

3329 W. Pinhook Rd.
Lafayette, LA 70508-3506, USA
Tel. 337-233-3982
Fax 337-234-2988

PATHFINDER

A Schlumberger Company

30-015-41888

DIRECTIONAL SURVEY REPORT

DEVON ENERGY PRODUCTION CO., L.P.

SIRIUS 17 FED COM 8H

EDDY COUNTY, NEW MEXICO

**NM OIL CONSERVATION
ARTESIA DISTRICT**

FEB 09 2015

PREPARED BY: MARK TRAHAN

RECEIVED

3329 W. Pinhook Rd.
Lafayette, LA 70508-3506, USA
Tel: 337-233-3982
Fax: 337-234-2988



November 14, 2014

DEVON ENERGY PRODUCTION CO.
Ms. Judy Barnett
Regulatory Compliance Professional
333 West Sheridan
Oklahoma City, OK 73102

RE: DEVON ENERGY PRODUCTION CO., L.P..
SIRIUS 17 FED COM 8H
EDDY COUNTY, NM
RIG: H&P 300
API NO.: 30-015-41888
FILE NO.: 14LAF0262

Dear Ms. Barnett:

We hereby certify that the enclosed Original Field Survey Data contained in this report represents to the best of our knowledge, a true and accurate survey of the well at the time the survey was run.

DIRECTIONAL SURVEY DATA
3 – Original Directional Survey Reports

We appreciate the opportunity to work with you and we look forward to your business support. If you have any questions, I can be reached at (337) 233-3982.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Tran".

Mark Tran
M/LWD Service Coordinator
PathFinder, a Schlumberger company

MT:tb

DIRECTIONAL SURVEY COMPANY REPORT:

1. SURVEYING COMPANY: PATHFINDER, A SCHLUMBERGER COMPANY
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) NICOLAS MERCADO
3. POSITION OF SAID PERSON(S): (A) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 10/22/14 TO 11/04/14
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

DEVON ENERGY PRODUCTION CO., L.P.
SIRIUS 17 FED COM 8H
EDDY COUNTY, NM
RIG: H&P 300
API NO.: 30-015-41888
9. SURVEY CERTIFIED FROM: 3,912 TO 12,511 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 4,759.28 FEET ON A BEARING OF 94.98 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A MEASURED DEPTH OF 12,511 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



MARK TRAHAN
M/LWD SERVICE COORDINATOR

3329 W. Pinhook Rd.
Lafayette, LA 70508-3506, USA
Tel: 337-233-3982
Fax 337-234-2988



STATE OF LOUISIANA
PARISH OF LAFAYETTE

I, **Nicolas Mercado**, certify that; I am employed by PathFinder, a Schlumberger company; that I did on the day(s) of **10/22/14** through **11/04/14** conduct or supervise the taking of a **Measurement While Drilling** survey from a depth of **3,912 feet to a depth of 12,511 feet**; that the data is true, correct, complete and within the limitations of the tool as set forth by PathFinder, a Schlumberger company; that I am authorized and qualified to make this report; that this survey was conducted at the request of **DEVON ENERGY PRODUCTION CO., L.P.** for the **Sirius 17 Fed Com 8H Well API No. 30-015-41888** in **Eddy County, New Mexico**; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by PathFinder, a Schlumberger company.

Nicolas Mercado

PathFinder Field Engineer

PathFinder – a Schlumberger company

BHL Report

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Tie-in Date: 10/22/2014

Date Completed: 11/04/2014

DEVON ENERGY PRODUCTION COMPANY, LP
SIRIUS 17 FED COM 8H

Eddy COUNTY, New Mexico

API#: 30-015-41888 Rig: H&P 300

PathFinder Office Supervisor: MARK TRAHAN

PathFinder Field Engineers: NICOLAS MERCADO

Survey Horiz. Reference: WELLHEAD

Ref Coordinates: LAT: 32.39.20.8474 N LON: 103.53.57.7716 W

GRID Reference: NAD83 new mexico east Transverse Mercator

Ref GRID Coord: X: 674891.8300 Y: 602580.6400

North Aligned To: GRID NORTH

Total Magnetic Correction: 7.12° EAST TO GRID

Vertical Section Plane: 89.68

Survey Vert. Reference: 26.20' Rotary Table To Ground

Altitude: 3421.90' Ground To MSL

Measured Depth	12511.00	(feet)
Inclination	87.76	(deg)
Azimuth	89.43	(deg)
True Vertical Depth	8022.16	(feet)
Vertical Section	4738.92	(feet)
Survey X cord	679633.13	(feet)
Survey Y cord	602167.36	(feet)
Survey Lat	32.65460080 N	(deg)
Survey Lon	103.88398138 W	(deg)
Rectangular Corr. N/S	413.28 S	(feet)
Rectangular Corr. E/W	4741.30 E	(feet)
Closure Distance	4759.28	(feet)
Direction of Closure	94.98	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder – a Schlumberger company

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
SIRIUS 17 FED COM 8H
Eddy COUNTY, New Mexico
API#: 30-015-41888 Rig: H&P 300
PathFinder Office Supervisor: MARK TRAHAN
PathFinder Field Engineers: NICOLAS MERCADO

Page 01/06
Tie-in Date: 10/22/2014
Date Completed: 11/04/2014

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GRID Reference: NAD83 new mexico east Transverse Mercator
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North Aligned To: GRID NORTH
Total Magnetic Correction: 7.12° EAST TO GRID
Vertical Section Plane: 89.68
Survey Vert. Reference: 26.20' Rotary Table To Ground
Altitude: 3421.90' Ground To MSL

