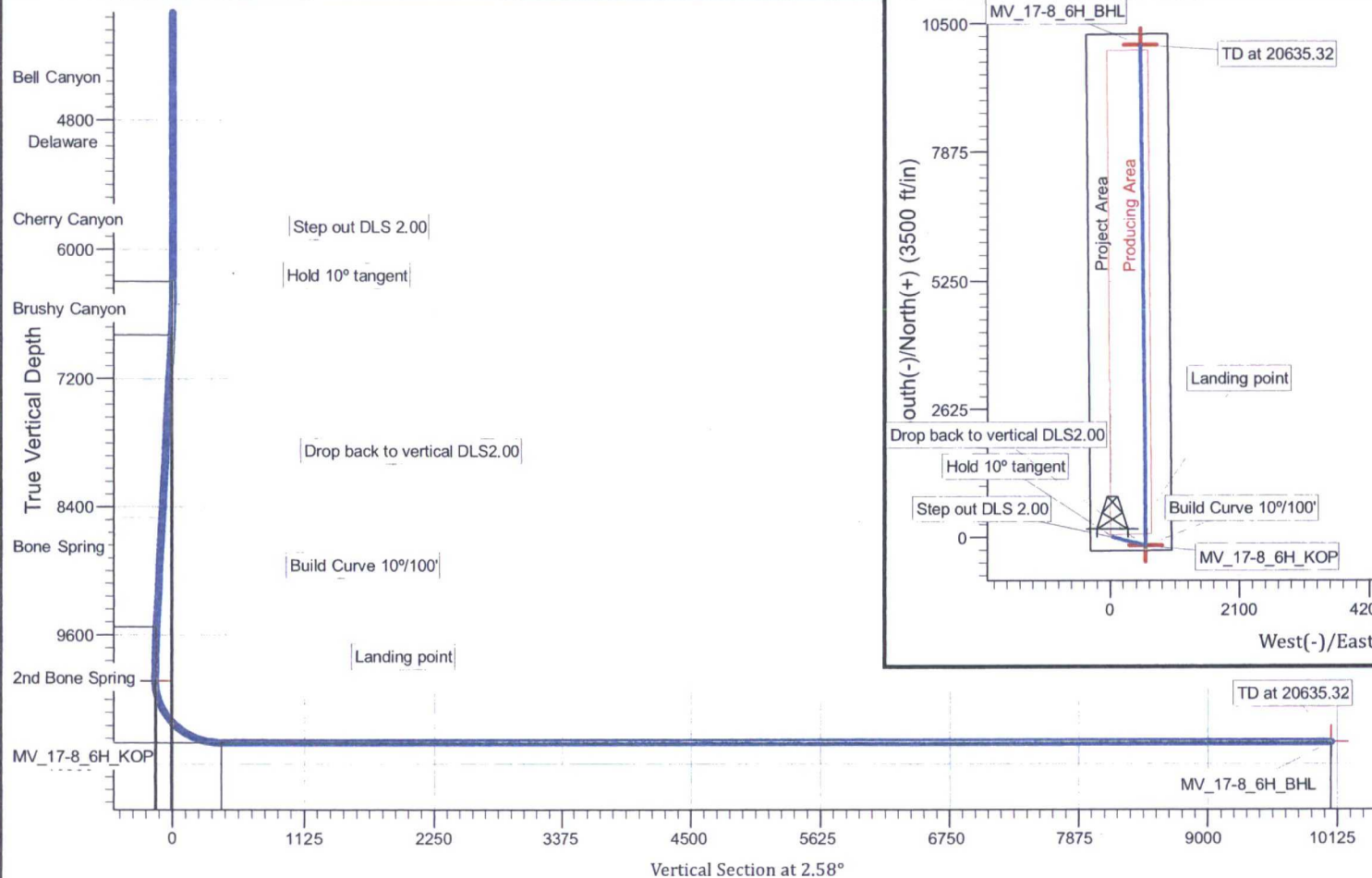
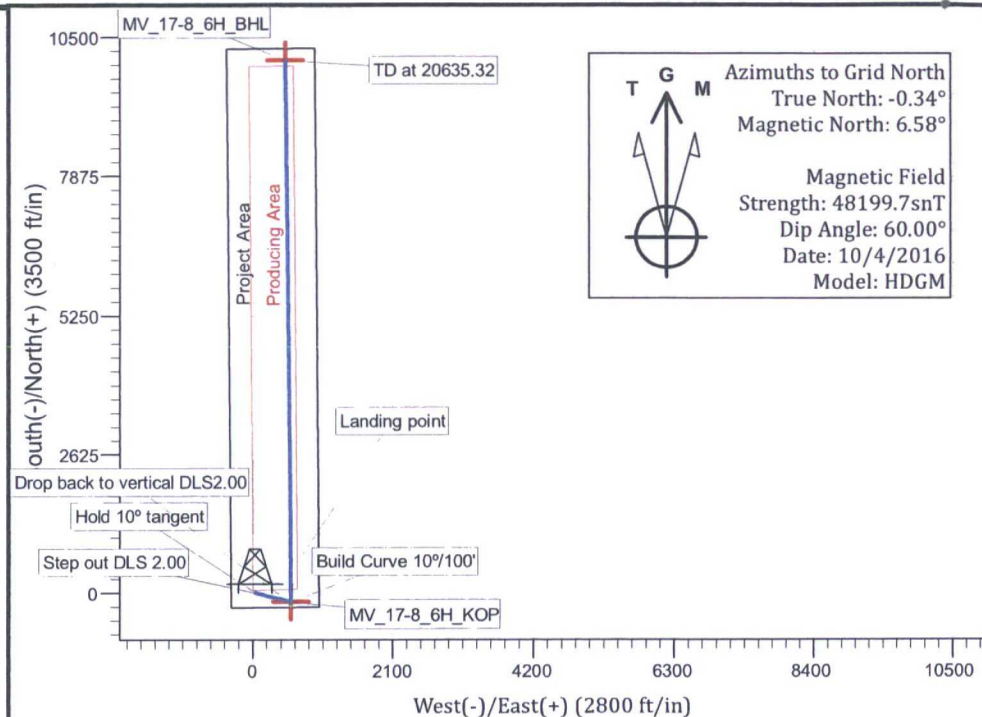




