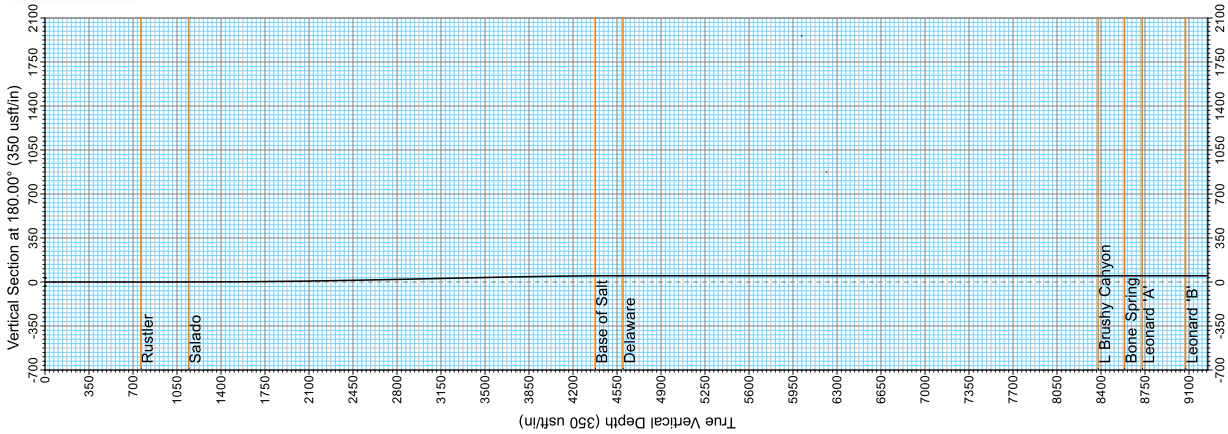




RKB Elevation: RKB @ 3408.00usft				
+N/-S 0.00	+E/-W 0.00	Northing 403697.47	Easting 745334.93	Latitude 32.1081298
			Longitude -103.6744837	Slot

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name BHL - VDD 237H	TVD 10263.00	+N/-S -10025.92	+E/-W 329.22	Northing 393671.55	Easting 745664.15
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SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	
3	2599.71	8.00	98.62	2594.52	-16.70	110.22	0.50	16.70	
4	3796.61	8.00	98.62	3779.78	-41.65	274.89	0.00	41.65	
5	4596.47	0.00	0.00	4577.04	-50.00	330.00	1.00	50.00	
6	9709.47	0.00	0.00	9690.04	-50.00	330.00	0.00	50.00	
7	10609.47	90.00	180.00	10263.00	-622.96	329.96	10.00	622.96	
8	20012.43	90.00	180.00	10263.00	-10025.92	329.22	0.00	10025.92	BHL - VDD 237H

