Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM OIL CONSERVATION
OCD Artesia
ARTESIA DISTRICT
DEC 03 2014
RECEIVED

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMNM0107697

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
REGULUS 26 FED 5H

2. Name of Operator
DEVON ENERGY PRODUCTION CO EMail: linda.good@dvn.com
Contact: LINDA GOOD

9. API Well No.
30-015-42489-00-X1

3a. Address
333 WEST SHERIDAN AVE
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)
Ph: 405.552.6558

10. Field and Pool, or Exploratory
WILLIAMS SINK

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 26 T19S R31E NENE 480FNL 667FEL
32.637691 N Lat, 103.833519 W Lon

11. County or Parish, and State
EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Devon Energy Production Company, L.P. respectfully requests changing the 9-5/8", Intermediate 2 setting depth approved at 4,100' on the APD to 4,450' in order to get below the Queen Formation at 4,411'.

3 already had approved from 9/25/14

Devon Energy Production Company, L.P. respectfully requests to run a tapered production string of 7" x 5.5" casing to a total depth of 12,846' measured depth as long as hole conditions permits. If lost circulation is encountered we will stay as originally planned to run a 5-1/2" production longstring. Casing design requirements are below as well as the cement design for both the 7" x 5.5" tapered production string and the 5.5" production longstring. The updated directional well plan is also included.

SEE ATTACHED FOR CONDITIONS OF APPROV

Accepted for r

NMOCD

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #281055 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION CO LP, sent to the Carlsbad
Committed to AFMSS for processing by JENNIFER MASON on 11/20/2014 (15JAM0094SE)

Name *(Printed/Typed)* LINDA GOOD — Title REGULATORY SPECIALIST

Signature (Electronic Submission) — Date 11/20/2014

APPROVED
NOV 20 2014
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date _____

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Regulus 26 Fed 5H – APD DRILLING PLAN CHANGE
AAA 11-20-2014: Change Intermediate Depth and to 7" x 5.5" Combination Production String

Sundry Request:
Devon Energy Production Company, L.P. respectfully requests changing the 9-5/8", Intermediate 2 setting depth approved at 4,100' on the APD to 4,450' in order to get below the Queen Formation at 4,411'.

Devon Energy Production Company, L.P. respectfully requests to run a tapered production string of 7" x 5.5" casing to a total depth of 12,846 ft measured depth as long as hole conditions permits. If lost circulation is encountered we will stay as originally planned to run a 5-1/2" production longstring. Casing design requirements are below as well as the cement design for both the 7" x 5.5" tapered production string and the 5.5" production longstring. The updated directional well plan is also included.

Casing Program Changes: 7" x 5.5" Tapered Production String

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
8-3/4"	4450 - 7844	7"	0 - 7844	29#	BTC	P-110
8-3/4"	7844 - 12846	5-1/2"	7844 - 12846	17#	BTC	P-110

Original Option: 5.5 Production Longstring

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
8-3/4"	4450 - 12846	5-1/2"	0 - 12846	17#	BTC	P-110

Note: only new casing will be utilized

MAXIMUM LATERAL TVD **8,445**

Design Factors: 7" x 5.5" Tapered Production String

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
7" 29# P-110 BTC	2.32	3.06	2.98
5-1/2" 17# P-110 BTC	1.89	2.69	6.49

Original Option: 5.5 Production Longstring

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
5-1/2" 17# P-110 BTC	1.89	2.69	2.50

Cementing Table:

String	Number of sx	Weight lbs/gal	Water Volume g/sx	Yield cf/sx	Stage; Lead/Tail	Slurry Description
5-1/2" Production 2-Stage Original Option	300	12.5	11.02	2.01	Stage 1 Lead	(35:65) Poz (Fly Ash):Premium Plus H Cement + 3% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.7% bwoc FL-52 + 0.3% bwoc ASA-301 + 6% bwoc Bentonite + 105.6% Fresh Water
	1355	14.2	5.76	1.28	Stage 1 Tail	(50:50) Poz (Fly Ash):Class H + 5% bwow Sodium Chloride + 0:3% bwoc CD-32 + 0.5% bwoc FL-25 + 0.5% bwoc FL-52 + 0.3% bwoc Sodium Metasilicate + 57.2% Fresh Water
	DV Tool @ 5500 ft					
	225	11.4	17.69	2.88	Stage 2 Lead	Premium Plus C Cement + 1% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.3% bwoc FL-52 + 3% bwoc Sodium Metasilicate + 157% Fresh Water
	150	13.8	6.40	1.37	Stage 2 Tail	(60:40) Poz (Fly Ash):Premium Plus C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.1% Fresh Water
7" x 5-1/2" Production Casing Single Stage	180	11.8	13.16	2.3	1st Lead	(50:50) Poz (Fly Ash):Class H Cement + 0.5% bwoc FL-52 + 0.3% bwoc ASA-301 + 10% bwoc Bentonite + 0.35% bwoc R-21 + 130.7% Fresh Water
	225	12.5	11.01	2.01	2nd Lead	(35:65) Poz (Fly Ash):Prem Plus H + 3% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.7% bwoc FL-52A + 0.3% bwoc ASA-301 + 6% bwoc Bentonite + 0.2% bwoc R-3 + 105.5% Fresh Water
	1310	14.2	5.77	1.28	Tail	(50:50) Poz (Fly Ash):Prem Plus H + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 0.4% bwoc FL-52A + 0.5% bwoc Sodium Metasilicate + 57.3% Fresh Water

TOC for all Strings:
Production Cement @ 2556' (Cement top will tie-back 50' above Capitan Reef at 2606')

Notes:

- Cement volumes Production based on at least 25% excess
- Actual cement volumes will be adjusted based on fluid caliper and caliper log data
- If lost circulation is encountered while drilling the production wellbore, the 5.5" original production longstring will be used with a DV tool installed a minimum of 50' below the previous casing shoe and of 200' above the current shoe. If the DV tool has to be moved, the cement volumes will be adjusted proportionately.

devon

Project: Eddy County (NAD83)
Site: Regulus "26" Federal
Well: #5H
OH
Plan 5

Azimuths to Grid North
True North: -0.27°
Magnetic North: 7.07°

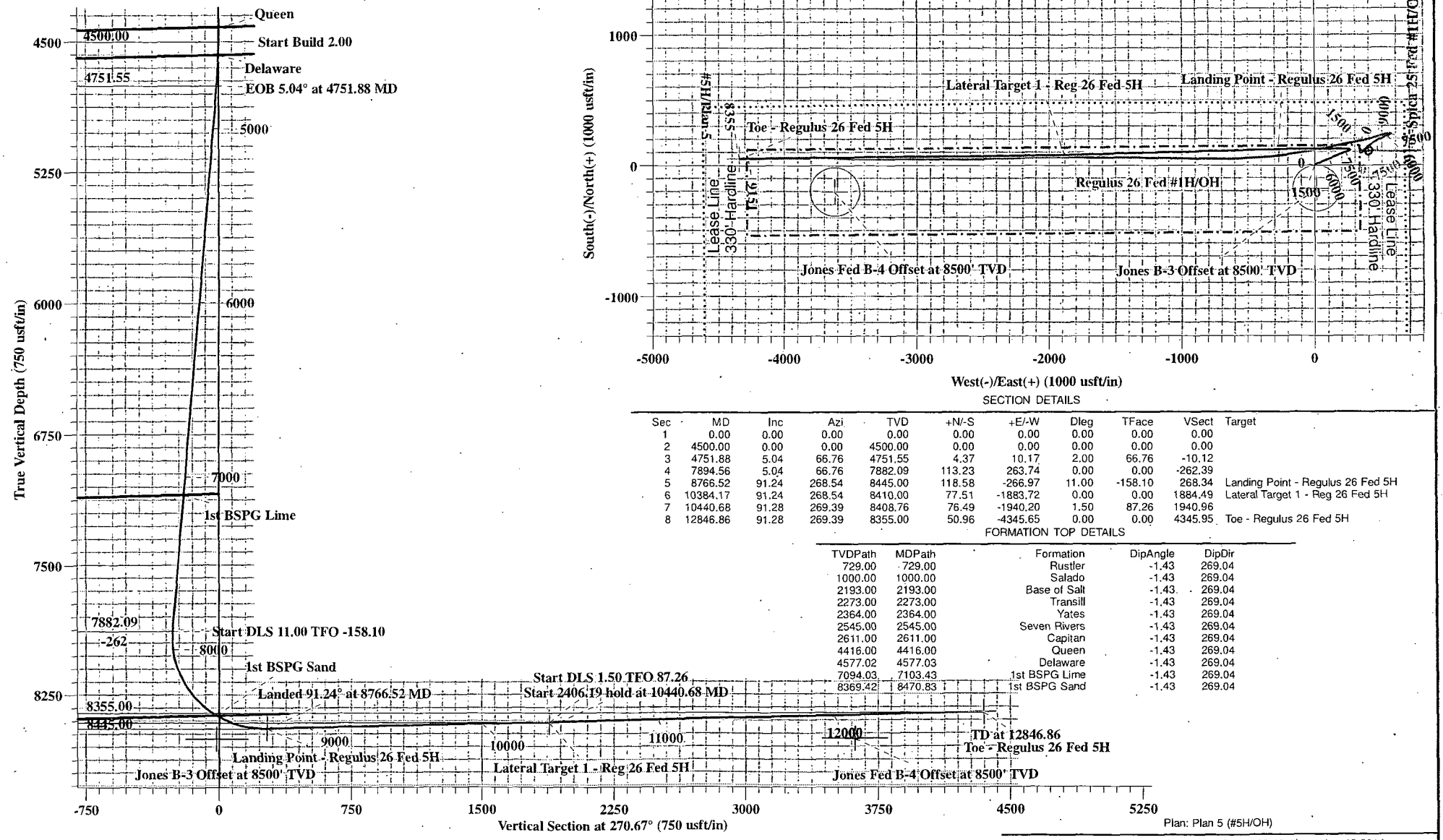
Magnetic Field
Strength: 48566.1snT
Dip Angle: 60.48°
Date: 8/19/2014
Model: IGRF200510

PATHFINDER
A Schlumberger Company

WELL DETAILS: #5H

3494' GL = 25' KB @ 3519.00usft (H&P 267) 3494.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	595984.79	695193.65	32° 38' 14.698 N	103° 50' 0.665 W	



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	0.00	0.00	
3	4751.88	5.04	66.76	4751.55	4.37	10.17	2.00	66.76	-10.12	
4	7894.56	5.04	66.76	7882.09	113.23	263.74	0.00	0.00	-262.39	
5	8766.52	91.24	268.54	8445.00	118.58	-266.97	11.00	-158.10	268.34	Landing Point - Regulus 26 Fed 5H
6	10384.17	91.24	268.54	8410.00	77.51	-1883.72	0.00	0.00	1884.49	Lateral Target 1 - Reg 26 Fed 5H
7	10440.68	91.28	269.39	8408.76	76.49	-1940.20	1.50	87.26	1940.96	
8	12846.86	91.28	269.39	8355.00	50.96	-4345.65	0.00	0.00	4345.95	Toe - Regulus 26 Fed 5H

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
729.00	729.00	Rustler	-1.43	269.04
1000.00	1000.00	Salado	-1.43	269.04
2193.00	2193.00	Base of Salt	-1.43	269.04
2273.00	2273.00	Transill	-1.43	269.04
2364.00	2364.00	Yates	-1.43	269.04
2545.00	2545.00	Seven Rivers	-1.43	269.04
2611.00	2611.00	Capitan	-1.43	269.04
4416.00	4416.00	Queen	-1.43	269.04
4577.02	4577.03	Delaware	-1.43	269.04
7094.03	7103.43	1st BSPG Lime	-1.43	269.04
8369.42	8470.83	1st BSPG Sand	-1.43	269.04

Plan: Plan 5 (#5H/OH)

Created By: Jenise Kirkpatrick Date: 20:48, November 19 2014

Devon Energy, Inc.
#5H - Plan 5

Eddy County (NAD83)
Regulus "26" Federal
Your Ref:

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
0	0	0	0	0	0	0	0
100	0	0	100	0	0	0	0
200	0	0	200	0	0	0	0
300	0	0	300	0	0	0	0
400	0	0	400	0	0	0	0
500	0	0	500	0	0	0	0
600	0	0	600	0	0	0	0
700	0	0	700	0	0	0	0
800	0	0	800	0	0	0	0
900	0	0	900	0	0	0	0
1000	0	0	1000	0	0	0	0
1100	0	0	1100	0	0	0	0
1200	0	0	1200	0	0	0	0
1300	0	0	1300	0	0	0	0
1400	0	0	1400	0	0	0	0
1500	0	0	1500	0	0	0	0
1600	0	0	1600	0	0	0	0
1700	0	0	1700	0	0	0	0
1800	0	0	1800	0	0	0	0
1900	0	0	1900	0	0	0	0
2000	0	0	2000	0	0	0	0
2100	0	0	2100	0	0	0	0
2200	0	0	2200	0	0	0	0
2300	0	0	2300	0	0	0	0
2400	0	0	2400	0	0	0	0
2500	0	0	2500	0	0	0	0
2600	0	0	2600	0	0	0	0
2700	0	0	2700	0	0	0	0
2800	0	0	2800	0	0	0	0
2900	0	0	2900	0	0	0	0
3000	0	0	3000	0	0	0	0
3100	0	0	3100	0	0	0	0