Survey Calculations by RX5 V6.05B using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Survey Latitude (deg)	Survey Longitude (deg)	Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
THE FOLLOWING ARE EXTREME XPULSE MWD SURVEYS.												
0.00	0.00	0.00	0.00	0.00	-0.01	0.00 N	0.01 W	32.65579096 N	103.89938101 W	0.01@	277.16	0.00
137.00	0.48	169.23	137.00	137.00	0.10	0.56 S	0.10 E	32.65578941 N	103.89938067 W	0.57@	169.72	0.35
257.00	0.70	164.00	256.99	120.00	0.39	1.76 S	0.40 E	32.65578611 N	103.89937972 W	1.81@	167.27	0.19
345.00	1.01	164.00	344.98	88.00	0.74	3.02 S	0.76 E	32.65578264 N	103.89937856 W	3.12@	165.89	0.35
427.00	1.01	129.20	426.97	82.00	1.50	4.18 S	1.52 E	32.65577946 N	103.89937611 W	4.44@	160.00	0.74
515.00	1.41	117.33	514.95	88.00	3.05	5.16 S	3.08 E	32.65577673 N	103.89937105 W	6.01@	149.16	0.53
638.00	1.80	122.43	637.90	123.00	6.02	6.89 S	6.06 E	32.65577194 N	103.89936140 W	9.18@	138.69	0.34
760.00	1.89	118.12	759.84	122.00	9.40	8.87 S	9.45 E	32.65576647 N	103.89935041 W	12.96@	133.19	0.14
888.00	1.49	119.92	887.78	128.00	12.69	10.69 S	12.75 E	32.65576142 N	103.89933970 W	16.64@	129.98	0.32
951.00	1.41	115.79	950.76	63.00	14.10	11.44 S	14.16 E	32.65575935 N	103.89933513 W	18.20@	128.93	0.21
1014.00	1.32	113.42	1013.75	63.00	15.46	12.07 S	15.52 E	32.65575762 N	103.89933071 W	19.66@	127.85	0.17
1139.00	1.10	109.91	1138.72	125.00	17.90	13.05 S	17.97 E	32.65575490 N	103.89932277 W	22.21@	125.97	0.19
1262.00	1.10	111.00	1261.69	123.00	20.11	13.87 S	20.19 E	32.65575260 N	103.89931559 W	24.49@	124.50	0.02
1383.00	1.41	95.10	1382.67	121.00	22.67	14.42 S	22.75 E	32.65575107 N	103.89930725 W	26.94@	122.37	0.38
1506.00	2.20	83.93	1505.60	123.00	26.53	14.30 S	26.61 E	32.65575134 N	103.89929473 W	30.21@	118.26	0.70
1547.00	2.11	80.11	1546.58	41.00	28.05	14.09 S	28.13 E	32.65575191 N	103.89928977 W	31.47@	116.61	0.41
1629.00	2.29	79.63	1628.51	82.00	31.16	13.54 S	31.23 E	32.65575340 N	103.89927969 W	34.04@	113.43	0.22
1756.00	2.11	80.11	1755.42	127.00	35.96	12.68 S	36.03 E	32.65575570 N	103.89926409 W	38.20@	109.39	0.14
1882.00	2.11	77.61	1881.34	126.00	40.52	11.78 S	40.58 E	32.65575811 N	103.89924929 W	42.26@	106.19	0.07
2008.00	1.58	86.53	2007.27	126.00	44.52	11.18 S	44.58 E	32.65575972 N	103.89923629 W	45.96@	104.08	0.48
2197.00	0.88	97.21	2196.23	189.00	48.56	11.21 S	48.62 E	32.65575961 N	103.89922316 W	49.90@	102.98	0.39
2320.00	0.62	47.72	2319.22	123.00	49.99	10.88 S	50.05 E	32.65576050 N	103.89921851 W	51.22@	102.26	0.54
2415.00	0.70	126.82	2414.21	95.00	50.84	10.88 S	50.90 E	32.65576049 N	103.89921576 W	52.05@	102.06	0.89

PathFinder – a Schlumberger company

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
SIRIUS 17 FED COM 8H
Eddy COUNTY, New Mexico
API#: 30-015-41888 Rig: H&P 300

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Survey Latitude (deg)	Survey Longitude (deg)	Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
2507.00	0.70	125.42	2506.20	92.00	51.74	11.54 S	51.80 E	32.65575865 N	103.89921282 W	53.07@	102.56	0.02
2601.00	0.88	125.42	2600.20	94.00	52.79	12.29 S	52.86 E	32.65575658 N	103.89920940 W	54.27@	103.09	0.19
2700.00	0.88	139.83	2699.18	99.00	53.90	13.31 S	53.97 E	32.65575376 N	103.89920581 W	55.59@	103.86	0.22
2795.00	1.20	140.10	2794.17	95.00	55.00	14.63 S	55.08 E	32.65575012 N	103.89920222 W	56.99@	104.88	0.34
2889.00	1.32	141.63	2888.15	94.00	56.29	16.24 S	56.38 E	32.65574569 N	103.89919801 W	58.67@	106.07	0.13
2983.00	1.32	147.60	2982.12	94.00	57.53	18.00 S	57.63 E	32.65574083 N	103.89919396 W	60.38@	107.34	0.15
3075.00	1.32	144.80	3074.10	92.00	58.70	19.76 S	58.81 E	32.65573598 N	103.89919016 W	62.04@	108.57	0.07
3170.00	1.32	146.03	3169.07	95.00	59.93	21.56 S	60.06 E	32.65573101 N	103.89918615 W	63.81@	109.75	0.03
3264.00	1.19	140.62	3263.05	94.00	61.15	23.22 S	61.28 E	32.65572646 N	103.89918219 W	65.53@	110.75	0.19
3362.00	1.32	149.10	3361.03	98.00	62.36	24.97 S	62.51 E	32.65572162 N	103.89917823 W	67.31@	111.78	0.23
3456.00	1.10	146.82	3455.00	94.00	63.41	26.65 S	63.56 E	32.65571698 N	103.89917484 W	68.92@	112.75	0.24
3550.00	1.49	145.02	3548.98	94.00	64.59	28.41 S	64.75 E	32.65571214 N	103.89917099 W	70.71@	113.69	0.42
3644.00	1.40	140.17	3642.95	94.00	66.02	30.29 S	66.19 E	32.65570695 N	103.89916635 W	72.79@	114.59	0.16
3740.00	1.19	143.92	3738.93	96.00	67.34	32.00 S	67.52 E	32.65570224 N	103.89916202 W	74.72@	115.36	0.24
3834.00	1.19	148.40	3832.91	94.00	68.42	33.62 S	68.61 E	32.65569777 N	103.89915851 W	76.40@	116.11	0.10
** TIED INTO EXTREME XPULSE MWD SURVEYS AT 3912' MD.												
3912.00	1.10	147.21	3910.89	78.00	69.24	34.94 S	69.44 E	32.65569414 N	103.89915583 W	77.73@	116.71	0.12
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.												
4110.00	1.76	155.05	4108.83	198.00	71.53	39.29 S	71.75 E	32.65568214 N	103.89914838 W	81.81@	118.71	0.35
4204.00	2.55	175.79	4202.76	94.00	72.27	42.69 S	72.51 E	32.65567281 N	103.89914595 W	84.15@	120.49	1.17
4299.00	4.22	185.46	4297.59	95.00	72.07	48.28 S	72.34 E	32.65565745 N	103.89914660 W	86.97@	123.72	1.85
4394.00	5.28	188.59	4392.27	95.00	71.04	56.08 S	71.35 E	32.65563602 N	103.89914990 W	90.75@	128.17	1.15
4488.00	5.63	193.42	4485.84	94.00	69.27	64.84 S	69.64 E	32.65561195 N	103.89915560 W	95.15@	132.96	0.61
4583.00	5.10	192.86	4580.42	95.00	67.20	73.49 S	67.61 E	32.65558820 N	103.89916228 W	99.86@	137.38	0.56
4677.00	4.57	190.50	4674.09	94.00	65.55	81.24 S	66.00 E	32.65556690 N	103.89916762 W	104.68@	140.91	0.60
4772.00	4.92	188.76	4768.76	95.00	64.19	88.99 S	64.69 E	32.65554562 N	103.89917198 W	110.02@	143.99	0.40
4866.00	6.16	203.06	4862.33	94.00	61.56	97.62 S	62.10 E	32.65552194 N	103.89918051 W	115.70@	147.54	1.96
4961.00	5.36	206.49	4956.85	95.00	57.53	106.28 S	58.13 E	32.65549818 N	103.89919354 W	121.14@	151.32	0.92