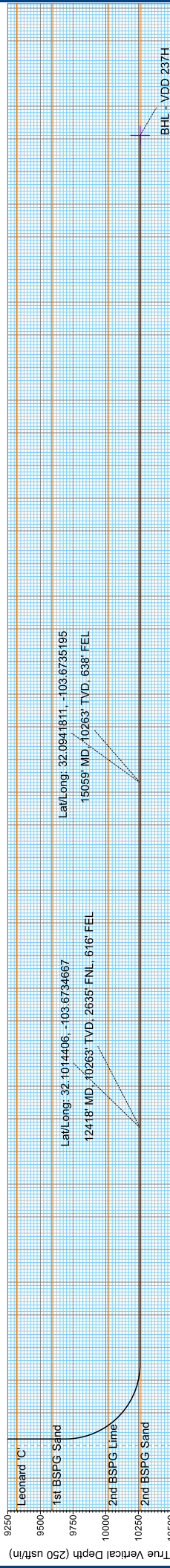
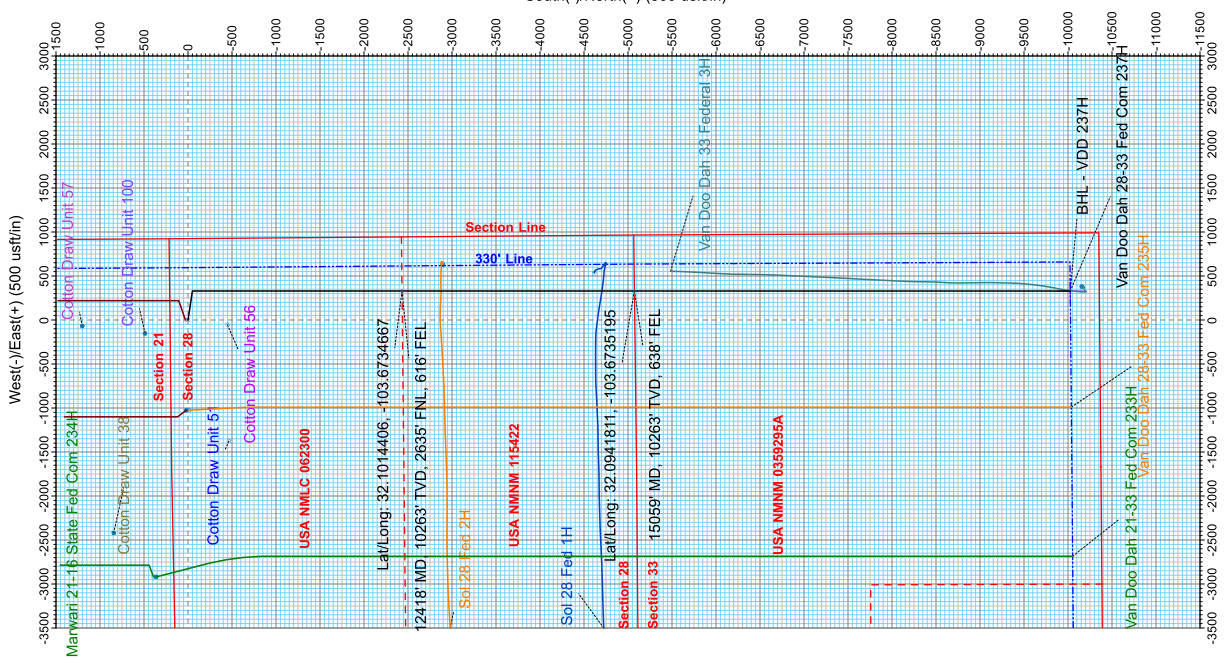
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
763.00	763.00	Rustler
1143.00	1143.00	Salado
4378.00	4377.39	Base of Salt
4398.00	4617.43	Delaware
8378.00	8397.43	L Brushy Canyon
8578.00	8577.43	Bone Spring
8728.00	8727.43	Leonard 'A'
9073.00	9092.43	Leonard 'B'
9318.00	9337.43	Leonard 'C'
9588.00	9607.43	1st BSPG Sand
10018.00	10058.65	2nd BSPG Line
10263.00	10609.47	2nd BSPG Sand

CASING DETAILS

No casing data is available

Map System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone Name: New Mexico Eastern Zone
Local Origin: Well Van Doo Dah 28-33 237H, Grid North
Latitude: 32.1081298
Longitude: -103.6744837
Grid East: 745334.93
Grid North: 403697.47
Scale Factor: 1.000
Geomagnetic Model: HDGM
Sample Date: 23-Feb-18
Magnetic Declination: 6.80°
Magnetic Field Strength: 47919.50mT
Dip Angle from Horizontal: 59.78°
To convert a Magnetic Direction to a Grid Direction, Add 6.45°
To convert a Magnetic Direction to a True Direction, Add 6.80° East
To convert a True Direction to a Grid Direction, Subtract 0.35°



Database:	WellPlanner1	Local Co-ordinate Reference:	Well Van Doo Dah 28-33 Fed Com 237H
Company:	Devon Energy Corp.	TVD Reference:	RKB @ 3408.00usft
Project:	Lea County, NM (NAD83)	MD Reference:	RKB @ 3408.00usft
Site:	Van Doo Dah/Marwari	North Reference:	Grid
Well:	Van Doo Dah 28-33 Fed Com 237H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Project	Lea County, NM (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Van Doo Dah/Marwari			
Site Position:		Northing:	404,059.28 usft	Latitude:	32.1091731
From:	Map	Easting:	742,415.57 usft	Longitude:	-103.6839048
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.35 °

Well	Van Doo Dah 28-33 Fed Com 237H					
Well Position	+N/-S	-361.81 usft	Northing:	403,697.47 usft	Latitude:	32.1081298
	+E/-W	2,919.36 usft	Easting:	745,334.93 usft	Longitude:	-103.6744837
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	3,385.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/23/2018	6.80	59.78	47,919.50

