

OXY USA MID-CON

GRAND VALLEY

CASCADE CREEK 609-33 PAD

CASCADE CREEK 697-09-46-2 - Slot CC#697-09-46

CASCADE CREEK 697-09-46-2

Plan: PLAN 2

Standard Planning Report - Geographic

06 January, 2011



Project: GRAND VALLEY
Site: CASCADE CREEK 609-33 PAD
Well: CASCADE CREEK 697-09-46-2
Wellbore: CASCADE CREEK 697-09-46-2
Design: PLAN 2

OXY USA MID-CON

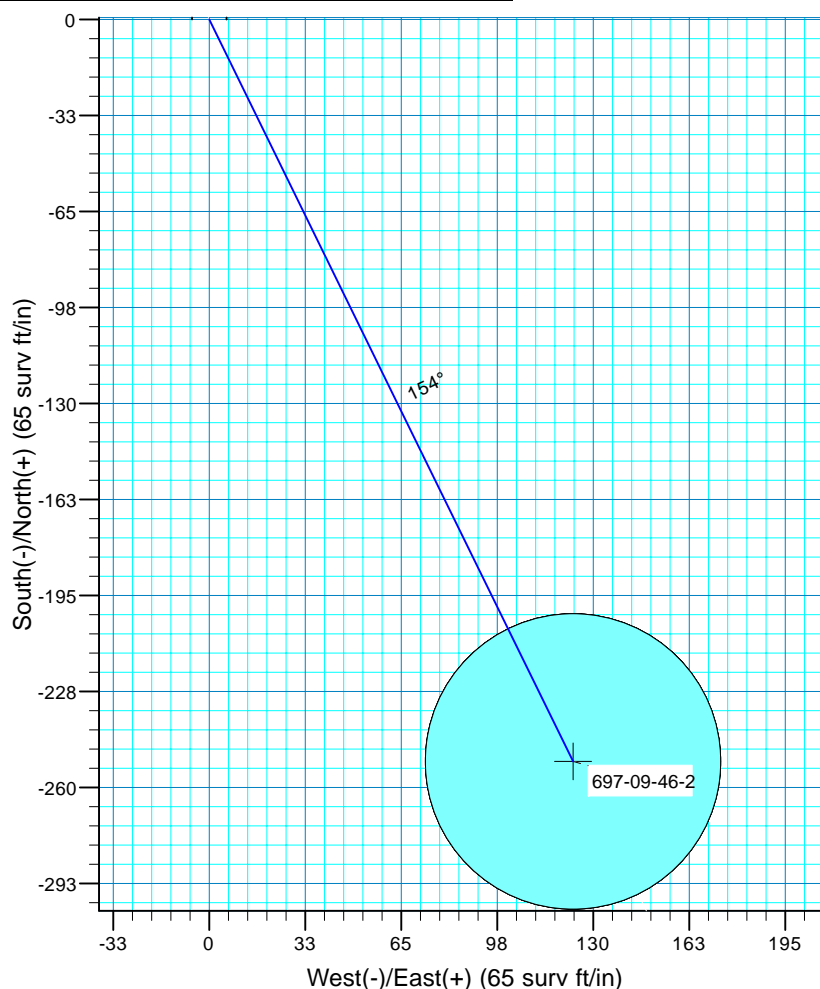
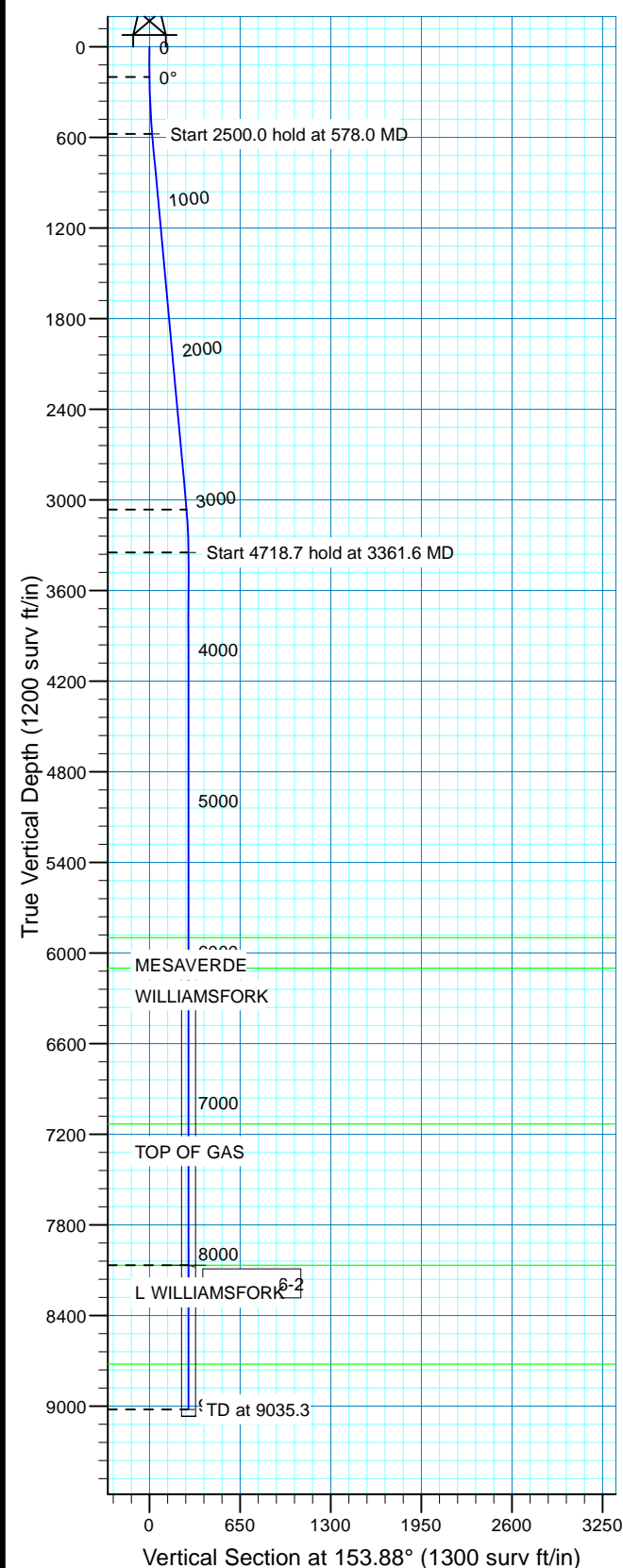
WELL DETAILS: CASCADE CREEK 697-09-46-2