3200	0	0	3200	0	0	0	0
3300	0	0	3300	0	0	0	0
3400	0	0	3400	0	0	0	0
3500	0	0	3500	0	0	0	0
3600	0	0	3600	0	0	0	0
3700	0	0	3700	0	0	0	0
3800	0	0	3800	0	0	0	0
3900	0	0	3900	0	0	0	0
4000	0	0	4000	0	0	0	0
4100	0	0	4100	0	0	0	0
4200	0	0	4200	0	0	0	0
4300	0	0	4300	0	0	0	0
4400	0	0	4400	0	0	0	0
4500	0	0	4500	0	0	0	0
4600	2	66.764	4599.98	0.69	1.6	-1.6	2
4700	4	66.764	4699.84	2.75	6.41	-6.38	2
4751.88	5.038	66.764	4751.55	4.37	10.17	-10.12	2
4800	5.038	66.764	4799.49	6.03	14.05	-13.98	0
4900	5.038	66.764	4899.1	9.5	22.12	-22.01	0
5000	5.038	66.764	4998.72	12.96	30.19	-30.03	0
5100	5.038	66.764	5098.33	16.43	38.26	-38.06	0
5200	5.038	66.764	5197.94	19.89	46.33	-46.09	0
5300	5.038	66.764	5297.56	23.35	54.39	-54.12	0
5400	5.038	66.764	5397.17	26.82	62.46	-62.14	0
5500	5.038	66.764	5496.79	30.28	70.53	-70.17	0
5600	5.038	66.764	5596.4	33.75	78.6	-78.2	0
5700	5.038	66.764	5696.01	37.21	86.67	-86.23	0
5800	5.038	66.764	5795.63	40.67	94.74	-94.25	0
5900	5.038	66.764	5895.24	44.14	102.81	-102.28	0
6000	5.038	66.764	5994.85	47.6	110.87	-110.31	0
6100	5.038	66.764	6094.47	51.07	118.94	-118.34	0
6200	5.038	66.764	6194.08	54.53	127.01	-126.36	0
6300	5.038	66.764	6293.7	58	135.08	-134.39	0
6400	5.038	66.764	6393.31	61.46	143.15	-142.42	0
6500	5.038	66.764	6492.92	64.92	151.22	-150.45	0
6600	5.038	66.764	6592.54	68.39	159.29	-158.47	0
6700	5.038	66.764	6692.15	71.85	167.35	-166.5	0
6800	5.038	66.764	6791.76	75.32	175.42	-174.53	0
6900	5.038	66.764	6891.38	78.78	183.49	-182.56	0
7000	5.038	66.764	6990.99	82.24	191.56	-190.58	0
7100	5.038	66.764	7090.61	85.71	199.63	-198.61	0
7200	5.038	66.764	7190.22	89.17	207.7	-206.64	0
7300	5.038	66.764	7289.83	92.64	215.77	-214.66	0
7400	5.038	66.764	7389.45	96.1	223.83	-222.69	0
7500	5.038	66.764	7489.06	99.57	231.9	-230.72	0
7600	5.038	66.764	7588.67	103.03	239.97	-238.75	0
7700	5.038	66.764	7688.29	106.49	248.04	-246.77	0

7800	5.038	66.764	7787.9	109.96	256.11	-254.8	0
7894.56	5.038	66.764	7882.09	113.23	263.74	-262.39	0
7900	4.488	63.909	7887.52	113.42	264.15	-262.8	11
7950	2.355	321.404	7937.46	115.09	265.27	-263.9	11
8000	7.172	283.68	7987.28	116.63	261.59	-260.2	11
8050	12.562	277.042	8036.52	118.03	253.15	-251.75	11
8100	18.018	274.367	8084.74	119.29	240.04	-238.62	11
8150	23.494	272.909	8131.47	120.39	222.36	-220.93	11
8200	28.979	271.977	8176.31	121.31	200.29	-198.85	11
8250	34.468	271.321	8218.82	122.06	174.02	-172.57	11
8300	39.96	270.827	8258.62	122.61	143.79	-142.35	11
8350	45.453	270.434	8295.35	122.98	109.9	-108.45	11
8400	50.948	270.109	8328.67	123.15	72.64	-71.19	11
8450	56.443	269.831	8358.26	123.13	32.36	-30.91	11
8500	61.939	269.586	8383.86	122.91	-10.57	12.01	11
8550	67.436	269.366	8405.23	122.49	-55.75	57.18	11
8600	72.932	269.162	8422.17	121.89	-102.77	104.19	11
8650	78.429	268.97	8434.53	121.1	-151.19	152.6	11
8700	83.926	268.785	8442.2	120.13	-200.57	201.96	11
8750	89.423	268.604	8445.1	118.99	-250.45	251.83	11
8766.52	91.24	268.545	8445	118.58	-266.97	268.34	11
8800	91.24	268.545	8444.28	117.73	-300.43	301.79	0
8900	91.24	268.545	8442.11	115.19	-400.37	401.69	0
9000	91.24	268.545	8439.95	112.65	-500.32	501.6	0
9100	91.24	268.545	8437.78	110.11	-600.26	601.51	0
9200	91.24	268.545	8435.62	107.57	-700.2	701.42	0
9300	91.24	268.545	8433.46	105.04	-800.15	801.33	0
9400	91.24	268.545	8431.29	102.5	-900.09	901.23	0
9500	91.24	268.545	8429.13	99.96	-1000.04	1001.14	0
9600	91.24	268.545	8426.97	97.42	-1099.98	1101.05	0
9700	91.24	268.545	8424.8	94.88	-1199.93	1200.96	0
9800	91.24	268.545	8422.64	92.34	-1299.87	1300.86	0
9900	91.24	268.545	8420.48	89.8	-1399.82	1400.77	0
10000	91.24	268.545	8418.31	87.27	-1499.76	1500.68	0
10100	91.24	268.545	8416.15	84.73	-1599.7	1600.59	0
10200	91.24	268.545	8413.98	82.19	-1699.65	1700.5	0
10300	91.24	268.545	8411.82	79.65	-1799.59	1800.4	0
10384.17	91.24	268.545	8410	77.51	-1883.72	1884.49	0
10400	91.251	268.782	8409.66	77.14	-1899.54	1900.31	1.5
10440.68	91.28	269.392	8408.76	76.49	-1940.2	1940.96	1.5
10500	91.28	269.392	8407.43	75.87	-1999.5	2000.26	0
10600	91.28	269.392	8405.2	74.8	-2099.47	2100.21	0
10700	91.28	269.392	8402.96	73.74	-2199.44	2200.16	0
10800	91.28	269.392	8400.73	72.68	-2299.41	2300.11	0
10900	91.28	269.392	8398.5	71.62	-2399.38	2400.06	0
11000	91.28	269.392	8396.26	70.56	-2499.35	2500.01	0
11100	91.28	269.392	8394.03	69.5	-2599.32	2599.96	0

11200	91.28	269.392	8391.79	68.44	-2699.29	2699.91	0
11300	91.28	269.392	8389.56	67.37	-2799.26	2799.86	0
11400	91.28	269.392	8387.32	66.31	-2899.23	2899.81	0
11500	91.28	269.392	8385.09	65.25	-2999.2	2999.76	0
11600	91.28	269.392	8382.86	64.19	-3099.17	3099.71	0
11700	91.28	269.392	8380.62	63.13	-3199.14	3199.66	0
11800	91.28	269.392	8378.39	62.07	-3299.11	3299.61	0
11900	91.28	269.392	8376.15	61.01	-3399.08	3399.56	0
12000	91.28	269.392	8373.92	59.95	-3499.05	3499.51	0
12100	91.28	269.392	8371.69	58.88	-3599.01	3599.46	0
12200	91.28	269.392	8369.45	57.82	-3698.98	3699.41	0
12300	91.28	269.392	8367.22	56.76	-3798.95	3799.36	0
12400	91.28	269.392	8364.98	55.7	-3898.92	3899.31	0
12500	91.28	269.392	8362.75	54.64	-3998.89	3999.26	0
12600	91.28	269.392	8360.52	53.58	-4098.86	4099.21	0
12700	91.28	269.392	8358.28	52.52	-4198.83	4199.16	0
12800	91.28	269.392	8356.05	51.45	-4298.8	4299.11	0
12846.86	91.28	269.392	8355	50.96	-4345.65	4345.95	0

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to 3494' GL = 25' KB. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from Slot and calculated along an Azimuth of 270.672° (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.
Central meridian is -104.333°.
Grid Convergence at Surface is 0.270°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 12846.86ft.,
the Bottom Hole Displacement is 4345.95ft., in the Direction of 270.672° (Grid).

Devon Energy, Inc.

Eddy County (NAD83)
Regulus "26" Federal
#5H

OH
Plan 5

Anticollision Report

19 November, 2014

Pathfinder - A Schlumberger Company

Anticollision Report

Company:	Devon Energy Inc.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD83)	TVD Reference:	3494 GL + 25 KB @ 3519.00usft (H&P 267)
Reference Site:	Regulus 26 Federal	MD Reference:	3494 GL + 25 KB @ 3519.00usft (H&P 267)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#5H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 5	Offset TVD Reference:	Offset Datum

Reference Plan 5

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 50.00usft	**Error Model:**	Systematic Ellipse
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 2,000.00 usft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program Date 11/19/2014

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	12,846.87	Plan 5 (OH)	MWD ISCWSA	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Regulus 26 Federal						
#1H - OH - OH	7,936.65	7,932.72	316.15	280.06	8.762	CC, ES
#1H - OH - OH	7,950.00	7,945.91	316.31	280.20	8.759	SF
Spica 25 Federal						
#1H - OH - OH	7,933.92	7,929.68	107.39	74.08	3.225	CC, ES, SF

Offset Design Regulus 26 Federal - #1H - OH - OH — Offset Site Error: 0.00 usft

Survey Program: 100-NS-GYRO-MS (8735-MWD) — Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	5.06	5.06	0.00	0.01	73.63	98.77	336.18	350.39				
50.00	50.00	52.78	52.78	0.03	0.05	73.66	98.65	336.41	350.59	350.51	0.08	4,478.667	
100.00	100.00	100.53	100.52	0.08	0.10	73.73	98.34	337.02	351.11	350.93	0.18	1,965.525	
150.00	150.00	151.52	151.51	0.18	0.23	73.85	97.85	337.81	351.72	351.30	0.42	842.680	
200.00	200.00	202.49	202.47	0.29	0.37	73.97	97.25	338.49	352.19	351.53	0.66	536.958	
250.00	250.00	252.97	252.94	0.39	0.50	74.10	96.58	339.06	352.56	351.66	0.89	394.951	
300.00	300.00	303.36	303.33	0.50	0.63	74.23	95.91	339.57	352.86	351.73	1.13	312.450	
350.00	350.00	352.71	352.67	0.60	0.76	74.35	95.25	340.09	353.19	351.82	1.36	258.884	
400.00	400.00	400.00	399.95	0.71	0.89	74.48	94.62	340.67	353.61	352.02	1.59	221.872	
450.00	450.00	449.80	449.74	0.81	1.00	74.58	94.20	341.43	354.24	352.42	1.81	195.319	
500.00	500.00	497.61	497.54	0.92	1.11	74.61	94.26	342.35	355.17	353.14	2.03	175.061	
550.00	550.00	547.39	547.31	1.02	1.21	74.58	94.71	343.37	356.29	354.06	2.23	159.940	
600.00	600.00	597.27	597.18	1.13	1.30	74.51	95.46	344.34	357.42	354.99	2.43	147.356	
650.00	650.00	646.54	646.43	1.23	1.39	74.40	96.38	345.29	358.60	355.98	2.62	136.737	
700.00	700.00	695.77	695.63	1.34	1.48	74.30	97.36	346.34	359.89	357.07	2.82	127.643	
750.00	750.00	746.27	746.11	1.44	1.59	74.19	98.35	347.44	361.21	358.17	3.03	119.158	
800.00	800.00	796.90	796.73	1.54	1.70	74.11	99.20	348.49	362.43	359.19	3.24	111.705	
850.00	850.00	849.05	848.86	1.65	1.82	74.04	99.93	349.41	363.47	360.01	3.47	104.838	
900.00	900.00	901.25	901.05	1.75	1.94	73.98	100.48	350.04	364.20	360.51	3.69	98.697	
950.00	950.00	950.95	950.75	1.86	2.06	73.95	100.86	350.56	364.81	360.89	3.92	93.153	
1,000.00	1,000.00	1,000.66	1,000.46	1.96	2.18	73.94	101.11	351.15	365.45	361.31	4.14	88.225	
1,050.00	1,050.00	1,050.98	1,050.78	2.07	2.30	73.92	101.42	351.73	366.09	361.72	4.37	83.832	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Devon Energy Inc.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD83)	TVD Reference:	3494' GL + 25' KB @ 3519.00usft (H&P 267)
Reference Site:	Regulus 26 Federal	MD Reference:	3494' GL + 25' KB @ 3519.00usft (H&P 267)
Site Error:	0.00usft	North Reference:	Grid
Reference Well:	#5H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 5	Offset TVD Reference:	Offset Datum