Design	Prelim A			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	180.00

Plan Survey Tool Program	Date	3/1/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	20,012.12 Prelim A (OH)	MWD+HDGM	
			OWSG MWD + HDGM	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	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	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,599.71	8.00	98.62	2,594.52	-16.70	110.22	0.50	0.50	0.00	98.62	
3,796.61	8.00	98.62	3,779.78	-41.65	274.89	0.00	0.00	0.00	0.00	
4,596.47	0.00	0.00	4,577.04	-50.00	330.00	1.00	-1.00	0.00	180.00	
9,709.47	0.00	0.00	9,690.04	-50.00	330.00	0.00	0.00	0.00	0.00	
10,609.47	90.00	180.00	10,263.00	-622.96	329.96	10.00	10.00	-20.00	180.00	
20,012.43	90.00	180.00	10,263.00	-10,025.92	329.22	0.00	0.00	0.00	0.00	BHL - VDD 237H

Database:	WellPlanner1	Local Co-ordinate Reference:	Well Van Doo Dah 28-33 Fed Com 237H
Company:	Devon Energy Corp.	TVD Reference:	RKB @ 3408.00usft
Project:	Lea County, NM (NAD83)	MD Reference:	RKB @ 3408.00usft
Site:	Van Doo Dah/Marwari	North Reference:	Grid
Well:	Van Doo Dah 28-33 Fed Com 237H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	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
763.00	0.00	0.00	763.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
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	0.50	98.62	1,100.00	-0.07	0.43	0.07	0.50	0.50	0.00
1,143.00	0.72	98.62	1,143.00	-0.13	0.88	0.13	0.50	0.50	0.00
Salado									
1,200.00	1.00	98.62	1,199.99	-0.26	1.73	0.26	0.50	0.50	0.00
1,300.00	1.50	98.62	1,299.97	-0.59	3.88	0.59	0.50	0.50	0.00
1,400.00	2.00	98.62	1,399.92	-1.05	6.90	1.05	0.50	0.50	0.00
1,500.00	2.50	98.62	1,499.84	-1.63	10.78	1.63	0.50	0.50	0.00
1,600.00	3.00	98.62	1,599.73	-2.35	15.53	2.35	0.50	0.50	0.00
1,700.00	3.50	98.62	1,699.56	-3.20	21.13	3.20	0.50	0.50	0.00
1,800.00	4.00	98.62	1,799.35	-4.18	27.60	4.18	0.50	0.50	0.00
1,900.00	4.50	98.62	1,899.08	-5.29	34.93	5.29	0.50	0.50	0.00
2,000.00	5.00	98.62	1,998.73	-6.53	43.11	6.53	0.50	0.50	0.00
2,100.00	5.50	98.62	2,098.31	-7.90	52.16	7.90	0.50	0.50	0.00
2,200.00	6.00	98.62	2,197.81	-9.40	62.07	9.40	0.50	0.50	0.00
2,300.00	6.50	98.62	2,297.21	-11.03	72.83	11.03	0.50	0.50	0.00
2,400.00	7.00	98.62	2,396.52	-12.80	84.45	12.80	0.50	0.50	0.00
2,500.00	7.50	98.62	2,495.72	-14.69	96.93	14.69	0.50	0.50	0.00
2,599.71	8.00	98.62	2,594.52	-16.70	110.22	16.70	0.50	0.50	0.00
2,700.00	8.00	98.62	2,693.83	-18.79	124.02	18.79	0.00	0.00	0.00
2,800.00	8.00	98.62	2,792.86	-20.88	137.78	20.88	0.00	0.00	0.00
2,900.00	8.00	98.62	2,891.89	-22.96	151.53	22.96	0.00	0.00	0.00
3,000.00	8.00	98.62	2,990.91	-25.04	165.29	25.04	0.00	0.00	0.00
3,100.00	8.00	98.62	3,089.94	-27.13	179.05	27.13	0.00	0.00	0.00
3,200.00	8.00	98.62	3,188.97	-29.21	192.81	29.21	0.00	0.00	0.00
3,300.00	8.00	98.62	3,288.00	-31.30	206.57	31.30	0.00	0.00	0.00
3,400.00	8.00	98.62	3,387.02	-33.38	220.32	33.38	0.00	0.00	0.00
3,500.00	8.00	98.62	3,486.05	-35.47	234.08	35.47	0.00	0.00	0.00
3,600.00	8.00	98.62	3,585.08	-37.55	247.84	37.55	0.00	0.00	0.00
3,700.00	8.00	98.62	3,684.11	-39.64	261.60	39.64	0.00	0.00	0.00
3,796.61	8.00	98.62	3,779.78	-41.65	274.89	41.65	0.00	0.00	0.00
3,800.00	7.96	98.62	3,783.13	-41.72	275.35	41.72	1.00	-1.00	0.00
3,900.00	6.96	98.62	3,882.28	-43.67	288.20	43.67	1.00	-1.00	0.00
4,000.00	5.96	98.62	3,981.65	-45.35	299.33	45.35	1.00	-1.00	0.00
4,100.00	4.96	98.62	4,081.19	-46.78	308.75	46.78	1.00	-1.00	0.00
4,200.00	3.96	98.62	4,180.89	-47.95	316.44	47.95	1.00	-1.00	0.00
4,300.00	2.96	98.62	4,280.70	-48.85	322.42	48.85	1.00	-1.00	0.00
4,397.39	1.99	98.62	4,378.00	-49.48	326.58	49.48	1.00	-1.00	0.00
Base of Salt									
4,400.00	1.96	98.62	4,380.61	-49.50	326.67	49.50	1.00	-1.00	0.00
4,500.00	0.96	98.62	4,480.57	-49.88	329.20	49.88	1.00	-1.00	0.00