WELL @ 8410.0 surv ft (Original Well Elev) 8380.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 631267.98 1232499.39 39° 32' 6.308 N 108° 13' 17.571 WCC#697-09-46



Azimuths to True North
Magnetic North: 10.53°

Magnetic Field
Strength: 52332.0snT
Dip Angle: 65.76°
Date: 9/2/2010
Model: IGRF200510



an: PLAN 2 (CASCADE CREEK 697-09-46-2)

Created By: Nikolai Amortegui Date: 2011-01-06

FORMATION TOP DETAILS

MDPath	Formation
5898.0	5911.3 MESAVERDE
6100.0	6113.3 WILLIAMSFORK
7132.0	7145.3 TOP OF GAS
8067.0	8080.3 WILLIAMSFORK
8722.0	8735.3 ROLLINS

PROJECT DETAILS: GRAND VALLEY

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Colorado Central 502

System Datum: Mean Sea Level
Local North: True

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.0	
578.0	5.67153.88	577.4	-16.8	8.2	1.50	18.7		
3078.0	5.67153.88	3065.2	-238.6	117.0	0.00	265.7		
3361.6	0.00	0.00	3348.3	-251.2	123.2	2.00	279.7	
8080.0	0.00	0.00	8067.0	-251.2	123.2	0.00	279.7	697-09-46-2
9035.3	0.00	0.00	9022.0	-251.2	123.2	0.00	279.7	

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Planning Report - Geographic

Database:	HOPSPP	Local Co-ordinate Reference:	Well CASCADE CREEK 697-09-46-2 - Slot CC#697-09-46
Company:	OXY USA MID-CON	TVD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Project:	GRAND VALLEY	MD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Site:	CASCADE CREEK 609-33 PAD	North Reference:	True
Well:	CASCADE CREEK 697-09-46-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	CASCADE CREEK 697-09-46-2		
Design:	PLAN 2		

Project	GRAND VALLEY, NORTH AMERICA		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado Central 502		

Site	CASCADE CREEK 609-33 PAD		
Site Position:		Northing:	631,298.91 surv ft
From:	Map	Easting:	1,232,465.23 surv ft
Position Uncertainty:	0.0 surv ft	Slot Radius:	0.000 in
		Latitude:	39° 32' 6.603 N
		Longitude:	108° 13' 18.019 W
		Grid Convergence:	-1.72 °

