



A GYRO TECHNOLOGIES INC. COMPANY

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

May 15, 2014

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

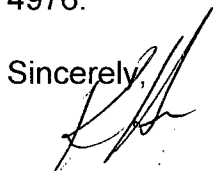
Attn: David Cook

Re: **Antares 23 Federal No 013H**

Please find enclosed a copy of the survey from 0' to 4,211' ran on the above referenced well.

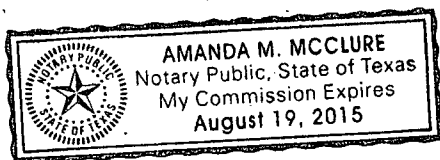
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

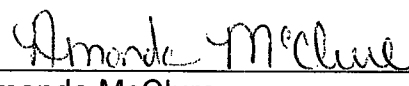
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 15 day of May,
A.D., 2014, by Keith Havelka.




Amanda McClure
Notary Public, State of Texas

NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 12 2014

RECEIVED

API
30-015-42076



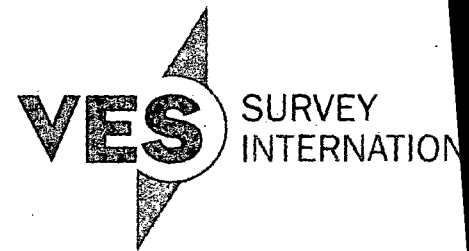
Rig Name: H&P 300

State/County: New Mexico/Eddy

Latitude: 32.65, Longitude: -103.85

GRID North is 0.26 Degrees East of True North

VS-Azi: 0.00 Degrees



NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 12 2014
RECEIVED

Depth Reference : RKB=26.2

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut

Minimum Curvature Method

Report Date/Time: 5/15/2014 / 14:03

VES Survey International

West Texas

(432) 563-5444

Surveyor: Adam Gathright

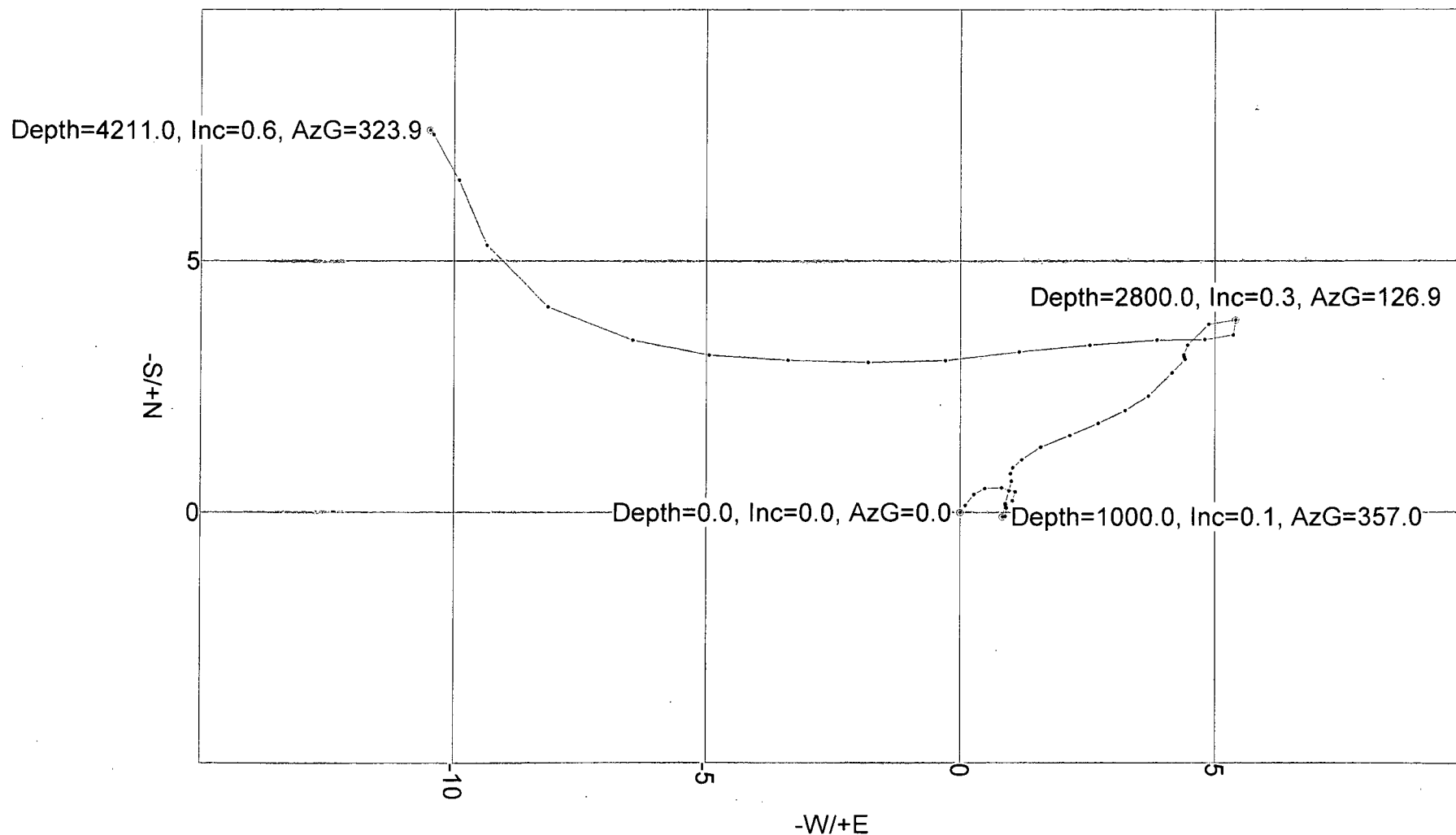
Antares 23 Federal No 013H / API 30-015-42076

