



December 9, 2014

MAR 31 2015

RECEIVED

3001542072

Devon Energy
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010

Attn: David Cook

Re: **Cotton Draw Unit 206H**

Please find enclosed a copy of the survey from 0.00' to 4282.00' ran on the above referenced well.

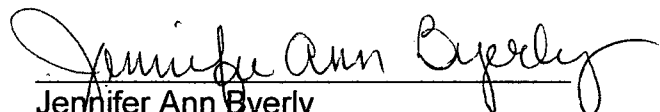
If I can be of any further service please do not hesitate to call me at 800-606-4976.

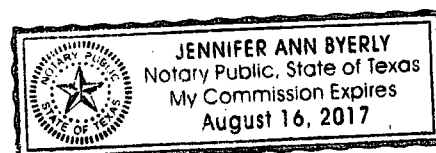
Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 9 day of December
A.D., 2014, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas





Company: Devon
 Lease/Well: Cotton Draw Unit/206H
 Location: Sec26 T24S R31E
 Rig Name: H&P 223
 State/County: New Mexico/Eddy
 Latitude: 32.18, Longitude: -103.74
 GRID North is 0.31 Degrees East of True North
 VS-Azi: 0.00 Degrees



Depth Reference : RKB = 25 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut
 Minimum Curvature Method
 Report Date/Time: 12/9/2014 / 14:23

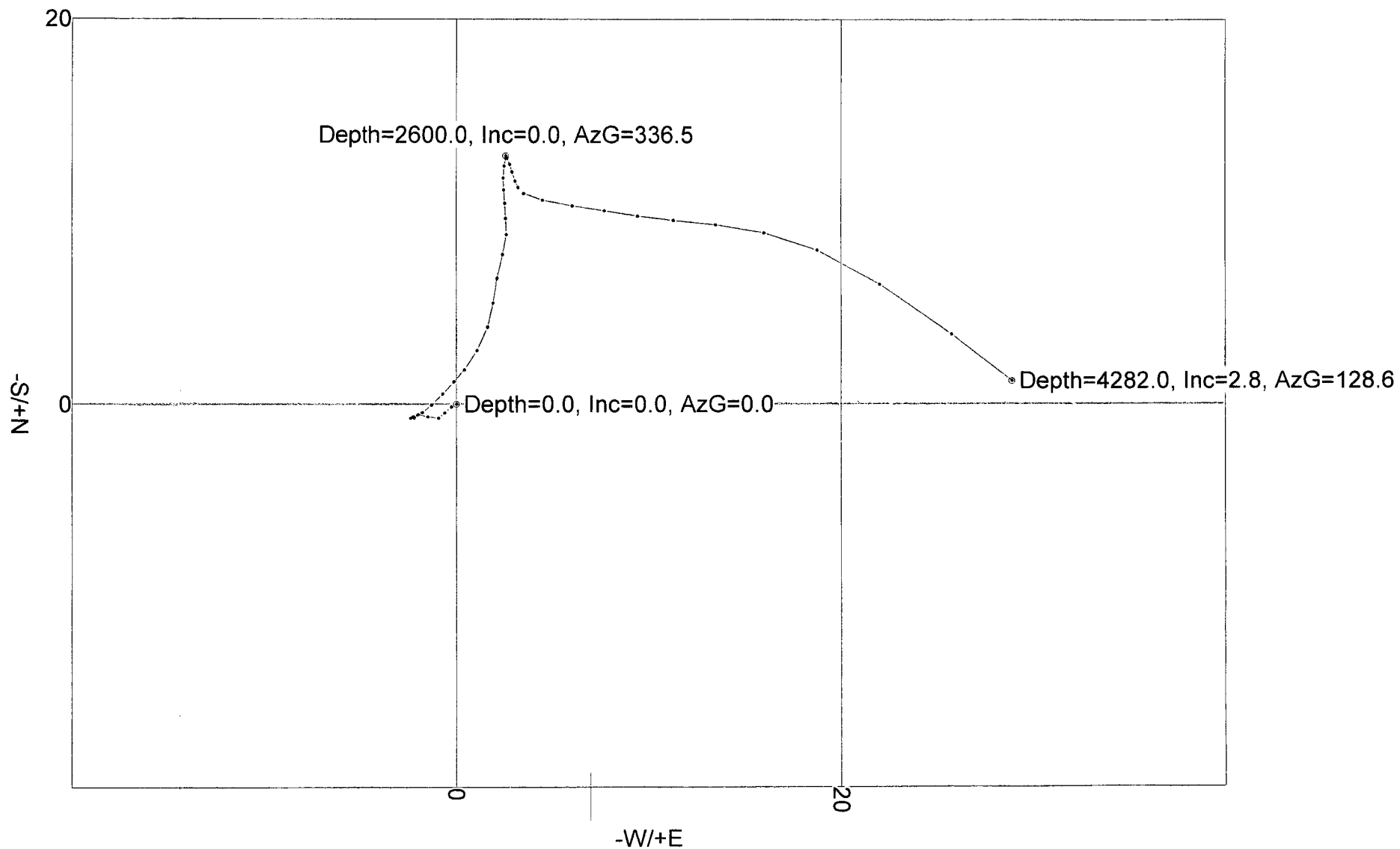
VES Survey International
 West Texas
 (432) 563-5444
 Surveyor: Noe Garza
 Cotton Draw Unit 206H / API 30-015-42072