Well	CASCADE CREEK 697-09-46-2 - Slot CC#697-09-46		
Well Position	+N/-S	0.0 surv ft	Northing: 631,267.99 surv ft
	+E/-W	0.0 surv ft	Easting: 1,232,499.39 surv ft
Position Uncertainty	0.0 surv ft	Wellhead Elevation:	30.0 surv ft
		Latitude:	39° 32' 6.308 N
		Longitude:	108° 13' 17.571 W
		Ground Level:	8,380.0 surv ft

Wellbore	CASCADE CREEK 697-09-46-2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/2/2010	10.53	65.76	52,332

Design	PLAN 2			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (surv ft)	+N/-S (surv ft)	+E/-W (surv ft)	Direction (°)
	0.0	0.0	0.0	153.88

Plan Sections										
Measured Depth (surv ft)	Inclination (°)	Azimuth (°)	Vertical Depth (surv ft)	+N/-S (surv ft)	+E/-W (surv ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
578.0	5.67	153.88	577.4	-16.8	8.2	1.50	1.50	0.00	153.88	
3,078.0	5.67	153.88	3,065.2	-238.6	117.0	0.00	0.00	0.00	0.00	
3,361.6	0.00	0.00	3,348.3	-251.2	123.2	2.00	-2.00	0.00	180.00	
8,080.3	0.00	0.00	8,067.0	-251.2	123.2	0.00	0.00	0.00	0.00	697-09-46-2
9,035.3	0.00	0.00	9,022.0	-251.2	123.2	0.00	0.00	0.00	0.00	

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Planning Report - Geographic

Database:	HOPSPP	Local Co-ordinate Reference:	Well CASCADE CREEK 697-09-46-2 - Slot CC#697-09-46
Company:	OXY USA MID-CON	TVD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Project:	GRAND VALLEY	MD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Site:	CASCADE CREEK 609-33 PAD	North Reference:	True
Well:	CASCADE CREEK 697-09-46-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	CASCADE CREEK 697-09-46-2		
Design:	PLAN 2		

