

477# 30-007-20536

EL PASO PRODUCTION

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Deviation Summary

Legal Well Name: VPR D 167 H
 Common Well Name: VPR D 167 H
 Event Name: CBM DRILLING
 Contractor Name: EXCELL DRILLING COMPANY
 Rig Name: TMD: 3,641.00 (ft) TVD: 1,521.61 (ft)

Spud Date: 5/6/2004
 Start: 5/5/2004
 End:
 Rig Release:
 Rig Number: 14
 Calculation Method: Minimum Curvature

S/T #	TMD (ft)	Angle (°)	Azimuth (°)	CTM	TVD (ft)	N/S (ft)	E/W (ft)	Section (ft)	DLS (°/100ft)	S/T #	V.S. AZI (°)
										OH	311.610
OH	0.00	0.000	0.000	NYN	0.00	0.00	0.00	0.00	0.00		
OH	185.00	0.200	57.600	YNN	185.00	0.17	0.27	-0.09	0.11	0.11	
OH	215.00	0.400	19.900	YNN	215.00	0.30	0.35	-0.06	0.90	0.67	
OH	245.00	0.900	349.400	YNN	245.00	0.63	0.34	0.16	1.97	1.67	
OH	275.00	1.600	338.700	YNN	274.99	1.25	0.15	0.72	2.45	2.33	
OH	302.00	2.300	335.900	YNN	301.97	2.10	-0.21	1.55	2.62	2.59	
OH	365.00	5.400	322.000	YNN	364.83	5.59	-2.55	5.62	5.10	4.92	
OH	397.00	8.400	321.400	YNN	396.59	8.60	-4.94	9.40	9.38	9.38	
OH	427.00	11.500	316.900	YNN	426.14	12.50	-8.35	14.54	10.65	10.33	
OH	458.00	14.900	312.200	YNN	456.31	17.43	-13.41	21.61	11.49	10.97	
OH	488.00	18.200	308.900	YNN	485.07	22.97	-19.92	30.15	11.43	11.00	
OH	519.00	21.500	304.400	YNN	514.22	29.22	-28.38	40.62	11.72	10.65	
OH	549.00	24.400	299.600	YNN	541.85	35.39	-38.30	52.14	11.50	9.67	
OH	580.00	27.900	300.500	YNN	569.67	42.23	-50.12	65.52	10.76	10.00	
OH	611.00	31.000	303.000	YNN	596.66	50.27	-63.07	80.54	10.76	10.00	
OH	642.00	33.600	303.400	YNN	622.86	59.34	-76.93	96.92	8.42	8.39	
OH	672.00	36.500	303.700	YNN	647.42	68.86	-91.29	113.98	9.68	9.67	
OH	703.00	39.900	303.500	YNN	671.78	79.47	-107.25	132.96	10.97	10.97	
OH	733.00	43.200	302.900	YNN	694.23	90.36	-123.90	152.64	11.08	11.00	
OH	764.00	46.300	301.700	YNN	716.24	102.01	-142.35	174.17	10.36	10.00	
OH	795.00	49.000	301.100	YNN	737.12	113.94	-161.90	196.72	8.83	8.71	
OH	825.00	51.500	300.100	YNN	756.30	125.68	-181.76	219.36	8.72	8.33	
OH	856.00	54.100	299.600	YNN	775.04	137.97	-203.17	243.53	8.48	8.39	
OH	886.00	56.400	299.900	YNN	792.14	150.20	-224.57	267.65	7.71	7.67	
OH	917.00	58.400	300.400	YNN	808.84	163.32	-247.15	293.24	6.59	6.45	
OH	948.00	60.300	300.300	YNN	824.65	176.79	-270.17	319.40	6.14	6.13	
OH	978.00	62.900	300.300	YNN	838.91	190.11	-292.95	345.27	8.67	8.67	
OH	1,007.00	64.600	300.400	YNN	851.74	203.25	-315.39	370.78	5.87	5.86	

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 TVD: 1,521.61 (ft)

Spud Date: 5/6/2004
 Start: 5/5/2004
 End:
 Rig Release:
 Rig Number: 14
 Calculation Method: Minimum Curvature

