

Devon US

Delaware Basin

Sec 18-25S-32E_Non TRAC

Cotton Draw Unit 497H

Original Hole

Plan: Plan_1

Standard Planning Report

23 June, 2016

HOBBS OCD
MAR 15 2017
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Devon Energy

Planning Report

Database: EDM r5000 US Production
Company: Devon US
Project: Delaware Basin
Site: Sec 18-25S-32E_Non TRAC
Well: Cotton Draw Unit 497H
Wellbore: Original Hole
Design: Plan_1

Local Co-ordinate Reference: Well Cotton Draw Unit 497H
TVD Reference: KB @ 3437.30ft
MD Reference: KB @ 3437.30ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project: Delaware Basin
Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

Site: Sec 18-25S-32E_Non TRAC

Site Position: Northing: 414,320.16 usft Latitude: 32.137574
From: Map Easting: 730,250.42 usft Longitude: -103.723006
Position Uncertainty: 0.00 ft Slot Radius: 13-3/16 " Grid Convergence: 0.32 °

Well: Cotton Draw Unit 497H

Well Position +N/-S -519.74 ft Northing: 413,800.42 usft Latitude: 32.136118
 +E/-W 1,721.90 ft Easting: 731,972.32 usft Longitude: -103.717452
Position Uncertainty 5.00 ft Wellhead Elevation: 0.00 ft Ground Level: 3,413.60 ft

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,671.14	0.00	0.00	2,671.14	0.00	0.00	0.00	0.00	0.00	0.00	
3,471.14	8.00	90.00	3,468.55	0.00	55.76	1.00	1.00	0.00	90.00	
6,819.78	8.00	90.00	6,784.60	0.00	521.80	0.00	0.00	0.00	0.00	
7,619.78	0.00	0.00	7,582.00	0.00	577.56	1.00	-1.00	0.00	180.00	
7,620.78	0.10	180.00	7,583.00	0.00	577.56	10.00	10.00	0.00	180.00	
8,519.78	90.00	180.00	8,154.96	-572.96	577.56	10.00	10.00	0.00	0.00	
12,398.40	90.00	180.00	8,154.96	-4,451.58	577.56	0.00	0.00	0.00	0.00	BHL_CDU 497H

Devon Energy

Planning Report

Database: EDM r5000 US Production
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Local Co-ordinate Reference: Well Cotton Draw Unit 497H
 TVD Reference: KB @ 3437.30ft
 MD Reference: KB @ 3437.30ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,671.14	0.00	0.00	2,671.14	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.29	90.00	2,700.00	0.00	0.07	0.00	1.00	1.00	0.00
2,800.00	1.29	90.00	2,799.99	0.00	1.45	0.00	1.00	1.00	0.00
2,900.00	2.29	90.00	2,899.94	0.00	4.57	0.00	1.00	1.00	0.00
3,000.00	3.29	90.00	2,999.82	0.00	9.43	0.00	1.00	1.00	0.00
3,100.00	4.29	90.00	3,099.60	0.00	16.04	0.00	1.00	1.00	0.00
3,200.00	5.29	90.00	3,199.25	0.00	24.39	0.00	1.00	1.00	0.00
3,300.00	6.29	90.00	3,298.74	0.00	34.48	0.00	1.00	1.00	0.00
3,400.00	7.29	90.00	3,398.04	0.00	46.30	0.00	1.00	1.00	0.00
3,471.14	8.00	90.00	3,468.55	0.00	55.76	0.00	1.00	1.00	0.00
3,500.00	8.00	90.00	3,497.12	0.00	59.78	0.00	0.00	0.00	0.00
3,600.00	8.00	90.00	3,596.15	0.00	73.69	0.00	0.00	0.00	0.00
3,700.00	8.00	90.00	3,695.18	0.00	87.61	0.00	0.00	0.00	0.00
3,800.00	8.00	90.00	3,794.20	0.00	101.53	0.00	0.00	0.00	0.00
3,900.00	8.00	90.00	3,893.23	0.00	115.45	0.00	0.00	0.00	0.00
4,000.00	8.00	90.00	3,992.26	0.00	129.36	0.00	0.00	0.00	0.00
4,100.00	8.00	90.00	4,091.28	0.00	143.28	0.00	0.00	0.00	0.00
4,200.00	8.00	90.00	4,190.31	0.00	157.20	0.00	0.00	0.00	0.00
4,300.00	8.00	90.00	4,289.34	0.00	171.11	0.00	0.00	0.00	0.00
4,400.00	8.00	90.00	4,388.36	0.00	185.03	0.00	0.00	0.00	0.00
4,500.00	8.00	90.00	4,487.39	0.00	198.95	0.00	0.00	0.00	0.00
4,600.00	8.00	90.00	4,586.42	0.00	212.87	0.00	0.00	0.00	0.00
4,700.00	8.00	90.00	4,685.44	0.00	226.78	0.00	0.00	0.00	0.00
4,800.00	8.00	90.00	4,784.47	0.00	240.70	0.00	0.00	0.00	0.00
4,900.00	8.00	90.00	4,883.50	0.00	254.62	0.00	0.00	0.00	0.00
5,000.00	8.00	90.00	4,982.52	0.00	268.54	0.00	0.00	0.00	0.00
5,100.00	8.00	90.00	5,081.55	0.00	282.45	0.00	0.00	0.00	0.00