Offset Design: Regulus 26 Federal - #1H - OH - OH — Offset Site Error: 0.00usft

Survey Program: 100-NS-GYRO-MS, 6735-MWD — Offset Well Error: 0.00usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,100.00	1,100.00	1,101.28	1,101.07	2.17	2.42	73.86	101.93	352.21	366.69	362.10	4.59	79.861	
1,150.00	1,150.00	1,150.71	1,150.49	2.28	2.53	73.79	102.55	352.67	367.30	362.49	4.81	76.372	
1,200.00	1,200.00	1,200.14	1,199.91	2.38	2.65	73.72	103.18	353.20	368.00	362.97	5.03	73.199	
1,250.00	1,250.00	1,250.02	1,249.78	2.49	2.77	73.65	103.76	353.79	368.74	363.48	5.26	70.160	
1,300.00	1,300.00	1,300.00	1,299.76	2.59	2.89	73.61	104.24	354.44	369.49	364.01	5.48	67.373	
1,350.00	1,350.00	1,350.60	1,350.36	2.70	3.02	73.57	104.68	355.07	370.21	364.49	5.72	64.760	
1,400.00	1,400.00	1,401.27	1,401.02	2.80	3.15	73.53	105.14	355.59	370.83	364.88	5.95	62.332	
1,450.00	1,450.00	1,450.48	1,450.22	2.91	3.27	73.48	105.64	356.08	371.46	365.28	6.18	60.140	
1,500.00	1,500.00	1,500.00	1,499.74	3.01	3.39	73.41	106.23	356.67	372.20	365.79	6.40	58.113	
1,550.00	1,550.00	1,549.55	1,549.28	3.12	3.52	73.35	106.84	357.31	372.99	366.36	6.64	56.213	
1,600.00	1,600.00	1,599.42	1,599.15	3.22	3.65	73.30	107.42	357.99	373.81	366.94	6.87	54.437	
1,650.00	1,650.00	1,648.71	1,648.43	3.32	3.78	73.25	107.96	358.72	374.68	367.58	7.10	52.772	
1,700.00	1,700.00	1,697.99	1,697.70	3.43	3.90	73.21	108.46	359.56	375.64	368.31	7.33	51.226	
1,750.00	1,750.00	1,747.48	1,747.18	3.53	4.04	73.18	108.98	360.49	376.69	369.12	7.57	49.773	
1,800.00	1,800.00	1,796.98	1,796.66	3.64	4.17	73.14	109.54	361.47	377.80	370.00	7.80	48.416	
1,850.00	1,850.00	1,846.22	1,845.88	3.74	4.29	73.09	110.18	362.50	378.99	370.96	8.04	47.156	
1,900.00	1,900.00	1,895.44	1,895.08	3.85	4.42	73.03	110.97	363.59	380.28	372.01	8.27	45.980	
1,950.00	1,950.00	1,944.66	1,944.28	3.95	4.55	72.95	111.89	364.74	381.68	373.17	8.50	44.885	
2,000.00	2,000.00	1,993.88	1,993.48	4.06	4.68	72.85	112.90	365.97	383.17	374.43	8.74	43.861	
2,050.00	2,050.00	2,043.89	2,043.47	4.16	4.81	72.77	113.91	367.28	384.72	375.75	8.97	42.880	
2,100.00	2,100.00	2,094.03	2,093.58	4.27	4.94	72.72	114.69	368.64	386.25	377.04	9.21	41.945	
2,150.00	2,150.00	2,143.58	2,143.10	4.37	5.07	72.69	115.30	370.05	387.79	378.34	9.44	41.061	
2,200.00	2,200.00	2,193.04	2,192.54	4.48	5.21	72.68	115.88	371.53	389.39	379.71	9.68	40.226	
2,250.00	2,250.00	2,243.96	2,243.43	4.58	5.34	72.67	116.43	373.06	390.98	381.06	9.92	39.415	
2,300.00	2,300.00	2,295.13	2,294.58	4.69	5.48	72.66	116.91	374.45	392.43	382.27	10.16	38.625	
2,350.00	2,350.00	2,345.78	2,345.22	4.79	5.61	72.65	117.38	375.71	393.75	383.35	10.40	37.865	
2,400.00	2,400.00	2,396.39	2,395.81	4.90	5.74	72.62	117.94	376.85	394.99	384.35	10.64	37.132	
2,450.00	2,450.00	2,446.67	2,446.07	5.00	5.88	72.57	118.61	377.88	396.17	385.29	10.87	36.436	
2,500.00	2,500.00	2,496.92	2,496.30	5.11	6.01	72.50	119.46	378.83	397.32	386.21	11.11	35.767	
2,550.00	2,550.00	2,547.63	2,547.00	5.21	6.13	72.40	120.44	379.67	398.40	387.07	11.34	35.135	
2,600.00	2,600.00	2,598.37	2,597.73	5.31	6.26	72.28	121.52	380.39	399.40	387.83	11.57	34.520	
2,650.00	2,650.00	2,648.87	2,648.20	5.42	6.38	72.17	122.55	381.03	400.32	388.52	11.80	33.926	
2,700.00	2,700.00	2,699.36	2,698.68	5.52	6.51	72.08	123.40	381.67	401.17	389.14	12.03	33.349	
2,750.00	2,750.00	2,747.57	2,746.88	5.63	6.63	72.01	124.17	382.36	402.11	389.85	12.26	32.803	
2,800.00	2,800.00	2,795.74	2,795.04	5.73	6.76	71.93	125.05	383.25	403.27	390.78	12.49	32.295	
2,850.00	2,850.00	2,847.00	2,846.28	5.84	6.89	71.84	126.03	384.23	404.48	391.75	12.72	31.792	
2,900.00	2,900.00	2,898.56	2,897.83	5.94	7.02	71.74	127.00	385.02	405.49	392.54	12.96	31.290	
2,950.00	2,950.00	2,949.74	2,949.00	6.05	7.15	71.65	127.93	385.63	406.34	393.15	13.19	30.807	
3,000.00	3,000.00	3,000.92	3,000.16	6.15	7.27	71.55	128.79	386.10	407.05	393.62	13.42	30.330	
3,050.00	3,050.00	3,051.99	3,051.22	6.26	7.40	71.47	129.51	386.47	407.61	393.96	13.65	29.862	
3,100.00	3,100.00	3,102.93	3,102.17	6.36	7.52	71.42	130.04	386.76	408.05	394.17	13.88	29.400	
3,150.00	3,150.00	3,151.83	3,151.06	6.47	7.65	71.37	130.48	387.08	408.50	394.39	14.11	28.954	
3,200.00	3,200.00	3,200.00	3,199.23	6.57	7.77	71.34	130.90	387.53	409.08	394.75	14.34	28.535	
3,250.00	3,250.00	3,248.07	3,247.28	6.68	7.90	71.28	131.50	388.15	409.90	395.34	14.57	28.140	
3,300.00	3,300.00	3,295.42	3,294.62	6.78	8.02	71.20	132.41	388.98	411.04	396.25	14.80	27.782	
3,350.00	3,350.00	3,342.80	3,341.98	6.89	8.14	71.09	133.62	390.03	412.50	397.47	15.02	27.457	
3,400.00	3,400.00	3,390.16	3,389.30	6.99	8.27	70.96	135.05	391.31	414.27	399.02	15.25	27.163	
3,450.00	3,450.00	3,438.87	3,437.95	7.09	8.40	70.82	136.66	392.84	416.30	400.81	15.48	26.886	
3,500.00	3,500.00	3,487.92	3,486.95	7.20	8.52	70.69	138.22	394.52	418.43	402.72	15.72	26.622	
3,550.00	3,550.00	3,537.94	3,536.92	7.30	8.66	70.58	139.70	396.33	420.64	404.68	15.95	26.364	
3,600.00	3,600.00	3,588.29	3,587.21	7.41	8.79	70.50	141.03	398.17	422.80	406.61	16.19	26.110	
3,650.00	3,650.00	3,638.21	3,637.08	7.51	8.92	70.40	142.40	399.95	424.93	408.51	16.43	25.866	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Pathfinder - A Schlumberger Company

Anticollision Report

Company:	Devon Energy Inc.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD83)	TVD Reference:	3494' GL + 25' KB @ 3519.00usft (H&P 267)
Reference Site:	Regulus 26 Federal	MD Reference:	3494' GL + 25' KB @ 3519.00usft (H&P 267)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#5H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 5	Offset TVD Reference:	Offset Datum

Offset Design	Regulus 26 Federal #1H - OH - OH										Offset Site Error:	0.00 usft
Survey Program:	100-NS GYRO MS, 8735-MWD										Offset Well Error:	0.00 usft
Reference	Offset		Semi Major Axis				Distance					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,700.00	3,700.00	3,687.98	3,686.79	7.62	9.05	70.23	144.33	401.53	427.09	410.43	16.66	25.633	
3,750.00	3,750.00	3,735.81	3,734.55	7.72	9.18	70.01	146.60	403.01	429.35	412.46	16.89	25.421	
3,800.00	3,800.00	3,783.02	3,781.66	7.83	9.30	69.80	148.93	404.75	431.93	414.81	17.12	25.235	
3,850.00	3,850.00	3,830.49	3,829.03	7.93	9.42	69.60	151.31	406.79	434.81	417.47	17.34	25.069	
3,900.00	3,900.00	3,878.11	3,876.53	8.04	9.55	69.42	153.62	409.13	437.97	420.39	17.58	24.920	
3,950.00	3,950.00	3,926.00	3,924.30	8.14	9.68	69.26	155.88	411.76	441.37	423.57	17.81	24.787	
4,000.00	4,000.00	3,974.13	3,972.29	8.25	9.81	69.12	158.14	414.62	444.98	426.94	18.04	24.666	
4,050.00	4,050.00	4,022.68	4,020.70	8.35	9.94	68.99	160.42	417.70	448.78	430.50	18.27	24.557	
4,100.00	4,100.00	4,071.76	4,069.61	8.46	10.07	68.87	162.69	420.92	452.68	434.17	18.51	24.455	
4,150.00	4,150.00	4,120.47	4,118.16	8.56	10.20	68.76	164.91	424.23	456.67	437.92	18.75	24.361	
4,200.00	4,200.00	4,168.67	4,166.19	8.67	10.33	68.66	167.07	427.69	460.83	441.85	18.98	24.279	
4,250.00	4,250.00	4,218.21	4,215.53	8.77	10.46	68.58	169.28	431.41	465.13	445.91	19.22	24.203	
4,300.00	4,300.00	4,270.27	4,267.41	8.87	10.60	68.48	171.61	435.14	469.29	449.83	19.46	24.113	
4,350.00	4,350.00	4,321.13	4,318.10	8.98	10.74	68.37	173.91	438.54	473.23	453.53	19.70	24.018	
4,400.00	4,400.00	4,370.33	4,367.15	9.08	10.87	68.27	176.11	441.87	477.20	457.26	19.94	23.932	
4,450.00	4,450.00	4,419.73	4,416.37	9.19	11.01	68.18	178.27	445.29	481.22	461.05	20.18	23.850	
4,500.00	4,500.00	4,469.41	4,465.89	9.29	11.14	68.10	180.37	448.78	485.28	464.86	20.42	23.770	
4,550.00	4,550.00	4,518.94	4,515.25	9.40	11.28	1.27	182.40	452.32	488.91	468.29	20.62	23.707	
4,600.00	4,599.98	4,568.22	4,564.36	9.50	11.41	1.20	184.50	455.85	491.74	470.88	20.86	23.578	
4,650.00	4,649.93	4,617.75	4,613.71	9.61	11.54	1.12	186.74	459.42	493.75	472.67	21.08	23.419	
4,700.00	4,699.84	4,667.71	4,663.49	9.71	11.68	1.03	189.07	463.01	494.91	473.60	21.31	23.229	
4,750.00	4,749.68	4,717.48	4,713.07	9.82	11.81	0.95	191.42	466.58	495.20	473.68	21.52	23.010	
4,800.00	4,799.49	4,766.89	4,762.30	9.92	11.95	0.88	193.59	470.24	495.07	473.31	21.76	22.755	
4,850.00	4,849.30	4,816.96	4,812.18	10.03	12.08	0.85	195.57	474.10	494.99	473.00	21.99	22.505	
4,900.00	4,899.10	4,868.33	4,863.37	10.14	12.22	0.82	197.49	477.99	494.81	472.58	22.23	22.254	
4,950.00	4,948.91	4,919.31	4,914.18	10.25	12.36	0.79	199.36	481.72	494.51	472.03	22.47	22.003	
5,000.00	4,998.72	4,969.67	4,964.37	10.36	12.49	0.75	201.35	485.29	494.15	471.43	22.71	21.756	
5,050.00	5,048.52	5,020.59	5,015.13	10.46	12.63	0.68	203.52	488.78	493.74	470.78	22.95	21.510	
5,100.00	5,098.33	5,072.38	5,066.76	10.57	12.77	0.63	205.47	492.26	493.17	469.98	23.20	21.261	
5,150.00	5,148.14	5,123.84	5,118.09	10.68	12.91	0.61	207.12	495.65	492.44	469.00	23.44	21.010	
5,200.00	5,197.94	5,174.93	5,169.05	10.79	13.05	0.58	208.76	498.88	491.58	467.90	23.68	20.761	
5,250.00	5,247.75	5,225.76	5,219.75	10.91	13.18	0.55	210.41	501.97	490.61	466.70	23.92	20.512	
5,300.00	5,297.56	5,276.34	5,270.22	11.02	13.32	0.53	211.89	505.04	489.58	465.43	24.16	20.266	
5,350.00	5,347.37	5,327.22	5,320.99	11.13	13.46	0.53	213.22	508.12	488.49	464.09	24.40	20.022	
5,400.00	5,397.17	5,378.35	5,372.01	11.24	13.59	0.51	214.65	511.05	487.28	462.64	24.64	19.777	
5,450.00	5,446.98	5,429.89	5,423.45	11.35	13.73	0.48	216.21	513.81	485.94	461.06	24.88	19.531	
5,500.00	5,496.79	5,481.72	5,475.20	11.47	13.87	0.41	217.87	516.34	484.41	459.29	25.12	19.281	
5,550.00	5,546.59	5,532.68	5,526.08	11.58	14.01	0.35	219.49	518.65	482.73	457.36	25.36	19.032	
5,600.00	5,596.40	5,583.17	5,576.50	11.69	14.14	0.33	220.70	521.04	480.98	455.38	25.60	18.786	
5,650.00	5,646.21	5,634.32	5,627.58	11.81	14.28	0.35	221.59	523.52	479.16	453.31	25.84	18.541	
5,700.00	5,696.01	5,685.80	5,679.00	11.92	14.41	0.36	222.51	525.83	477.18	451.09	26.08	18.294	
5,750.00	5,745.82	5,736.66	5,729.81	12.04	14.55	0.36	223.41	527.97	475.07	448.74	26.32	18.047	
5,800.00	5,795.63	5,787.29	5,780.38	12.15	14.68	0.38	224.17	530.08	472.88	446.32	26.56	17.803	
5,850.00	5,845.43	5,838.93	5,831.98	12.27	14.82	0.41	224.83	532.15	470.58	443.78	26.80	17.557	
5,900.00	5,895.24	5,890.90	5,883.91	12.38	14.95	0.43	225.43	534.02	468.07	441.03	27.04	17.307	
5,950.00	5,945.05	5,941.30	5,934.29	12.50	15.09	0.45	226.01	535.68	465.41	438.13	27.28	17.059	
6,000.00	5,994.85	5,991.38	5,984.33	12.62	15.22	0.45	226.69	537.25	462.74	435.22	27.52	16.814	
6,050.00	6,044.66	6,042.01	6,034.94	12.73	15.35	0.45	227.38	538.81	460.02	432.26	27.76	16.572	
6,100.00	6,094.47	6,092.76	6,085.66	12.85	15.48	0.48	227.87	540.35	457.21	429.21	28.00	16.330	
6,150.00	6,144.28	6,142.50	6,135.38	12.97	15.61	0.51	228.24	541.86	454.36	426.13	28.23	16.093	
6,200.00	6,194.08	6,192.09	6,184.94	13.08	15.74	0.54	228.66	543.39	451.55	423.08	28.47	15.862	
6,250.00	6,243.89	6,243.12	6,235.94	13.20	15.87	0.57	229.12	544.91	448.71	420.00	28.71	15.630	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Pathfinder - A Schlumberger Company