Database:	WellPlanner1	Local Co-ordinate Reference:	Well Van Doo Dah 28-33 Fed Com 237H
Company:	Devon Energy Corp.	TVD Reference:	RKB @ 3408.00usft
Project:	Lea County, NM (NAD83)	MD Reference:	RKB @ 3408.00usft
Site:	Van Doo Dah/Marwari	North Reference:	Grid
Well:	Van Doo Dah 28-33 Fed Com 237H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,596.47	0.00	0.00	4,577.04	-50.00	330.00	50.00	1.00	-1.00	0.00
4,600.00	0.00	0.00	4,580.57	-50.00	330.00	50.00	0.00	0.00	0.00
4,617.43	0.00	0.00	4,598.00	-50.00	330.00	50.00	0.00	0.00	0.00
Delaware									
4,700.00	0.00	0.00	4,680.57	-50.00	330.00	50.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,780.57	-50.00	330.00	50.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,880.57	-50.00	330.00	50.00	0.00	0.00	0.00
5,000.00	0.00	0.00	4,980.57	-50.00	330.00	50.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,080.57	-50.00	330.00	50.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,180.57	-50.00	330.00	50.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,280.57	-50.00	330.00	50.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,380.57	-50.00	330.00	50.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,480.57	-50.00	330.00	50.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,580.57	-50.00	330.00	50.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,680.57	-50.00	330.00	50.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,780.57	-50.00	330.00	50.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,880.57	-50.00	330.00	50.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,980.57	-50.00	330.00	50.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,080.57	-50.00	330.00	50.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,180.57	-50.00	330.00	50.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,280.57	-50.00	330.00	50.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,380.57	-50.00	330.00	50.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,480.57	-50.00	330.00	50.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,580.57	-50.00	330.00	50.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,680.57	-50.00	330.00	50.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,780.57	-50.00	330.00	50.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,880.57	-50.00	330.00	50.00	0.00	0.00	0.00
7,000.00	0.00	0.00	6,980.57	-50.00	330.00	50.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,080.57	-50.00	330.00	50.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,180.57	-50.00	330.00	50.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,280.57	-50.00	330.00	50.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,380.57	-50.00	330.00	50.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,480.57	-50.00	330.00	50.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,580.57	-50.00	330.00	50.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,680.57	-50.00	330.00	50.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,780.57	-50.00	330.00	50.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,880.57	-50.00	330.00	50.00	0.00	0.00	0.00
8,000.00	0.00	0.00	7,980.57	-50.00	330.00	50.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,080.57	-50.00	330.00	50.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,180.57	-50.00	330.00	50.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,280.57	-50.00	330.00	50.00	0.00	0.00	0.00
8,397.43	0.00	0.00	8,378.00	-50.00	330.00	50.00	0.00	0.00	0.00
L Brushy Canyon									
8,400.00	0.00	0.00	8,380.57	-50.00	330.00	50.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,480.57	-50.00	330.00	50.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,580.57	-50.00	330.00	50.00	0.00	0.00	0.00
8,607.43	0.00	0.00	8,588.00	-50.00	330.00	50.00	0.00	0.00	0.00
Bone Spring									
8,700.00	0.00	0.00	8,680.57	-50.00	330.00	50.00	0.00	0.00	0.00
8,747.43	0.00	0.00	8,728.00	-50.00	330.00	50.00	0.00	0.00	0.00
Leonard 'A'									
8,800.00	0.00	0.00	8,780.57	-50.00	330.00	50.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,880.57	-50.00	330.00	50.00	0.00	0.00	0.00
9,000.00	0.00	0.00	8,980.57	-50.00	330.00	50.00	0.00	0.00	0.00