Project: NM DIRECTIONAL PLANS (NAD 1983)
Site: Mesa Verde 17-8 Fed Com
Well: Mesa Verde 17-8 Fed Com 6H
Wellbore: WB00
Design: Permitting Plan

WELL DETAILS: Mesa Verde 17-8 Fed Com 6H

Ground Level: 3560.50
+N/-S +E/-W Northing Easting Latitude Longitude
0.35 30.00 441093.67 739902.60 32° 12' 39.647221 N 103° 41' 28.705904 W



PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
6299.00	6299.00	0.00	0.00	0.35	30.00	0.00	0.00	Step out DLS 2.00
6796.70	6799.22	9.98	107.78	-12.90	71.32	-11.38	43.40	Hold 10° tangent
9529.39	9574.05	10.00	107.78	-159.99	530.02	-137.70	525.10	Drop back to vertical DLS2.00
10027.03	10074.27	0.06	107.78	-173.45	571.99	-149.26	569.14	Build Curve 10°/100'
10602.95	10974.27	89.70	359.50	396.52	567.02	419.91	1139.16	Landing point
10602.96	20635.32	90.00	359.50	10057.20	482.76	10067.04	10800.22	TD at 20635.32

Oxy Planning Report

Database: HOPSPP
Company: OXY
Project: NM DIRECTIONAL PLANS (NAD 1983)
Site: Mesa Verde 17-8 Fed Com
Well: Mesa Verde 17-8 Fed Com 6H
Wellbore: WB00
Design: Permitting Plan

Local Co-ordinate Reference: Site Mesa Verde 17-8 Fed Com
TVD Reference: WELL @ 3587 00ft (Original Well Elev)
MD Reference: WELL @ 3587 00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	NM DIRECTIONAL PLANS (NAD 1983)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Mesa Verde 17-8 Fed Com		
Site Position:		Northing:	441,093.32 usft
From:	Map	Easting:	739,872.60 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	32° 12' 39.645531 N
		Longitude:	103° 41' 29.055109 W
		Grid Convergence:	0.34 °