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	****
100.00	0.35	241.87	100.00	-0.14	-0.27	-0.14	0.31	241.87	0.35
200.00	0.22	205.29	200.00	-0.46	-0.62	-0.46	0.78	233.22	0.22
300.00	0.28	246.76	300.00	-0.74	-0.93	-0.74	1.19	231.56	0.19
400.00	0.43	296.13	400.00	-0.67	-1.49	-0.67	1.63	245.71	0.32
500.00	0.22	256.47	499.99	-0.55	-2.01	-0.55	2.09	254.60	0.29
600.00	0.10	228.58	599.99	-0.66	-2.26	-0.66	2.36	253.83	0.14
700.00	0.06	244.41	699.99	-0.74	-2.38	-0.74	2.49	252.79	0.04
800.00	0.25	81.59	799.99	-0.73	-2.21	-0.73	2.32	251.78	0.31
900.00	0.37	38.89	899.99	-0.44	-1.79	-0.44	1.84	256.14	0.25
1000.00	0.37	63.68	999.99	-0.05	-1.30	-0.05	1.30	267.99	0.16
1100.00	0.60	34.31	1099.99	0.53	-0.71	0.53	0.89	306.61	0.34
1200.00	0.40	53.99	1199.98	1.17	-0.13	1.17	1.18	353.49	0.26
1300.00	0.56	32.21	1299.98	1.79	0.41	1.79	1.84	12.90	0.24
1400.00	0.81	33.85	1399.97	2.79	1.07	2.79	2.99	20.89	0.26
1500.00	0.74	14.09	1499.96	4.01	1.62	4.01	4.32	22.00	0.28
1600.00	0.73	11.62	1599.95	5.26	1.90	5.26	5.59	19.91	0.03
1700.00	0.75	6.45	1699.95	6.53	2.11	6.53	6.87	17.86	0.07
1800.00	0.71	20.33	1799.94	7.76	2.39	7.76	8.13	17.14	0.18

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
1900.00	0.53	358.05	1899.93	8.81	2.59	8.81	9.18	16.40	0.29
2000.00	0.44	356.37	1999.93	9.65	2.55	9.65	9.98	14.81	0.10
2100.00	0.47	356.16	2099.93	10.44	2.50	10.44	10.73	13.48	0.03
2200.00	0.32	355.66	2199.92	11.13	2.45	11.13	11.39	12.43	0.14
2300.00	0.39	358.33	2299.92	11.75	2.42	11.75	12.00	11.64	0.07
2400.00	0.33	11.87	2399.92	12.38	2.47	12.38	12.62	11.29	0.11
2500.00	0.13	11.50	2499.92	12.77	2.55	12.77	13.02	11.30	0.20
2600.00	0.03	336.48	2599.92	12.91	2.56	12.91	13.16	11.23	0.11
2700.00	0.19	156.56	2699.92	12.78	2.62	12.78	13.04	11.58	0.22
2800.00	0.20	157.72	2799.92	12.46	2.75	12.46	12.76	12.45	0.01
2900.00	0.27	166.15	2899.92	12.07	2.88	12.07	12.41	13.40	0.07
3000.00	0.30	155.38	2999.92	11.60	3.04	11.60	11.99	14.69	0.07
3100.00	0.12	160.25	3099.91	11.26	3.19	11.26	11.71	15.80	0.19
3200.00	0.39	129.73	3199.91	10.95	3.48	10.95	11.49	17.65	0.30
3300.00	0.83	100.85	3299.91	10.59	4.46	10.59	11.49	22.83	0.52
3400.00	0.96	100.04	3399.90	10.31	6.00	10.31	11.93	30.19	0.14
3500.00	0.98	97.64	3499.88	10.05	7.67	10.05	12.65	37.37	0.04
3600.00	1.03	100.04	3599.87	9.78	9.41	9.78	13.57	43.90	0.07
3700.00	1.12	94.28	3699.85	9.55	11.27	9.55	14.77	49.72	0.14
3800.00	1.42	97.13	3799.82	9.32	13.48	9.32	16.39	55.32	0.31
3900.00	1.50	101.82	3899.79	8.90	15.99	8.90	18.30	60.90	0.14
4000.00	1.82	113.17	3999.75	8.01	18.73	8.01	20.37	66.85	0.46
4100.00	2.44	122.68	4099.68	6.23	21.98	6.23	22.85	74.17	0.72
4200.00	2.78	126.33	4199.58	3.64	25.73	3.64	25.99	81.94	0.37
4282.00	2.78	128.61	4281.48	1.22	28.89	1.22	28.91	87.57	0.14