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	0.20	34.75	100.00	0.14	0.10	0.14	0.17	34.75	0.20
200.00	0.12	43.78	200.00	0.36	0.27	0.36	0.45	36.94	0.07
300.00	0.16	72.19	300.00	0.48	0.47	0.48	0.67	44.72	0.07
400.00	0.23	98.31	400.00	0.49	0.81	0.49	0.94	58.65	0.12
500.00	0.09	126.60	500.00	0.41	1.07	0.41	1.15	68.86	0.16
600.00	0.21	222.93	600.00	0.23	1.01	0.23	1.04	76.94	0.24
700.00	0.04	350.24	700.00	0.13	0.88	0.13	0.89	81.37	0.23
800.00	0.10	164.67	800.00	0.09	0.90	0.09	0.90	84.60	0.13
900.00	0.11	208.77	900.00	-0.08	0.88	-0.08	0.88	95.15	0.08
1000.00	0.09	356.95	1000.00	-0.09	0.83	-0.09	0.83	96.00	0.19
1100.00	0.22	16.00	1100.00	0.18	0.88	0.18	0.89	78.70	0.14
1200.00	0.08	15.84	1200.00	0.43	0.95	0.43	1.04	65.59	0.14
1300.00	0.14	12.19	1300.00	0.62	1.00	0.62	1.17	58.00	0.06
1400.00	0.06	300.64	1400.00	0.77	0.98	0.77	1.24	51.75	0.14
1500.00	0.15	44.12	1500.00	0.89	1.02	0.89	1.35	49.00	0.17
1600.00	0.13	51.01	1600.00	1.05	1.20	1.05	1.59	48.75	0.02
1700.00	0.39	57.93	1699.99	1.30	1.57	1.30	2.04	50.40	0.26
1800.00	0.33	80.01	1799.99	1.53	2.14	1.53	2.63	54.49	0.12