Well	Mesa Verde 17-8 Fed Com 6H		
Well Position	+N/-S	0.35 ft	Northing: 441,093.67 usft
	+E/-W	30.00 ft	Easting: 739,902.60 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	3,560.50 ft
		Latitude:	32° 12' 39.647221 N
		Longitude:	103° 41' 28.705904 W
		Ground Level:	3,560.50 ft

Wellbore	WB00		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	10/4/2016	6.92
			Dip Angle (°) 60.00
			Field Strength (nT) 48,200

Design	Permitting Plan		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)
	0.00	0.35	30.00
			Direction (°) 2.58

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.35	30.00	0.00	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,300.00	0.35	30.00	0.00	0.00	0.00	0.00	
6,799.86	10.00	107.78	6,797.33	-12.93	71.42	2.00	2.00	0.00	107.78	
9,577.38	10.00	107.78	9,532.67	-160.17	530.57	0.00	0.00	0.00	0.00	
10,077.24	0.00	359.50	10,030.00	-173.45	571.99	2.00	-2.00	0.00	180.00	MV_17-8_6H_KOP
10,977.24	90.00	359.50	10,602.96	399.49	566.99	10.00	10.00	0.00	-0.50	
20,638.29	90.00	359.50	10,603.00	10,060.17	482.73	0.00	0.00	0.00	0.00	MV_17-8_6H_BHL

Oxy Planning Report

Database: HOPSPP
Company: OXY
Project: NM DIRECTIONAL PLANS (NAD 1983)
Site: Mesa Verde 17-8 Fed Com
Well: Mesa Verde 17-8 Fed Com 6H
Wellbore: WB00
Design: Permitting Plan