Anticollision Report

Company:	Devon Energy Inc.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD83)	TVD Reference:	3494' GL = 25' KB @ 3519.00usft (H&P 267)
Reference Site:	Regulus 26 Federal	MD Reference:	3494' GL = 25' KB @ 3519.00usft (H&P 267)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#5H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 5	Offset TVD Reference:	Offset Datum

Offset Design — Regulus 26 Federal - #1Hc, OH, OH — Offset Site Error: 0.00 usft

Survey Program: 100-NS GYRO-MS, 8735-MWD — Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,300.00	6,293.70	6,294.39	6,287.20	13.32	16.01	0.59	229.58	546.27	445.71	416.76	28.95	15.397	
6,350.00	6,343.50	6,345.06	6,337.85	13.44	16.14	0.60	230.02	547.49	442.59	413.41	29.19	15.164	
6,400.00	6,393.31	6,395.65	6,388.43	13.56	16.28	0.61	230.47	548.62	439.40	409.97	29.43	14.932	
6,450.00	6,443.12	6,446.71	6,439.47	13.67	16.41	0.62	230.85	549.67	436.10	406.44	29.67	14.701	
6,500.00	6,492.92	6,497.79	6,490.54	13.79	16.54	0.65	231.08	550.63	432.66	402.76	29.90	14.469	
6,550.00	6,542.73	6,547.72	6,540.46	13.91	16.67	0.68	231.26	551.51	429.15	399.01	30.14	14.239	
6,600.00	6,592.54	6,597.60	6,590.34	14.03	16.80	0.70	231.53	552.35	425.64	395.27	30.38	14.013	
6,650.00	6,642.34	6,649.26	6,641.99	14.15	16.93	0.71	231.79	553.12	422.03	391.41	30.61	13.785	
6,700.00	6,692.15	6,700.93	6,693.65	14.27	17.06	0.73	231.91	553.69	418.20	387.34	30.85	13.554	
6,750.00	6,741.96	6,750.48	6,743.21	14.39	17.19	0.76	232.00	554.16	414.28	383.19	31.09	13.326	
6,800.00	6,791.76	6,800.05	6,792.77	14.51	17.32	0.77	232.15	554.64	410.39	379.07	31.32	13.102	
6,850.00	6,841.57	6,851.01	6,843.73	14.63	17.45	0.77	232.37	555.05	406.45	374.90	31.56	12.879	
6,900.00	6,891.38	6,901.95	6,894.67	14.75	17.58	0.76	232.63	555.29	402.38	370.59	31.79	12.656	
6,950.00	6,941.19	6,952.87	6,945.58	14.87	17.67	0.74	232.88	555.39	398.17	366.18	32.00	12.444	
7,000.00	6,990.99	7,003.61	6,996.32	14.99	17.76	0.72	233.05	555.37	393.83	361.63	32.20	12.232	
7,050.00	7,040.80	7,052.47	7,045.18	15.11	17.85	0.70	233.27	555.34	389.49	357.11	32.39	12.026	
7,100.00	7,090.61	7,101.39	7,094.10	15.24	17.93	0.66	233.65	555.37	385.28	352.70	32.58	11.826	
7,150.00	7,140.41	7,151.71	7,144.42	15.36	18.03	0.61	234.07	555.42	381.09	348.30	32.79	11.623	
7,200.00	7,190.22	7,201.98	7,194.70	15.48	18.14	0.57	234.41	555.42	376.84	343.84	33.00	11.420	
7,250.00	7,240.03	7,251.48	7,244.19	15.60	18.24	0.53	234.71	555.44	372.58	339.37	33.21	11.219	
7,300.00	7,289.83	7,300.99	7,293.70	15.72	18.35	0.50	234.99	555.51	368.36	334.94	33.42	11.021	
7,350.00	7,339.64	7,350.49	7,343.20	15.84	18.46	0.46	235.35	555.59	364.19	330.55	33.64	10.826	
7,400.00	7,389.45	7,400.00	7,392.71	15.97	18.57	0.40	235.86	555.65	360.06	326.20	33.86	10.634	
7,450.00	7,439.25	7,450.50	7,443.20	16.09	18.67	0.32	236.41	555.68	355.90	321.84	34.07	10.448	
7,500.00	7,489.06	7,500.99	7,493.69	16.21	18.77	0.26	236.85	555.65	351.65	317.38	34.27	10.261	
7,550.00	7,538.87	7,551.47	7,544.17	16.33	18.84	0.21	237.17	555.57	347.31	312.86	34.45	10.082	
7,600.00	7,588.67	7,601.89	7,594.59	16.46	18.91	0.17	237.38	555.43	342.87	308.25	34.63	9.902	
7,650.00	7,638.48	7,651.22	7,643.92	16.58	18.99	0.15	237.48	555.32	338.43	303.61	34.81	9.721	
7,700.00	7,688.29	7,700.57	7,693.27	16.70	19.07	0.14	237.52	555.32	334.05	299.05	35.00	9.544	
7,750.00	7,738.10	7,750.12	7,742.82	16.82	19.18	0.15	237.51	555.40	329.73	294.51	35.22	9.362	
7,800.00	7,787.90	7,799.68	7,792.38	16.95	19.29	0.17	237.48	555.53	325.45	290.00	35.44	9.183	
7,850.00	7,837.71	7,848.11	7,840.81	17.07	19.40	0.19	237.46	555.78	321.29	285.63	35.66	9.010	
7,900.00	7,887.52	7,896.57	7,889.27	17.19	19.51	3.09	237.48	556.25	317.37	281.48	35.90	8.842	
7,936.65	7,924.11	7,932.72	7,925.41	17.27	19.60	67.13	237.51	556.71	316.15	280.06	36.08	8.762	CC, ES
7,950.00	7,937.46	7,945.91	7,938.60	17.30	19.64	105.78	237.53	556.88	316.31	280.20	36.11	8.759	SF
8,000.00	7,987.28	7,995.11	7,987.80	17.39	19.76	143.81	237.62	557.59	319.81	283.77	36.04	8.873	
8,050.00	8,036.52	8,043.70	8,036.38	17.46	19.88	150.85	237.77	558.36	327.90	292.21	35.69	9.188	
8,100.00	8,084.74	8,091.16	8,083.84	17.51	20.00	153.97	238.00	559.16	340.54	305.50	35.04	9.719	
8,150.00	8,131.47	8,137.80	8,130.47	17.55	20.12	155.88	238.26	559.96	357.64	323.55	34.10	10.489	
8,200.00	8,176.31	8,182.65	8,175.31	17.58	20.24	157.22	238.50	560.69	379.03	346.16	32.88	11.529	
8,250.00	8,218.82	8,223.94	8,216.60	17.61	20.35	158.13	238.73	561.36	404.60	373.21	31.40	12.887	
8,300.00	8,258.62	8,261.64	8,254.28	17.63	20.45	158.63	239.08	562.06	434.28	404.58	29.70	14.623	
8,350.00	8,295.35	8,296.15	8,288.78	17.67	20.54	158.75	239.54	562.78	467.80	439.95	27.85	16.799	
8,400.00	8,328.67	8,328.23	8,320.85	17.73	20.62	158.48	240.07	563.50	504.77	478.84	25.93	19.466	
8,450.00	8,358.26	8,356.70	8,349.31	17.84	20.70	157.67	240.61	564.14	544.79	520.69	24.10	22.601	
8,500.00	8,383.86	8,381.15	8,373.75	18.01	20.76	156.10	241.13	564.69	587.48	564.85	22.63	25.962	
8,550.00	8,405.23	8,401.38	8,393.97	18.25	20.81	153.33	241.59	565.14	632.42	610.47	21.96	28.803	
8,600.00	8,422.17	8,417.55	8,410.13	18.56	20.86	148.51	241.98	565.49	679.18	656.33	22.86	29.715	
8,650.00	8,434.53	8,429.05	8,421.63	18.95	20.89	139.42	242.25	565.74	727.32	700.69	26.63	27.316	
8,700.00	8,442.20	8,435.77	8,428.34	19.40	20.90	120.45	242.41	565.88	776.38	741.71	34.67	22.396	
8,750.00	8,445.10	9,816.00	9,249.85	19.92	29.52	-176.95	76.58	-240.68	800.63	783.83	16.81	47.640	
8,800.00	8,444.28	9,877.94	9,249.71	20.49	30.69	-176.51	68.82	-302.14	801.63	784.08	17.55	45.669	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD83)	TVD Reference:	3494' GL = 25' KB @ 3519.00usft (H&P 267)
Reference Site:	Regulus 26 Federal	MD Reference:	3494' GL = 25' KB @ 3519.00usft (H&P 267)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#5H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan5	Offset TVD Reference:	Offset Datum