VES Survey International
West Texas
(432) 563-5444
Surveyor: Noe Garza
Cotton Draw Unit 206H / API 30-015-42072





Directional Survey

Sub-Division	Country	Field Name	Region	State/Province
DELAWARE BASIN	EDS	PADUCA	DELAWARE BASIN WEST	WY
Surface Legal Location	APN/M	Latitude (°)	Longitude (°)	Ground Elev. (M)
Sec. 26.24S 31E	3001542972	32° 10' 53.375" N	103° 44' 40.425" W	3,506.30
				Orig. KB Elev. (ft)
				3,531.30
				Tubing Head Elevation (ft)

Wellbores	Parent Wellbore	SAP Well ID	Vertical Section Direction (°)
04		37466	

Kick Offs & Key Depths	Date	Type	Top Depth (ftKB)

Actual Deviation Survey	Definitive?	Proposed?	Proposed Deviation Survey
LEAM:MWD: Proposed? No	Yes	No	

Deviation Survey	Date	Description
	11/29/2014	LEAM:MWD

MD Tie In (ftKB)	TVD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	NS Tie In (ft)	EW Tie In (ft)
0.00	0.00	0.00	0.00	0.00	0.00

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Survey Tool	Survey Company
11/29/2	100.00	0.35	241.87	100.00	-0.18	-0.14	-0.27	0.35	MWD	LEAM DRILLING SYSTEMS
11/29/2	200.00	0.22	205.29	200.00	-0.55	-0.46	-0.62	0.22	MWD	LEAM DRILLING SYSTEMS
11/29/2	300.00	0.28	246.76	300.00	-0.86	-0.73	-0.93	0.19	MWD	LEAM DRILLING SYSTEMS
11/29/2	400.00	0.43	296.13	400.00	-0.88	-0.66	-1.49	0.33	MWD	LEAM DRILLING SYSTEMS
11/29/2	500.00	0.22	256.47	499.99	-0.84	-0.54	-2.01	0.30	MWD	LEAM DRILLING SYSTEMS
11/29/2	600.00	0.10	228.58	599.99	-0.98	-0.65	-2.26	0.14	MWD	LEAM DRILLING SYSTEMS
11/29/2	700.00	0.06	244.41	699.99	-1.07	-0.73	-2.38	0.05	MWD	LEAM DRILLING SYSTEMS
11/29/2	800.00	0.25	81.59	799.99	-1.04	-0.72	-2.21	0.31	MWD	LEAM DRILLING SYSTEMS
11/29/2	900.00	0.37	38.89	899.99	-0.70	-0.43	-1.79	0.25	MWD	LEAM DRILLING SYSTEMS
11/29/2	1,000.00	0.37	63.68	999.99	-0.23	-0.04	-1.30	0.16	MWD	LEAM DRILLING SYSTEMS
11/29/2	1,100.00	0.60	34.31	1,099.99	0.42	0.54	-0.71	0.33	MWD	LEAM DRILLING SYSTEMS
11/29/2	1,200.00	0.40	53.99	1,199.98	1.14	1.17	-0.14	0.26	MWD	LEAM DRILLING SYSTEMS
11/29/2	1,300.00	0.56	32.21	1,299.98	1.83	1.79	0.41	0.24	MWD	LEAM DRILLING SYSTEMS
11/29/2	1,400.00	0.81	33.85	1,399.97	2.92	2.79	1.06	0.25	MWD	LEAM DRILLING SYSTEMS
11/29/2	1,500.00	0.74	14.09	1,499.96	4.20	4.01	1.61	0.27	MWD	LEAM DRILLING SYSTEMS
11/29/2	1,600.00	0.73	11.62	1,599.95	5.48	5.26	1.90	0.03	MWD	LEAM DRILLING SYSTEMS
11/29/2	1,700.00	0.75	6.45	1,699.95	6.77	6.53	2.10	0.07	MWD	LEAM DRILLING SYSTEMS
11/29/2	1,800.00	0.71	20.33	1,799.94	8.03	7.76	2.39	0.18	MWD	LEAM DRILLING SYSTEMS
11/29/2	1,900.00	0.53	358.05	1,899.93	9.10	8.81	2.59	0.30	MWD	LEAM DRILLING SYSTEMS
11/29/2	2,000.00	0.44	356.37	1,999.93	9.93	9.65	2.55	0.09	MWD	LEAM DRILLING SYSTEMS
11/29/2	2,100.00	0.47	356.16	2,099.93	10.70	10.44	2.50	0.03	MWD	LEAM DRILLING SYSTEMS
11/29/2	2,200.00	0.32	355.66	2,199.92	11.37	11.13	2.45	0.15	MWD	LEAM DRILLING SYSTEMS
11/29/2	2,300.00	0.39	358.33	2,299.92	11.98	11.75	2.42	0.07	MWD	LEAM DRILLING SYSTEMS
11/29/2	2,400.00	0.33	11.87	2,399.92	12.60	12.37	2.47	0.10	MWD	LEAM DRILLING SYSTEMS
11/29/2	2,500.00	0.13	11.50	2,499.92	13.00	12.77	2.55	0.20	MWD	LEAM DRILLING SYSTEMS
11/29/2	2,600.00	0.03	336.48	2,599.92	13.14	12.90	2.56	0.11	MWD	LEAM DRILLING SYSTEMS
11/29/2	2,700.00	0.19	156.56	2,699.92	13.02	12.77	2.62	0.22	MWD	LEAM DRILLING SYSTEMS
11/29/2	2,800.00	0.20	157.72	2,799.92	12.73	12.46	2.75	0.01	MWD	LEAM DRILLING SYSTEMS
11/29/2	2,900.00	0.27	166.15	2,899.92	12.36	12.07	2.87	0.08	MWD	LEAM DRILLING SYSTEMS
11/29/2	3,000.00	0.30	155.38	2,999.92	11.93	11.60	3.04	0.06	MWD	LEAM DRILLING SYSTEMS
11/29/2	3,100.00	0.12	160.25	3,099.92	11.62	11.27	3.18	0.18	MWD	LEAM DRILLING SYSTEMS
11/29/2	3,200.00	0.39	129.73	3,199.91	11.35	10.95	3.48	0.29	MWD	LEAM DRILLING SYSTEMS
11/29/2	3,300.00	0.83	100.85	3,299.91	11.14	10.60	4.45	0.52	MWD	LEAM DRILLING SYSTEMS
11/29/2	3,400.00	0.96	100.04	3,399.90	11.10	10.31	5.99	0.13	MWD	LEAM DRILLING SYSTEMS
11/29/2	3,500.00	0.98	97.64	3,499.88	11.09	10.05	7.66	0.05	MWD	LEAM DRILLING SYSTEMS
11/29/2	3,600.00	1.03	100.04	3,599.87	11.08	9.78	9.39	0.07	MWD	LEAM DRILLING SYSTEMS
11/29/2	3,700.00	1.12	94.28	3,699.85	11.14	9.55	11.25	0.14	MWD	LEAM DRILLING SYSTEMS
11/29/2	3,800.00	1.42	97.13	3,799.82	11.24	9.33	13.46	0.31	MWD	LEAM DRILLING SYSTEMS
11/29/2	3,900.00	1.50	101.82	3,899.79	11.20	8.90	15.97	0.14	MWD	LEAM DRILLING SYSTEMS
11/29/2	4,000.00	1.82	113.17	3,999.75	10.73	8.01	18.71	0.46	MWD	LEAM DRILLING SYSTEMS
11/29/2	4,100.00	2.44	122.68	4,099.68	9.47	6.24	21.96	0.71	MWD	LEAM DRILLING SYSTEMS
11/29/2	4,200.00	2.78	126.33	4,199.58	7.47	3.65	25.70	0.38	MWD	LEAM DRILLING SYSTEMS
11/29/2	4,282.00	2.78	128.61	4,281.48	5.56	1.23	28.86	0.13	MWD	LEAM DRILLING SYSTEMS
11/29/2	4,406.00	2.60	134.30	4,405.34	2.42	-2.61	33.22	0.26	MWD	LEAM DRILLING SYSTEMS