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Site Mesa Verde 17-8 Fed Com
WELL @ 3587.00ft (Original Well Elev)
WELL @ 3587.00ft (Original Well Elev)
Grid
Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.35	30.00	0.00	0.00	0.00	0.00
942.95	0.00	0.00	942.95	0.35	30.00	0.00	0.00	0.00	0.00
Rustler									
1,028.39	0.00	0.00	1,028.39	0.35	30.00	0.00	0.00	0.00	0.00
Salado									
3,336.49	0.00	0.00	3,336.49	0.35	30.00	0.00	0.00	0.00	0.00
Castile									
4,636.77	0.00	0.00	4,636.77	0.35	30.00	0.00	0.00	0.00	0.00
Bell Canyon									
4,651.77	0.00	0.00	4,651.77	0.35	30.00	0.00	0.00	0.00	0.00
Delaware									
5,518.02	0.00	0.00	5,518.02	0.35	30.00	0.00	0.00	0.00	0.00
Cherry Canyon									
6,299.00	0.00	0.00	6,299.00	0.35	30.00	0.00	0.00	0.00	0.00
Step out DLS 2.00									
6,300.00	0.00	0.00	6,300.00	0.35	30.00	0.00	0.00	0.00	0.00
6,400.00	2.00	107.78	6,399.98	-0.18	31.66	-0.46	2.00	2.00	0.00
6,500.00	4.00	107.78	6,499.84	-1.78	36.65	-1.83	2.00	2.00	0.00
6,600.00	6.00	107.78	6,599.45	-4.44	44.94	-4.12	2.00	2.00	0.00
6,700.00	8.00	107.78	6,698.70	-8.16	56.55	-7.31	2.00	2.00	0.00
6,799.22	9.98	107.78	6,796.70	-12.90	71.32	-11.38	2.00	2.00	0.00
Hold 10° tangent									
6,799.86	10.00	107.78	6,797.33	-12.93	71.42	-11.41	2.00	2.00	0.00
6,800.00	10.00	107.78	6,797.47	-12.94	71.44	-11.41	0.00	0.00	0.00
6,900.00	10.00	107.78	6,895.95	-18.24	87.97	-15.97	0.00	0.00	0.00
6,940.07	10.00	107.78	6,935.41	-20.36	94.60	-17.79	0.00	0.00	0.00
Brushy Canyon									
7,000.00	10.00	107.78	6,994.43	-23.54	104.51	-20.52	0.00	0.00	0.00
7,100.00	10.00	107.78	7,092.91	-28.84	121.04	-25.07	0.00	0.00	0.00
7,200.00	10.00	107.78	7,191.39	-34.14	137.57	-29.62	0.00	0.00	0.00
7,300.00	10.00	107.78	7,289.87	-39.44	154.10	-34.18	0.00	0.00	0.00
7,400.00	10.00	107.78	7,388.36	-44.75	170.63	-38.73	0.00	0.00	0.00
7,500.00	10.00	107.78	7,486.84	-50.05	187.16	-43.28	0.00	0.00	0.00
7,600.00	10.00	107.78	7,585.32	-55.35	203.69	-47.83	0.00	0.00	0.00
7,700.00	10.00	107.78	7,683.80	-60.65	220.22	-52.38	0.00	0.00	0.00
7,800.00	10.00	107.78	7,782.28	-65.95	236.75	-56.94	0.00	0.00	0.00
7,900.00	10.00	107.78	7,880.76	-71.25	253.28	-61.49	0.00	0.00	0.00
8,000.00	10.00	107.78	7,979.24	-76.55	269.82	-66.04	0.00	0.00	0.00
8,100.00	10.00	107.78	8,077.73	-81.85	286.35	-70.59	0.00	0.00	0.00
8,200.00	10.00	107.78	8,176.21	-87.15	302.88	-75.15	0.00	0.00	0.00
8,300.00	10.00	107.78	8,274.69	-92.45	319.41	-79.70	0.00	0.00	0.00
8,400.00	10.00	107.78	8,373.17	-97.76	335.94	-84.25	0.00	0.00	0.00
8,500.00	10.00	107.78	8,471.65	-103.06	352.47	-88.80	0.00	0.00	0.00
8,531.92	10.00	107.78	8,503.09	-104.75	357.75	-90.26	0.00	0.00	0.00
Bone Spring									
8,600.00	10.00	107.78	8,570.13	-108.36	369.00	-93.36	0.00	0.00	0.00
8,700.00	10.00	107.78	8,668.62	-113.66	385.53	-97.91	0.00	0.00	0.00
8,800.00	10.00	107.78	8,767.10	-118.96	402.06	-102.46	0.00	0.00	0.00
8,900.00	10.00	107.78	8,865.58	-124.26	418.59	-107.01	0.00	0.00	0.00
9,000.00	10.00	107.78	8,964.06	-129.56	435.12	-111.57	0.00	0.00	0.00
9,100.00	10.00	107.78	9,062.54	-134.86	451.66	-116.12	0.00	0.00	0.00
9,200.00	10.00	107.78	9,161.02	-140.16	468.19	-120.67	0.00	0.00	0.00
9,300.00	10.00	107.78	9,259.51	-145.46	484.72	-125.22	0.00	0.00	0.00

Oxy Planning Report

Database: HOPSP
Company: OXY
Project: NM DIRECTIONAL PLANS (NAD 1983)
Site: Mesa Verde 17-8 Fed Com
Well: Mesa Verde 17-8 Fed Com 6H
Wellbore: WB00
Design: Permitting Plan