Offset Design: Regulus 26 Federal - #1H - OH - OH — Offset Site Error: 0.00 usft

Survey Program: 100-NS-GYRO-MS, 8735-MWD — Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,850.00	8,443.19	9,942.61	9,248.60	21.15	31.95	-176.15	62.18	-366.46	802.11	783.89	18.22	44.020	
8,900.00	8,442.11	10,005.97	9,246.42	21.81	33.22	-175.94	57.65	-429.61	801.61	782.75	18.86	42.493	
8,950.00	8,441.03	10,056.69	9,244.36	22.56	34.28	-175.84	55.06	-480.22	800.75	781.30	19.45	41.166	
9,000.00	8,439.95	10,105.50	9,242.39	23.31	35.31	-175.79	53.19	-528.96	799.87	779.85	20.02	39.944	
9,050.00	8,438.87	10,150.30	9,240.84	24.15	36.28	-175.78	51.99	-573.71	799.23	778.65	20.58	38.830	
9,100.00	8,437.78	10,196.41	9,239.58	24.98	37.28	-175.81	51.26	-619.79	798.90	777.76	21.14	37.796	
9,150.00	8,436.70	10,246.97	9,238.30	25.88	38.41	-175.88	50.97	-670.34	798.65	776.94	21.71	36.789	
9,200.00	8,435.62	10,296.88	9,237.04	26.77	39.53	-175.98	51.14	-720.24	798.37	776.10	22.27	35.850	
9,250.00	8,434.54	10,345.60	9,235.87	27.72	40.64	-176.09	51.38	-768.94	798.14	775.31	22.83	34.956	
9,300.00	8,433.46	10,398.49	9,234.62	28.67	41.86	-176.20	51.60	-821.81	797.95	774.53	23.42	34.077	
9,350.00	8,432.38	10,457.70	9,232.68	29.66	43.25	-176.33	51.89	-881.00	797.30	773.27	24.03	33.181	
9,400.00	8,431.29	10,505.46	9,230.85	30.66	44.38	-176.43	52.24	-928.72	796.36	771.76	24.60	32.371	
9,450.00	8,430.21	10,550.52	9,229.40	31.68	45.45	-176.56	52.83	-973.74	795.72	770.56	25.16	31.632	
9,500.00	8,429.13	10,594.17	9,228.31	32.71	46.50	-176.69	53.56	-1,017.38	795.42	769.72	25.70	30.944	
9,509.55	8,428.92	10,602.40	9,228.14	32.91	46.70	-176.71	53.69	-1,025.60	795.41	769.59	25.82	30.802	
9,550.00	8,428.05	10,637.24	9,227.59	33.77	47.54	-176.81	54.15	-1,060.44	795.56	769.30	26.26	30.299	
9,600.00	8,426.97	10,688.72	9,227.02	34.82	48.79	-176.95	54.72	-1,111.91	795.99	769.14	26.85	29.647	
9,650.00	8,425.88	10,748.02	9,225.83	35.90	50.25	-177.12	55.55	-1,171.20	795.96	768.49	27.47	28.975	
9,700.00	8,424.80	10,799.50	9,224.43	36.98	51.52	-177.27	56.45	-1,222.65	795.58	767.52	28.06	28.351	
9,750.00	8,423.72	10,850.08	9,223.01	38.08	52.78	-177.44	57.52	-1,273.20	795.15	766.50	28.64	27.759	
9,800.00	8,422.64	10,898.28	9,221.70	39.18	53.98	-177.62	58.73	-1,321.37	794.77	765.55	29.22	27.201	
9,850.00	8,421.56	10,946.83	9,220.50	40.30	55.20	-177.81	60.16	-1,369.87	794.50	764.71	29.79	26.674	
9,900.00	8,420.48	10,998.98	9,219.16	41.42	56.52	-177.99	61.31	-1,421.99	794.21	763.82	30.38	26.139	
9,950.00	8,419.39	11,050.89	9,217.65	42.55	57.83	-178.10	61.64	-1,473.88	793.78	762.78	31.00	25.603	
10,000.00	8,418.31	11,102.08	9,216.06	43.68	59.13	-178.19	61.57	-1,525.05	793.26	761.63	31.63	25.076	
10,050.00	8,417.23	11,154.33	9,214.32	44.82	60.46	-178.27	61.29	-1,577.27	792.66	760.38	32.28	24.556	
10,100.00	8,416.15	11,207.93	9,212.34	45.97	61.83	-178.36	61.24	-1,630.83	791.85	758.93	32.92	24.052	
10,150.00	8,415.07	11,257.39	9,210.37	47.12	63.10	-178.46	61.41	-1,680.25	790.90	757.36	33.54	23.579	
10,200.00	8,413.98	11,304.93	9,208.61	48.27	64.33	-178.56	61.56	-1,727.76	790.10	755.94	34.16	23.132	
10,250.00	8,412.90	11,353.31	9,206.95	49.44	65.58	-178.66	61.72	-1,776.11	789.43	754.65	34.78	22.701	
10,300.00	8,411.82	11,402.07	9,205.36	50.60	66.84	-178.77	62.02	-1,824.84	788.84	753.44	35.39	22.287	
10,350.00	8,410.74	11,452.22	9,203.77	51.77	68.15	-178.89	62.46	-1,874.97	788.30	752.28	36.02	21.885	
10,400.00	8,409.66	11,502.88	9,202.13	52.94	69.46	-179.01	63.00	-1,925.60	787.73	751.08	36.65	21.494	
10,450.00	8,408.55	11,549.22	9,200.69	54.12	70.67	-179.06	63.27	-1,971.91	787.27	749.99	37.28	21.120	
10,500.00	8,407.43	11,594.98	9,199.50	55.30	71.87	-179.06	62.82	-2,017.65	787.09	749.17	37.92	20.756	
10,509.73	8,407.21	11,604.00	9,199.30	55.53	72.10	-179.06	62.65	-2,026.67	787.08	749.03	38.05	20.683	
10,550.00	8,406.32	11,641.24	9,198.53	56.48	73.08	-179.03	61.86	-2,063.90	787.16	748.58	38.59	20.400	
10,600.00	8,405.20	11,687.62	9,197.77	57.67	74.29	-178.99	60.82	-2,110.26	787.47	748.22	39.25	20.061	
10,650.00	8,404.08	11,732.03	9,197.29	58.86	75.46	-178.95	59.77	-2,154.65	788.06	748.14	39.92	19.743	
10,700.00	8,402.96	11,775.86	9,197.15	60.05	76.61	-178.91	58.74	-2,198.47	789.03	748.46	40.57	19.447	
10,750.00	8,401.85	11,826.44	9,197.26	61.24	77.94	-178.86	57.51	-2,249.03	790.26	748.98	41.28	19.144	
10,800.00	8,400.73	11,881.36	9,197.08	62.44	79.39	-178.80	56.00	-2,303.93	791.24	749.22	42.02	18.829	
10,850.00	8,399.61	11,945.34	9,196.14	63.64	81.08	-178.72	54.24	-2,367.88	791.65	748.82	42.83	18.482	
10,900.00	8,398.50	12,005.64	9,194.23	64.83	82.68	-178.66	52.87	-2,428.14	791.18	747.56	43.61	18.141	
10,950.00	8,397.38	12,059.84	9,192.09	66.04	84.11	-178.62	51.77	-2,482.28	790.33	745.98	44.35	17.821	
11,000.00	8,396.26	12,109.12	9,189.98	67.24	85.42	-178.59	50.86	-2,531.51	789.32	744.27	45.05	17.521	
11,050.00	8,395.14	12,156.14	9,188.14	68.45	86.67	-178.58	50.13	-2,578.49	788.48	742.75	45.73	17.241	
11,100.00	8,394.03	12,204.42	9,186.40	69.65	87.95	-178.57	49.58	-2,626.73	787.81	741.39	46.42	16.972	
11,150.00	8,392.91	12,253.27	9,184.73	70.86	89.25	-178.59	49.31	-2,675.55	787.21	740.11	47.10	16.714	
11,200.00	8,391.79	12,300.77	9,183.21	72.07	90.52	-178.63	49.32	-2,723.03	786.71	738.95	47.76	16.472	
11,250.00	8,390.68	12,347.80	9,181.89	73.28	91.78	-178.67	49.47	-2,770.04	786.40	737.99	48.42	16.243	
11,281.56	8,389.97	12,375.97	9,181.19	74.04	92.53	-178.71	49.63	-2,798.20	786.32	737.50	48.82	16.107	

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD83)	TVD Reference:	3494' GL + 25' KB @ 3519.00usft (H&P 267)
Reference Site:	Regulus 26 Federal	MD Reference:	3494' GL + 25' KB @ 3519.00usft (H&P 267)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#5H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 5	Offset TVD Reference:	Offset Datum

Offset Design Regulus 26 Federal - #1H - OH - OH — Offset Site Error: 0.00 usft

Survey Program: 100-NS-GYRO-MS 8735-MWD — Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,300.00	8,389.56	12,391.81	9,180.87	74.49	92.95	-178.73	49.73	-2,814.03	786.35	737.30	49.05	16.032	
11,350.00	8,388.44	12,434.75	9,180.26	75.71	94.10	-178.78	50.04	-2,856.97	786.74	737.07	49.67	15.839	
11,400.00	8,387.33	12,478.41	9,180.03	76.92	95.27	-178.84	50.42	-2,900.63	787.57	737.27	50.30	15.658	
11,450.00	8,386.21	12,522.72	9,180.12	78.14	96.45	-178.92	50.90	-2,944.93	788.76	737.84	50.92	15.489	
11,500.00	8,385.09	12,572.90	9,180.51	79.35	97.80	-179.00	51.50	-2,995.11	790.25	738.66	51.58	15.320	
11,550.00	8,383.97	12,631.73	9,180.49	80.57	99.37	-179.07	51.78	-3,053.94	791.33	739.03	52.31	15.128	
11,600.00	8,382.86	12,691.62	9,179.76	81.79	100.98	-179.10	51.66	-3,113.82	791.84	738.78	53.06	14.924	
11,650.00	8,381.74	12,749.16	9,178.35	83.01	102.53	-179.14	51.54	-3,171.35	791.72	737.93	53.79	14.718	
11,700.00	8,380.62	12,797.86	9,177.03	84.23	103.83	-179.16	51.35	-3,220.02	791.47	736.99	54.47	14.529	
11,750.00	8,379.51	12,849.50	9,175.67	85.45	105.22	-179.18	51.05	-3,271.65	791.27	736.09	55.18	14.340	
11,800.00	8,378.39	12,908.76	9,173.63	86.67	106.82	-179.21	50.84	-3,330.87	790.66	734.73	55.93	14.137	
11,850.00	8,377.27	12,961.65	9,171.35	87.89	108.24	-179.25	50.88	-3,383.72	789.61	732.98	56.63	13.943	
11,900.00	8,376.15	13,011.71	9,169.16	89.12	109.59	-179.32	51.29	-3,433.72	788.53	731.22	57.30	13.761	
11,950.00	8,375.04	13,059.75	9,167.10	90.34	110.88	-179.41	52.00	-3,481.71	787.49	729.54	57.95	13.590	
12,000.00	8,373.92	13,107.26	9,165.22	91.57	112.16	-179.51	52.96	-3,529.18	786.61	728.02	58.58	13.427	
12,050.00	8,372.80	13,157.33	9,163.32	92.79	113.51	-179.64	54.19	-3,579.19	785.82	726.59	59.23	13.268	
12,100.00	8,371.69	13,207.95	9,161.37	94.02	114.88	-179.78	55.57	-3,629.76	784.99	725.12	59.87	13.111	
12,150.00	8,370.57	13,253.61	9,159.70	95.25	116.11	-179.92	56.92	-3,675.37	784.28	723.79	60.49	12.965	
12,200.00	8,369.45	13,298.95	9,158.31	96.47	117.34	179.94	58.36	-3,720.66	783.86	722.73	61.13	12.823	
12,227.44	8,368.84	13,322.25	9,157.72	97.15	117.97	179.87	59.08	-3,743.95	783.78	722.29	61.49	12.747	
12,250.00	8,368.33	13,341.00	9,157.35	97.70	118.48	179.82	59.54	-3,762.68	783.84	722.05	61.78	12.687	
12,300.00	8,367.22	13,382.57	9,156.84	98.93	119.60	179.75	60.16	-3,804.25	784.35	721.92	62.43	12.563	
12,350.00	8,366.10	13,426.68	9,156.74	100.16	120.79	179.71	60.25	-3,848.36	785.35	722.25	63.10	12.446	
12,400.00	8,364.98	13,472.61	9,156.90	101.39	122.03	179.70	59.91	-3,894.29	786.64	722.86	63.78	12.334	
12,450.00	8,363.87	13,523.71	9,157.24	102.62	123.42	179.71	59.15	-3,945.38	788.09	723.60	64.49	12.220	
12,500.00	8,362.75	13,579.33	9,157.30	103.85	124.92	179.73	58.32	-4,001.00	789.26	724.02	65.24	12.098	
12,550.00	8,361.63	13,632.53	9,157.04	105.08	126.36	179.74	57.59	-4,054.19	790.13	724.16	65.97	11.977	
12,600.00	8,360.52	13,683.00	9,156.62	106.31	127.73	179.75	56.98	-4,104.65	790.83	724.15	66.68	11.860	
12,650.00	8,359.40	13,731.38	9,156.25	107.54	129.04	179.75	56.45	-4,153.03	791.57	724.19	67.38	11.748	
12,700.00	8,358.28	13,778.00	9,156.11	108.77	130.31	179.75	55.98	-4,199.65	792.54	724.47	68.07	11.644	
12,750.00	8,357.16	13,827.76	9,156.08	110.01	131.66	179.75	55.49	-4,249.40	793.62	724.85	68.77	11.540	
12,800.00	8,356.05	13,855.00	9,156.06	111.24	132.40	179.75	55.22	-4,276.64	795.03	725.70	69.33	11.468	
12,846.87	8,355.00	13,855.00	9,156.06	112.40	132.40	179.75	55.22	-4,276.64	798.76	729.09	69.67	11.465	

Company:	Devon Energy Inc.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD83)	TVD Reference:	3494' GL + 25' KB @ 3519.00usft (H&P 267)
Reference Site:	Requius 26 Federal	MD Reference:	3494' GL + 25' KB @ 3519.00usft (H&P 267)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#5H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 5	Offset TVD Reference:	Offset Datum

