/10/2015	12,006.00	89.09	269.38	7,803.26	4,315.37	-85.45	-4,314.52	0.97	MWD	WEATHERFORD
6/10/2015	12,196.00	90.21	268.84	7,804.42	4,505.36	-88.40	-4,504.49	0.65	MWD	WEATHERFORD
6/11/2015	12,292.00	90.77	269.02	7,803.60	4,601.36	-90.20	-4,600.47	0.61	MWD	WEATHERFORD
6/11/2015	12,358.00	91.33	269.02	7,802.39	4,667.34	-91.32	-4,666.45	0.85	MWD	WEATHERFORD
6/11/2015	12,446.00	91.33	269.02	7,800.35	4,755.32	-92.83	-4,754.41	0.00	BIT	WEATHERFORD