

A GYRO TECHNOLOGIES INC. COMPANY

P.O. Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

January 30, 2014

30-015-41311

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

NM OIL CONSERVATION
ARTESIA DISTRICT

JUL 24 2014

Attn: David Cook

RECEIVED

Re: **Odie 4 State No. 001H**

Please find enclosed a copy of the survey from 0.00' to 7350.00' 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

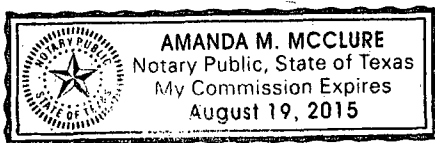
STATE OF TEXAS §

§

COUNTY OF NUECES §

This instrument was acknowledged before me on the 30 day of January, A.D., 2014, by Keith Havelka.

Amanda McClure
Notary Public, State of Texas





Company: Devon Energy
 Lease/Well: Odie 4 State /No. 001H
 Location: Sec 4 T25S R28E
 Rig Name: H&P 214
 State/County: New Mexico/Eddy
 Latitude: 32.15, Longitude: -104.10
 GRID North is 0.12 Degrees East of True North
 VS-Azi: 0.16 Degrees



Depth Reference : RKB = 25 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...tate #1h gyro survey-de_01.ut

Minimum Curvature Method

Report Date/Time: 1/31/2014 / 09:29

Vaughn Energy Services

West, Texas

432-563-5444

Surveyor: Chris Bankson

Odie 4 State No. 001H / API 30-015-41311

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	0.06	279.12	100.00	0.01	-0.05	0.01	0.05	279.12	0.06
200.00	0.13	241.94	200.00	-0.04	-0.20	-0.04	0.20	259.17	0.09
300.00	0.14	174.97	300.00	-0.21	-0.29	-0.21	0.36	233.78	0.15
400.00	0.83	90.08	400.00	-0.34	0.44	-0.33	0.56	127.13	0.83
500.00	0.87	30.20	499.99	0.32	1.55	0.32	1.58	78.38	0.85
600.00	0.84	28.85	599.98	1.62	2.28	1.62	2.80	54.70	0.03
700.00	1.01	27.11	699.96	3.04	3.04	3.05	4.30	44.96	0.17
800.00	1.45	27.78	799.94	4.95	4.03	4.96	6.38	39.16	0.44
900.00	1.20	25.28	899.91	7.01	5.07	7.03	8.65	35.84	0.26
1000.00	1.02	14.90	999.89	8.82	5.74	8.84	10.53	33.06	0.27
1100.00	0.92	5.92	1099.88	10.48	6.06	10.50	12.11	30.01	0.19
1200.00	0.96	352.52	1199.87	12.11	6.03	12.13	13.53	26.47	0.22
1300.00	1.05	337.99	1299.85	13.79	5.58	13.80	14.87	22.03	0.27
1400.00	0.98	329.67	1399.84	15.37	4.81	15.38	16.10	17.36	0.16
1500.00	1.09	328.98	1499.82	16.92	3.88	16.93	17.36	12.93	0.12
1600.00	1.46	301.41	1599.80	18.40	2.30	18.41	18.55	7.14	0.71
1700.00	0.27	217.54	1699.78	18.88	1.08	18.89	18.91	3.26	1.46
1800.00	0.93	175.77	1799.78	17.89	0.99	17.90	17.92	3.18	0.75