COTTON DRAW UNIT 206H

DELAWARE BASIN UNRESTRICTED

Directional Survey

Sub-Division	County	Field Name	Region	State/Province
DELAWARE BASIN	EDDY	RADUCA	DELAWARE BASIN WEST	NM
Surface/Well Location	API Well	Latitude (°)	Longitude (°)	Ground Elev. (ft)
Sec. 26 24S 31E	3401542072	32° 10' 53.375" N	103° 44' 40.425" W	3,506.30
				Orig. KB Elev. (ft)
				3,531.30
				Tubing Head Elevation (ft)

Survey Data

Date	MD (ft)	Incl (°)	Azm (°)	TVD (ft)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
11/29/2	4,469.00	3.60	134.30	4,468.28	0.75	-4.60	-35.27	0.00	MWD	LEAM DRILLING SYSTEMS
11/29/2	4,564.00	2.90	127.20	4,563.17	1.65	-7.56	-38.72	0.48	MWD	LEAM DRILLING SYSTEMS
11/29/2	4,658.00	3.80	116.40	4,657.01	3.74	-10.38	-43.41	1.17	MWD	LEAM DRILLING SYSTEMS
11/29/2	4,753.00	4.70	111.10	4,751.75	5.54	-13.19	-49.86	1.03	MWD	LEAM DRILLING SYSTEMS
11/29/2	4,847.00	5.00	112.30	4,845.41	7.34	-16.13	-57.24	0.34	MWD	LEAM DRILLING SYSTEMS
11/29/2	4,942.00	4.80	101.60	4,940.07	8.52	-18.50	-64.97	0.98	MWD	LEAM DRILLING SYSTEMS
11/29/2	5,036.00	5.60	94.90	5,033.68	8.42	-19.68	-73.39	1.07	MWD	LEAM DRILLING SYSTEMS
11/29/2	5,131.00	6.10	93.70	5,128.18	7.68	-20.40	-83.04	0.54	MWD	LEAM DRILLING SYSTEMS
11/29/2	5,225.00	6.20	94.40	5,221.64	6.88	-21.11	-93.09	0.13	MWD	LEAM DRILLING SYSTEMS
11/29/2	5,320.00	6.20	93.00	5,316.09	5.99	-21.77	-103.33	0.16	MWD	LEAM DRILLING SYSTEMS
11/29/2	5,415.00	6.10	91.70	5,410.54	4.88	-22.19	-113.49	0.18	MWD	LEAM DRILLING SYSTEMS
11/29/2	5,509.00	6.00	97.40	5,504.02	4.17	-22.97	-123.36	0.65	MWD	LEAM DRILLING SYSTEMS
11/29/2	5,604.00	6.00	99.50	5,598.50	4.13	-24.43	-133.18	0.23	MWD	LEAM DRILLING SYSTEMS
11/29/2	5,698.00	6.20	99.50	5,691.96	4.28	-26.08	-143.03	0.21	MWD	LEAM DRILLING SYSTEMS
11/29/2	5,793.00	6.20	99.70	5,786.41	4.45	-27.79	-153.15	0.02	MWD	LEAM DRILLING SYSTEMS
11/29/2	5,887.00	6.20	99.50	5,879.86	4.62	-29.49	-163.16	0.02	MWD	LEAM DRILLING SYSTEMS
11/29/2	5,982.00	6.10	99.80	5,974.31	4.80	-31.19	-173.19	0.11	MWD	LEAM DRILLING SYSTEMS
11/29/2	6,076.00	6.00	99.70	6,067.79	4.99	-32.87	-182.96	0.11	MWD	LEAM DRILLING SYSTEMS
11/29/2	6,170.00	6.00	99.80	6,161.27	5.18	-34.53	-192.64	0.01	MWD	LEAM DRILLING SYSTEMS
11/29/2	6,265.00	5.90	99.80	6,255.76	5.38	-36.21	-202.34	0.11	MWD	LEAM DRILLING SYSTEMS
11/29/2	6,359.00	6.00	100.00	6,349.26	5.59	-37.88	-211.94	0.11	MWD	LEAM DRILLING SYSTEMS
11/29/2	6,454.00	6.00	100.70	6,443.74	5.89	-39.67	-221.71	0.08	MWD	LEAM DRILLING SYSTEMS
11/29/2	6,548.00	6.00	99.50	6,537.22	6.13	-41.39	-231.38	0.13	MWD	LEAM DRILLING SYSTEMS
11/29/2	6,643.00	5.80	99.50	6,631.72	6.28	-43.00	-241.01	0.21	MWD	LEAM DRILLING SYSTEMS
11/30/2	6,737.00	5.90	98.90	6,725.23	6.37	-44.53	-250.47	0.12	MWD	LEAM DRILLING SYSTEMS
11/30/2	6,832.00	5.70	98.20	6,819.74	6.36	-45.96	-259.97	0.22	MWD	LEAM DRILLING SYSTEMS