Offset Design: Spica 25 Federal / #1H - OH - OH — Offset Site Error: 0.00 usft

Survey Program: 100-MWD, 8587-MWD — Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	5.07	5.07	0.00	0.00	75.61	99.05	386.19	398.69				
50.00	50.00	54.80	54.80	0.03	0.05	75.61	99.10	386.20	398.71	398.64	0.07	5,538.173	
100.00	100.00	104.56	104.56	0.08	0.09	75.59	99.25	386.22	398.76	398.59	0.17	2,325.151	
150.00	150.00	154.59	154.59	0.18	0.20	75.57	99.42	386.24	398.83	398.45	0.38	1,052.540	
200.00	200.00	204.60	204.60	0.29	0.30	75.55	99.56	386.27	398.89	398.31	0.59	680.124	
250.00	250.00	254.49	254.49	0.39	0.40	75.53	99.72	386.30	398.96	398.17	0.80	501.491	
300.00	300.00	304.27	304.27	0.50	0.51	75.50	99.90	386.34	399.05	398.04	1.00	397.151	
350.00	350.00	352.97	352.96	0.60	0.61	75.45	100.28	386.43	399.23	398.02	1.22	328.377	
400.00	400.00	401.65	401.64	0.71	0.72	75.36	100.96	386.60	399.58	398.15	1.43	280.048	
450.00	450.00	450.00	449.98	0.81	0.83	75.23	101.99	386.87	400.12	398.48	1.64	244.042	
500.00	500.00	498.32	498.28	0.92	0.94	75.05	103.38	387.24	400.86	399.01	1.85	216.423	
550.00	550.00	545.64	545.57	1.02	1.04	74.83	105.14	387.76	401.88	399.81	2.06	194.701	
600.00	600.00	592.89	592.75	1.13	1.15	74.56	107.32	388.50	403.24	400.96	2.28	177.179	
650.00	650.00	638.61	638.39	1.23	1.26	74.24	109.88	389.47	405.02	402.53	2.49	162.922	
700.00	700.00	683.98	683.64	1.34	1.37	73.88	112.95	390.81	407.37	404.67	2.70	151.128	
750.00	750.00	728.82	728.31	1.44	1.48	73.49	116.38	392.54	410.31	407.40	2.90	141.330	
800.00	800.00	774.57	773.87	1.54	1.59	73.11	119.89	394.89	413.87	410.76	3.11	132.979	
850.00	850.00	822.07	821.14	1.65	1.71	72.72	123.71	397.61	417.79	414.47	3.32	125.660	
900.00	900.00	871.75	870.57	1.75	1.83	72.33	127.65	400.63	421.89	418.35	3.54	119.293	
950.00	950.00	922.30	920.91	1.86	1.94	72.04	130.90	403.89	425.94	422.20	3.75	113.724	
1,000.00	1,000.00	975.24	973.67	1.96	2.06	71.86	133.48	407.37	429.83	425.87	3.96	108.573	
1,050.00	1,050.00	1,029.63	1,027.92	2.07	2.19	71.71	135.65	410.54	433.23	429.05	4.18	103.762	
1,100.00	1,100.00	1,085.36	1,083.55	2.17	2.30	71.60	137.45	413.24	436.03	431.64	4.39	99.238	
1,150.00	1,150.00	1,141.00	1,139.14	2.28	2.42	71.52	138.83	415.29	438.17	433.56	4.61	95.004	
1,200.00	1,200.00	1,195.75	1,193.87	2.38	2.53	71.48	139.61	416.81	439.71	434.88	4.83	91.069	
1,250.00	1,250.00	1,249.03	1,247.13	2.49	2.64	71.50	139.84	417.95	440.80	435.76	5.04	87.432	
1,300.00	1,300.00	1,302.54	1,300.64	2.59	2.74	71.57	139.61	418.83	441.51	436.26	5.26	84.013	
1,350.00	1,350.00	1,356.45	1,354.54	2.70	2.85	71.68	138.89	419.39	441.80	436.33	5.47	80.774	
1,400.00	1,400.00	1,408.33	1,406.40	2.80	2.95	71.82	137.82	419.65	441.71	436.03	5.68	77.769	
1,450.00	1,450.00	1,458.85	1,456.91	2.91	3.05	71.97	136.69	419.84	441.53	435.64	5.89	74.998	
1,500.00	1,500.00	1,508.71	1,506.76	3.01	3.14	72.11	135.55	419.99	441.32	435.23	6.09	72.422	
1,550.00	1,550.00	1,558.35	1,556.39	3.12	3.24	72.25	134.47	420.16	441.16	434.86	6.30	70.025	
1,600.00	1,600.00	1,607.86	1,605.89	3.22	3.34	72.39	133.43	420.37	441.04	434.53	6.51	67.781	
1,650.00	1,650.00	1,657.35	1,655.36	3.32	3.44	72.53	132.38	420.64	440.98	434.27	6.71	65.683	
1,664.98	1,664.98	1,672.07	1,670.08	3.36	3.47	72.57	132.07	420.73	440.97	434.20	6.78	65.079	
1,700.00	1,700.00	1,706.42	1,704.42	3.43	3.53	72.67	131.36	420.98	441.00	434.08	6.92	63.716	
1,750.00	1,750.00	1,756.00	1,753.99	3.53	3.64	72.82	130.33	421.44	441.13	434.00	7.13	61.870	
1,800.00	1,800.00	1,804.94	1,802.92	3.64	3.74	72.96	129.35	421.96	441.35	434.01	7.34	60.142	
1,850.00	1,850.00	1,854.47	1,852.43	3.74	3.84	73.10	128.40	422.54	441.63	434.08	7.55	58.509	
1,900.00	1,900.00	1,904.37	1,902.32	3.85	3.94	73.23	127.49	423.14	441.94	434.18	7.76	56.963	
1,950.00	1,950.00	1,954.16	1,952.10	3.95	4.04	73.36	126.61	423.74	442.26	434.29	7.97	55.501	
2,000.00	2,000.00	2,003.41	2,001.34	4.06	4.15	73.49	125.80	424.37	442.64	434.46	8.18	54.126	
2,050.00	2,050.00	2,053.74	2,051.66	4.16	4.25	73.61	125.02	425.08	443.09	434.70	8.39	52.816	
2,100.00	2,100.00	2,107.20	2,105.10	4.27	4.36	73.77	123.89	425.62	443.29	434.68	8.61	51.512	
2,150.00	2,150.00	2,159.29	2,157.17	4.37	4.47	73.96	122.40	425.89	443.13	434.31	8.82	50.257	
2,200.00	2,200.00	2,210.02	2,207.88	4.48	4.57	74.17	120.78	426.06	442.86	433.83	9.02	49.071	
2,250.00	2,250.00	2,259.97	2,257.79	4.58	4.67	74.39	119.10	426.20	442.53	433.30	9.23	47.934	
2,300.00	2,300.00	2,309.45	2,307.26	4.69	4.77	74.59	117.51	426.35	442.26	432.82	9.44	46.853	
2,350.00	2,350.00	2,359.40	2,357.18	4.79	4.87	74.79	115.99	426.53	442.03	432.38	9.65	45.816	
2,400.00	2,400.00	2,409.52	2,407.28	4.90	4.97	74.98	114.47	426.69	441.78	431.93	9.86	44.821	
2,450.00	2,450.00	2,459.48	2,457.21	5.00	5.08	75.17	112.98	426.83	441.54	431.47	10.07	43.866	
2,500.00	2,500.00	2,509.41	2,507.12	5.11	5.18	75.36	111.53	426.98	441.31	431.03	10.27	42.952	

Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD83)	TVD Reference:	3494' GL = 25' KB @ 3519.00usft (H&P 267)
Reference Site:	Regulus 26 Federal	MD Reference:	3494' GL = 25' KB @ 3519.00usft (H&P 267)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#5H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 5	Offset TVD Reference:	Offset Datum

Offset Design Spica 25 Federal #1H - OH - OH — Offset Site Error: 0.00 usft

Survey Program: 100-MWD, 8587-MWD — Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,550.00	2,550.00	2,559.00	2,556.69	5.21	5.28	75.54	110.14	427.14	441.12	430.63	10.48	42.078	
2,600.00	2,600.00	2,609.37	2,607.04	5.31	5.39	75.73	108.68	427.31	440.92	430.22	10.69	41.234	
2,650.00	2,650.00	2,659.73	2,657.38	5.42	5.49	75.93	107.14	427.45	440.68	429.78	10.90	40.419	
2,700.00	2,700.00	2,710.56	2,708.18	5.52	5.59	76.14	105.49	427.56	440.40	429.28	11.11	39.629	
2,750.00	2,750.00	2,763.85	2,761.45	5.63	5.70	76.33	103.94	427.36	439.86	428.53	11.33	38.834	
2,800.00	2,800.00	2,815.90	2,813.47	5.73	5.81	76.47	102.72	426.71	438.98	427.44	11.54	38.045	
2,850.00	2,850.00	2,866.03	2,863.59	5.84	5.91	76.58	101.65	425.98	438.02	426.27	11.75	37.289	
2,900.00	2,900.00	2,916.02	2,913.57	5.94	6.01	76.68	100.64	425.22	437.05	425.09	11.96	36.557	
2,950.00	2,950.00	2,965.86	2,963.39	6.05	6.12	76.79	99.66	424.46	436.09	423.92	12.16	35.850	
3,000.00	3,000.00	3,015.46	3,012.97	6.15	6.22	76.88	98.72	423.73	435.15	422.78	12.37	35.171	
3,050.00	3,050.00	3,064.91	3,062.42	6.26	6.32	76.99	97.78	423.07	434.28	421.70	12.58	34.520	
3,100.00	3,100.00	3,114.81	3,112.30	6.36	6.43	77.09	96.85	422.43	433.45	420.66	12.79	33.891	
3,150.00	3,150.00	3,164.88	3,162.36	6.47	6.53	77.18	95.96	421.78	432.62	419.62	13.00	33.281	
3,200.00	3,200.00	3,214.59	3,212.05	6.57	6.64	77.27	95.13	421.12	431.79	418.58	13.21	32.692	
3,250.00	3,250.00	3,264.21	3,261.66	6.68	6.74	77.36	94.31	420.51	431.01	417.59	13.42	32.124	
3,300.00	3,300.00	3,313.31	3,310.75	6.78	6.84	77.45	93.50	419.98	430.30	416.67	13.62	31.582	
3,350.00	3,350.00	3,363.00	3,360.44	6.89	6.95	77.55	92.65	419.55	429.69	415.86	13.83	31.062	
3,400.00	3,400.00	3,412.59	3,410.01	6.99	7.05	77.65	91.79	419.18	429.14	415.09	14.04	30.562	
3,450.00	3,450.00	3,462.77	3,460.19	7.09	7.16	77.75	90.93	418.76	428.55	414.30	14.25	30.073	
3,500.00	3,500.00	3,512.48	3,509.89	7.20	7.26	77.84	90.11	418.35	427.97	413.51	14.46	29.598	
3,550.00	3,550.00	3,562.25	3,559.65	7.30	7.36	77.94	89.33	417.97	427.43	412.76	14.67	29.139	
3,600.00	3,600.00	3,612.27	3,609.66	7.41	7.47	78.03	88.55	417.59	426.90	412.02	14.88	28.690	
3,650.00	3,650.00	3,662.15	3,659.54	7.51	7.58	78.12	87.79	417.20	426.36	411.27	15.09	28.255	
3,700.00	3,700.00	3,711.76	3,709.14	7.62	7.68	78.21	87.00	416.87	425.87	410.57	15.30	27.837	
3,750.00	3,750.00	3,762.21	3,759.58	7.72	7.79	78.31	86.16	416.55	425.40	409.89	15.51	27.430	
3,800.00	3,800.00	3,813.86	3,811.23	7.83	7.89	78.40	85.42	416.05	424.77	409.05	15.72	27.021	
3,850.00	3,850.00	3,865.41	3,862.77	7.93	8.00	78.46	84.83	415.31	423.96	408.02	15.93	26.611	
3,900.00	3,900.00	3,916.89	3,914.23	8.04	8.11	78.49	84.40	414.36	422.96	406.82	16.14	26.200	
3,950.00	3,950.00	3,967.16	3,964.50	8.14	8.21	78.49	84.15	413.26	421.85	405.50	16.35	25.795	
4,000.00	4,000.00	4,017.03	4,014.35	8.25	8.32	78.47	84.04	412.16	420.74	404.18	16.56	25.402	
4,050.00	4,050.00	4,066.49	4,063.80	8.35	8.42	78.45	84.02	411.08	419.67	402.90	16.77	25.022	
4,100.00	4,100.00	4,115.87	4,113.17	8.46	8.52	78.43	83.97	410.08	418.67	401.69	16.98	24.656	
4,150.00	4,150.00	4,165.50	4,162.79	8.56	8.63	78.41	83.89	409.15	417.73	400.54	17.19	24.305	
4,200.00	4,200.00	4,215.16	4,212.44	8.67	8.73	78.41	83.75	408.26	416.83	399.44	17.39	23.964	
4,250.00	4,250.00	4,264.81	4,262.08	8.77	8.83	78.41	83.54	407.44	415.97	398.37	17.60	23.635	
4,300.00	4,300.00	4,314.40	4,311.67	8.87	8.93	78.44	83.22	406.67	415.15	397.35	17.81	23.315	
4,350.00	4,350.00	4,363.62	4,360.88	8.98	9.03	78.46	82.91	405.99	414.41	396.39	18.01	23.005	
4,400.00	4,400.00	4,412.61	4,409.86	9.08	9.14	78.47	82.68	405.39	413.76	395.54	18.22	22.708	
4,450.00	4,450.00	4,461.21	4,458.46	9.19	9.24	78.51	82.34	404.97	413.27	394.84	18.43	22.425	
4,500.00	4,500.00	4,509.81	4,507.07	9.29	9.34	78.57	81.86	404.75	412.95	394.31	18.64	22.158	
4,550.00	4,550.00	4,558.58	4,555.83	9.40	9.45	11.90	81.23	404.72	412.37	393.53	18.84	21.887	
4,600.00	4,599.98	4,610.51	4,607.75	9.50	9.55	12.02	80.66	404.62	410.88	391.83	19.05	21.571	
4,650.00	4,649.93	4,661.94	4,659.19	9.61	9.66	12.13	80.37	404.22	408.31	389.06	19.25	21.213	
4,700.00	4,699.84	4,711.90	4,709.14	9.71	9.76	12.25	80.14	403.74	404.81	385.37	19.44	20.824	
4,750.00	4,749.68	4,763.36	4,760.59	9.82	9.87	12.43	79.82	403.21	400.43	380.80	19.63	20.400	
4,800.00	4,799.49	4,817.78	4,815.00	9.92	9.98	12.63	79.26	402.19	395.12	375.28	19.84	19.912	
4,850.00	4,849.30	4,867.04	4,864.24	10.03	10.08	12.83	78.58	400.89	389.43	369.38	20.05	19.422	
4,900.00	4,899.10	4,913.14	4,910.33	10.14	10.18	13.02	78.08	400.02	384.12	363.87	20.25	18.967	
4,950.00	4,948.91	4,962.15	4,959.34	10.25	10.28	13.20	77.73	399.42	379.18	358.72	20.46	18.533	
5,000.00	4,998.72	5,013.48	5,010.66	10.36	10.39	13.34	77.70	398.58	374.10	353.43	20.67	18.095	
5,050.00	5,048.52	5,061.89	5,059.06	10.46	10.49	13.45	77.81	397.69	368.95	348.07	20.88	17.669	
5,100.00	5,098.33	5,109.08	5,106.24	10.57	10.59	13.63	77.53	397.20	364.12	343.04	21.09	17.269	