Database:	WellPlanner1	Local Co-ordinate Reference:	Well Van Doo Dah 28-33 Fed Com 237H
Company:	Devon Energy Corp.	TVD Reference:	RKB @ 3408.00usft
Project:	Lea County, NM (NAD83)	MD Reference:	RKB @ 3408.00usft
Site:	Van Doo Dah/Marwari	North Reference:	Grid
Well:	Van Doo Dah 28-33 Fed Com 237H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,092.43	0.00	0.00	9,073.00	-50.00	330.00	50.00	0.00	0.00	0.00
Leonard 'B'									
9,100.00	0.00	0.00	9,080.57	-50.00	330.00	50.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,180.57	-50.00	330.00	50.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,280.57	-50.00	330.00	50.00	0.00	0.00	0.00
9,337.43	0.00	0.00	9,318.00	-50.00	330.00	50.00	0.00	0.00	0.00
Leonard 'C'									
9,400.00	0.00	0.00	9,380.57	-50.00	330.00	50.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,480.57	-50.00	330.00	50.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,580.57	-50.00	330.00	50.00	0.00	0.00	0.00
9,607.43	0.00	0.00	9,588.00	-50.00	330.00	50.00	0.00	0.00	0.00
1st BSPG Sand									
9,709.47	0.00	0.00	9,690.04	-50.00	330.00	50.00	0.00	0.00	0.00
9,750.00	4.05	180.00	9,730.54	-51.43	330.00	51.43	10.00	10.00	0.00
9,800.00	9.05	180.00	9,780.19	-57.14	330.00	57.14	10.00	10.00	0.00
9,850.00	14.05	180.00	9,829.16	-67.15	330.00	67.15	10.00	10.00	0.00
9,900.00	19.05	180.00	9,877.08	-81.39	330.00	81.39	10.00	10.00	0.00
9,950.00	24.05	180.00	9,923.57	-99.75	330.00	99.75	10.00	10.00	0.00
10,000.00	29.05	180.00	9,968.28	-122.09	329.99	122.09	10.00	10.00	0.00
10,050.00	34.05	180.00	10,010.87	-148.25	329.99	148.25	10.00	10.00	0.00
10,058.65	34.92	180.00	10,018.00	-153.15	329.99	153.15	10.00	10.00	0.00
2nd BSPG Lime									
10,100.00	39.05	180.00	10,051.03	-178.02	329.99	178.02	10.00	10.00	0.00
10,150.00	44.05	180.00	10,088.43	-211.17	329.99	211.17	10.00	10.00	0.00
10,200.00	49.05	180.00	10,122.80	-247.46	329.98	247.46	10.00	10.00	0.00
10,250.00	54.05	180.00	10,153.88	-286.61	329.98	286.61	10.00	10.00	0.00
10,300.00	59.05	180.00	10,181.43	-328.32	329.98	328.32	10.00	10.00	0.00
10,350.00	64.05	180.00	10,205.24	-372.27	329.97	372.27	10.00	10.00	0.00
10,400.00	69.05	180.00	10,225.13	-418.12	329.97	418.12	10.00	10.00	0.00
10,450.00	74.05	180.00	10,240.95	-465.54	329.97	465.54	10.00	10.00	0.00
10,500.00	79.05	180.00	10,252.57	-514.15	329.96	514.15	10.00	10.00	0.00
10,550.00	84.05	180.00	10,259.91	-563.59	329.96	563.59	10.00	10.00	0.00
10,600.00	89.05	180.00	10,262.92	-613.49	329.96	613.49	10.00	10.00	0.00
10,609.47	90.00	180.00	10,263.00	-622.96	329.96	622.96	10.00	10.00	0.00
2nd BSPG Sand									
10,700.00	90.00	180.00	10,263.00	-713.49	329.95	713.49	0.00	0.00	0.00
10,800.00	90.00	180.00	10,263.00	-813.49	329.94	813.49	0.00	0.00	0.00
10,900.00	90.00	180.00	10,263.00	-913.49	329.93	913.49	0.00	0.00	0.00
11,000.00	90.00	180.00	10,263.00	-1,013.49	329.92	1,013.49	0.00	0.00	0.00
11,100.00	90.00	180.00	10,263.00	-1,113.49	329.92	1,113.49	0.00	0.00	0.00
11,200.00	90.00	180.00	10,263.00	-1,213.49	329.91	1,213.49	0.00	0.00	0.00
11,300.00	90.00	180.00	10,263.00	-1,313.49	329.90	1,313.49	0.00	0.00	0.00
11,400.00	90.00	180.00	10,263.00	-1,413.49	329.89	1,413.49	0.00	0.00	0.00
11,500.00	90.00	180.00	10,263.00	-1,513.49	329.89	1,513.49	0.00	0.00	0.00
11,600.00	90.00	180.00	10,263.00	-1,613.49	329.88	1,613.49	0.00	0.00	0.00
11,700.00	90.00	180.00	10,263.00	-1,713.49	329.87	1,713.49	0.00	0.00	0.00
11,800.00	90.00	180.00	10,263.00	-1,813.49	329.86	1,813.49	0.00	0.00	0.00
11,900.00	90.00	180.00	10,263.00	-1,913.49	329.85	1,913.49	0.00	0.00	0.00
12,000.00	90.00	180.00	10,263.00	-2,013.49	329.85	2,013.49	0.00	0.00	0.00
12,100.00	90.00	180.00	10,263.00	-2,113.49	329.84	2,113.49	0.00	0.00	0.00
12,200.00	90.00	180.00	10,263.00	-2,213.49	329.83	2,213.49	0.00	0.00	0.00
12,300.00	90.00	180.00	10,263.00	-2,313.49	329.82	2,313.49	0.00	0.00	0.00
12,400.00	90.00	180.00	10,263.00	-2,413.49	329.82	2,413.49	0.00	0.00	0.00