PathFinder – a Schlumberger company

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
SIRIUS 17 FED COM 8H
Eddy COUNTY, New Mexico
API#: 30-015-41888 Rig: H&P 300

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Survey Latitude (deg)	Survey Longitude (deg)	Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
5055.00	6.24	203.51	5050.36	94.00	53.49	114.89 S	54.13 E	32.65547455 N	103.89920664 W	127.01@	154.77	0.99
5150.00	6.42	197.29	5144.79	95.00	49.79	124.70 S	50.49 E	32.65544764 N	103.89921859 W	134.53@	157.96	0.75
5244.00	5.80	194.24	5238.25	94.00	47.01	134.32 S	47.76 E	32.65542122 N	103.89922759 W	142.56@	160.43	0.74
5339.00	5.19	193.84	5332.82	95.00	44.75	143.14 S	45.55 E	32.65539699 N	103.89923488 W	150.22@	162.35	0.64
5433.00	5.98	204.10	5426.37	94.00	41.69	151.74 S	42.54 E	32.65537339 N	103.89924480 W	157.59@	164.34	1.35
5528.00	6.24	208.87	5520.83	95.00	37.12	160.78 S	38.02 E	32.65534860 N	103.89925958 W	165.22@	166.69	0.60
5622.00	5.80	198.35	5614.32	94.00	33.11	169.76 S	34.06 E	32.65532395 N	103.89927258 W	173.15@	168.65	1.26
5717.00	5.98	202.22	5708.81	95.00	29.68	178.90 S	30.68 E	32.65529888 N	103.89928369 W	181.51@	170.27	0.46
5811.00	5.98	191.28	5802.31	94.00	26.82	188.24 S	27.87 E	32.65527325 N	103.89929294 W	190.29@	171.58	1.21
5905.00	6.60	193.04	5895.74	94.00	24.58	198.30 S	25.69 E	32.65524561 N	103.89930015 W	199.96@	172.62	0.69
6000.00	5.63	193.69	5990.20	95.00	22.19	208.15 S	23.36 E	32.65521857 N	103.89930786 W	209.45@	173.60	1.02
6094.00	5.89	198.67	6083.72	94.00	19.51	217.20 S	20.72 E	32.65519373 N	103.89931655 W	218.18@	174.55	0.60
6189.00	5.45	195.23	6178.26	95.00	16.71	226.17 S	17.98 E	32.65516910 N	103.89932559 W	226.88@	175.46	0.59
6284.00	4.92	198.13	6272.87	95.00	14.21	234.39 S	15.52 E	32.65514652 N	103.89933367 W	234.91@	176.21	0.62
6378.00	5.10	207.42	6366.51	94.00	10.99	241.93 S	12.35 E	32.65512583 N	103.89934409 W	242.25@	177.08	0.88
6472.00	4.04	211.67	6460.21	94.00	7.29	248.46 S	8.68 E	32.65510794 N	103.89935608 W	248.61@	178.00	1.18
6567.00	5.54	202.29	6554.88	95.00	3.76	255.55 S	5.19 E	32.65508848 N	103.89936753 W	255.60@	178.84	1.78
6661.00	6.95	194.80	6648.32	94.00	0.53	265.25 S	2.01 E	32.65506186 N	103.89937798 W	265.26@	179.57	1.73
6756.00	6.60	188.91	6742.66	95.00	-1.84	276.20 S	0.30 W	32.65503179 N	103.89938564 W	276.20@	180.06	0.82
6850.00	5.54	187.25	6836.13	94.00	-3.31	286.04 S	1.71 W	32.65500476 N	103.89939035 W	286.04@	180.34	1.14
6945.00	4.75	184.79	6930.75	95.00	-4.26	294.51 S	2.62 W	32.65498150 N	103.89939341 W	294.52@	180.51	0.86
7039.00	6.51	189.07	7024.29	94.00	-5.48	303.65 S	3.78 W	32.65495638 N	103.89939732 W	303.67@	180.71	1.92
7133.00	6.24	188.84	7117.71	94.00	-7.16	313.96 S	5.41 W	32.65492806 N	103.89940273 W	314.00@	180.99	0.29
7228.00	5.80	182.44	7212.19	95.00	-8.21	323.85 S	6.41 W	32.65490087 N	103.89940611 W	323.92@	181.13	0.84
7323.00	5.54	182.99	7306.72	95.00	-8.71	333.23 S	6.85 W	32.65487510 N	103.89940767 W	333.30@	181.18	0.28
7416.00	4.48	183.17	7399.37	93.00	-9.19	341.34 S	7.28 W	32.65485282 N	103.89940919 W	341.42@	181.22	1.14
7448.00	6.24	167.38	7431.23	32.00	-8.90	344.29 S	6.97 W	32.65484472 N	103.89940822 W	344.36@	181.16	7.13

PathFinder – a Schlumberger company

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
SIRIUS 17 FED COM 8H
Eddy COUNTY, New Mexico
API#: 30-015-41888 Rig: H&P 300