11/30/2	6,926.00	5.50	98.60	6,913.29	6.32	-47.30	-269.04	0.22	MWD	LEAM DRILLING SYSTEMS
11/30/2	7,020.00	5.60	99.30	7,006.85	6.37	-48.72	-278.02	0.13	MWD	LEAM DRILLING SYSTEMS
11/30/2	7,115.00	5.50	99.50	7,101.41	6.49	-50.22	-287.08	0.11	MWD	LEAM DRILLING SYSTEMS
11/30/2	7,210.00	5.50	100.20	7,195.97	6.68	-51.78	-296.06	0.07	MWD	LEAM DRILLING SYSTEMS
11/30/2	7,304.00	5.40	101.00	7,289.54	6.98	-53.42	-304.83	0.13	MWD	LEAM DRILLING SYSTEMS
11/30/2	7,399.00	5.10	102.30	7,384.15	7.43	-55.17	-313.34	0.34	MWD	LEAM DRILLING SYSTEMS
11/30/2	7,493.00	4.90	104.00	7,477.79	8.07	-57.03	-321.32	0.26	MWD	LEAM DRILLING SYSTEMS
11/30/2	7,588.00	4.70	105.50	7,572.46	8.92	-59.05	-329.01	0.25	MWD	LEAM DRILLING SYSTEMS
11/30/2	7,682.00	5.00	105.10	7,666.12	9.84	-61.15	-336.68	0.32	MWD	LEAM DRILLING SYSTEMS
11/30/2	7,777.00	4.80	107.00	7,760.77	10.88	-63.39	-344.47	0.27	MWD	LEAM DRILLING SYSTEMS
11/30/2	7,872.00	5.40	107.20	7,855.39	12.12	-65.87	-352.54	0.63	MWD	LEAM DRILLING SYSTEMS
11/30/2	7,967.00	5.00	108.10	7,950.00	13.47	-68.48	-360.75	0.43	MWD	LEAM DRILLING SYSTEMS
11/30/2	8,061.00	5.20	101.80	8,043.63	14.37	-70.62	-368.81	0.63	MWD	LEAM DRILLING SYSTEMS
11/30/2	8,156.00	5.90	99.70	8,138.19	14.70	-72.33	-377.84	0.77	MWD	LEAM DRILLING SYSTEMS
12/1/2014	8,250.00	5.50	98.90	8,231.72	14.81	-73.84	-387.05	0.43	MWD	LEAM DRILLING SYSTEMS
12/1/2014	8,439.00	4.60	92.60	8,419.99	14.05	-75.58	-403.57	0.56	MWD	LEAM DRILLING SYSTEMS
12/1/2014	8,534.00	4.10	91.20	8,514.71	13.21	-75.83	-410.77	0.54	MWD	LEAM DRILLING SYSTEMS
12/1/2014	8,628.00	4.00	87.00	8,608.48	12.11	-75.73	-417.41	0.33	MWD	LEAM DRILLING SYSTEMS
12/1/2014	8,723.00	4.20	86.10	8,703.24	10.69	-75.32	-424.19	0.22	MWD	LEAM DRILLING SYSTEMS
12/1/2014	8,818.00	4.70	104.70	8,797.95	10.34	-76.07	-431.42	1.60	MWD	LEAM DRILLING SYSTEMS
12/1/2014	8,912.00	4.20	112.70	8,891.67	11.58	-78.37	-438.32	0.85	MWD	LEAM DRILLING SYSTEMS
12/1/2014	9,007.00	4.40	103.50	8,986.40	12.74	-80.57	-445.08	0.76	MWD	LEAM DRILLING SYSTEMS
12/2/2014	9,101.00	4.30	101.20	9,080.13	13.20	-82.09	-452.04	0.21	MWD	LEAM DRILLING SYSTEMS
12/2/2014	9,194.00	4.10	110.70	9,172.89	14.05	-83.95	-458.57	0.78	MWD	LEAM DRILLING SYSTEMS
12/3/2014	9,288.00	3.80	116.90	9,266.66	15.73	-86.54	-464.49	0.55	MWD	LEAM DRILLING SYSTEMS
12/3/2014	9,382.00	3.40	120.40	9,360.48	17.74	-89.36	-469.67	0.49	MWD	LEAM DRILLING SYSTEMS
12/3/2014	9,476.00	3.00	126.90	9,454.33	19.93	-92.25	-474.04	0.57	MWD	LEAM DRILLING SYSTEMS
12/3/2014	9,570.00	1.60	110.20	9,548.25	21.36	-94.18	-477.24	1.64	MWD	LEAM DRILLING SYSTEMS
12/3/2014	9,664.00	0.04	206.50	9,642.24	21.65	-94.66	-478.46	1.71	MWD	LEAM DRILLING SYSTEMS
12/3/2014	9,759.00	0.90	199.50	9,737.24	22.42	-95.40	-478.20	0.91	MWD	LEAM DRILLING SYSTEMS