Database:	WellPlanner1	Local Co-ordinate Reference:	Well Van Doo Dah 28-33 Fed Com 237H
Company:	Devon Energy Corp.	TVD Reference:	RKB @ 3408.00usft
Project:	Lea County, NM (NAD83)	MD Reference:	RKB @ 3408.00usft
Site:	Van Doo Dah/Marwari	North Reference:	Grid
Well:	Van Doo Dah 28-33 Fed Com 237H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,418.00	90.00	180.00	10,263.00	-2,431.49	329.81	2,431.49	0.00	0.00	0.00	
12418' MD, 10263' TVD, 2635' FNL, 616' FEL - Lat/Long: 32.1014406, -103.6734667										
12,500.00	90.00	180.00	10,263.00	-2,513.49	329.81	2,513.49	0.00	0.00	0.00	
12,600.00	90.00	180.00	10,263.00	-2,613.49	329.80	2,613.49	0.00	0.00	0.00	
12,700.00	90.00	180.00	10,263.00	-2,713.49	329.79	2,713.49	0.00	0.00	0.00	
12,800.00	90.00	180.00	10,263.00	-2,813.49	329.78	2,813.49	0.00	0.00	0.00	
12,900.00	90.00	180.00	10,263.00	-2,913.49	329.78	2,913.49	0.00	0.00	0.00	
13,000.00	90.00	180.00	10,263.00	-3,013.49	329.77	3,013.49	0.00	0.00	0.00	
13,100.00	90.00	180.00	10,263.00	-3,113.49	329.76	3,113.49	0.00	0.00	0.00	
13,200.00	90.00	180.00	10,263.00	-3,213.49	329.75	3,213.49	0.00	0.00	0.00	
13,300.00	90.00	180.00	10,263.00	-3,313.49	329.74	3,313.49	0.00	0.00	0.00	
13,400.00	90.00	180.00	10,263.00	-3,413.49	329.74	3,413.49	0.00	0.00	0.00	
13,500.00	90.00	180.00	10,263.00	-3,513.49	329.73	3,513.49	0.00	0.00	0.00	
13,600.00	90.00	180.00	10,263.00	-3,613.49	329.72	3,613.49	0.00	0.00	0.00	
13,700.00	90.00	180.00	10,263.00	-3,713.49	329.71	3,713.49	0.00	0.00	0.00	
13,800.00	90.00	180.00	10,263.00	-3,813.49	329.71	3,813.49	0.00	0.00	0.00	
13,900.00	90.00	180.00	10,263.00	-3,913.49	329.70	3,913.49	0.00	0.00	0.00	
14,000.00	90.00	180.00	10,263.00	-4,013.49	329.69	4,013.49	0.00	0.00	0.00	
14,100.00	90.00	180.00	10,263.00	-4,113.49	329.68	4,113.49	0.00	0.00	0.00	
14,200.00	90.00	180.00	10,263.00	-4,213.49	329.67	4,213.49	0.00	0.00	0.00	
14,300.00	90.00	180.00	10,263.00	-4,313.49	329.67	4,313.49	0.00	0.00	0.00	
14,400.00	90.00	180.00	10,263.00	-4,413.49	329.66	4,413.49	0.00	0.00	0.00	
14,500.00	90.00	180.00	10,263.00	-4,513.49	329.65	4,513.49	0.00	0.00	0.00	
14,600.00	90.00	180.00	10,263.00	-4,613.49	329.64	4,613.49	0.00	0.00	0.00	
14,700.00	90.00	180.00	10,263.00	-4,713.49	329.64	4,713.49	0.00	0.00	0.00	