Local Co-ordinate Reference: Site Mesa Verde 17-8 Fed Com
TVD Reference: WELL @ 3587.00ft (Original Well Elev)
MD Reference: WELL @ 3587.00ft (Original Well Elev)
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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,400.00	10.00	107.78	9,357.99	-150.77	501.25	-129.78	0.00	0.00	0.00
9,500.00	10.00	107.78	9,456.47	-156.07	517.78	-134.33	0.00	0.00	0.00
9,574.05	10.00	107.78	9,529.39	-159.99	530.02	-137.70	0.00	0.00	0.00
Drop back to vertical DLS2.00									
9,577.38	10.00	107.78	9,532.67	-160.17	530.57	-137.85	0.00	0.00	0.00
9,600.00	9.54	107.78	9,554.97	-161.34	534.23	-138.86	2.00	-2.00	0.00
9,700.00	7.54	107.78	9,653.85	-165.88	548.37	-142.75	2.00	-2.00	0.00
9,800.00	5.54	107.78	9,753.19	-169.36	559.23	-145.74	2.00	-2.00	0.00
9,900.00	3.54	107.78	9,852.87	-171.78	566.77	-147.82	2.00	-2.00	0.00
10,000.00	1.54	107.78	9,952.77	-173.13	571.00	-148.98	2.00	-2.00	0.00
10,074.27	0.06	107.78	10,027.03	-173.45	571.99	-149.26	2.00	-2.00	0.00
Build Curve 10°/100'									
10,077.24	0.00	359.50	10,030.00	-173.45	571.99	-149.26	2.00	-2.00	0.00
10,100.00	2.28	359.50	10,052.76	-173.00	571.99	-148.81	10.00	10.00	0.00
10,200.00	12.28	359.50	10,151.82	-160.35	571.88	-136.18	10.00	10.00	0.00
10,300.00	22.28	359.50	10,247.19	-130.69	571.62	-106.56	10.00	10.00	0.00
10,309.55	23.23	359.50	10,256.00	-127.00	571.59	-102.87	10.00	10.00	0.00
2nd Bone Spring									
10,400.00	32.28	359.50	10,335.96	-84.92	571.22	-60.85	10.00	10.00	0.00
10,500.00	42.28	359.50	10,415.43	-24.44	570.69	-0.45	10.00	10.00	0.00
10,600.00	52.28	359.50	10,483.19	48.93	570.05	72.81	10.00	10.00	0.00
10,700.00	62.28	359.50	10,537.18	132.95	569.32	156.71	10.00	10.00	0.00
10,800.00	72.28	359.50	10,575.76	225.07	568.52	248.70	10.00	10.00	0.00
10,900.00	82.28	359.50	10,597.76	322.48	567.67	345.98	10.00	10.00	0.00
10,974.27	89.70	359.50	10,602.95	396.52	567.02	419.91	10.00	10.00	0.00
Landing point									
10,977.24	90.00	359.50	10,602.96	399.49	566.99	422.87	10.00	10.00	0.00
11,000.00	90.00	359.50	10,602.96	422.25	566.80	445.60	0.00	0.00	0.00
11,100.00	90.00	359.50	10,602.96	522.24	565.92	545.46	0.00	0.00	0.00
11,200.00	90.00	359.50	10,602.96	622.24	565.05	645.31	0.00	0.00	0.00
11,300.00	90.00	359.50	10,602.96	722.23	564.18	745.17	0.00	0.00	0.00
11,400.00	90.00	359.50	10,602.96	822.23	563.31	845.03	0.00	0.00	0.00
11,500.00	90.00	359.50	10,602.96	922.23	562.43	944.88	0.00	0.00	0.00
11,600.00	90.00	359.50	10,602.96	1,022.22	561.56	1,044.74	0.00	0.00	0.00
11,700.00	90.00	359.50	10,602.96	1,122.22	560.69	1,144.59	0.00	0.00	0.00
11,800.00	90.00	359.50	10,602.96	1,222.22	559.82	1,244.45	0.00	0.00	0.00
11,900.00	90.00	359.50	10,602.96	1,322.21	558.95	1,344.31	0.00	0.00	0.00
12,000.00	90.00	359.50	10,602.96	1,422.21	558.07	1,444.16	0.00	0.00	0.00
12,100.00	90.00	359.50	10,602.96	1,522.20	557.20	1,544.02	0.00	0.00	0.00
12,200.00	90.00	359.50	10,602.96	1,622.20	556.33	1,643.87	0.00	0.00	0.00
12,300.00	90.00	359.50	10,602.96	1,722.20	555.46	1,743.73	0.00	0.00	0.00
12,400.00	90.00	359.50	10,602.96	1,822.19	554.58	1,843.59	0.00	0.00	0.00
12,500.00	90.00	359.50	10,602.96	1,922.19	553.71	1,943.44	0.00	0.00	0.00
12,600.00	90.00	359.50	10,602.96	2,022.19	552.84	2,043.30	0.00	0.00	0.00
12,700.00	90.00	359.50	10,602.96	2,122.18	551.97	2,143.15	0.00	0.00	0.00
12,800.00	90.00	359.50	10,602.96	2,222.18	551.10	2,243.01	0.00	0.00	0.00
12,900.00	90.00	359.50	10,602.96	2,322.17	550.22	2,342.86	0.00	0.00	0.00
13,000.00	90.00	359.50	10,602.96	2,422.17	549.35	2,442.72	0.00	0.00	0.00
13,100.00	90.00	359.50	10,602.96	2,522.17	548.48	2,542.58	0.00	0.00	0.00
13,200.00	90.00	359.50	10,602.96	2,622.16	547.61	2,642.43	0.00	0.00	0.00
13,300.00	90.00	359.50	10,602.96	2,722.16	546.73	2,742.29	0.00	0.00	0.00
13,400.00	90.00	359.50	10,602.96	2,822.16	545.86	2,842.14	0.00	0.00	0.00
13,500.00	90.00	359.50	10,602.96	2,922.15	544.99	2,942.00	0.00	0.00	0.00