COTTON DRAW UNIT 206H

DELAWARE BASIN UNRESTRICTED

Directional Survey

Sub-Division	County	Field Name	Region	State/Province		
DELAWARE BASIN	EDDY	PADUCA	DELAWARE BASIN WEST	NE		
Surface Legal Location	API/UMI	Latitude (°)	Longitude (°)	Ground Elev. M.	Orig. KB Elev. (ft)	Tubing Head Elevation (ft)
Sec. 26-24S-31E	3001542072	32° 10' 53.375" N	103° 44' 40.425" W	3,506.30	3,531.30	

Survey Data

Date	MD (ft/KB)	Incl (°)	Azm (°)	TVD (ft/KB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
12/3/2014	9,852.00	1.10	318.70	9,830.23	22.56	95.41	477.36	1.86	MWD	LEAM DRILLING SYSTEMS
12/4/2014	9,883.00	3.50	356.50	9,861.20	21.44	94.24	477.11	8.76	MWD	LEAM DRILLING SYSTEMS
12/4/2014	9,915.00	7.10	6.00	9,893.06	18.51	91.30	477.26	11.54	MWD	LEAM DRILLING SYSTEMS
12/4/2014	9,946.00	10.60	7.40	9,923.69	13.75	86.57	477.82	11.31	MWD	LEAM DRILLING SYSTEMS
12/4/2014	9,978.00	14.20	7.90	9,954.94	6.88	79.76	478.74	11.25	MWD	LEAM DRILLING SYSTEMS
12/4/2014	10,009.00	17.80	8.14	9,984.73	1.66	71.30	479.94	11.61	MWD	LEAM DRILLING SYSTEMS
12/4/2014	10,041.00	21.00	6.80	10,014.91	12.29	60.76	481.31	10.10	MWD	LEAM DRILLING SYSTEMS
12/4/2014	10,072.00	23.90	5.30	10,043.56	24.11	48.99	482.55	9.53	MWD	LEAM DRILLING SYSTEMS
12/4/2014	10,104.00	26.50	3.90	10,072.51	37.70	35.41	483.63	8.34	MWD	LEAM DRILLING SYSTEMS
12/4/2014	10,135.00	28.80	2.60	10,099.97	52.02	21.05	484.44	7.67	MWD	LEAM DRILLING SYSTEMS
12/4/2014	10,167.00	31.20	2.30	10,127.68	67.93	5.07	485.12	7.51	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,198.00	34.70	2.80	10,153.69	84.69	11.78	485.88	11.32	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,230.00	37.80	3.90	10,179.49	103.53	30.66	486.99	9.90	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,261.00	40.90	3.70	10,203.46	123.11	50.27	488.29	10.01	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,293.00	43.80	4.60	10,227.11	144.60	71.77	489.85	9.26	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,324.00	46.00	4.90	10,249.07	166.43	93.58	491.67	7.13	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,355.00	49.40	4.20	10,269.93	189.30	116.43	493.48	11.09	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,387.00	51.80	4.00	10,290.24	213.94	141.09	495.25	7.52	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,418.00	54.00	2.40	10,308.94	238.55	165.77	496.62	8.20	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,512.00	61.60	0.90	10,358.99	317.44	245.22	498.87	8.20	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,543.00	65.00	2.30	10,372.92	344.92	272.90	499.65	11.69	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,574.00	68.30	3.30	10,385.20	373.23	301.32	501.04	11.05	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,606.00	71.90	4.20	10,396.09	403.20	331.34	503.01	11.56	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,637.00	76.20	4.70	10,404.61	432.92	361.05	505.32	13.96	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,669.00	80.30	3.90	10,411.13	464.15	392.29	507.67	13.04	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,732.00	83.90	2.60	10,419.78	526.27	454.58	511.21	6.07	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,826.00	86.80	2.60	10,427.40	619.43	548.16	515.46	3.09	MWD	LEAM DRILLING SYSTEMS