14,800.00	90.00	180.00	10,263.00	-4,813.49	329.63	4,813.49	0.00	0.00	0.00	
14,900.00	90.00	180.00	10,263.00	-4,913.49	329.62	4,913.49	0.00	0.00	0.00	
15,000.00	90.00	180.00	10,263.00	-5,013.49	329.61	5,013.49	0.00	0.00	0.00	
15,059.00	90.00	180.00	10,263.00	-5,072.49	329.61	5,072.49	0.00	0.00	0.00	
15059' MD, 10263' TVD, 638' FEL - Lat/Long: 32.0941811, -103.6735195										
15,100.00	90.00	180.00	10,263.00	-5,113.49	329.60	5,113.49	0.00	0.00	0.00	
15,200.00	90.00	180.00	10,263.00	-5,213.49	329.60	5,213.49	0.00	0.00	0.00	
15,300.00	90.00	180.00	10,263.00	-5,313.49	329.59	5,313.49	0.00	0.00	0.00	
15,400.00	90.00	180.00	10,263.00	-5,413.49	329.58	5,413.49	0.00	0.00	0.00	
15,500.00	90.00	180.00	10,263.00	-5,513.49	329.57	5,513.49	0.00	0.00	0.00	
15,600.00	90.00	180.00	10,263.00	-5,613.49	329.57	5,613.49	0.00	0.00	0.00	
15,700.00	90.00	180.00	10,263.00	-5,713.49	329.56	5,713.49	0.00	0.00	0.00	
15,800.00	90.00	180.00	10,263.00	-5,813.49	329.55	5,813.49	0.00	0.00	0.00	
15,900.00	90.00	180.00	10,263.00	-5,913.49	329.54	5,913.49	0.00	0.00	0.00	
16,000.00	90.00	180.00	10,263.00	-6,013.49	329.53	6,013.49	0.00	0.00	0.00	
16,100.00	90.00	180.00	10,263.00	-6,113.49	329.53	6,113.49	0.00	0.00	0.00	
16,200.00	90.00	180.00	10,263.00	-6,213.49	329.52	6,213.49	0.00	0.00	0.00	
16,300.00	90.00	180.00	10,263.00	-6,313.49	329.51	6,313.49	0.00	0.00	0.00	
16,400.00	90.00	180.00	10,263.00	-6,413.49	329.50	6,413.49	0.00	0.00	0.00	
16,500.00	90.00	180.00	10,263.00	-6,513.49	329.49	6,513.49	0.00	0.00	0.00	
16,600.00	90.00	180.00	10,263.00	-6,613.49	329.49	6,613.49	0.00	0.00	0.00	
16,700.00	90.00	180.00	10,263.00	-6,713.49	329.48	6,713.49	0.00	0.00	0.00	
16,800.00	90.00	180.00	10,263.00	-6,813.49	329.47	6,813.49	0.00	0.00	0.00	
16,900.00	90.00	180.00	10,263.00	-6,913.49	329.46	6,913.49	0.00	0.00	0.00	
17,000.00	90.00	180.00	10,263.00	-7,013.49	329.46	7,013.49	0.00	0.00	0.00	
17,100.00	90.00	180.00	10,263.00	-7,113.49	329.45	7,113.49	0.00	0.00	0.00	
17,200.00	90.00	180.00	10,263.00	-7,213.49	329.44	7,213.49	0.00	0.00	0.00	
17,300.00	90.00	180.00	10,263.00	-7,313.49	329.43	7,313.49	0.00	0.00	0.00	
17,400.00	90.00	180.00	10,263.00	-7,413.49	329.42	7,413.49	0.00	0.00	0.00	