		Deg	FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dog Seve Deg/
1900.00	0.38	55.42	1899.99	1.77	2.70	1.77	3.23	56.81	0
2000.00	0.30	74.92	1999.99	2.03	3.23	2.03	3.82	57.92	0.1
2100.00	0.34	41.94	2099.99	2.32	3.69	2.32	4.35	57.87	0.1
2200.00	0.42	47.96	2199.99	2.78	4.15	2.78	5.00	56.22	0.1
2300.00	0.03	330.25	2299.98	3.04	4.41	3.04	5.36	55.36	0.4
2400.00	0.03	347.50	2399.98	3.09	4.39	3.09	5.37	54.82	0.0
2500.00	0.02	354.86	2499.98	3.13	4.38	3.13	5.39	54.45	0.0
2600.00	0.23	23.41	2599.98	3.33	4.46	3.33	5.56	53.27	0.2
2700.00	0.47	55.44	2699.98	3.74	4.88	3.74	6.15	52.49	0.30
2800.00	0.28	126.90	2799.98	3.83	5.41	3.83	6.63	54.73	0.46
2900.00	0.33	239.39	2899.98	3.53	5.36	3.53	6.42	56.61	0.51
3000.00	0.36	278.90	2999.98	3.44	4.80	3.44	5.90	54.42	0.24
3100.00	0.73	265.17	3099.97	3.43	3.86	3.43	5.16	48.34	0.39
3200.00	0.79	265.74	3199.96	3.33	2.54	3.33	4.18	37.33	0.06
3300.00	0.81	263.28	3299.96	3.19	1.15	3.19	3.39	19.74	0.04
3400.00	0.86	263.18	3399.94	3.02	-0.30	3.02	3.04	354.29	0.04
3500.00	0.88	273.96	3499.93	2.99	-1.81	2.99	3.49	328.74	0.17
3600.00	0.94	269.61	3599.92	3.03	-3.40	3.03	4.56	311.73	0.09
3700.00	0.84	278.19	3699.91	3.13	-4.94	3.13	5.85	302.35	0.17
3800.00	0.93	284.03	3799.90	3.43	-6.45	3.43	7.31	298.01	0.13
3900.00	1.14	297.61	3899.88	4.09	-8.12	4.09	9.09	296.73	0.32
4000.00	0.97	335.51	3999.86	5.32	-9.35	5.32	10.75	299.63	0.70
4100.00	0.65	338.70	4099.85	6.61	-9.90	6.61	11.91	303.72	0.32
4200.00	0.56	320.76	4199.85	7.51	-10.42	7.51	12.84	305.81	0.21
4211.00	0.62	323.86	4210.85	7.60	-10.49	7.60	12.95	305.95	0.66



VES Survey International
West Texas
(432) 563-5444
Surveyor: Adam Gathright
Antares 23 Federal No 013H / API 30-015-42076



Directional Survey

District DELAWARE BASIN	County EDDY	Field Name HACKBERRY	Project Group DELAWARE BASIN REG			State/Province NM	
Surface Legal Location SEC23 T19S R31E	API/UWI 3001542076	Latitude (°) 32° 38' 47.841" N	Longitude (°) 103° 50' 52.518" W	Ground Elev... 3,540.50	KB - GL (ft) 26.20	Orig KB Elev (ft) 3,566.70	Tubing Head Elevat

Wellbores

Wellbore Name OH	Parent Wellbore OH	SAP Well ID	Kick Off Depth (ftKB)	Vertical Section Direction (°) 93.74
Actual Deviation Survey GYRO/MWD, Proposed? No	Definitive? Yes	Proposed? No	Proposed Deviation Survey	