S/T #	TMD (ft)	Angle (°)	Azimuth (°)	CTM	TVD (ft)	N/S (ft)	E/W (ft)	Section (ft)	DLS (°/100ft)	BUR (°/100ft)	Type
OH	1,037.00	65.500	300.700	YNN	864.40	217.07	-338.82	397.48	3.13	3.00	
OH	1,067.00	66.400	300.900	YNN	876.62	231.10	-362.35	424.39	3.06	3.00	
OH	1,097.00	67.900	300.800	YNN	888.27	245.28	-386.08	451.54	5.01	5.00	
OH	1,127.00	70.500	301.400	YNN	898.92	259.76	-410.09	479.12	8.87	8.67	
OH	1,157.00	71.200	302.000	YNN	908.76	274.65	-434.20	507.03	3.00	2.33	
OH	1,202.00	69.900	300.500	YNN	923.75	296.67	-470.48	548.77	4.27	-2.89	
OH	1,233.00	68.700	300.000	YNN	934.71	311.28	-495.53	577.20	4.15	-3.87	
OH	1,263.00	67.800	299.300	YNN	945.82	325.06	-519.74	604.46	3.70	-3.00	
OH	1,294.00	67.600	299.400	YNN	957.59	339.12	-544.74	632.49	0.71	-0.65	
OH	1,324.00	67.200	299.200	YNN	969.12	352.67	-568.89	659.55	1.47	-1.33	
OH	1,355.00	65.600	299.700	YNN	981.53	366.64	-593.63	687.32	5.37	-5.16	
OH	1,386.00	64.900	299.700	YNN	994.50	380.59	-618.08	714.86	2.26	-2.26	
OH	1,416.00	64.800	299.800	YNN	1,007.25	394.06	-641.66	741.44	0.45	-0.33	
OH	1,447.00	64.700	299.900	YNN	1,020.48	408.02	-665.98	768.89	0.43	-0.32	
OH	1,477.00	65.100	299.800	YNN	1,033.20	421.54	-689.54	795.48	1.37	1.33	
OH	1,508.00	65.200	299.600	YNN	1,046.23	435.48	-713.98	823.01	0.67	0.32	
OH	1,538.00	65.500	299.500	YNN	1,058.74	448.92	-737.70	849.67	1.04	1.00	
OH	1,568.00	66.200	300.000	YNN	1,071.02	462.51	-761.46	876.46	2.79	2.33	
OH	1,597.00	66.300	300.100	YNN	1,082.70	475.80	-784.44	902.47	0.47	0.34	
OH	1,628.00	66.200	300.000	YNN	1,095.18	490.01	-809.00	930.27	0.44	-0.32	
OH	1,658.00	66.300	299.600	YNN	1,107.26	503.66	-832.83	957.15	1.27	0.33	
OH	1,690.00	65.800	300.000	YNN	1,120.25	518.19	-858.20	985.77	1.94	-1.56	
OH	1,721.00	65.700	300.300	YNN	1,132.99	532.39	-882.65	1,013.47	0.94	-0.32	
OH	1,752.00	65.900	300.700	YNN	1,145.69	546.74	-907.01	1,041.22	1.34	0.65	
OH	1,784.00	65.600	301.200	YNN	1,158.84	561.74	-932.03	1,069.89	1.71	-0.94	
OH	1,815.00	65.600	301.700	YNN	1,171.64	576.47	-956.11	1,097.68	1.47	0.00	
OH	1,845.00	66.700	302.200	YNN	1,183.77	590.99	-979.40	1,124.73	3.97	3.67	
OH	1,877.00	66.500	302.100	YNN	1,196.48	606.62	-1,004.26	1,153.70	0.69	-0.63	

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 Rig Name:
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Spud Date: 5/6/2004
 Start: 5/5/2004
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 Rig Release:
 Rig Number: 14
 Calculation Method: Minimum Curvature