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7479.00	8.71	157.37	7461.96	31.00	-7.65	348.10 S	5.70 W	32.65483423 N	103.89940414 W	348.14@	180.94	8.98
7511.00	11.08	154.26	7493.48	32.00	-5.41	353.10 S	3.43 W	32.65482044 N	103.89939684 W	353.12@	180.56	7.59
7542.00	14.07	145.39	7523.74	31.00	-2.00	358.89 S	0.00 E	32.65480450 N	103.89938576 W	358.89@	180.00	11.46
7574.00	17.41	136.36	7554.54	32.00	3.47	365.56 S	5.52 E	32.65478611 N	103.89936792 W	365.60@	179.14	12.91
7605.00	20.58	128.51	7583.85	31.00	10.90	372.31 S	12.98 E	32.65476746 N	103.89934375 W	372.54@	178.00	13.11
7637.00	23.39	118.25	7613.53	32.00	20.87	378.82 S	22.99 E	32.65474945 N	103.89931134 W	379.52@	176.53	14.84
7668.00	25.76	109.29	7641.73	31.00	32.62	383.96 S	34.77 E	32.65473519 N	103.89927312 W	385.53@	174.83	14.23
7700.00	27.87	104.38	7670.29	32.00	46.41	388.12 S	48.58 E	32.65472361 N	103.89922830 W	391.15@	172.87	9.55
7731.00	30.95	100.19	7697.30	31.00	61.26	391.33 S	63.45 E	32.65471462 N	103.89918003 W	396.44@	170.79	11.94
7763.00	34.12	98.46	7724.27	32.00	78.23	394.11 S	80.43 E	32.65470680 N	103.89912489 W	402.23@	168.47	10.32
7794.00	37.55	98.53	7749.40	31.00	96.16	396.79 S	98.38 E	32.65469923 N	103.89906661 W	408.80@	166.07	11.07
7826.00	40.89	96.76	7774.19	32.00	116.20	399.47 S	118.43 E	32.65469163 N	103.89900150 W	416.65@	163.49	11.01
7857.00	44.05	94.14	7797.06	31.00	137.02	401.44 S	139.26 E	32.65468598 N	103.89893384 W	424.91@	160.87	11.68
7889.00	47.48	93.74	7819.38	32.00	159.88	403.01 S	162.13 E	32.65468140 N	103.89885956 W	434.40@	158.09	10.76
7920.00	51.44	93.33	7839.52	31.00	183.38	404.46 S	185.64 E	32.65467715 N	103.89878319 W	445.03@	155.35	12.81
7952.00	54.43	93.55	7858.81	32.00	208.85	406.00 S	211.13 E	32.65467265 N	103.89870041 W	457.61@	152.52	9.36
7983.00	56.98	93.31	7876.27	31.00	234.41	407.53 S	236.69 E	32.65466815 N	103.89861737 W	471.27@	149.85	8.25
8015.00	59.53	93.08	7893.11	32.00	261.57	409.04 S	263.86 E	32.65466368 N	103.89852912 W	486.76@	147.18	7.99
8046.00	62.61	92.72	7908.10	31.00	288.65	410.41 S	290.95 E	32.65465960 N	103.89844110 W	503.08@	144.67	9.99
8078.00	65.33	92.40	7922.14	32.00	317.37	411.70 S	319.67 E	32.65465575 N	103.89834780 W	521.23@	142.17	8.55
8109.00	67.53	92.08	7934.54	31.00	345.75	412.81 S	348.06 E	32.65465238 N	103.89825557 W	539.96@	139.86	7.16
8141.00	70.43	91.68	7946.02	32.00	375.60	413.79 S	377.91 E	32.65464936 N	103.89815859 W	560.39@	137.59	9.14
8172.00	74.13	91.42	7955.45	31.00	405.11	414.58 S	407.43 E	32.65464683 N	103.89806271 W	581.27@	135.50	11.96
8204.00	77.03	91.34	7963.42	32.00	436.08	415.33 S	438.41 E	32.65464443 N	103.89796206 W	603.90@	133.45	9.07
8235.00	79.76	90.81	7969.65	31.00	466.44	415.90 S	468.77 E	32.65464252 N	103.89786343 W	626.67@	131.58	8.96
8267.00	82.92	90.77	7974.47	32.00	498.06	416.34 S	500.39 E	32.65464097 N	103.89776068 W	650.94@	129.76	9.88
8360.00	87.58	89.55	7982.17	93.00	590.71	416.59 S	593.05 E	32.65463922 N	103.89745964 W	724.74@	125.09	5.18

PathFinder – a Schlumberger company

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
SIRIUS 17 FED COM 8H
Eddy COUNTY, New Mexico
API#: 30-015-41888 Rig: H&P 300

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Survey Latitude (deg)	Survey Longitude (deg)	Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
8455.00	86.17	89.70	7987.35	95.00	685.57	415.97 S	687.90 E	32.65463986 N	103.89715143 W	803.89@	121.16	1.49
8549.00	87.67	89.11	7992.40	94.00	779.43	414.99 S	781.76 E	32.65464148 N	103.89684647 W	885.08@	117.96	1.71
8644.00	89.96	88.40	7994.36	95.00	874.39	412.93 S	876.71 E	32.65464608 N	103.89653794 W	969.09@	115.22	2.52
8738.00	88.64	90.44	7995.51	94.00	968.37	411.98 S	970.69 E	32.65464763 N	103.89623257 W	1054.50@	113.00	2.58
8833.00	88.81	90.16	7997.63	95.00	1063.34	412.48 S	1065.66 E	32.65464519 N	103.89592399 W	1142.70@	111.16	0.34
8927.00	91.54	88.58	7997.34	94.00	1157.33	411.44 S	1159.64 E	32.65464696 N	103.89561861 W	1230.47@	109.53	3.35
9022.00	90.48	88.16	7995.66	95.00	1252.29	408.74 S	1254.59 E	32.65465332 N	103.89531009 W	1319.49@	108.05	1.20
9116.00	89.34	88.24	7995.81	94.00	1346.26	405.79 S	1348.54 E	32.65466037 N	103.89500478 W	1408.27@	106.75	1.22
9210.00	89.34	88.97	7996.89	94.00	1440.23	403.50 S	1442.51 E	32.65466559 N	103.89469945 W	1497.88@	105.63	0.78
9305.00	88.64	88.58	7998.57	95.00	1535.20	401.47 S	1537.47 E	32.65467009 N	103.89439087 W	1589.02@	104.63	0.84
9399.00	87.58	89.66	8001.67	94.00	1629.15	400.03 S	1631.41 E	32.65467299 N	103.89408565 W	1679.73@	103.78	1.61
9494.00	88.55	88.81	8004.88	95.00	1724.09	398.76 S	1726.34 E	32.65467539 N	103.89377717 W	1771.80@	103.01	1.36
9588.00	89.16	88.02	8006.76	94.00	1818.04	396.16 S	1820.28 E	32.65468147 N	103.89347190 W	1862.90@	102.28	1.06
9683.00	87.93	89.07	8009.17	95.00	1912.99	393.75 S	1915.22 E	32.65468702 N	103.89316341 W	1955.28@	101.62	1.70
9778.00	88.72	88.79	8011.94	95.00	2007.94	391.97 S	2010.16 E	32.65469081 N	103.89285491 W	2048.02@	101.03	0.88
9872.00	89.87	88.17	8013.10	94.00	2101.91	389.48 S	2104.12 E	32.65469659 N	103.89254959 W	2139.86@	100.49	1.39
9966.00	88.37	88.43	8014.54	94.00	2195.87	386.69 S	2198.06 E	32.65470318 N	103.89224432 W	2231.82@	99.98	1.62
10061.00	89.52	88.69	8016.29	95.00	2290.83	384.31 S	2293.02 E	32.65470866 N	103.89193577 W	2325.00@	99.51	1.24
10155.00	90.13	88.48	8016.58	94.00	2384.82	381.99 S	2386.99 E	32.65471397 N	103.89163042 W	2417.36@	99.09	0.69
10249.00	90.04	88.36	8016.44	94.00	2478.79	379.39 S	2480.95 E	32.65472001 N	103.89132508 W	2509.79@	98.69	0.16
10344.00	92.51	89.95	8014.33	95.00	2573.76	377.99 S	2575.91 E	32.65472278 N	103.89101654 W	2603.49@	98.35	3.09
10438.00	92.24	89.50	8010.43	94.00	2667.68	377.54 S	2669.83 E	32.65472294 N	103.89071138 W	2696.39@	98.05	0.56
10533.00	91.63	89.38	8007.22	95.00	2762.62	376.61 S	2764.77 E	32.65472440 N	103.89040289 W	2790.30@	97.76	0.65
10627.00	92.51	90.46	8003.83	94.00	2856.56	376.48 S	2858.70 E	32.65472369 N	103.89009768 W	2883.39@	97.50	1.48
10722.00	92.86	91.84	7999.38	95.00	2951.42	378.39 S	2953.58 E	32.65471737 N	103.88978944 W	2977.72@	97.30	1.50
10817.00	92.33	91.23	7995.08	95.00	3046.27	380.93 S	3048.44 E	32.65470929 N	103.88948124 W	3072.15@	97.12	0.85
10911.00	92.15	91.87	7991.40	94.00	3140.15	383.47 S	3142.34 E	32.65470123 N	103.88917620 W	3165.65@	96.96	0.71