Deviation Survey

Date		Description								
5/9/2014		GYRO/MWD								
MD Tie In (ftKB)	0.00	TVD Tie In (ftKB)	0.00	Inclination Tie In (°)	0.20	Azimuth Tie In (°)	34.75	NSTie In (ft)	0.11	EW Tie 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
5/9/2014	100.00	0.20	34.75	100.00	0.29	0.40	0.32	0.00	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	200.00	0.12	43.78	200.00	0.45	0.62	0.49	0.08	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	300.00	0.16	72.19	300.00	0.65	0.73	0.70	0.08	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	400.00	0.23	98.31	400.00	0.98	0.75	1.03	0.11	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	500.00	0.09	126.60	500.00	1.24	0.67	1.29	0.16	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	600.00	0.21	222.93	600.00	1.19	0.49	1.23	0.24	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	700.00	0.04	350.24	700.00	1.07	0.39	1.10	0.24	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	800.00	0.10	164.67	800.00	1.09	0.34	1.11	0.14	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	900.00	0.11	208.77	900.00	1.08	0.17	1.09	0.08	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	1,000.00	0.09	356.95	1,000.00	1.03	0.17	1.04	0.19	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	1,100.00	0.22	16.00	1,100.00	1.06	0.43	1.09	0.14	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	1,200.00	0.08	15.84	1,200.00	1.11	0.68	1.16	0.14	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	1,300.00	0.14	12.19	1,300.00	1.15	0.87	1.21	0.06	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	1,400.00	0.06	300.64	1,400.00	1.12	1.01	1.19	0.13	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	1,500.00	0.15	44.12	1,500.00	1.16	1.14	1.23	0.17	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	1,600.00	0.13	51.01	1,600.00	1.32	1.30	1.41	0.03	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	1,700.00	0.39	57.93	1,699.99	1.68	1.55	1.79	0.26	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	1,800.00	0.33	80.01	1,799.99	2.24	1.78	2.36	0.15	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	1,900.00	0.38	55.42	1,899.99	2.78	2.02	2.92	0.16	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	2,000.00	0.30	74.92	1,999.99	3.29	2.28	3.44	0.14	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	2,100.00	0.34	41.94	2,099.99	3.72	2.57	3.89	0.19	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	2,200.00	0.42	47.96	2,199.99	4.16	3.03	4.36	0.09	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	2,300.00	0.03	330.25	2,299.98	4.40	3.30	4.62	0.41	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	2,400.00	0.03	347.50	2,399.98	4.38	3.35	4.61	0.01	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	2,500.00	0.02	354.86	2,499.98	4.37	3.39	4.60	0.01	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	2,600.00	0.23	23.41	2,599.98	4.43	3.59	4.68	0.21	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	2,700.00	0.47	55.44	2,699.98	4.82	4.01	5.09	0.30	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	2,800.00	0.28	126.90	2,799.98	5.35	4.10	5.63	0.46	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	2,900.00	0.33	239.39	2,899.98	5.31	3.80	5.57	0.51	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	3,000.00	0.36	278.90	2,999.98	4.76	3.71	5.02	0.23	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	3,100.00	0.73	265.17	3,099.97	3.82	3.70	4.07	0.39	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	3,200.00	0.79	265.74	3,199.96	2.51	3.60	2.75	0.06	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	3,300.00	0.81	263.28	3,299.95	1.13	3.46	1.36	0.04	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	3,400.00	0.86	263.18	3,399.94	-0.30	3.29	-0.09	0.05	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	3,500.00	0.88	273.96	3,499.93	-1.81	3.25	-1.60	0.16	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	3,600.00	0.94	269.61	3,599.92	-3.39	3.30	-3.19	0.09	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	3,700.00	0.84	278.19	3,699.91	-4.94	3.40	-4.73	0.17	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	3,800.00	0.93	284.03	3,799.90	-6.47	3.70	-6.24	0.13	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	3,900.00	1.14	297.61	3,899.88	-8.18	4.36	-7.91	0.32	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	4,000.00	0.97	335.51	3,999.86	-9.49	5.59	-9.14	0.70	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	4,100.00	0.65	338.70	4,099.85	-10.13	6.89	-9.70	0.32	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	4,200.00	0.56	320.76	4,199.85	-10.70	7.80	-10.22	0.21	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	4,211.00	0.62	323.86	4,210.85	-10.78	7.89	-10.29	0.62	GYRO	VAUHG N ENERGY SERVICES
5/9/2014	4,367.00	0.44	317.67	4,366.84	-11.75	9.01	-11.19	0.12	MWD	PATHFINDER ENERGY SE...
5/9/2014	4,461.00	1.41	217.92	4,460.83	-12.66	8.36	-12.14	1.65	MWD	PATHFINDER ENERGY SE...
5/9/2014	4,556.00	2.55	216.95	4,555.77	-14.48	5.75	-14.13	1.20	MWD	PATHFINDER ENERGY SE...
5/9/2014	4,650.00	4.22	202.10	4,649.61	-16.71	0.88	-16.69	1.99	MWD	PATHFINDER ENERGY SE...