Planned Survey										
Measured Depth (surv ft)	Inclination (°)	Azimuth (°)	Vertical Depth (surv ft)	+N/-S (surv ft)	+E/-W (surv ft)	Map Northing (surv ft)	Map Easting (surv ft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	631,267.99	1,232,499.39	39° 32' 6.308 N	108° 13' 17.571 W	
100.0	0.00	0.00	100.0	0.0	0.0	631,267.99	1,232,499.39	39° 32' 6.308 N	108° 13' 17.571 W	
200.0	0.00	0.00	200.0	0.0	0.0	631,267.99	1,232,499.39	39° 32' 6.308 N	108° 13' 17.571 W	
300.0	1.50	153.88	300.0	-1.2	0.6	631,266.79	1,232,499.93	39° 32' 6.296 N	108° 13' 17.564 W	
400.0	3.00	153.88	399.9	-4.7	2.3	631,263.22	1,232,501.55	39° 32' 6.261 N	108° 13' 17.541 W	
500.0	4.50	153.88	499.7	-10.6	5.2	631,257.26	1,232,504.26	39° 32' 6.203 N	108° 13' 17.505 W	
578.0	5.67	153.88	577.4	-16.8	8.2	631,250.96	1,232,507.11	39° 32' 6.142 N	108° 13' 17.466 W	
600.0	5.67	153.88	599.3	-18.7	9.2	631,248.99	1,232,508.01	39° 32' 6.122 N	108° 13' 17.454 W	
700.0	5.67	153.88	698.8	-27.6	13.5	631,239.99	1,232,512.09	39° 32' 6.035 N	108° 13' 17.398 W	
800.0	5.67	153.88	798.3	-36.5	17.9	631,230.99	1,232,516.18	39° 32' 5.947 N	108° 13' 17.343 W	
900.0	5.67	153.88	897.8	-45.3	22.2	631,221.99	1,232,520.26	39° 32' 5.859 N	108° 13' 17.287 W	
1,000.0	5.67	153.88	997.3	-54.2	26.6	631,213.00	1,232,524.34	39° 32' 5.772 N	108° 13' 17.232 W	
1,100.0	5.67	153.88	1,096.8	-63.1	30.9	631,204.00	1,232,528.42	39° 32' 5.684 N	108° 13' 17.176 W	
1,200.0	5.67	153.88	1,196.3	-72.0	35.3	631,195.00	1,232,532.51	39° 32' 5.596 N	108° 13' 17.120 W	
1,300.0	5.67	153.88	1,295.9	-80.8	39.6	631,186.00	1,232,536.59	39° 32' 5.509 N	108° 13' 17.065 W	
1,400.0	5.67	153.88	1,395.4	-89.7	44.0	631,177.00	1,232,540.67	39° 32' 5.421 N	108° 13' 17.009 W	
1,500.0	5.67	153.88	1,494.9	-98.6	48.3	631,168.00	1,232,544.76	39° 32' 5.333 N	108° 13' 16.954 W	
1,600.0	5.67	153.88	1,594.4	-107.4	52.7	631,159.01	1,232,548.84	39° 32' 5.246 N	108° 13' 16.898 W	
1,700.0	5.67	153.88	1,693.9	-116.3	57.0	631,150.01	1,232,552.92	39° 32' 5.158 N	108° 13' 16.843 W	
1,800.0	5.67	153.88	1,793.4	-125.2	61.4	631,141.01	1,232,557.00	39° 32' 5.070 N	108° 13' 16.787 W	
1,900.0	5.67	153.88	1,892.9	-134.1	65.7	631,132.01	1,232,561.09	39° 32' 4.983 N	108° 13' 16.732 W	
2,000.0	5.67	153.88	1,992.4	-142.9	70.1	631,123.01	1,232,565.17	39° 32' 4.895 N	108° 13' 16.676 W	
2,100.0	5.67	153.88	2,091.9	-151.8	74.4	631,114.02	1,232,569.25	39° 32' 4.807 N	108° 13' 16.621 W	
2,200.0	5.67	153.88	2,191.4	-160.7	78.8	631,105.02	1,232,573.34	39° 32' 4.719 N	108° 13' 16.565 W	
2,300.0	5.67	153.88	2,291.0	-169.6	83.1	631,096.02	1,232,577.42	39° 32' 4.632 N	108° 13' 16.510 W	
2,400.0	5.67	153.88	2,390.5	-178.4	87.5	631,087.02	1,232,581.50	39° 32' 4.544 N	108° 13' 16.454 W	
2,500.0	5.67	153.88	2,490.0	-187.3	91.8	631,078.02	1,232,585.58	39° 32' 4.456 N	108° 13' 16.399 W	
2,600.0	5.67	153.88	2,589.5	-196.2	96.2	631,069.03	1,232,589.67	39° 32' 4.369 N	108° 13' 16.343 W	
2,700.0	5.67	153.88	2,689.0	-205.0	100.5	631,060.03	1,232,593.75	39° 32' 4.281 N	108° 13' 16.288 W	
2,800.0	5.67	153.88	2,788.5	-213.9	104.9	631,051.03	1,232,597.83	39° 32' 4.193 N	108° 13' 16.232 W	
2,900.0	5.67	153.88	2,888.0	-222.8	109.2	631,042.03	1,232,601.92	39° 32' 4.106 N	108° 13' 16.177 W	
3,000.0	5.67	153.88	2,987.5	-231.7	113.6	631,033.03	1,232,606.00	39° 32' 4.018 N	108° 13' 16.121 W	
3,078.0	5.67	153.88	3,065.2	-238.6	117.0	631,026.01	1,232,609.18	39° 32' 3.950 N	108° 13' 16.078 W	
3,100.0	5.23	153.88	3,087.0	-240.5	117.9	631,024.11	1,232,610.05	39° 32' 3.931 N	108° 13' 16.066 W	
3,200.0	3.23	153.88	3,186.8	-247.1	121.2	631,017.39	1,232,613.10	39° 32' 3.866 N	108° 13' 16.024 W	
3,300.0	1.23	153.88	3,286.7	-250.6	122.9	631,013.85	1,232,614.70	39° 32' 3.831 N	108° 13' 16.003 W	
3,361.6	0.00	0.00	3,348.3	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
3,400.0	0.00	0.00	3,386.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
3,500.0	0.00	0.00	3,486.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
3,600.0	0.00	0.00	3,586.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
3,700.0	0.00	0.00	3,686.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
3,800.0	0.00	0.00	3,786.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
3,900.0	0.00	0.00	3,886.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
4,000.0	0.00	0.00	3,986.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
4,100.0	0.00	0.00	4,086.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
4,200.0	0.00	0.00	4,186.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
4,300.0	0.00	0.00	4,286.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
4,400.0	0.00	0.00	4,386.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
4,500.0	0.00	0.00	4,486.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
4,600.0	0.00	0.00	4,586.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
4,700.0	0.00	0.00	4,686.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
4,800.0	0.00	0.00	4,786.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
4,900.0	0.00	0.00	4,886.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	
5,000.0	0.00	0.00	4,986.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W	

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Planning Report - Geographic