Oxy Planning Report

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Site: Mesa Verde 17-8 Fed Com
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Wellbore: WB00
Design: Permitting Plan

Local Co-ordinate Reference:
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North Reference:
Survey Calculation Method:

Site Mesa Verde 17-8 Fed Com
WELL @ 3587.00ft (Original Well Elev)
WELL @ 3587.00ft (Original Well Elev)
Grid
Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,600.00	90.00	359.50	10,602.96	3,022.15	544.12	3,041.86	0.00	0.00	0.00
13,700.00	90.00	359.50	10,602.96	3,122.14	543.25	3,141.71	0.00	0.00	0.00
13,800.00	90.00	359.50	10,602.96	3,222.14	542.37	3,241.57	0.00	0.00	0.00
13,900.00	90.00	359.50	10,602.96	3,322.14	541.50	3,341.42	0.00	0.00	0.00
14,000.00	90.00	359.50	10,602.96	3,422.13	540.63	3,441.28	0.00	0.00	0.00
14,100.00	90.00	359.50	10,602.96	3,522.13	539.76	3,541.14	0.00	0.00	0.00
14,200.00	90.00	359.50	10,602.96	3,622.12	538.89	3,640.99	0.00	0.00	0.00
14,300.00	90.00	359.50	10,602.96	3,722.12	538.01	3,740.85	0.00	0.00	0.00
14,400.00	90.00	359.50	10,602.96	3,822.12	537.14	3,840.70	0.00	0.00	0.00
14,500.00	90.00	359.50	10,602.96	3,922.11	536.27	3,940.56	0.00	0.00	0.00
14,600.00	90.00	359.50	10,602.96	4,022.11	535.40	4,040.41	0.00	0.00	0.00
14,700.00	90.00	359.50	10,602.96	4,122.11	534.52	4,140.27	0.00	0.00	0.00
14,800.00	90.00	359.50	10,602.96	4,222.10	533.65	4,240.13	0.00	0.00	0.00
14,900.00	90.00	359.50	10,602.96	4,322.10	532.78	4,339.98	0.00	0.00	0.00
15,000.00	90.00	359.50	10,602.96	4,422.09	531.91	4,439.84	0.00	0.00	0.00
15,100.00	90.00	359.50	10,602.96	4,522.09	531.04	4,539.69	0.00	0.00	0.00
15,200.00	90.00	359.50	10,602.96	4,622.09	530.16	4,639.55	0.00	0.00	0.00
15,300.00	90.00	359.50	10,602.96	4,722.08	529.29	4,739.41	0.00	0.00	0.00
15,400.00	90.00	359.50	10,602.96	4,822.08	528.42	4,839.26	0.00	0.00	0.00
15,500.00	90.00	359.50	10,602.96	4,922.08	527.55	4,939.12	0.00	0.00	0.00
15,600.00	90.00	359.50	10,602.96	5,022.07	526.67	5,038.97	0.00	0.00	0.00
15,700.00	90.00	359.50	10,602.96	5,122.07	525.80	5,138.83	0.00	0.00	0.00
15,800.00	90.00	359.50	10,602.96	5,222.06	524.93	5,238.69	0.00	0.00	0.00
15,900.00	90.00	359.50	10,602.96	5,322.06	524.06	5,338.54	0.00	0.00	0.00