Directional Survey

County	Field Name	Project Group	State/Province
DELAWARE BASIN	HACKBERRY	DELAWARE BASIN REG	NM
Surface Legal Location	API/UWI	Latitude (°)	Longitude (°)
EC23 T19S R31E	3001542076	32° 38' 47.841" N	103° 50' 52.518" W
		Ground Elev...	KB - GL (ft)
		3,540.50	26.20
			Orig KB Elev (ft)
			3,566.70
			Tubing Head Elev

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
25/2014	4,745.00	5.98	199.55	4,744.23	-19.16	-7.02	-19.66	1.87	MWD	PATHFINDER ENERGY SE...
25/2014	4,839.00	7.47	194.63	4,837.58	-21.65	-17.55	-22.84	1.70	MWD	PATHFINDER ENERGY SE...
25/2014	4,934.00	8.18	189.00	4,931.70	-23.43	-30.20	-25.46	1.10	MWD	PATHFINDER ENERGY SE...
25/2014	5,028.00	8.71	179.42	5,024.68	-23.51	-43.93	-26.43	1.60	MWD	PATHFINDER ENERGY SE...
25/2014	5,122.00	8.53	179.25	5,117.62	-22.43	-58.01	-26.27	0.19	MWD	PATHFINDER ENERGY SE...
25/2014	5,217.00	8.09	178.54	5,211.62	-21.27	-71.74	-26.01	0.48	MWD	PATHFINDER ENERGY SE...
25/2014	5,311.00	7.56	178.63	5,304.75	-20.12	-84.53	-25.69	0.56	MWD	PATHFINDER ENERGY SE...
25/2014	5,405.00	7.56	178.63	5,397.93	-19.02	-96.90	-25.39	0.00	MWD	PATHFINDER ENERGY SE...
25/2014	5,500.00	7.21	179.95	5,492.14	-18.07	-109.11	-25.24	0.41	MWD	PATHFINDER ENERGY SE...
25/2014	5,594.00	7.03	180.21	5,585.42	-17.33	-120.76	-25.26	0.19	MWD	PATHFINDER ENERGY SE...
25/2014	5,689.00	7.03	181.09	5,679.70	-16.70	-132.38	-25.39	0.11	MWD	PATHFINDER ENERGY SE...
25/2014	5,783.00	7.21	171.51	5,772.98	-15.18	-143.97	-24.63	1.28	MWD	PATHFINDER ENERGY SE...
25/2014	5,878.00	7.21	171.42	5,867.23	-12.65	-155.76	-22.86	0.01	MWD	PATHFINDER ENERGY SE...
25/2014	5,973.00	7.12	171.69	5,961.49	-10.15	-167.48	-21.12	0.10	MWD	PATHFINDER ENERGY SE...
25/2014	6,067.00	7.12	172.13	6,054.76	-7.76	-179.02	-19.48	0.06	MWD	PATHFINDER ENERGY SE...
25/2014	6,161.00	7.12	172.30	6,148.04	-5.43	-190.56	-17.90	0.02	MWD	PATHFINDER ENERGY SE...
25/2014	6,256.00	7.12	172.83	6,242.30	-3.15	-202.24	-16.38	0.07	MWD	PATHFINDER ENERGY SE...
25/2014	6,350.00	6.95	173.88	6,335.60	-1.07	-213.67	-15.04	0.23	MWD	PATHFINDER ENERGY SE...
25/2014	6,445.00	6.95	173.71	6,429.90	0.91	-225.10	-13.80	0.02	MWD	PATHFINDER ENERGY SE...
25/2014	6,539.00	6.77	174.32	6,523.23	2.81	-236.27	-12.63	0.21	MWD	PATHFINDER ENERGY SE...
25/2014	6,634.00	6.95	182.50	6,617.55	3.85	-247.58	-12.32	1.04	MWD	PATHFINDER ENERGY SE...
25/2014	6,728.00	6.68	183.11	6,710.88	4.03	-258.72	-12.87	0.30	MWD	PATHFINDER ENERGY SE...
25/2014	6,823.00	6.51	183.29	6,805.25	4.14	-269.61	-13.48	0.18	MWD	PATHFINDER ENERGY SE...
25/2014	6,918.00	6.24	184.08	6,899.67	4.15	-280.14	-14.15	0.30	MWD	PATHFINDER ENERGY SE...
25/2014	7,012.00	5.80	185.49	6,993.15	3.97	-289.96	-14.97	0.49	MWD	PATHFINDER ENERGY SE...