12/5/2014	10,886.00	86.80	2.60	10,430.75	679.00	608.01	518.17	0.00	MWD	LEAM DRILLING SYSTEMS
12/5/2014	11,014.00	88.80	3.30	10,435.67	806.27	735.74	524.76	1.66	MWD	LEAM DRILLING SYSTEMS
12/5/2014	11,109.00	89.50	3.00	10,437.08	900.82	830.58	529.98	0.80	MWD	LEAM DRILLING SYSTEMS
12/5/2014	11,203.00	91.10	2.80	10,436.58	994.34	924.46	534.73	1.72	MWD	LEAM DRILLING SYSTEMS
12/5/2014	11,298.00	92.40	1.90	10,433.68	1,088.72	1,019.33	538.62	1.66	MWD	LEAM DRILLING SYSTEMS
12/5/2014	11,393.00	89.20	2.40	10,432.36	1,183.09	1,114.24	542.19	3.41	MWD	LEAM DRILLING SYSTEMS
12/5/2014	11,488.00	89.60	2.40	10,433.35	1,277.52	1,209.15	546.17	0.42	MWD	LEAM DRILLING SYSTEMS
12/5/2014	11,582.00	90.20	2.30	10,433.52	1,370.95	1,303.07	550.02	0.65	MWD	LEAM DRILLING SYSTEMS
12/6/2014	11,677.00	89.40	1.70	10,433.85	1,465.31	1,398.01	553.34	1.05	MWD	LEAM DRILLING SYSTEMS
12/6/2014	11,772.00	88.20	1.40	10,435.84	1,559.56	1,492.96	555.90	1.30	MWD	LEAM DRILLING SYSTEMS
12/6/2014	11,866.00	89.40	1.00	10,437.80	1,652.75	1,586.91	557.87	1.35	MWD	LEAM DRILLING SYSTEMS
12/6/2014	11,961.00	90.30	0.70	10,438.05	1,746.87	1,681.90	559.28	1.00	MWD	LEAM DRILLING SYSTEMS
12/6/2014	12,055.00	90.10	1.40	10,437.73	1,840.04	1,775.88	561.00	0.77	MWD	LEAM DRILLING SYSTEMS
12/6/2014	12,150.00	87.10	1.40	10,440.05	1,934.24	1,870.82	563.32	3.16	MWD	LEAM DRILLING SYSTEMS
12/6/2014	12,244.00	87.90	1.70	10,444.15	2,027.43	1,964.69	565.86	0.91	MWD	LEAM DRILLING SYSTEMS
12/6/2014	12,339.00	89.30	1.40	10,446.47	2,121.67	2,059.63	568.43	1.51	MWD	LEAM DRILLING SYSTEMS
12/6/2014	12,433.00	87.80	2.60	10,448.85	2,215.01	2,153.53	571.71	2.04	MWD	LEAM DRILLING SYSTEMS
12/6/2014	12,528.00	88.20	3.30	10,452.16	2,309.48	2,248.35	576.60	0.85	MWD	LEAM DRILLING SYSTEMS
12/6/2014	12,622.00	89.70	3.70	10,453.88	2,403.08	2,342.16	582.34	1.65	MWD	LEAM DRILLING SYSTEMS
12/6/2014	12,715.00	88.60	3.30	10,455.26	2,495.70	2,434.97	588.01	1.26	MWD	LEAM DRILLING SYSTEMS
12/6/2014	12,810.00	90.40	2.60	10,456.09	2,590.22	2,529.84	592.90	2.03	MWD	LEAM DRILLING SYSTEMS
12/6/2014	12,904.00	91.40	4.40	10,454.62	2,683.82	2,623.64	598.64	2.19	MWD	LEAM DRILLING SYSTEMS
12/6/2014	12,999.00	89.80	4.40	10,453.62	2,778.56	2,718.36	605.93	1.68	MWD	LEAM DRILLING SYSTEMS
12/7/2014	13,094.00	89.40	1.90	10,454.28	2,873.11	2,813.20	611.15	2.66	MWD	LEAM DRILLING SYSTEMS
12/8/2014	13,188.00	88.10	1.20	10,456.34	2,966.36	2,907.14	613.69	1.57	MWD	LEAM DRILLING SYSTEMS
12/8/2014	13,283.00	88.00	1.20	10,459.57	3,060.51	3,002.07	615.68	0.11	MWD	LEAM DRILLING SYSTEMS
12/8/2014	13,377.00	87.60	1.60	10,463.18	3,153.69	3,095.97	617.97	0.60	MWD	LEAM DRILLING SYSTEMS
12/8/2014	13,472.00	88.10	2.80	10,466.74	3,248.02	3,190.83	621.62	1.37	MWD	LEAM DRILLING SYSTEMS
12/8/2014	13,566.00	89.00	2.40	10,469.12	3,341.46	3,284.70	625.88	1.05	MWD	LEAM DRILLING SYSTEMS
12/9/2014	13,661.00	88.80	3.70	10,470.94	3,435.99	3,379.55	630.93	1.38	MWD	LEAM DRILLING SYSTEMS
12/9/2014	13,756.00	90.40	3.90	10,471.61	3,530.65	3,474.33	637.23	1.70	MWD	LEAM DRILLING SYSTEMS