16,000.00	90.00	359.50	10,602.96	5,422.06	523.19	5,438.40	0.00	0.00	0.00
16,100.00	90.00	359.50	10,602.96	5,522.05	522.31	5,538.25	0.00	0.00	0.00
16,200.00	90.00	359.50	10,602.96	5,622.05	521.44	5,638.11	0.00	0.00	0.00
16,300.00	90.00	359.50	10,602.96	5,722.04	520.57	5,737.96	0.00	0.00	0.00
16,400.00	90.00	359.50	10,602.96	5,822.04	519.70	5,837.82	0.00	0.00	0.00
16,500.00	90.00	359.50	10,602.96	5,922.04	518.82	5,937.68	0.00	0.00	0.00
16,600.00	90.00	359.50	10,602.96	6,022.03	517.95	6,037.53	0.00	0.00	0.00
16,700.00	90.00	359.50	10,602.96	6,122.03	517.08	6,137.39	0.00	0.00	0.00
16,800.00	90.00	359.50	10,602.96	6,222.03	516.21	6,237.24	0.00	0.00	0.00
16,900.00	90.00	359.50	10,602.96	6,322.02	515.34	6,337.10	0.00	0.00	0.00
17,000.00	90.00	359.50	10,602.96	6,422.02	514.46	6,436.96	0.00	0.00	0.00
17,100.00	90.00	359.50	10,602.96	6,522.01	513.59	6,536.81	0.00	0.00	0.00
17,200.00	90.00	359.50	10,602.96	6,622.01	512.72	6,636.67	0.00	0.00	0.00
17,300.00	90.00	359.50	10,602.96	6,722.01	511.85	6,736.52	0.00	0.00	0.00
17,400.00	90.00	359.50	10,602.96	6,822.00	510.98	6,836.38	0.00	0.00	0.00
17,500.00	90.00	359.50	10,602.96	6,922.00	510.10	6,936.24	0.00	0.00	0.00
17,600.00	90.00	359.50	10,602.96	7,022.00	509.23	7,036.09	0.00	0.00	0.00
17,700.00	90.00	359.50	10,602.96	7,121.99	508.36	7,135.95	0.00	0.00	0.00
17,800.00	90.00	359.50	10,602.96	7,221.99	507.49	7,235.80	0.00	0.00	0.00
17,900.00	90.00	359.50	10,602.96	7,321.98	506.61	7,335.66	0.00	0.00	0.00
18,000.00	90.00	359.50	10,602.96	7,421.98	505.74	7,435.51	0.00	0.00	0.00
18,100.00	90.00	359.50	10,602.96	7,521.98	504.87	7,535.37	0.00	0.00	0.00
18,200.00	90.00	359.50	10,602.96	7,621.97	504.00	7,635.23	0.00	0.00	0.00
18,300.00	90.00	359.50	10,602.96	7,721.97	503.13	7,735.08	0.00	0.00	0.00
18,400.00	90.00	359.50	10,602.96	7,821.97	502.25	7,834.94	0.00	0.00	0.00
18,500.00	90.00	359.50	10,602.96	7,921.96	501.38	7,934.79	0.00	0.00	0.00
18,600.00	90.00	359.50	10,602.96	8,021.96	500.51	8,034.65	0.00	0.00	0.00
18,700.00	90.00	359.50	10,602.96	8,121.95	499.64	8,134.51	0.00	0.00	0.00
18,800.00	90.00	359.50	10,602.96	8,221.95	498.76	8,234.36	0.00	0.00	0.00
18,900.00	90.00	359.50	10,602.96	8,321.95	497.89	8,334.22	0.00	0.00	0.00