S/T #	TMD (ft)	Angle (°)	Azimuth (°)	CTM	TVD (ft)	N/S (ft)	E/W (ft)	Section (ft)	DLS (°/100ft)	BUR (°/100ft)	Type
OH	1,908.00	66.200	302.100	YNN	1,208.92	621.71	-1,028.32	1,181.70	0.97	-0.97	
OH	1,938.00	66.100	303.200	YNN	1,221.05	636.51	-1,051.42	1,208.81	3.37	-0.33	
OH	1,968.00	65.600	306.200	YNN	1,233.32	652.09	-1,073.92	1,235.98	9.28	-1.67	
OH	1,999.00	65.900	307.300	YNN	1,246.06	669.00	-1,096.57	1,264.14	3.38	0.97	
OH	2,030.00	66.700	307.600	YNN	1,258.52	686.26	-1,119.10	1,292.45	2.73	2.58	
OH	2,060.00	66.100	308.200	YNN	1,270.53	703.15	-1,140.79	1,319.88	2.71	-2.00	
OH	2,090.00	65.600	308.200	YNN	1,282.80	720.08	-1,162.31	1,347.21	1.67	-1.67	
OH	2,121.00	65.500	309.100	YNN	1,295.63	737.70	-1,184.34	1,375.39	2.66	-0.32	
OH	2,152.00	65.800	310.600	YNN	1,308.42	755.80	-1,206.03	1,403.62	4.51	0.97	
OH	2,182.00	65.400	311.500	YNN	1,320.81	773.74	-1,226.63	1,430.94	3.04	-1.33	
OH	2,213.00	64.800	312.400	YNN	1,333.86	792.54	-1,247.54	1,459.05	3.27	-1.94	
OH	2,244.00	66.000	313.500	YNN	1,346.77	811.74	-1,268.17	1,487.23	5.04	3.87	
OH	2,276.00	66.600	314.500	YNN	1,359.63	832.10	-1,289.25	1,516.51	3.42	1.88	
OH	2,307.00	67.800	315.600	YNN	1,371.64	852.32	-1,309.44	1,545.03	5.07	3.87	
OH	2,348.00	67.900	316.700	YNN	1,387.10	879.71	-1,335.74	1,582.89	2.50	0.24	
OH	2,369.00	68.000	316.200	YNN	1,394.98	893.81	-1,349.15	1,602.28	2.26	0.48	
OH	2,401.00	67.900	317.400	YNN	1,407.00	915.43	-1,369.46	1,631.82	3.49	-0.31	
OH	2,431.00	67.200	318.300	YNN	1,418.45	935.99	-1,388.06	1,659.38	3.62	-2.33	
OH	2,463.00	65.400	318.200	YNN	1,431.32	957.85	-1,407.57	1,688.48	5.63	-5.63	
OH	2,495.00	64.900	318.800	YNN	1,444.76	979.60	-1,426.81	1,717.31	2.31	-1.56	
OH	2,525.00	66.000	314.000	YNN	1,457.23	999.35	-1,445.63	1,744.49	15.01	3.67	
OH	2,557.00	67.600	317.000	YNN	1,469.84	1,020.32	-1,466.24	1,773.83	9.96	5.00	
OH	2,589.00	69.600	317.900	YNN	1,481.52	1,042.27	-1,486.38	1,803.47	6.78	6.25	
OH	2,651.00	74.300	317.500	YNN	1,500.72	1,085.86	-1,526.05	1,862.07	7.61	7.58	
OH	2,682.00	77.400	316.100	YNN	1,508.30	1,107.76	-1,546.62	1,892.00	10.92	10.00	
OH	2,714.00	81.200	315.000	YNN	1,514.24	1,130.21	-1,568.64	1,923.36	12.35	11.88	
OH	2,746.00	83.950	314.200	YNN	1,518.38	1,152.48	-1,591.23	1,955.05	8.94	8.59	
OH	2,776.00	84.700	314.000	YNN	1,521.34	1,173.26	-1,612.67	1,984.87	2.59	2.50	

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Spud Date: 5/6/2004
 Start: 5/5/2004
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 Rig Release:
 Rig Number: 14
 Calculation Method: Minimum Curvature