PathFinder – a Schlumberger company

Survey Report

DEVON ENERGY PRODUCTION COMPANY, LP
SIRIUS 17 FED COM 8H
Eddy COUNTY, New Mexico
API#: 30-015-41888 Rig: H&P 300

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Survey Latitude (deg)	Survey Longitude (deg)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)
11005.00	89.96	91.75	7989.67	94.00	3234.06	386.44 S	3236.27 E	32.65469199 N	103.88887105 W	3259.26@ 96.81	2.33
11100.00	88.90	91.40	7990.62	95.00	3329.00	389.05 S	3331.23 E	32.65468372 N	103.88856255 W	3353.87@ 96.66	1.18
11194.00	87.85	91.77	7993.28	94.00	3422.91	391.65 S	3425.15 E	32.65467549 N	103.88825741 W	3447.47@ 96.52	1.18
11289.00	88.81	94.29	7996.05	95.00	3517.70	396.67 S	3519.97 E	32.65466060 N	103.88794940 W	3542.25@ 96.43	2.84
11383.00	88.46	93.02	7998.29	94.00	3611.44	402.66 S	3613.75 E	32.65464306 N	103.88764478 W	3636.11@ 96.36	1.40
11478.00	88.11	90.92	8001.13	95.00	3706.32	405.92 S	3708.65 E	32.65463299 N	103.88733650 W	3730.79@ 96.25	2.24
11572.00	89.96	90.32	8002.72	94.00	3800.29	406.94 S	3802.62 E	32.65462911 N	103.88703117 W	3824.33@ 96.11	2.07
11666.00	88.90	90.45	8003.65	94.00	3894.28	407.57 S	3896.61 E	32.65462629 N	103.88672579 W	3917.87@ 95.97	1.14
11761.00	87.58	91.23	8006.57	95.00	3989.21	408.96 S	3991.56 E	32.65462136 N	103.88641733 W	4012.45@ 95.85	1.61
11855.00	89.43	90.50	8009.02	94.00	4083.15	410.38 S	4085.51 E	32.65461638 N	103.88611208 W	4106.07@ 95.74	2.11
11950.00	90.22	90.62	8009.31	95.00	4178.14	411.31 S	4180.50 E	32.65461272 N	103.88580345 W	4200.69@ 95.62	0.84
12044.00	89.34	90.82	8009.67	94.00	4272.12	412.49 S	4274.49 E	32.65460839 N	103.88549807 W	4294.35@ 95.51	0.96
12139.00	88.72	90.05	8011.28	95.00	4367.10	413.21 S	4369.48 E	32.65460530 N	103.88518947 W	4388.97@ 95.40	1.04
12233.00	88.72	90.38	8013.38	94.00	4461.07	413.56 S	4463.45 E	32.65460324 N	103.88488414 W	4482.57@ 95.29	0.35
12327.00	88.55	90.46	8015.62	94.00	4555.04	414.25 S	4557.42 E	32.65460026 N	103.88457883 W	4576.21@ 95.19	0.20
12422.00	87.76	89.43	8018.68	95.00	4649.99	414.16 S	4652.37 E	32.65459941 N	103.88427033 W	4670.77@ 95.09	1.37
STRAIGHT PROJECTION TO BIT DEPTH AT 12511' MD.											
12511.00	87.76	89.43	8022.16	89.00	4738.92	413.28 S	4741.30 E	32.65460080 N	103.88398138 W	4759.28@ 94.98	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder – a Schlumberger company and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.



SIRIUS 17 FED COM 8H

WEST UNRESTRICTED

Directional Survey

District DELAWARE BASIN	County EDDY	Field Name HACKBERRY	Project Group DELAWARE BASIN REG	State/Province NM
Surface Legal Location Sec. 17 T19S R31E	API/UWI 3001541888	Latitude (") 32° 39' 20.848" N	Longitude (") 103° 53' 57.772" W	Ground Elev... 3,421.90
			KB - GL (ft) 26.20	Orig KB Elev (ft) 3,448.10
				Tubing Head Elevation (ft)

Wellbores

Wellbore Name OH	Parent Wellbore OH	SAP Well ID	Kick Off Depth (ftKB) 7,435.0	Vertical Section Direction (") 89.68
Actual Deviation Survey EXTREME XPULSE / MWD, Proposed? No	Definitive? Yes	Proposed? No	Proposed Deviation Survey EXTREME XPULSE / MWD, Proposed? No	

Deviation Survey

Date 10/6/2014		Description EXTREME XPULSE / MWD			
MD Tie In (ftKB) 0.00	TVD Tie In (ftKB) 0.00	Inclination Tie In (°) 0.00	Azimuth Tie In (°) 0.00	NSTie In (ft) 0.00	EW Tie In (ft) 0.00