Oxy Planning Report

Database: HOPSPP
Company: OXY
Project: NM DIRECTIONAL PLANS (NAD 1983)
Site: Mesa Verde 17-8 Fed Com
Well: Mesa Verde 17-8 Fed Com 6H
Wellbore: WB00
Design: Permitting Plan

Local Co-ordinate Reference: Site Mesa Verde 17-8 Fed Com
TVD Reference: WELL @ 3587.00ft (Original Well Elev)
MD Reference: WELL @ 3587.00ft (Original Well Elev)
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 (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
19,000.00	90.00	359.50	10,602.96	8,421.94	497.02	8,434.07	0.00	0.00	0.00
19,100.00	90.00	359.50	10,602.96	8,521.94	496.15	8,533.93	0.00	0.00	0.00
19,200.00	90.00	359.50	10,602.96	8,621.93	495.28	8,633.79	0.00	0.00	0.00
19,300.00	90.00	359.50	10,602.96	8,721.93	494.40	8,733.64	0.00	0.00	0.00
19,400.00	90.00	359.50	10,602.96	8,821.93	493.53	8,833.50	0.00	0.00	0.00
19,500.00	90.00	359.50	10,602.96	8,921.92	492.66	8,933.35	0.00	0.00	0.00
19,600.00	90.00	359.50	10,602.96	9,021.92	491.79	9,033.21	0.00	0.00	0.00
19,700.00	90.00	359.50	10,602.96	9,121.92	490.91	9,133.06	0.00	0.00	0.00
19,800.00	90.00	359.50	10,602.96	9,221.91	490.04	9,232.92	0.00	0.00	0.00
19,900.00	90.00	359.50	10,602.96	9,321.91	489.17	9,332.78	0.00	0.00	0.00
20,000.00	90.00	359.50	10,602.96	9,421.90	488.30	9,432.63	0.00	0.00	0.00
20,100.00	90.00	359.50	10,602.96	9,521.90	487.43	9,532.49	0.00	0.00	0.00
20,200.00	90.00	359.50	10,602.96	9,621.90	486.55	9,632.34	0.00	0.00	0.00
20,300.00	90.00	359.50	10,602.96	9,721.89	485.68	9,732.20	0.00	0.00	0.00
20,400.00	90.00	359.50	10,602.96	9,821.89	484.81	9,832.06	0.00	0.00	0.00
20,500.00	90.00	359.50	10,602.96	9,921.89	483.94	9,931.91	0.00	0.00	0.00
20,600.00	90.00	359.50	10,602.96	10,021.88	483.06	10,031.77	0.00	0.00	0.00
20,635.32	90.00	359.50	10,602.96	10,057.20	482.76	10,067.04	0.00	0.00	0.00
TD at 20635.32									
20,638.29	90.00	359.50	10,603.00	10,050.17	482.73	10,070.00	0.00	0.00	0.00

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
942.95	942.95	Rustler			
1,028.39	1,028.39	Salado			
3,336.49	3,336.49	Castile			
4,636.77	4,636.77	Bell Canyon			
4,651.77	4,651.77	Delaware			
5,518.02	5,518.02	Cherry Canyon			
6,940.07	6,935.41	Brushy Canyon			
8,531.92	8,503.09	Bone Spring			
10,309.55	10,256.00	2nd Bone Spring		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N-S (ft)	+E-W (ft)	Comment
6,299.00	6,299.00	0.35	30.00	Step out DLS 2.00
6,799.22	6,796.68	-12.95	71.48	Hold 10° tangent
9,574.05	9,529.32	-160.15	530.51	Drop back to vertical DLS 2.00
10,074.27	10,027.00	-173.45	571.99	Build Curve 10°/100'
10,974.27	10,599.96	399.49	566.99	Landing point
20,635.32	10,600.00	10,060.17	482.73	TD at 20635.32