Database:	WellPlanner1	Local Co-ordinate Reference:	Well Van Doo Dah 28-33 Fed Com 237H
Company:	Devon Energy Corp.	TVD Reference:	RKB @ 3408.00usft
Project:	Lea County, NM (NAD83)	MD Reference:	RKB @ 3408.00usft
Site:	Van Doo Dah/Marwari	North Reference:	Grid
Well:	Van Doo Dah 28-33 Fed Com 237H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
17,500.00	90.00	180.00	10,263.00	-7,513.49	329.42	7,513.49	0.00	0.00	0.00	
17,600.00	90.00	180.00	10,263.00	-7,613.49	329.41	7,613.49	0.00	0.00	0.00	
17,700.00	90.00	180.00	10,263.00	-7,713.49	329.40	7,713.49	0.00	0.00	0.00	
17,800.00	90.00	180.00	10,263.00	-7,813.49	329.39	7,813.49	0.00	0.00	0.00	
17,900.00	90.00	180.00	10,263.00	-7,913.49	329.39	7,913.49	0.00	0.00	0.00	
18,000.00	90.00	180.00	10,263.00	-8,013.49	329.38	8,013.49	0.00	0.00	0.00	
18,100.00	90.00	180.00	10,263.00	-8,113.49	329.37	8,113.49	0.00	0.00	0.00	
18,200.00	90.00	180.00	10,263.00	-8,213.49	329.36	8,213.49	0.00	0.00	0.00	
18,300.00	90.00	180.00	10,263.00	-8,313.49	329.35	8,313.49	0.00	0.00	0.00	
18,400.00	90.00	180.00	10,263.00	-8,413.49	329.35	8,413.49	0.00	0.00	0.00	
18,500.00	90.00	180.00	10,263.00	-8,513.49	329.34	8,513.49	0.00	0.00	0.00	
18,600.00	90.00	180.00	10,263.00	-8,613.49	329.33	8,613.49	0.00	0.00	0.00	
18,700.00	90.00	180.00	10,263.00	-8,713.49	329.32	8,713.49	0.00	0.00	0.00	
18,800.00	90.00	180.00	10,263.00	-8,813.49	329.31	8,813.49	0.00	0.00	0.00	
18,900.00	90.00	180.00	10,263.00	-8,913.49	329.31	8,913.49	0.00	0.00	0.00	
19,000.00	90.00	180.00	10,263.00	-9,013.49	329.30	9,013.49	0.00	0.00	0.00	
19,100.00	90.00	180.00	10,263.00	-9,113.49	329.29	9,113.49	0.00	0.00	0.00	
19,200.00	90.00	180.00	10,263.00	-9,213.49	329.28	9,213.49	0.00	0.00	0.00	
19,300.00	90.00	180.00	10,263.00	-9,313.49	329.28	9,313.49	0.00	0.00	0.00	
19,400.00	90.00	180.00	10,263.00	-9,413.49	329.27	9,413.49	0.00	0.00	0.00	
19,500.00	90.00	180.00	10,263.00	-9,513.49	329.26	9,513.49	0.00	0.00	0.00	
19,600.00	90.00	180.00	10,263.00	-9,613.49	329.25	9,613.49	0.00	0.00	0.00	
19,700.00	90.00	180.00	10,263.00	-9,713.49	329.24	9,713.49	0.00	0.00	0.00	
19,800.00	90.00	180.00	10,263.00	-9,813.49	329.24	9,813.49	0.00	0.00	0.00	
19,900.00	90.00	180.00	10,263.00	-9,913.49	329.23	9,913.49	0.00	0.00	0.00	
20,000.00	90.00	180.00	10,263.00	-10,013.49	329.22	10,013.49	0.00	0.00	0.00	
20,012.43	90.00	180.00	10,263.00	-10,025.92	329.22	10,025.92	0.00	0.00	0.00	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
763.00	763.00	Rustler		0.00		
1,143.00	1,143.00	Salado		0.00		
4,397.39	4,378.00	Base of Salt		0.00		
4,617.43	4,598.00	Delaware		0.00		
8,397.43	8,378.00	L Brushy Canyon		0.00		
8,607.43	8,588.00	Bone Spring		0.00		
8,747.43	8,728.00	Leonard 'A'		0.00		
9,092.43	9,073.00	Leonard 'B'		0.00		
9,337.43	9,318.00	Leonard 'C'		0.00		
9,607.43	9,588.00	1st BSPG Sand		0.00		
10,058.65	10,018.00	2nd BSPG Lime		0.00		
10,609.47	10,263.00	2nd BSPG Sand		0.00		



Database:	WellPlanner1	Local Co-ordinate Reference:	Well Van Doo Dah 28-33 Fed Com 237H
Company:	Devon Energy Corp.	TVD Reference:	RKB @ 3408.00usft
Project:	Lea County, NM (NAD83)	MD Reference:	RKB @ 3408.00usft
Site:	Van Doo Dah/Marwari	North Reference:	Grid
Well:	Van Doo Dah 28-33 Fed Com 237H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim A		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,418.00	10,263.00	-2,431.49	329.81	12418' MD, 10263' TVD, 2635' FNL, 616' FEL
12,418.00	10,263.00	-2,431.49	329.81	Lat/Long: 32.1014406, -103.6734667
15,059.00	10,263.00	-5,072.49	329.61	15059' MD, 10263' TVD, 638' FEL
15,059.00	10,263.00	-5,072.49	329.61	Lat/Long: 32.0941811, -103.6735195