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	2.08	131.91	1899.74	15.87	2.40	15.88	16.05	8.62	1.55
2000.00	4.99	101.77	1999.55	13.77	8.02	13.79	15.93	30.20	3.36
2100.00	7.10	94.12	2098.99	12.44	18.44	12.49	22.24	55.99	2.25
2200.00	7.96	93.35	2198.13	11.59	31.51	11.68	33.58	69.81	0.87
2300.00	7.65	97.65	2297.20	10.30	45.03	10.43	46.19	77.12	0.66
2400.00	5.53	98.27	2396.53	8.72	56.40	8.88	57.07	81.21	2.12
2500.00	3.73	96.15	2496.20	7.68	64.40	7.86	64.86	83.20	1.81
2600.00	3.18	95.39	2596.02	7.07	70.39	7.27	70.74	84.26	0.55
2700.00	2.54	98.45	2695.90	6.48	75.34	6.69	75.62	85.08	0.65
2800.00	1.55	98.69	2795.83	5.95	78.88	6.17	79.10	85.68	0.99
2900.00	2.12	91.63	2895.78	5.70	82.06	5.92	82.26	86.03	0.60
3000.00	1.34	82.09	2995.73	5.80	85.07	6.04	85.27	86.10	0.82
3100.00	1.02	80.29	3095.71	6.12	87.11	6.36	87.32	85.98	0.33
3200.00	0.75	82.41	3195.70	6.35	88.63	6.60	88.86	85.90	0.27
3300.00	0.49	92.79	3295.70	6.42	89.71	6.67	89.94	85.91	0.29
3400.00	0.24	98.91	3395.69	6.37	90.34	6.62	90.56	85.97	0.25
3500.00	0.29	99.98	3495.69	6.29	90.80	6.54	91.02	86.04	0.05
3600.00	0.19	108.38	3595.69	6.19	91.20	6.45	91.41	86.12	0.11
3700.00	0.09	130.85	3695.69	6.09	91.42	6.34	91.62	86.19	0.11
3800.00	0.17	180.50	3795.69	5.89	91.48	6.14	91.67	86.32	0.13
3900.00	0.28	233.73	3895.69	5.59	91.29	5.85	91.46	86.49	0.22
4000.00	0.54	258.25	3995.69	5.36	90.63	5.61	90.79	86.62	0.31
4100.00	0.72	255.60	4095.68	5.10	89.56	5.35	89.71	86.74	0.18
4200.00	0.66	258.51	4195.67	4.84	88.39	5.08	88.53	86.87	0.07
4300.00	0.38	286.91	4295.67	4.82	87.52	5.06	87.65	86.85	0.37
4400.00	0.36	292.46	4395.67	5.03	86.91	5.28	87.05	86.68	0.04
4500.00	0.75	253.91	4495.66	4.97	85.99	5.21	86.13	86.69	0.52
4600.00	0.97	237.20	4595.65	4.33	84.65	4.57	84.76	87.07	0.33
4700.00	1.39	216.22	4695.63	2.90	83.23	3.13	83.28	88.01	0.60
4800.00	1.31	212.84	4795.60	0.96	81.89	1.19	81.90	89.33	0.11
4900.00	1.32	205.96	4895.58	-1.04	80.77	-0.81	80.77	90.73	0.16
5000.00	1.12	207.28	4995.55	-2.94	79.82	-2.71	79.87	92.11	0.20
5100.00	1.09	216.17	5095.54	-4.57	78.81	-4.35	78.94	93.32	0.17
5200.00	1.12	216.21	5195.52	-6.13	77.67	-5.91	77.91	94.51	0.03
5300.00	1.37	221.56	5295.49	-7.81	76.30	-7.60	76.70	95.84	0.27
5400.00	1.30	222.17	5395.47	-9.54	74.75	-9.33	75.35	97.27	0.07
5500.00	1.09	235.52	5495.45	-10.92	73.20	-10.71	74.01	98.48	0.35
5600.00	1.29	238.03	5595.42	-12.05	71.47	-11.85	72.48	99.57	0.20
5700.00	1.31	231.58	5695.40	-13.36	69.62	-13.16	70.89	100.86	0.15

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
5800.00	1.40	235.01	5795.37	-14.77	67.72	-14.58	69.31	102.31	0.12
5900.00	1.50	233.19	5895.34	-16.26	65.67	-16.07	67.65	103.90	0.11
6000.00	0.83	208.71	5995.32	-17.67	64.27	-17.50	66.66	105.38	0.82
6100.00	0.84	199.02	6095.31	-19.00	63.69	-18.83	66.46	106.62	0.14
6200.00	0.53	129.01	6195.30	-19.99	63.81	-19.81	66.86	107.40	0.83
6300.00	1.80	85.74	6295.28	-20.16	65.73	-19.98	68.75	107.06	1.46
6400.00	1.71	76.41	6395.23	-19.70	68.74	-19.51	71.51	105.99	0.30
6500.00	1.48	60.23	6495.19	-18.71	71.32	-18.51	73.73	104.70	0.50
6600.00	0.76	350.69	6595.18	-17.41	72.33	-17.21	74.40	103.54	1.41
6700.00	1.32	325.66	6695.16	-15.81	71.57	-15.61	73.30	102.46	0.71
6800.00	2.90	310.52	6795.09	-13.22	69.00	-13.02	70.25	100.84	1.66
6900.00	3.21	295.44	6894.95	-10.37	64.55	-10.19	65.38	99.13	0.86
7000.00	3.81	292.80	6994.76	-7.88	58.96	-7.71	59.48	97.61	0.62
7100.00	4.68	290.59	7094.49	-5.16	52.08	-5.01	52.33	95.65	0.88
7200.00	4.14	281.72	7194.19	-2.99	44.72	-2.86	44.82	93.82	0.87
7300.00	3.44	272.55	7293.97	-2.12	38.19	-2.01	38.25	93.18	0.92
7350.00	3.95	264.92	7343.87	-2.21	34.98	-2.11	35.05	93.61	1.41



Vaughn Energy Services
West, Texas
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Surveyor: Chris Bankson
Odie 4 State No. 001H / API 30-015-41311