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Well: Cotton Draw Unit 497H
Wellbore: Original Hole
Design: Plan_1

Local Co-ordinate Reference: Well Cotton Draw Unit 497H
TVD Reference: KB @ 3437.30ft
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North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,200.00	8.00	90.00	5,180.58	0.00	296.37	0.00	0.00	0.00	0.00
5,300.00	8.00	90.00	5,279.60	0.00	310.29	0.00	0.00	0.00	0.00
5,400.00	8.00	90.00	5,378.63	0.00	324.20	0.00	0.00	0.00	0.00
5,500.00	8.00	90.00	5,477.66	0.00	338.12	0.00	0.00	0.00	0.00
5,600.00	8.00	90.00	5,576.69	0.00	352.04	0.00	0.00	0.00	0.00
5,700.00	8.00	90.00	5,675.71	0.00	365.96	0.00	0.00	0.00	0.00
5,800.00	8.00	90.00	5,774.74	0.00	379.87	0.00	0.00	0.00	0.00
5,900.00	8.00	90.00	5,873.77	0.00	393.79	0.00	0.00	0.00	0.00
6,000.00	8.00	90.00	5,972.79	0.00	407.71	0.00	0.00	0.00	0.00
6,100.00	8.00	90.00	6,071.82	0.00	421.63	0.00	0.00	0.00	0.00
6,200.00	8.00	90.00	6,170.85	0.00	435.54	0.00	0.00	0.00	0.00
6,300.00	8.00	90.00	6,269.87	0.00	449.46	0.00	0.00	0.00	0.00
6,400.00	8.00	90.00	6,368.90	0.00	463.38	0.00	0.00	0.00	0.00
6,500.00	8.00	90.00	6,467.93	0.00	477.30	0.00	0.00	0.00	0.00
6,600.00	8.00	90.00	6,566.95	0.00	491.21	0.00	0.00	0.00	0.00
6,700.00	8.00	90.00	6,665.98	0.00	505.13	0.00	0.00	0.00	0.00
6,800.00	8.00	90.00	6,765.01	0.00	519.05	0.00	0.00	0.00	0.00
6,819.78	8.00	90.00	6,784.60	0.00	521.80	0.00	0.00	0.00	0.00
6,900.00	7.20	90.00	6,864.11	0.00	532.41	0.00	1.00	-1.00	0.00
7,000.00	6.20	90.00	6,963.43	0.00	544.07	0.00	1.00	-1.00	0.00
7,100.00	5.20	90.00	7,062.93	0.00	554.00	0.00	1.00	-1.00	0.00
7,200.00	4.20	90.00	7,162.59	0.00	562.19	0.00	1.00	-1.00	0.00
7,300.00	3.20	90.00	7,262.38	0.00	568.64	0.00	1.00	-1.00	0.00
7,400.00	2.20	90.00	7,362.27	0.00	573.35	0.00	1.00	-1.00	0.00
7,500.00	1.20	90.00	7,462.23	0.00	576.31	0.00	1.00	-1.00	0.00
7,600.00	0.20	90.00	7,562.22	0.00	577.53	0.00	1.00	-1.00	0.00