Survey Data

Date	MD (ftKB)	Incl (")	Azm (")	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS ("/100ft)	Survey Tool	Survey Company
10/14/2...	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	MS	EXTREME ENGINEERING
10/6/2014	137.00	0.48	169.23	137.00	0.10	-0.56	0.11	0.35	MS	EXTREME ENGINEERING
10/6/2014	257.00	0.70	164.00	256.99	0.39	-1.76	0.40	0.19	MS	EXTREME ENGINEERING
10/6/2014	345.00	1.01	164.00	344.98	0.75	-3.02	0.77	0.35	MS	EXTREME ENGINEERING
10/6/2014	427.00	1.01	129.20	426.97	1.50	-4.18	1.52	0.74	MS	EXTREME ENGINEERING
10/14/2...	515.00	1.41	117.33	514.95	3.06	-5.16	3.09	0.53	MS	EXTREME ENGINEERING
10/14/2...	638.00	1.80	122.43	637.90	6.02	-6.89	6.06	0.34	MS	EXTREME ENGINEERING
10/14/2...	760.00	1.89	118.12	759.84	9.40	-8.87	9.45	0.14	MS	EXTREME ENGINEERING
10/14/2...	888.00	1.49	119.92	887.78	12.70	-10.69	12.76	0.32	MS	EXTREME ENGINEERING
10/14/2...	951.00	1.41	115.79	950.76	14.10	-11.44	14.17	0.21	MS	EXTREME ENGINEERING
10/14/2...	1,014.00	1.32	113.42	1,013.74	15.46	-12.07	15.53	0.17	MS	EXTREME ENGINEERING
10/14/2...	1,139.00	1.10	109.91	1,138.72	17.91	-13.05	17.98	0.19	MS	EXTREME ENGINEERING
10/14/2...	1,262.00	1.10	111.00	1,261.69	20.11	-13.87	20.19	0.02	MS	EXTREME ENGINEERING
10/14/2...	1,383.00	1.41	95.10	1,382.67	22.68	-14.42	22.76	0.38	MS	EXTREME ENGINEERING
10/14/2...	1,506.00	2.20	83.93	1,505.60	26.53	-14.31	26.61	0.70	MS	EXTREME ENGINEERING
10/14/2...	1,547.00	2.11	80.11	1,546.57	28.06	-14.09	28.14	0.41	MS	EXTREME ENGINEERING
10/14/2...	1,629.00	2.29	79.63	1,628.51	31.16	-13.54	31.24	0.22	MS	EXTREME ENGINEERING
10/14/2...	1,756.00	2.11	80.11	1,755.42	35.97	-12.68	36.04	0.14	MS	EXTREME ENGINEERING
10/14/2...	1,882.00	2.11	77.61	1,881.34	40.52	-11.78	40.59	0.07	MS	EXTREME ENGINEERING
10/14/2...	2,008.00	1.58	86.53	2,007.27	44.52	-11.18	44.59	0.48	MS	EXTREME ENGINEERING
10/14/2...	2,197.00	0.88	97.21	2,196.23	48.56	-11.21	48.63	0.39	MS	EXTREME ENGINEERING
10/14/2...	2,320.00	0.62	47.72	2,319.22	50.00	-10.88	50.06	0.55	MS	EXTREME ENGINEERING
10/14/2...	2,415.00	0.70	126.82	2,414.21	50.84	-10.88	50.90	0.89	MS	EXTREME ENGINEERING
10/14/2...	2,507.00	0.70	125.42	2,506.20	51.74	-11.54	51.81	0.02	MS	EXTREME ENGINEERING
10/14/2...	2,601.00	0.88	125.42	2,600.20	52.80	-12.29	52.87	0.19	MS	EXTREME ENGINEERING
10/14/2...	2,700.00	0.88	139.83	2,699.18	53.90	-13.31	53.98	0.22	MS	EXTREME ENGINEERING
10/14/2...	2,795.00	1.20	140.10	2,794.17	55.00	-14.63	55.08	0.34	MS	EXTREME ENGINEERING
10/14/2...	2,889.00	1.32	141.63	2,888.15	56.30	-16.24	56.39	0.13	MS	EXTREME ENGINEERING
10/14/2...	2,983.00	1.32	147.60	2,982.12	57.54	-18.00	57.64	0.15	MS	EXTREME ENGINEERING
10/14/2...	3,075.00	1.32	144.80	3,074.10	58.71	-19.76	58.82	0.07	MS	EXTREME ENGINEERING
10/14/2...	3,170.00	1.32	146.03	3,169.07	59.94	-21.56	60.06	0.03	MS	EXTREME ENGINEERING
10/14/2...	3,264.00	1.19	140.62	3,263.05	61.15	-23.22	61.29	0.19	MS	EXTREME ENGINEERING
10/14/2...	3,362.00	1.32	149.10	3,361.02	62.37	-24.97	62.51	0.23	MS	EXTREME ENGINEERING
10/14/2...	3,456.00	1.10	146.82	3,455.00	63.41	-26.66	63.56	0.24	MS	EXTREME ENGINEERING
10/14/2...	3,550.00	1.49	145.02	3,548.98	64.60	-28.41	64.75	0.42	MS	EXTREME ENGINEERING
10/14/2...	3,644.00	1.40	140.17	3,642.95	66.02	-30.29	66.19	0.16	MS	EXTREME ENGINEERING
10/14/2...	3,739.00	1.19	143.92	3,737.93	67.34	-31.98	67.52	0.24	MS	EXTREME ENGINEERING
10/14/2...	3,834.00	1.19	148.40	3,832.90	68.42	-33.62	68.61	0.10	MS	EXTREME ENGINEERING
10/14/2...	3,912.00	1.10	147.21	3,910.89	69.25	-34.94	69.44	0.12	MS	EXTREME ENGINEERING
10/23/2...	4,110.00	1.76	155.05	4,108.83	71.53	-39.29	71.75	0.35	MWD	PATHFINDER ENERGY SE...
10/23/2...	4,204.00	2.55	175.79	4,202.76	72.28	-42.69	72.52	1.17	MWD	PATHFINDER ENERGY SE...
10/23/2...	4,299.00	4.22	185.46	4,297.59	72.07	-48.28	72.34	1.85	MWD	PATHFINDER ENERGY SE...
10/23/2...	4,394.00	5.28	188.59	4,392.27	71.04	-56.08	71.35	1.15	MWD	PATHFINDER ENERGY SE...
10/23/2...	4,488.00	5.63	193.42	4,485.84	69.28	-64.84	69.64	0.61	MWD	PATHFINDER ENERGY SE...
10/23/2...	4,583.00	5.10	192.86	4,580.42	67.21	-73.49	67.62	0.56	MWD	PATHFINDER ENERGY SE...
10/23/2...	4,677.00	4.57	190.50	4,674.09	65.55	-81.24	66.00	0.60	MWD	PATHFINDER ENERGY SE...
10/23/2...	4,772.00	4.92	188.76	4,768.76	64.20	-88.99	64.69	0.40	MWD	PATHFINDER ENERGY SE...



SIRIUS 17 FED COM 8H

WEST UNRESTRICTED

Directional Survey

District DELAWARE BASIN	County EDDY	Field Name HACKBERRY	Project Group DELAWARE BASIN REG	State/Province NM
Surface Legal Location Sec. 17 T19S R31E	API/UWI 3001541888	Latitude (°) 32° 39' 20.848" N	Longitude (°) 103° 53' 57.772" W	Ground Elev... 3,421.90
			KB - GL (ft) 26.20	Orig KB Elev (ft) 3,448.10
				Tubing Head Elevation (ft)