Pathfinder - A Schlumberger Company

Anticollision Report

Company:	Devon Energy Inc.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD83)	TVD Reference:	3494' GL + 25' KB @ 3519.00usft (H&P 267)
Reference Site:	Regulus 26 Federal	MD Reference:	3494' GL + 25' KB @ 3519.00usft (H&P 267)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#5H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 5	Offset TVD Reference:	Offset Datum

Offset Design — Spica 25 Federal #1H - OH - OH — Offset Site Error: 0.00 usft

Survey Program: 100-MWD, 8587-MWD — Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,150.00	5,148.14	5,157.18	5,154.34	10.68	10.69	13.89	76.88	397.07	359.61	338.31	21.29	16.889	
5,200.00	5,197.94	5,205.67	5,202.82	10.79	10.79	14.19	76.07	397.14	355.28	333.79	21.50	16.525	
5,250.00	5,247.75	5,255.95	5,253.10	10.91	10.90	14.50	75.26	397.30	351.06	329.35	21.71	16.169	
5,300.00	5,297.56	5,306.85	5,304.00	11.02	11.01	14.74	74.93	397.23	346.70	324.77	21.93	15.813	
5,350.00	5,347.37	5,355.12	5,352.26	11.13	11.11	14.93	74.86	397.14	342.35	320.22	22.13	15.468	
5,400.00	5,397.17	5,403.12	5,400.27	11.24	11.21	15.15	74.67	397.33	338.27	315.93	22.34	15.141	
5,450.00	5,446.98	5,454.29	5,451.43	11.35	11.32	15.40	74.41	397.59	334.25	311.70	22.55	14.819	
5,500.00	5,496.79	5,505.64	5,502.78	11.47	11.42	15.65	74.17	397.59	330.00	307.23	22.77	14.493	
5,550.00	5,546.59	5,556.33	5,553.47	11.58	11.53	15.91	73.91	397.42	325.57	302.59	22.98	14.167	
5,600.00	5,596.40	5,606.81	5,603.95	11.69	11.63	16.18	73.59	397.12	321.01	297.82	23.19	13.842	
5,650.00	5,646.21	5,656.66	5,653.79	11.81	11.74	16.43	73.35	396.76	316.41	293.01	23.40	13.520	
5,700.00	5,696.01	5,706.34	5,703.47	11.92	11.84	16.66	73.29	396.37	311.81	288.19	23.61	13.204	
5,750.00	5,745.82	5,755.70	5,752.83	12.04	11.94	16.83	73.58	396.00	307.26	283.43	23.83	12.895	
5,800.00	5,795.63	5,804.93	5,802.06	12.15	12.05	16.94	74.22	395.65	302.78	278.74	24.04	12.596	
5,850.00	5,845.43	5,853.98	5,851.10	12.27	12.15	17.10	74.62	395.45	298.43	274.18	24.25	12.307	
5,900.00	5,895.24	5,904.34	5,901.46	12.38	12.26	17.34	74.70	395.36	294.15	269.69	24.46	12.025	
5,950.00	5,945.05	5,956.15	5,953.27	12.50	12.36	17.59	74.79	394.97	289.59	264.92	24.68	11.736	
6,000.00	5,994.85	6,007.21	6,004.33	12.62	12.47	17.82	74.92	394.27	284.74	259.85	24.89	11.440	
6,050.00	6,044.66	6,057.87	6,054.98	12.73	12.57	18.05	75.06	393.39	279.71	254.61	25.10	11.142	
6,100.00	6,094.47	6,107.53	6,104.64	12.85	12.68	18.29	75.18	392.43	274.60	249.28	25.32	10.847	
6,150.00	6,144.28	6,156.93	6,154.03	12.97	12.78	18.55	75.26	391.54	269.54	244.01	25.53	10.559	
6,200.00	6,194.08	6,206.69	6,203.77	13.08	12.88	18.83	75.28	390.68	264.52	238.78	25.74	10.277	
6,250.00	6,243.89	6,256.48	6,253.56	13.20	12.98	19.14	75.23	389.81	259.50	233.55	25.95	9.999	
6,300.00	6,293.70	6,304.77	6,301.84	13.32	13.09	19.44	75.26	389.09	254.61	228.45	26.16	9.732	
6,350.00	6,343.50	6,353.11	6,350.18	13.44	13.19	19.69	75.52	388.63	250.02	223.65	26.37	9.480	
6,400.00	6,393.31	6,403.20	6,400.26	13.56	13.29	19.93	75.99	388.25	245.54	218.96	26.59	9.235	
6,450.00	6,443.12	6,453.34	6,450.40	13.67	13.40	20.14	76.59	387.81	241.01	214.21	26.80	8.992	
6,500.00	6,492.92	6,503.95	6,501.00	13.79	13.51	20.31	77.36	387.22	236.35	209.33	27.02	8.747	
6,550.00	6,542.73	6,553.94	6,550.97	13.91	13.61	20.46	78.24	386.47	231.53	204.30	27.23	8.502	
6,600.00	6,592.54	6,602.32	6,599.35	14.03	13.71	20.65	78.96	385.93	226.89	199.45	27.44	8.267	
6,650.00	6,642.34	6,652.09	6,649.11	14.15	13.82	20.91	79.49	385.63	222.52	194.86	27.66	8.045	
6,700.00	6,692.15	6,704.84	6,701.85	14.27	13.93	21.15	80.20	384.85	217.70	189.82	27.88	7.809	
6,750.00	6,741.96	6,754.86	6,751.85	14.39	14.03	21.33	81.08	383.58	212.37	184.28	28.09	7.560	
6,800.00	6,791.76	6,802.55	6,799.52	14.51	14.13	21.56	81.74	382.71	207.40	179.10	28.30	7.328	
6,850.00	6,841.57	6,852.56	6,849.54	14.63	14.23	21.87	82.25	382.15	202.78	174.26	28.52	7.110	
6,900.00	6,891.38	6,904.52	6,901.48	14.75	14.34	22.15	82.97	381.11	197.73	168.99	28.74	6.880	
6,950.00	6,941.19	6,953.67	6,950.60	14.87	14.45	22.37	83.84	379.82	192.37	163.42	28.95	6.644	
7,000.00	6,990.99	7,001.74	6,998.65	14.99	14.55	22.56	84.80	378.94	187.41	158.25	29.16	6.426	
7,050.00	7,040.80	7,051.50	7,048.40	15.11	14.65	22.76	85.85	378.30	182.73	153.35	29.38	6.220	
7,100.00	7,090.61	7,101.79	7,098.67	15.24	14.76	22.98	86.84	377.53	177.93	148.33	29.60	6.012	
7,150.00	7,140.41	7,151.20	7,148.07	15.36	14.86	23.23	87.79	376.73	173.09	143.28	29.81	5.806	
7,200.00	7,190.22	7,200.49	7,197.34	15.48	14.96	23.48	88.76	376.07	168.39	138.36	30.03	5.608	
7,250.00	7,240.03	7,249.73	7,246.57	15.60	15.06	23.74	89.76	375.56	163.84	133.60	30.24	5.418	
7,300.00	7,289.83	7,298.99	7,295.82	15.72	15.17	24.00	90.77	375.21	159.46	129.00	30.46	5.235	
7,350.00	7,339.64	7,347.80	7,344.62	15.84	15.27	24.28	91.77	375.11	155.33	124.66	30.67	5.064	
7,400.00	7,389.45	7,396.92	7,393.73	15.97	15.38	24.57	92.75	375.32	151.53	120.64	30.89	4.905	
7,450.00	7,439.25	7,448.53	7,445.33	16.09	15.48	24.87	93.88	375.32	147.51	116.39	31.11	4.741	
7,500.00	7,489.06	7,499.60	7,496.37	16.21	15.59	25.11	95.18	374.74	142.92	111.59	31.33	4.561	
7,550.00	7,538.87	7,549.32	7,546.08	16.33	15.69	25.40	96.37	374.01	138.18	106.63	31.55	4.380	
7,600.00	7,588.67	7,598.58	7,595.32	16.46	15.79	25.79	97.35	373.33	133.49	101.72	31.77	4.202	
7,650.00	7,638.48	7,647.08	7,643.82	16.58	15.90	26.34	97.97	373.04	129.21	97.22	31.98	4.040	
7,700.00	7,688.29	7,696.39	7,693.12	16.70	16.00	27.09	98.24	373.14	125.38	93.17	32.21	3.893	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Pathfinder - A Schlumberger Company

Anticollision Report

Company:	Devon Energy Inc.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD83)	TVD Reference:	3494' GL + 25' KB @ 3519.00usft (H&P 267)
Reference Site:	Regulus 26 Federal	MD Reference:	3494' GL + 25' KB @ 3519.00usft (H&P 267)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#5H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 5	Offset TVD Reference:	Offset Datum