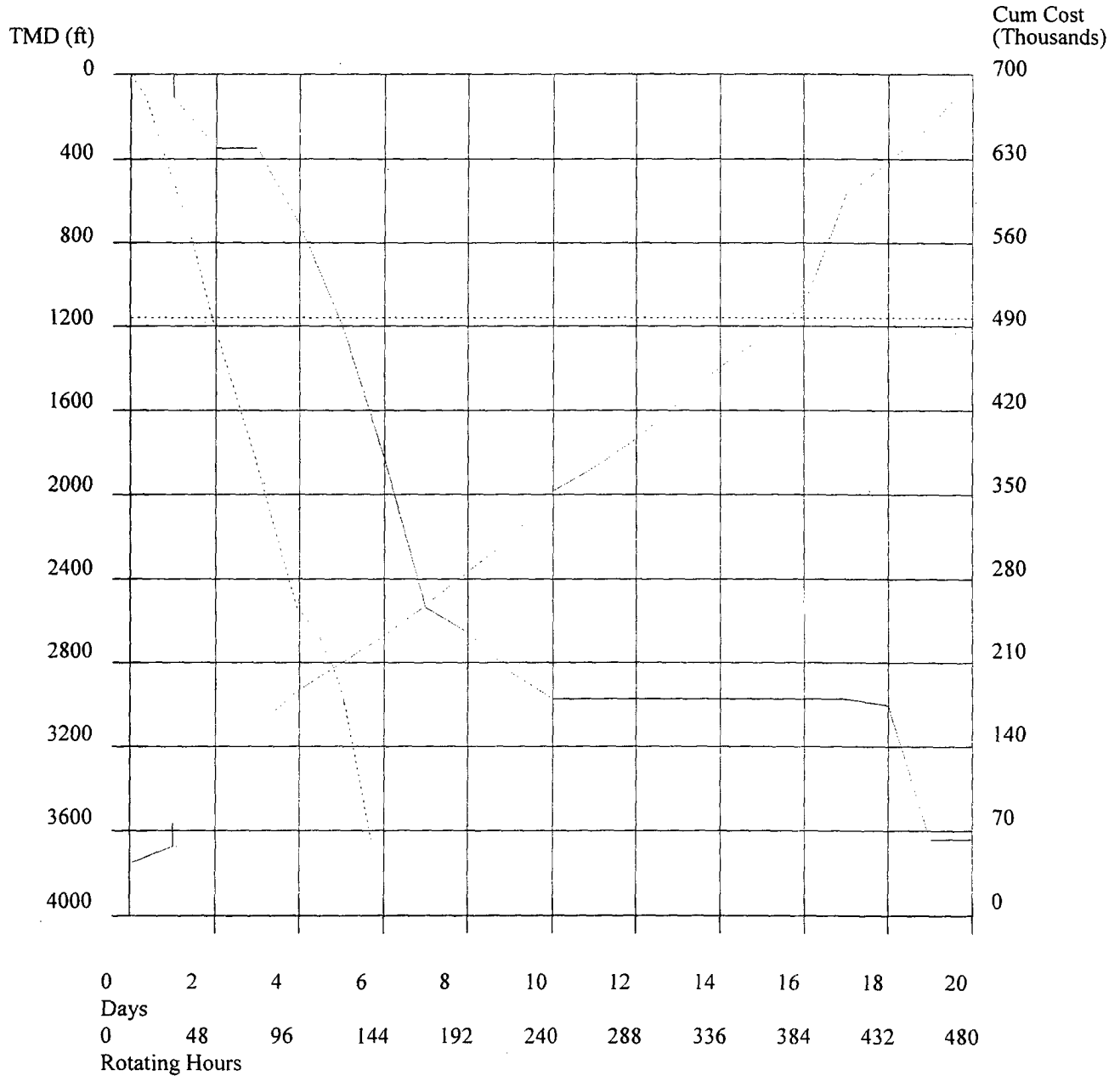
S/T #	TMD (ft)	Angle (°)	Azimuth (°)	CTM	TVD (ft)	N-S (ft)	E/W (ft)	Section (ft)	DLS (°/100ft)	BUR (°/100ft)	Type
OH	2,808.00	84.300	314.000	YNN	1,524.41	1,195.38	-1,635.58	2,016.70	1.25	-1.25	
OH	2,839.00	84.400	313.000	YNN	1,527.46	1,216.62	-1,657.96	2,047.53	3.23	0.32	
OH	2,871.00	84.900	314.400	YNN	1,530.45	1,238.63	-1,680.99	2,079.37	4.63	1.56	
OH	2,902.00	85.300	314.700	YNN	1,533.09	1,260.30	-1,703.00	2,110.21	1.61	1.29	
OH	2,934.00	86.800	314.900	YNN	1,535.30	1,282.79	-1,725.65	2,142.09	4.73	4.69	
OH	3,020.00	88.900	315.500	YNN	1,538.52	1,343.77	-1,786.21	2,227.85	2.54	2.44	
OH	3,052.00	89.200	315.300	YNN	1,539.05	1,366.55	-1,808.67	2,259.78	1.13	0.94	
OH	3,083.00	89.500	314.600	YNN	1,539.41	1,388.45	-1,830.61	2,290.72	2.46	0.97	
OH	3,113.00	89.400	314.900	YNN	1,539.69	1,409.57	-1,851.91	2,320.68	1.05	-0.33	
OH	3,142.00	88.300	314.900	YNN	1,540.28	1,430.04	-1,872.45	2,349.62	3.79	-3.79	
OH	3,172.00	88.100	314.800	YNN	1,541.22	1,451.18	-1,893.71	2,379.56	0.75	-0.67	
OH	3,202.00	89.700	315.000	YNN	1,541.79	1,472.36	-1,914.95	2,409.50	5.37	5.33	
OH	3,231.00	91.100	315.300	YNN	1,541.59	1,492.91	-1,935.41	2,438.45	4.94	4.83	
OH	3,261.00	91.600	315.100	YNN	1,540.89	1,514.19	-1,956.54	2,468.38	1.79	1.67	