7,619.78	0.00	0.00	7,582.00	0.00	577.56	0.00	1.00	-1.00	0.00
7,620.78	0.10	180.00	7,583.00	0.00	577.56	0.00	10.00	10.00	0.00
7,650.00	3.02	180.00	7,612.20	-0.80	577.56	-0.80	10.00	10.00	0.00
7,700.00	8.02	180.00	7,661.96	-5.61	577.56	-5.61	10.00	10.00	0.00
7,750.00	13.02	180.00	7,711.10	-14.73	577.56	-14.73	10.00	10.00	0.00
7,800.00	18.02	180.00	7,759.26	-28.11	577.56	-28.11	10.00	10.00	0.00
7,850.00	23.02	180.00	7,806.07	-45.63	577.56	-45.63	10.00	10.00	0.00
7,900.00	28.02	180.00	7,851.18	-67.17	577.56	-67.17	10.00	10.00	0.00
7,950.00	33.02	180.00	7,894.24	-92.55	577.56	-92.55	10.00	10.00	0.00
8,000.00	38.02	180.00	7,934.92	-121.59	577.56	-121.59	10.00	10.00	0.00
8,050.00	43.02	180.00	7,972.92	-154.07	577.56	-154.07	10.00	10.00	0.00
8,100.00	48.02	180.00	8,007.94	-189.74	577.56	-189.74	10.00	10.00	0.00
8,150.00	53.02	180.00	8,039.72	-228.32	577.56	-228.32	10.00	10.00	0.00
8,200.00	58.02	180.00	8,068.01	-269.52	577.56	-269.52	10.00	10.00	0.00
8,250.00	63.02	180.00	8,092.61	-313.03	577.56	-313.03	10.00	10.00	0.00
8,300.00	68.02	180.00	8,113.32	-358.53	577.56	-358.53	10.00	10.00	0.00
8,350.00	73.02	180.00	8,129.99	-405.65	577.56	-405.65	10.00	10.00	0.00
8,400.00	78.02	180.00	8,142.48	-454.05	577.56	-454.05	10.00	10.00	0.00
8,450.00	83.02	180.00	8,150.71	-503.35	577.56	-503.35	10.00	10.00	0.00
8,500.00	88.02	180.00	8,154.62	-553.18	577.56	-553.18	10.00	10.00	0.00
8,519.78	90.00	180.00	8,154.96	-572.96	577.56	-572.96	10.00	10.00	0.00
8,600.00	90.00	180.00	8,154.96	-653.17	577.56	-653.17	0.00	0.00	0.00
8,700.00	90.00	180.00	8,154.96	-753.17	577.56	-753.17	0.00	0.00	0.00
8,800.00	90.00	180.00	8,154.96	-853.17	577.56	-853.17	0.00	0.00	0.00
8,900.00	90.00	180.00	8,154.96	-953.17	577.56	-953.17	0.00	0.00	0.00
9,000.00	90.00	180.00	8,154.96	-1,053.17	577.56	-1,053.17	0.00	0.00	0.00
9,100.00	90.00	180.00	8,154.96	-1,153.17	577.56	-1,153.17	0.00	0.00	0.00
9,200.00	90.00	180.00	8,154.96	-1,253.17	577.56	-1,253.17	0.00	0.00	0.00