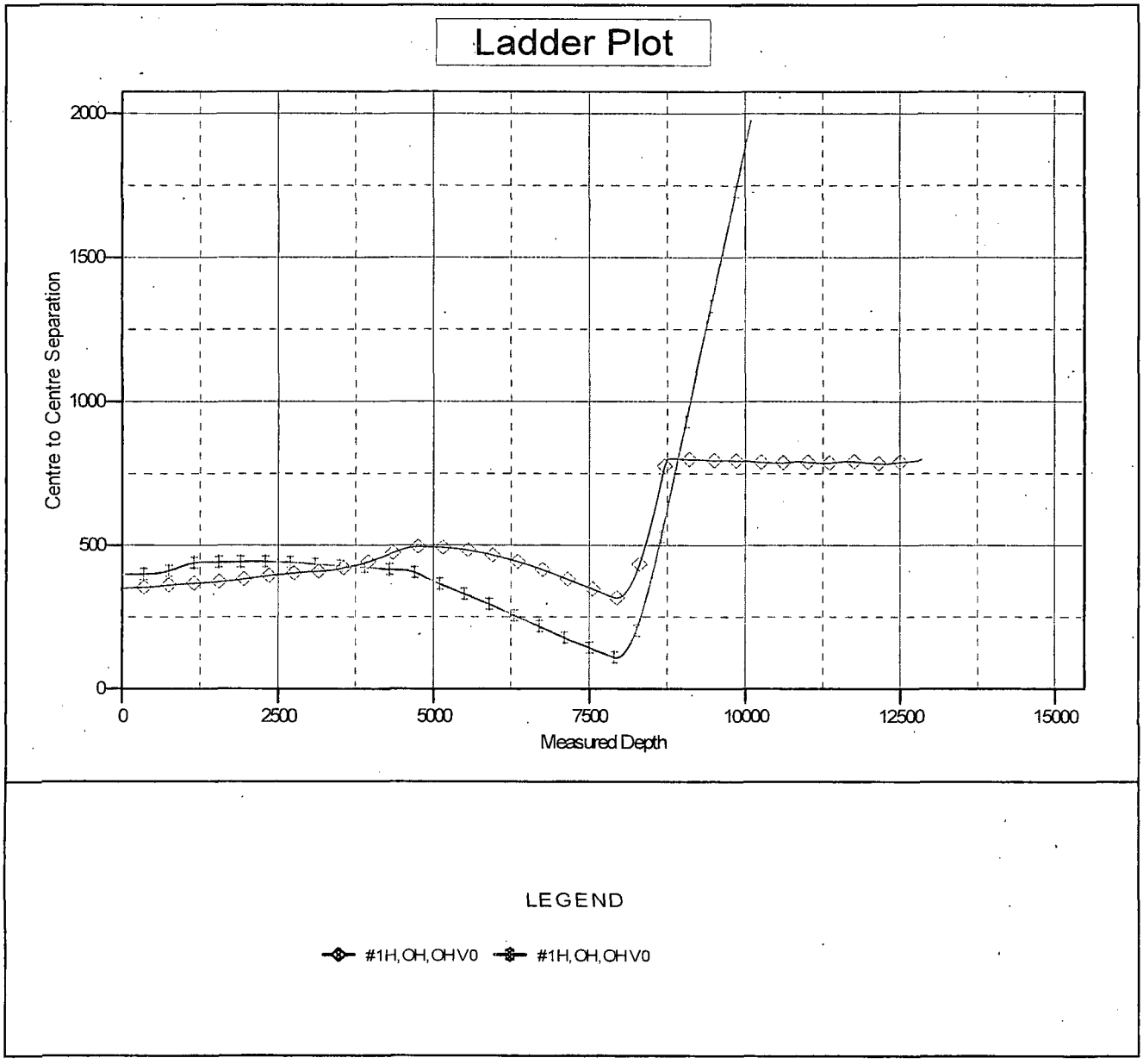
Offset Design	Spical 25 Federal #1 Ht, OH, OH										Offset Site Error:	0.00 usft
Survey Program:	100-MWD, 6587-MWD										Offset Well Error:	0.00 usft
Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Reference Semi Major Axis (usft)	Offset Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,750.00	7,738.10	7,746.72	7,743.45	16.82	16.10	27.90	98.55	373.17	121.48	89.04	32.43	3.745	
7,800.00	7,787.90	7,797.13	7,793.87	16.95	16.21	28.73	98.95	372.97	117.38	84.72	32.66	3.594	
7,850.00	7,837.71	7,847.60	7,844.33	17.07	16.31	29.58	99.45	372.50	113.03	80.14	32.89	3.437	
7,900.00	7,887.52	7,896.72	7,893.44	17.19	16.42	33.29	99.99	371.94	108.62	75.49	33.13	3.279	
7,933.92	7,921.39	7,929.68	7,926.40	17.27	16.49	88.58	100.32	371.87	107.39	74.08	33.30	3.225	CC, ES, SF
7,950.00	7,937.46	7,945.32	7,942.04	17.30	16.52	136.37	100.47	371.93	107.66	74.32	33.34	3.229	
8,000.00	7,987.28	7,994.53	7,991.25	17.39	16.62	174.34	100.91	372.41	111.94	78.64	33.30	3.362	
8,050.00	8,036.52	8,043.38	8,040.09	17.46	16.72	-179.09	101.34	373.04	121.05	88.05	33.00	3.668	
8,100.00	8,084.74	8,091.63	8,088.33	17.51	16.83	-176.73	101.78	373.70	134.81	102.37	32.44	4.155	
8,150.00	8,131.47	8,138.57	8,135.26	17.55	16.92	-175.72	102.22	374.22	152.95	121.30	31.65	4.833	
8,200.00	8,176.31	8,182.20	8,178.89	17.58	17.02	-175.25	102.66	374.73	175.46	144.85	30.61	5.731	
8,250.00	8,218.82	8,222.82	8,219.50	17.61	17.10	-175.02	103.12	375.52	202.44	173.07	29.37	6.894	
8,300.00	8,258.62	8,261.93	8,258.59	17.63	17.18	-174.89	103.58	376.49	233.53	205.60	27.93	8.362	
8,350.00	8,295.35	8,299.86	8,296.52	17.67	17.26	-174.73	103.91	377.21	268.03	241.69	26.33	10.179	
8,400.00	8,328.67	8,334.70	8,331.36	17.73	17.33	-174.45	104.08	377.62	305.59	280.97	24.62	12.414	
8,450.00	8,358.26	8,364.94	8,361.59	17.84	17.40	-174.00	104.24	377.82	345.98	323.15	22.83	15.153	
8,500.00	8,383.86	8,391.14	8,387.79	18.01	17.45	-173.34	104.50	377.94	388.95	367.89	21.06	18.471	
8,550.00	8,405.23	8,413.12	8,409.77	18.25	17.50	-172.28	104.81	378.00	434.11	414.69	19.42	22.355	
8,600.00	8,422.17	8,430.64	8,427.29	18.56	17.53	-170.42	105.12	378.02	481.08	462.89	18.19	26.449	
8,650.00	8,434.53	8,441.93	8,438.58	18.95	17.56	-166.47	105.32	378.04	529.46	511.32	18.14	29.184	
8,700.00	8,442.20	8,448.75	8,445.39	19.40	17.57	-155.55	105.44	378.06	578.82	556.89	21.93	26.389	
8,750.00	8,445.10	8,451.18	8,447.82	19.92	17.58	-97.79	105.47	378.07	628.67	589.03	39.65	15.857	
8,800.00	8,444.28	8,450.24	8,446.89	20.49	17.58	-59.81	105.46	378.07	678.61	642.56	36.05	18.826	
8,850.00	8,443.19	8,449.09	8,445.74	21.15	17.57	-58.19	105.44	378.06	728.55	692.18	36.37	20.033	
8,900.00	8,442.11	8,447.96	8,444.60	21.81	17.57	-56.64	105.42	378.06	778.50	741.83	36.67	21.229	
8,950.00	8,441.03	8,446.84	8,443.49	22.56	17.57	-55.17	105.41	378.05	828.45	791.41	37.04	22.366	
9,000.00	8,439.95	8,445.74	8,442.39	23.31	17.57	-53.78	105.39	378.05	878.40	841.01	37.39	23.491	
9,050.00	8,438.87	8,444.66	8,441.30	24.15	17.56	-52.45	105.37	378.05	928.36	890.56	37.80	24.561	
9,100.00	8,437.78	8,443.59	8,440.23	24.98	17.56	-51.19	105.35	378.04	978.32	940.13	38.19	25.618	
9,150.00	8,436.70	8,442.54	8,439.18	25.88	17.56	-49.99	105.33	378.04	1,028.28	989.66	38.62	26.626	
9,200.00	8,435.62	8,441.50	8,438.14	26.77	17.56	-48.85	105.32	378.04	1,078.25	1,039.21	39.04	27.621	
9,250.00	8,434.54	8,440.48	8,437.12	27.72	17.55	-47.77	105.30	378.04	1,128.22	1,088.73	39.48	28.573	
9,300.00	8,433.46	8,439.47	8,436.11	28.67	17.55	-46.74	105.28	378.03	1,178.19	1,138.26	39.92	29.512	
9,350.00	8,432.38	8,431.00	8,427.65	29.66	17.53	-39.34	105.12	378.02	1,228.19	1,191.29	36.90	33.288	
9,400.00	8,431.29	8,431.00	8,427.65	30.66	17.53	-39.34	105.12	378.02	1,278.15	1,240.39	37.76	33.848	
9,450.00	8,430.21	8,431.00	8,427.65	31.68	17.53	-39.34	105.12	378.02	1,328.12	1,289.47	38.65	34.363	
9,500.00	8,429.13	8,431.00	8,427.65	32.71	17.53	-39.34	105.12	378.02	1,378.09	1,338.55	39.54	34.856	
9,550.00	8,428.05	8,431.00	8,427.65	33.77	17.53	-39.34	105.12	378.02	1,428.06	1,387.62	40.44	35.311	
9,600.00	8,426.97	8,431.00	8,427.65	34.82	17.53	-39.34	105.12	378.02	1,478.03	1,436.68	41.35	35.746	
9,650.00	8,425.88	8,431.00	8,427.65	35.90	17.53	-39.34	105.12	378.02	1,528.01	1,485.74	42.27	36.150	
9,700.00	8,424.80	8,431.00	8,427.65	36.98	17.53	-39.34	105.12	378.02	1,577.99	1,534.80	43.19	36.537	
9,750.00	8,423.72	8,430.99	8,427.64	38.08	17.53	-39.33	105.12	378.02	1,627.96	1,583.85	44.12	36.900	
9,800.00	8,422.64	8,429.70	8,426.34	39.18	17.53	-38.38	105.10	378.02	1,677.94	1,633.57	44.38	37.812	
9,850.00	8,421.56	8,428.39	8,425.04	40.30	17.53	-37.46	105.08	378.02	1,727.92	1,683.29	44.63	38.716	
9,900.00	8,420.48	8,427.08	8,423.72	41.42	17.53	-36.56	105.05	378.02	1,777.90	1,733.03	44.87	39.620	
9,950.00	8,419.39	8,425.75	8,422.40	42.55	17.52	-35.70	105.03	378.02	1,827.88	1,782.77	45.11	40.518	
10,000.00	8,418.31	8,424.41	8,421.06	43.68	17.52	-34.87	105.00	378.02	1,877.86	1,832.52	45.34	41.416	
10,050.00	8,417.23	8,423.06	8,419.71	44.82	17.52	-34.07	104.98	378.02	1,927.84	1,882.28	45.57	42.308	
10,100.00	8,416.15	8,421.70	8,418.35	45.97	17.52	-33.29	104.96	378.01	1,977.82	1,932.04	45.78	43.199	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	Devon Energy Inc.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County (NAD83)	TVD Reference:	3494' GL = 25' KB @ 3519.00usft (H&P 267)
Reference Site:	Regulus 26 Federal	MD Reference:	3494' GL = 25' KB @ 3519.00usft (H&P 267)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#5H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 5	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3494' GL = 25' KB @ 3519.00usft (H&P
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: #5H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.27°



Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County, (NAD83)	TVD Reference:	3494' GL = 25' KB @ 3519.00usft (H&P 267)
Reference Site:	Regulus 26 Federal	MD Reference:	3494' GL = 25' KB @ 3519.00usft (H&P 267)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	#5H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan 5	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3494' GL = 25' KB @ 3519.00usft (H&P
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: #5H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
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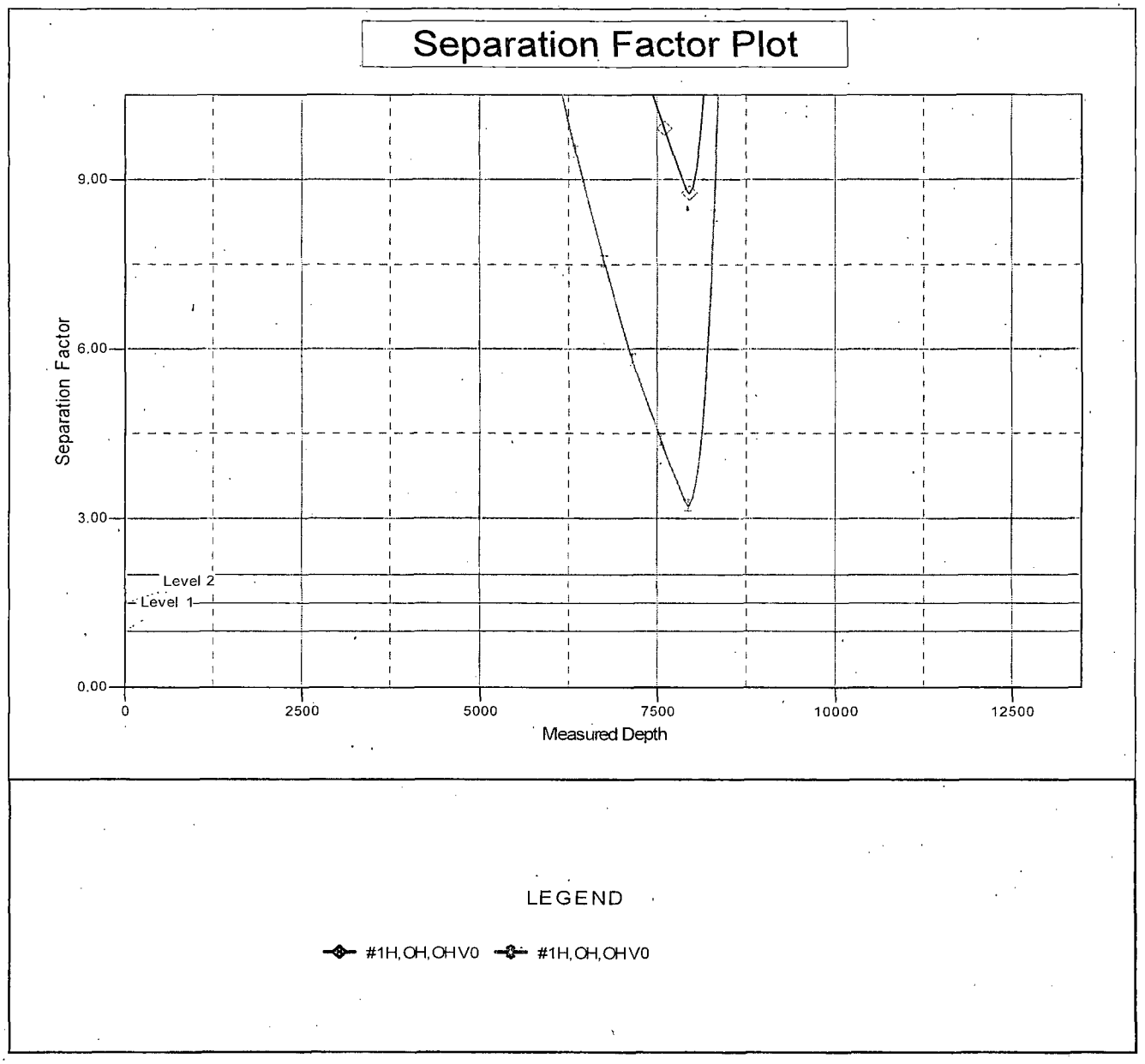

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production Company, L.P.
LEASE NO.:	NMNM-0107697
WELL NAME & NO.:	Regulus 26 Fed 5H
SURFACE HOLE FOOTAGE:	0380' FNL & 0667' FEL
BOTTOM HOLE FOOTAGE	0400' FNL & 0340' FWL
LOCATION:	Section 26, T. 19 S., R 31 E., NMPM
COUNTY:	Eddy County, New Mexico
API:	30-015-42489

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Although there are no measured amounts of Hydrogen Sulfide reported, it is always a potential hazard. Operator has stated that they will have monitoring equipment in place prior to drilling out of the surface shoe. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Capitan Reef
Possibility of water flows in the Artesia Group, Salado, and Queen.
Possibility of lost circulation in the Rustler, Artesia Group, Capitan Reef, and Delaware.

1. The **20** inch surface casing shall be set at approximately **800** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If **salt is encountered, set casing at least 25 feet above the salt.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **13-3/8** inch 1st intermediate casing is:

    ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **9-5/8** inch 2nd intermediate casing, which shall be set at approximately **4450** feet, is:

Operator has proposed DV tool at depth of 2600', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to Capitan Reef. Excess calculates to 4% - Additional cement may be required.**

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

Production Casing Option #1:

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

Operator has proposed DV tool at depth of 5500', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve approved top of cement on the next stage. **Excess calculates to 10% - Additional cement may be required.**

b. Second stage above DV tool:

☒ Cement should tie-back at least **50 feet above the Capitan Reef** (Top of Capitan Reef estimated at 2582'). Operator shall provide method of verification. **Excess calculates to 12% - Additional cement may be required.**

Production Casing Option #2:

5. The minimum required fill of cement behind the **7 X 5-1/2** inch production casing is:

☒ Cement should tie-back at least **50 feet above the Capitan Reef** (Top of Capitan Reef estimated at 2582'). Operator shall provide method of verification.

6. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. **In the case where the only BOP installed is an annular preventer, it shall be tested to a minimum of 2000 psi (which may require upgrading to 3M or 5M annular).**

4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

5. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **13-3/8** intermediate casing shoe shall be **3000 (3M)** psi.

6. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

d. The results of the test shall be reported to the appropriate BLM office.

e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

JAM 112014