25/2014	7,106.00	6.95	178.37	7,086.57	4.36	-300.38	-15.26	1.48	MWD	PATHFINDER ENERGY SE...
25/2014	7,201.00	6.77	180.21	7,180.89	5.24	-311.72	-15.12	0.30	MWD	PATHFINDER ENERGY SE...
25/2014	7,295.00	6.16	179.68	7,274.29	5.94	-322.31	-15.11	0.65	MWD	PATHFINDER ENERGY SE...
25/2014	7,390.00	7.30	175.99	7,368.63	7.12	-333.42	-14.66	1.28	MWD	PATHFINDER ENERGY SE...
25/2014	7,484.00	7.21	174.85	7,461.88	8.83	-345.26	-13.72	0.18	MWD	PATHFINDER ENERGY SE...
25/2014	7,579.00	8.00	178.28	7,556.04	10.38	-357.80	-12.98	0.96	MWD	PATHFINDER ENERGY SE...
25/2014	7,673.00	8.00	178.89	7,649.13	11.56	-370.88	-12.66	0.09	MWD	PATHFINDER ENERGY SE...
25/2014	7,767.00	8.27	177.05	7,742.18	12.90	-384.17	-12.19	0.40	MWD	PATHFINDER ENERGY SE...
25/2014	7,862.00	7.91	174.76	7,836.24	14.72	-397.50	-11.24	0.51	MWD	PATHFINDER ENERGY SE...
25/2014	7,956.00	7.03	173.06	7,929.44	16.79	-409.66	-9.95	0.97	MWD	PATHFINDER ENERGY SE...
25/2014	8,051.00	7.83	182.37	8,023.65	18.02	-421.89	-9.52	1.52	MWD	PATHFINDER ENERGY SE...
25/2014	8,145.00	7.47	182.11	8,116.81	18.35	-434.40	-10.01	0.38	MWD	PATHFINDER ENERGY SE...
25/2014	8,239.00	8.35	181.06	8,209.91	18.84	-447.33	-10.36	0.95	MWD	PATHFINDER ENERGY SE...
25/2014	8,334.00	7.91	179.74	8,303.96	19.62	-460.76	-10.45	0.50	MWD	PATHFINDER ENERGY SE...
25/2014	8,429.00	7.39	180.44	8,398.11	20.43	-473.41	-10.47	0.56	MWD	PATHFINDER ENERGY SE...
25/2014	8,523.00	6.86	180.35	8,491.39	21.11	-485.07	-10.55	0.56	MWD	PATHFINDER ENERGY SE...
25/2014	8,617.00	6.24	181.58	8,584.77	21.63	-495.79	-10.73	0.68	MWD	PATHFINDER ENERGY SE...
25/2014	8,725.00	8.97	168.14	8,691.82	24.12	-509.90	-9.16	3.00	MWD	PATHFINDER ENERGY SE...
25/2014	8,757.00	12.13	156.71	8,723.28	26.32	-515.43	-7.32	11.80	MWD	PATHFINDER ENERGY SE...
25/2014	8,788.00	15.04	148.18	8,753.41	30.14	-521.84	-3.91	11.37	MWD	PATHFINDER ENERGY SE...
25/2014	8,820.00	17.15	139.48	8,784.16	35.85	-528.96	1.35	10.00	MWD	PATHFINDER ENERGY SE...
25/2014	8,851.00	19.26	129.20	8,813.61	43.21	-535.67	8.28	12.37	MWD	PATHFINDER ENERGY SE...
25/2014	8,883.00	21.10	121.11	8,843.65	52.62	-541.98	17.31	10.43	MWD	PATHFINDER ENERGY SE...
25/2014	8,914.00	22.77	114.61	8,872.41	63.19	-547.36	27.54	9.50	MWD	PATHFINDER ENERGY SE...
25/2014	8,946.00	25.68	110.74	8,901.59	75.61	-552.40	39.66	10.36	MWD	PATHFINDER ENERGY SE...
25/2014	8,977.00	28.49	109.76	8,929.19	89.14	-557.28	52.90	9.18	MWD	PATHFINDER ENERGY SE...
25/2014	9,009.00	31.66	108.97	8,956.88	104.58	-562.59	68.03	9.98	MWD	PATHFINDER ENERGY SE...
25/2014	9,040.00	35.26	105.65	8,982.74	121.19	-567.65	84.35	13.02	MWD	PATHFINDER ENERGY SE...
25/2014	9,072.00	39.13	102.61	9,008.23	140.22	-572.35	103.10	13.39	MWD	PATHFINDER ENERGY SE...
25/2014	9,103.00	43.70	102.68	9,031.47	160.47	-576.83	123.11	14.74	MWD	PATHFINDER ENERGY SE...