Directional Survey

Sub-Division DELAWARE BASIN	County EDDY	Field Name PADUCA	Region DELAWARE BASIN WEST	State/Province NM
Surface Legal Location Sec. 26 24S 31E	API/UM 3001542072	Latitude (°) 32° 10' 53.375" N	Longitude (°) 103° 44' 40.425" W	Ground Elev. M. 3,506.30
				Orig. KB Elev. (ft) 3,531.30
				Tubing Head Elevation (ft)

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	EW (ft)	DLS ("/100ft)	Survey Tool	Survey Company
12/9/2014	13,850.00	90.20	4.20	10,471.11	3,624.34	3,568.10	643.87	0.38	MWD	LEAM DRILLING SYSTEMS
12/9/2014	13,945.00	88.20	4.20	10,472.44	3,719.04	3,662.83	650.82	2.11	MWD	LEAM DRILLING SYSTEMS
12/9/2014	14,135.00	88.20	3.00	10,478.41	3,908.21	3,852.36	662.75	0.63	MWD	LEAM DRILLING SYSTEMS
12/9/2014	14,229.00	88.00	3.10	10,481.52	4,001.71	3,946.17	667.75	0.24	MWD	LEAM DRILLING SYSTEMS
12/9/2014	14,323.00	88.10	2.80	10,484.72	4,095.19	4,039.99	672.58	0.34	MWD	LEAM DRILLING SYSTEMS
12/9/2014	14,418.00	89.10	3.50	10,487.04	4,189.72	4,134.82	677.80	1.28	MWD	LEAM DRILLING SYSTEMS
12/9/2014	14,513.00	88.60	3.90	10,488.95	4,284.35	4,229.60	683.93	0.67	MWD	LEAM DRILLING SYSTEMS
12/9/2014	14,607.00	87.80	4.20	10,491.90	4,378.00	4,323.32	690.56	0.91	MWD	LEAM DRILLING SYSTEMS
12/9/2014	14,702.00	88.60	3.70	10,494.89	4,472.64	4,418.05	697.11	0.99	MWD	LEAM DRILLING SYSTEMS
12/9/2014	14,796.00	90.00	6.70	10,496.04	4,566.44	4,511.64	705.62	3.52	MWD	LEAM DRILLING SYSTEMS
12/9/2014	14,890.00	90.60	5.40	10,495.54	4,660.34	4,605.11	715.53	1.52	MWD	LEAM DRILLING SYSTEMS
12/9/2014	14,985.00	89.80	3.90	10,495.21	4,755.11	4,699.80	723.23	1.79	MWD	LEAM DRILLING SYSTEMS
12/9/2014	15,087.00	89.80	3.90	10,495.57	4,856.76	4,801.56	730.17	0.00	BIT	LEAM DRILLING SYSTEMS