Database:	HOPSPP	Local Co-ordinate Reference:	Well CASCADE CREEK 697-09-46-2 - Slot CC#697-09-46
Company:	OXY USA MID-CON	TVD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Project:	GRAND VALLEY	MD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Site:	CASCADE CREEK 609-33 PAD	North Reference:	True
Well:	CASCADE CREEK 697-09-46-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	CASCADE CREEK 697-09-46-2		
Design:	PLAN 2		

Planned Survey									
Measured Depth (surv ft)	Inclination (°)	Azimuth (°)	Vertical Depth (surv ft)	+N/-S (surv ft)	+E/-W (surv ft)	Map Northing (surv ft)	Map Easting (surv ft)	Latitude	Longitude
5,100.0	0.00	0.00	5,086.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
5,200.0	0.00	0.00	5,186.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
5,300.0	0.00	0.00	5,286.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
5,400.0	0.00	0.00	5,386.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
5,500.0	0.00	0.00	5,486.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
5,600.0	0.00	0.00	5,586.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
5,700.0	0.00	0.00	5,686.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
5,800.0	0.00	0.00	5,786.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
5,900.0	0.00	0.00	5,886.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
5,911.3	0.00	0.00	5,898.0	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
MESAVERDE									
6,000.0	0.00	0.00	5,986.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
6,100.0	0.00	0.00	6,086.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
6,113.3	0.00	0.00	6,100.0	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
WILLIAMSFORK									
6,200.0	0.00	0.00	6,186.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
6,300.0	0.00	0.00	6,286.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
6,400.0	0.00	0.00	6,386.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
6,500.0	0.00	0.00	6,486.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
6,600.0	0.00	0.00	6,586.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
6,700.0	0.00	0.00	6,686.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
6,800.0	0.00	0.00	6,786.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
6,900.0	0.00	0.00	6,886.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
7,000.0	0.00	0.00	6,986.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
7,100.0	0.00	0.00	7,086.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
7,145.3	0.00	0.00	7,132.0	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
TOP OF GAS									
7,200.0	0.00	0.00	7,186.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
7,300.0	0.00	0.00	7,286.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
7,400.0	0.00	0.00	7,386.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
7,500.0	0.00	0.00	7,486.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
7,600.0	0.00	0.00	7,586.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
7,700.0	0.00	0.00	7,686.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
7,800.0	0.00	0.00	7,786.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
7,900.0	0.00	0.00	7,886.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
8,000.0	0.00	0.00	7,986.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
8,080.3	0.00	0.00	8,067.0	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
L WILLIAMSFORK - 697-09-46-2									
8,100.0	0.00	0.00	8,086.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
8,200.0	0.00	0.00	8,186.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
8,300.0	0.00	0.00	8,286.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
8,400.0	0.00	0.00	8,386.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
8,500.0	0.00	0.00	8,486.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
8,600.0	0.00	0.00	8,586.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
8,700.0	0.00	0.00	8,686.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
8,735.3	0.00	0.00	8,722.0	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
ROLLINS									
8,800.0	0.00	0.00	8,786.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
8,900.0	0.00	0.00	8,886.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
9,000.0	0.00	0.00	8,986.7	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
9,035.3	0.00	0.00	9,022.0	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W

OXY

Planning Report - Geographic

Database:	HOPSPP	Local Co-ordinate Reference:	Well CASCADE CREEK 697-09-46-2 - Slot CC#697-09-46
Company:	OXY USA MID-CON	TVD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Project:	GRAND VALLEY	MD Reference:	WELL @ 8410.0surv ft (Original Well Elev)
Site:	CASCADE CREEK 609-33 PAD	North Reference:	True
Well:	CASCADE CREEK 697-09-46-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	CASCADE CREEK 697-09-46-2		
Design:	PLAN 2		

Design Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (surv ft)	+N/-S (surv ft)	+E/-W (surv ft)	Northing (surv ft)	Easting (surv ft)	Latitude	Longitude
- Shape									
697-09-46-2	0.00	153.88	8,067.0	-251.2	123.2	631,013.24	1,232,614.98	39° 32' 3.825 N	108° 13' 15.999 W
- plan hits target center									
- Circle (radius 50.0)									

Formations

Measured Depth (surv ft)	Vertical Depth (surv ft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,911.3	5,898.0	MESAVERDE		0.00	
6,113.3	6,100.0	WILLIAMSFORK		0.00	
7,145.3	7,132.0	TOP OF GAS		0.00	
8,080.3	8,067.0	L WILLIAMSFORK		0.00	
8,735.3	8,722.0	ROLLINS		0.00	