Directional Survey

District DELAWARE BASIN	County EDDY	Field Name HACKBERRY	Project Group DELAWARE BASIN REG	State/Province NM
Surface Legal Location SEC23 T19S R31E	API/UWI 3001542076	Latitude (°) 32° 38' 47.841" N	Longitude (°) 103° 50' 52.518" W	Ground Elev... 3,540.50
			KB - GL (ft) 26.20	Orig KB Elev (ft) 3,566.70
				Tubing Head Elevat...

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
5/25/2014	9,135.00	48.28	100.38	9,053.70	183.27	-581.42	145.65	15.22	MWD	PATHFINDER ENERGY S...
5/25/2014	9,166.00	52.85	99.00	9,073.39	207.07	-585.44	169.25	15.14	MWD	PATHFINDER ENERGY S...
5/25/2014	9,198.00	57.42	98.34	9,091.67	233.23	-589.39	195.20	14.38	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,229.00	62.26	98.00	9,107.24	259.94	-593.19	221.72	15.64	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,261.00	67.36	97.54	9,120.86	288.82	-597.11	250.40	15.99	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,312.00	75.62	94.25	9,137.04	337.10	-602.03	298.46	17.31	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,343.00	79.93	93.94	9,143.60	367.39	-604.20	328.68	13.94	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,375.00	81.34	93.62	9,148.81	398.96	-606.28	360.18	4.52	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,406.00	83.27	93.27	9,152.96	429.68	-608.12	390.84	6.33	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,438.00	84.50	93.82	9,156.37	461.49	-610.09	422.60	4.21	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,469.00	86.35	94.44	9,158.84	492.39	-612.32	453.42	6.29	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,501.00	87.14	94.80	9,160.66	524.34	-614.89	485.26	2.71	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,595.00	87.76	95.12	9,164.84	618.22	-623.01	578.82	0.74	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,690.00	88.37	95.43	9,168.05	713.13	-631.74	673.36	0.72	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,784.00	87.32	95.46	9,171.58	807.02	-640.65	766.87	1.12	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,879.00	87.23	94.25	9,176.10	901.90	-648.68	861.42	1.28	MWD	PATHFINDER ENERGY SE...
5/25/2014	9,973.00	87.67	94.06	9,180.28	995.80	-655.49	955.08	0.51	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,068.00	87.05	93.05	9,184.66	1,090.70	-661.37	1,049.79	1.25	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,257.00	87.49	93.42	9,193.66	1,279.48	-672.02	1,238.28	0.30	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,351.00	87.85	93.88	9,197.48	1,373.40	-678.00	1,332.01	0.62	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,446.00	88.29	92.84	9,200.68	1,468.34	-683.57	1,426.79	1.19	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,540.00	88.37	92.37	9,203.42	1,562.28	-687.84	1,520.65	0.51	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,635.00	88.39	92.35	9,206.11	1,657.22	-691.75	1,615.53	0.03	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,729.00	88.20	92.56	9,208.90	1,751.15	-695.77	1,709.41	0.30	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,824.00	88.11	92.55	9,211.96	1,846.08	-700.01	1,804.26	0.10	MWD	PATHFINDER ENERGY SE...