OH	3,291.00	91.600	315.000	YNN	1,540.05	1,535.42	-1,977.73	2,498.31	0.33	0.00	
OH	3,321.00	92.100	314.600	YNN	1,539.08	1,556.55	-1,999.00	2,528.25	2.13	1.67	
OH	3,352.00	92.100	314.400	YNN	1,537.94	1,578.26	-2,021.10	2,559.19	0.64	0.00	
OH	3,382.00	92.400	314.400	YNN	1,536.77	1,599.23	-2,042.51	2,589.13	1.00	1.00	
OH	3,413.00	92.000	314.400	YNN	1,535.58	1,620.91	-2,064.65	2,620.07	1.29	-1.29	
OH	3,445.00	92.500	314.100	YNN	1,534.32	1,643.22	-2,087.55	2,652.02	1.82	1.56	
OH	3,476.00	92.700	314.300	YNN	1,532.91	1,664.81	-2,109.75	2,682.95	0.91	0.65	
OH	3,508.00	93.400	314.300	YNN	1,531.21	1,687.13	-2,132.62	2,714.87	2.19	2.19	
OH	3,540.00	93.400	314.600	YNN	1,529.31	1,709.50	-2,155.43	2,746.78	0.94	0.00	
OH	3,571.00	94.200	314.300	YNN	1,527.26	1,731.16	-2,177.51	2,777.67	2.76	2.58	
OH	3,603.00	94.400	314.400	YNN	1,524.86	1,753.46	-2,200.32	2,809.54	0.70	0.63	
OH	3,641.00	95.400	314.400	YNN	1,521.61	1,779.95	-2,227.37	2,847.36	2.63	2.63	

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Drilling Graph

Legal Well Name: VPR D 167
 Common Well Name: VPR D 167
 Event Name: CBM DRILLING
 Contractor Name: EXCELL DRILLING COMPANY
 Rig Name:
 Start: 5/5/2004
 Spud Date: 5/6/2004
 Rig Release:
 Rig Number: 14



- Actual TMD
 - Planned Cost
 - Estimated Cost
 - Cum. Cost
 - Planned TMD
 - Rotating Hours