Survey Data										
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	IDS (°/100ft)	Survey Tool	Survey Company
10/23/2...	4,866.00	6.16	203.06	4,862.33	61.56	-97.62	62.10	1.96	MWD	PATHFINDER ENERGY SE...
10/23/2...	4,961.00	5.36	206.49	4,956.85	57.53	-106.28	58.13	0.92	MWD	PATHFINDER ENERGY SE...
10/23/2...	5,055.00	6.24	203.51	5,050.36	53.49	-114.89	54.13	0.99	MWD	PATHFINDER ENERGY SE...
10/23/2...	5,150.00	6.42	197.29	5,144.79	49.80	-124.70	50.49	0.75	MWD	PATHFINDER ENERGY SE...
10/23/2...	5,244.00	5.80	194.24	5,238.25	47.01	-134.32	47.76	0.74	MWD	PATHFINDER ENERGY SE...
10/23/2...	5,339.00	5.19	193.84	5,332.82	44.76	-143.15	45.56	0.64	MWD	PATHFINDER ENERGY SE...
10/23/2...	5,433.00	5.98	204.10	5,426.37	41.69	-151.74	42.54	1.35	MWD	PATHFINDER ENERGY SE...
10/23/2...	5,528.00	6.24	208.87	5,520.83	37.13	-160.78	38.03	0.60	MWD	PATHFINDER ENERGY SE...
10/23/2...	5,622.00	5.80	198.35	5,614.32	33.12	-169.76	34.06	1.26	MWD	PATHFINDER ENERGY SE...
10/23/2...	5,717.00	5.98	202.22	5,708.81	29.68	-178.90	30.68	0.46	MWD	PATHFINDER ENERGY SE...
10/23/2...	5,811.00	5.98	191.28	5,802.31	26.82	-188.24	27.87	1.21	MWD	PATHFINDER ENERGY SE...
10/23/2...	5,905.00	6.60	193.04	5,895.74	24.59	-198.30	25.70	0.69	MWD	PATHFINDER ENERGY SE...
10/23/2...	6,000.00	5.63	193.69	5,990.20	22.20	-208.15	23.36	1.02	MWD	PATHFINDER ENERGY SE...
10/23/2...	6,094.00	5.89	198.67	6,083.72	19.51	-217.20	20.73	0.60	MWD	PATHFINDER ENERGY SE...
10/23/2...	6,189.00	5.45	195.23	6,178.26	16.72	-226.17	17.98	0.59	MWD	PATHFINDER ENERGY SE...
10/23/2...	6,284.00	4.92	198.13	6,272.87	14.22	-234.39	15.53	0.62	MWD	PATHFINDER ENERGY SE...
10/23/2...	6,378.00	5.10	207.42	6,366.51	11.00	-241.93	12.35	0.88	MWD	PATHFINDER ENERGY SE...
10/23/2...	6,472.00	4.04	211.67	6,460.21	7.30	-248.46	8.69	1.18	MWD	PATHFINDER ENERGY SE...
10/23/2...	6,567.00	5.54	202.29	6,554.88	3.76	-255.55	5.19	1.78	MWD	PATHFINDER ENERGY SE...
10/23/2...	6,661.00	6.95	194.80	6,648.32	0.53	-265.25	2.02	1.73	MWD	PATHFINDER ENERGY SE...
10/23/2...	6,756.00	6.60	188.91	6,742.66	-1.84	-276.20	-0.30	0.82	MWD	PATHFINDER ENERGY SE...
10/23/2...	6,850.00	5.54	187.25	6,836.13	-3.31	-286.04	-1.71	1.14	MWD	PATHFINDER ENERGY SE...
10/23/2...	6,945.00	4.75	184.79	6,930.75	-4.26	-294.51	-2.62	0.86	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,039.00	6.51	189.07	7,024.29	-5.48	-303.65	-3.78	1.92	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,133.00	6.24	188.84	7,117.71	-7.16	-313.96	-5.41	0.29	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,228.00	5.80	182.44	7,212.19	-8.21	-323.86	-6.40	0.84	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,323.00	5.54	182.99	7,306.72	-8.71	-333.23	-6.85	0.28	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,416.00	4.48	183.17	7,399.36	-9.19	-341.34	-7.28	1.14	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,448.00	6.24	167.38	7,431.22	-8.89	-344.29	-6.97	7.13	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,479.00	8.71	157.37	7,461.96	-7.64	-348.10	-5.70	8.98	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,511.00	11.08	154.26	7,493.48	-5.40	-353.10	-3.43	7.59	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,542.00	14.07	145.39	7,523.74	-2.00	-358.89	0.00	11.46	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,574.00	17.41	136.36	7,554.54	3.48	-365.56	5.52	12.91	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,605.00	20.58	128.51	7,583.85	10.91	-372.31	12.99	13.11	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,637.00	23.39	118.25	7,613.53	20.87	-378.82	22.99	14.84	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,668.00	25.76	109.29	7,641.73	32.63	-383.96	34.77	14.23	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,700.00	27.87	104.38	7,670.29	46.42	-388.12	48.58	9.55	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,731.00	30.95	100.19	7,697.30	61.27	-391.33	63.45	11.94	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,763.00	34.12	98.46	7,724.27	78.23	-394.11	80.43	10.32	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,794.00	37.55	98.53	7,749.40	96.16	-396.79	98.38	11.07	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,826.00	40.89	96.76	7,774.19	116.20	-399.47	118.43	11.01	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,857.00	44.05	94.14	7,797.06	137.02	-401.44	139.26	11.68	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,889.00	47.48	93.74	7,819.38	159.88	-403.01	162.13	10.76	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,920.00	51.44	93.33	7,839.52	183.38	-404.46	185.64	12.81	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,952.00	54.43	93.55	7,858.81	208.86	-406.00	211.13	9.36	MWD	PATHFINDER ENERGY SE...
10/23/2...	7,983.00	56.98	93.31	7,876.27	234.41	-407.53	236.69	8.25	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,015.00	59.53	93.08	7,893.11	261.57	-409.04	263.86	7.99	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,046.00	62.61	92.72	7,908.10	288.66	-410.41	290.95	9.99	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,078.00	65.33	92.40	7,922.14	317.37	-411.70	319.68	8.55	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,109.00	67.53	92.08	7,934.54	345.75	-412.81	348.07	7.16	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,141.00	70.43	91.68	7,946.01	375.60	-413.79	377.92	9.14	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,172.00	74.13	91.42	7,955.45	405.11	-414.58	407.43	11.96	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,204.00	77.03	91.34	7,963.42	436.08	-415.33	438.41	9.07	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,235.00	79.76	90.81	7,969.65	466.44	-415.90	468.77	8.96	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,267.00	82.92	90.77	7,974.47	498.06	-416.34	500.40	9.88	MWD	PATHFINDER ENERGY SE...



SIRIUS 17 FED COM 8H

WEST UNRESTRICTED

Directional Survey

District DELAWARE BASIN	County EDDY	Field Name HACKBERRY	Project Group DELAWARE BASIN REG	State/Province NM
Surface Legal Location Sec. 17 T19S R31E	API/UWI 3001541888	Latitude (°) 32° 39' 20.848" N	Longitude (°) 103° 53' 57.772" W	Ground Elev... 3,421.90
			KB - GL (ft) 26.20	Orig KB Elev (ft) 3,448.10
				Tubing Head Elevation (ft)