5/25/2014	10,918.00	89.52	92.84	9,213.91	1,940.04	-704.42	1,898.14	1.53	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,013.00	89.69	93.02	9,214.56	2,035.03	-709.28	1,993.01	0.26	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,107.00	90.31	92.34	9,214.56	2,129.01	-713.68	2,086.91	0.98	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,201.00	90.57	91.77	9,213.84	2,222.97	-717.05	2,180.84	0.67	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,296.00	89.69	92.80	9,213.62	2,317.94	-720.83	2,275.76	1.43	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,390.00	88.90	94.02	9,214.78	2,411.93	-726.42	2,369.59	1.55	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,485.00	88.99	94.50	9,216.53	2,506.91	-733.48	2,464.31	0.51	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,579.00	89.08	94.98	9,218.11	2,600.88	-741.25	2,557.97	0.52	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,674.00	88.55	95.17	9,220.08	2,695.83	-749.65	2,652.58	0.59	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,768.00	88.29	95.17	9,222.67	2,789.77	-758.12	2,746.16	0.28	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,862.00	87.93	95.05	9,225.77	2,883.69	-766.48	2,839.74	0.40	MWD	PATHFINDER ENERGY SE...
5/25/2014	11,957.00	87.67	93.38	9,229.42	2,978.61	-773.46	2,934.41	1.78	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,051.00	87.32	93.24	9,233.53	3,072.52	-778.88	3,028.16	0.40	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,146.00	88.37	92.76	9,237.10	3,167.44	-783.85	3,122.96	1.22	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,240.00	89.43	92.36	9,238.90	3,261.40	-788.05	3,216.85	1.21	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,335.00	89.08	92.02	9,240.14	3,356.36	-791.68	3,311.77	0.51	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,429.00	88.72	92.04	9,241.94	3,450.30	-795.01	3,405.70	0.38	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,524.00	88.81	91.79	9,243.99	3,545.23	-798.18	3,500.62	0.28	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,618.00	88.72	91.08	9,246.02	3,639.13	-800.54	3,594.57	0.76	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,712.00	88.55	91.94	9,248.25	3,733.03	-803.01	3,688.51	0.93	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,807.00	88.81	93.03	9,250.44	3,827.98	-807.13	3,783.39	1.18	MWD	PATHFINDER ENERGY SE...
5/25/2014	12,996.00	89.43	93.67	9,253.35	4,016.96	-818.17	3,972.05	0.47	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,090.00	89.96	93.93	9,253.85	4,110.95	-824.40	4,065.84	0.63	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,185.00	89.16	94.28	9,254.58	4,205.95	-831.20	4,160.59	0.92	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,279.00	88.37	94.05	9,256.60	4,299.92	-838.03	4,254.32	0.88	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,374.00	88.20	93.99	9,259.44	4,394.88	-844.68	4,349.04	0.19	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,469.00	88.81	93.73	9,261.92	4,489.85	-851.08	4,443.79	0.70	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,563.00	88.90	94.20	9,263.80	4,583.83	-857.58	4,537.55	0.51	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,658.00	88.81	93.23	9,265.70	4,678.81	-863.73	4,632.33	1.03	MWD	PATHFINDER ENERGY SE...
5/25/2014	13,775.00	88.90	92.79	9,268.04	4,795.77	-869.87	4,749.15	0.38	BIT	PATHFINDER ENERGY SE...