Devon Energy

Planning Report

Database: EDM r5000 US Production
 Company: Devon US
 Project: Delaware Basin
 Site: Sec 18-25S-32E_Non TRAC
 Well: Cotton Draw Unit 497H
 Wellbore: Original Hole
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Local Co-ordinate Reference: Well Cotton Draw Unit 497H
 TVD Reference: KB @ 3437.30ft
 MD Reference: KB @ 3437.30ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,300.00	90.00	180.00	8,154.96	-1,353.17	577.56	-1,353.17	0.00	0.00	0.00
9,400.00	90.00	180.00	8,154.96	-1,453.17	577.56	-1,453.17	0.00	0.00	0.00
9,500.00	90.00	180.00	8,154.96	-1,553.17	577.56	-1,553.17	0.00	0.00	0.00
9,600.00	90.00	180.00	8,154.96	-1,653.17	577.56	-1,653.17	0.00	0.00	0.00
9,700.00	90.00	180.00	8,154.96	-1,753.17	577.56	-1,753.17	0.00	0.00	0.00
9,800.00	90.00	180.00	8,154.96	-1,853.17	577.56	-1,853.17	0.00	0.00	0.00
9,900.00	90.00	180.00	8,154.96	-1,953.17	577.56	-1,953.17	0.00	0.00	0.00
10,000.00	90.00	180.00	8,154.96	-2,053.17	577.56	-2,053.17	0.00	0.00	0.00
10,100.00	90.00	180.00	8,154.96	-2,153.17	577.56	-2,153.17	0.00	0.00	0.00
10,200.00	90.00	180.00	8,154.96	-2,253.17	577.56	-2,253.17	0.00	0.00	0.00
10,300.00	90.00	180.00	8,154.96	-2,353.17	577.56	-2,353.17	0.00	0.00	0.00
10,400.00	90.00	180.00	8,154.96	-2,453.17	577.56	-2,453.17	0.00	0.00	0.00
10,500.00	90.00	180.00	8,154.96	-2,553.17	577.56	-2,553.17	0.00	0.00	0.00
10,600.00	90.00	180.00	8,154.96	-2,653.17	577.56	-2,653.17	0.00	0.00	0.00
10,700.00	90.00	180.00	8,154.96	-2,753.17	577.56	-2,753.17	0.00	0.00	0.00
10,800.00	90.00	180.00	8,154.96	-2,853.17	577.56	-2,853.17	0.00	0.00	0.00
10,900.00	90.00	180.00	8,154.96	-2,953.17	577.56	-2,953.17	0.00	0.00	0.00
11,000.00	90.00	180.00	8,154.96	-3,053.17	577.56	-3,053.17	0.00	0.00	0.00
11,100.00	90.00	180.00	8,154.96	-3,153.17	577.56	-3,153.17	0.00	0.00	0.00
11,200.00	90.00	180.00	8,154.96	-3,253.17	577.56	-3,253.17	0.00	0.00	0.00
11,300.00	90.00	180.00	8,154.96	-3,353.17	577.56	-3,353.17	0.00	0.00	0.00
11,400.00	90.00	180.00	8,154.96	-3,453.17	577.56	-3,453.17	0.00	0.00	0.00
11,500.00	90.00	180.00	8,154.96	-3,553.17	577.56	-3,553.17	0.00	0.00	0.00
11,600.00	90.00	180.00	8,154.96	-3,653.17	577.56	-3,653.17	0.00	0.00	0.00
11,700.00	90.00	180.00	8,154.96	-3,753.17	577.56	-3,753.17	0.00	0.00	0.00
11,800.00	90.00	180.00	8,154.96	-3,853.17	577.56	-3,853.17	0.00	0.00	0.00
11,900.00	90.00	180.00	8,154.96	-3,953.17	577.56	-3,953.17	0.00	0.00	0.00
12,000.00	90.00	180.00	8,154.96	-4,053.17	577.56	-4,053.17	0.00	0.00	0.00
12,100.00	90.00	180.00	8,154.96	-4,153.17	577.56	-4,153.17	0.00	0.00	0.00
12,200.00	90.00	180.00	8,154.96	-4,253.17	577.56	-4,253.17	0.00	0.00	0.00
12,300.00	90.00	180.00	8,154.96	-4,353.17	577.56	-4,353.17	0.00	0.00	0.00
12,398.40	90.00	180.00	8,154.96	-4,451.58	577.56	-4,451.58	0.00	0.00	0.00

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
7,619.78	7,582.00	0.00	0.00	KOP
12,398.40	8,154.96	0.00	55.76	TD