Survey Data

Date	MD (ftKB)	Incl. (°)	Azm. (°)	IVD (ftKB)	VS (ft)	N/S (ft)	EW (ft)	DLS (°/100ft)	Survey Tool	Survey Company
10/23/2...	8,360.00	87.58	89.55	7,982.17	590.71	-416.59	593.05	5.18	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,455.00	86.17	89.70	7,987.35	685.57	-415.97	687.90	1.49	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,549.00	87.67	89.11	7,992.40	779.43	-415.00	781.76	1.71	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,644.00	89.96	88.40	7,994.36	874.39	-412.93	876.71	2.52	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,738.00	88.64	90.44	7,995.51	968.37	-411.98	970.69	2.58	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,833.00	88.81	90.16	7,997.62	1,063.35	-412.48	1,065.67	0.34	MWD	PATHFINDER ENERGY SE...
10/23/2...	8,927.00	91.54	88.58	7,997.34	1,157.33	-411.44	1,159.65	3.36	MWD	PATHFINDER ENERGY SE...
10/23/2...	9,022.00	90.48	88.16	7,995.66	1,252.29	-408.74	1,254.59	1.20	MWD	PATHFINDER ENERGY SE...
10/23/2...	9,116.00	89.34	88.24	7,995.81	1,346.26	-405.79	1,348.55	1.22	MWD	PATHFINDER ENERGY SE...
10/23/2...	9,210.00	89.34	88.97	7,996.89	1,440.23	-403.50	1,442.51	0.78	MWD	PATHFINDER ENERGY SE...
10/23/2...	9,305.00	88.64	88.58	7,998.57	1,535.21	-401.47	1,537.47	0.84	MWD	PATHFINDER ENERGY SE...
10/23/2...	9,399.00	87.58	89.66	8,001.67	1,629.15	-400.03	1,631.41	1.61	MWD	PATHFINDER ENERGY SE...
10/23/2...	9,494.00	88.55	88.81	8,004.88	1,724.09	-398.76	1,726.34	1.36	MWD	PATHFINDER ENERGY SE...
10/23/2...	9,588.00	89.16	88.02	8,006.75	1,818.05	-396.16	1,820.29	1.06	MWD	PATHFINDER ENERGY SE...
10/23/2...	9,683.00	87.93	89.07	8,009.17	1,912.99	-393.75	1,915.22	1.70	MWD	PATHFINDER ENERGY SE...
10/23/2...	9,778.00	88.72	88.79	8,011.94	2,007.94	-391.97	2,010.17	0.88	MWD	PATHFINDER ENERGY SE...
10/23/2...	9,872.00	89.87	88.17	8,013.10	2,101.91	-389.48	2,104.12	1.39	MWD	PATHFINDER ENERGY SE...
10/23/2...	9,966.00	88.37	88.43	8,014.54	2,195.87	-386.69	2,198.07	1.62	MWD	PATHFINDER ENERGY SE...
10/23/2...	10,061.00	89.52	88.69	8,016.29	2,290.84	-384.31	2,293.02	1.24	MWD	PATHFINDER ENERGY SE...
10/23/2...	10,155.00	90.13	88.48	8,016.58	2,384.82	-381.99	2,386.99	0.69	MWD	PATHFINDER ENERGY SE...
10/23/2...	10,249.00	90.04	88.36	8,016.44	2,478.80	-379.39	2,480.95	0.16	MWD	PATHFINDER ENERGY SE...
10/23/2...	10,344.00	92.51	89.95	8,014.33	2,573.76	-377.99	2,575.91	3.09	MWD	PATHFINDER ENERGY SE...
10/23/2...	10,438.00	92.24	89.50	8,010.43	2,667.68	-377.54	2,669.83	0.56	MWD	PATHFINDER ENERGY SE...
10/23/2...	10,533.00	91.63	89.38	8,007.22	2,762.62	-376.61	2,764.77	0.65	MWD	PATHFINDER ENERGY SE...
10/23/2...	10,627.00	92.51	90.46	8,003.83	2,856.56	-376.48	2,858.71	1.48	MWD	PATHFINDER ENERGY SE...
10/23/2...	10,722.00	92.86	91.84	7,999.38	2,951.42	-378.39	2,953.58	1.50	MWD	PATHFINDER ENERGY SE...
10/23/2...	10,817.00	92.33	91.23	7,995.08	3,046.27	-380.93	3,048.45	0.85	MWD	PATHFINDER ENERGY SE...
10/23/2...	10,911.00	92.15	91.87	7,991.40	3,140.15	-383.47	3,142.34	0.71	MWD	PATHFINDER ENERGY SE...
10/23/2...	11,005.00	89.96	91.75	7,989.67	3,234.06	-386.44	3,236.27	2.33	MWD	PATHFINDER ENERGY SE...
10/23/2...	11,100.00	88.90	91.40	7,990.62	3,329.00	-389.05	3,331.23	1.18	MWD	PATHFINDER ENERGY SE...
10/23/2...	11,194.00	87.85	91.77	7,993.28	3,422.91	-391.65	3,425.15	1.18	MWD	PATHFINDER ENERGY SE...
10/23/2...	11,289.00	88.81	94.29	7,996.05	3,517.70	-396.67	3,519.97	2.84	MWD	PATHFINDER ENERGY SE...
10/23/2...	11,383.00	88.46	93.02	7,998.29	3,611.45	-402.66	3,613.75	1.40	MWD	PATHFINDER ENERGY SE...
10/23/2...	11,478.00	88.11	90.92	8,001.13	3,706.32	-405.92	3,708.65	2.24	MWD	PATHFINDER ENERGY SE...
10/23/2...	11,572.00	89.96	90.32	8,002.72	3,800.29	-406.94	3,802.63	2.07	MWD	PATHFINDER ENERGY SE...
10/23/2...	11,666.00	88.90	90.45	8,003.65	3,894.28	-407.57	3,896.62	1.14	MWD	PATHFINDER ENERGY SE...
10/23/2...	11,761.00	87.58	91.23	8,006.57	3,989.21	-408.96	3,991.56	1.61	MWD	PATHFINDER ENERGY SE...
10/23/2...	11,855.00	89.43	90.50	8,009.02	4,083.16	-410.38	4,085.51	2.12	MWD	PATHFINDER ENERGY SE...
10/23/2...	11,950.00	90.22	90.62	8,009.31	4,178.14	-411.31	4,180.51	0.84	MWD	PATHFINDER ENERGY SE...
10/23/2...	12,044.00	89.34	90.82	8,009.67	4,272.13	-412.49	4,274.50	0.96	MWD	PATHFINDER ENERGY SE...
10/23/2...	12,139.00	88.72	90.05	8,011.28	4,367.10	-413.21	4,369.48	1.04	MWD	PATHFINDER ENERGY SE...
10/23/2...	12,233.00	88.72	90.38	8,013.38	4,461.08	-413.56	4,463.46	0.35	MWD	PATHFINDER ENERGY SE...
10/23/2...	12,327.00	88.55	90.46	8,015.62	4,555.04	-414.25	4,557.43	0.20	MWD	PATHFINDER ENERGY SE...
10/23/2...	12,422.00	87.76	89.43	8,018.68	4,649.99	-414.16	4,652.37	1.37	MWD	PATHFINDER ENERGY SE...
11/4/2014	12,511.00	87.76	89.43	8,022.16	4,738.92	-413.28	4,741.30	0.00	BIT	PATHFINDER ENERGY SE...