



Well Name: Chevron TR 532-21-597

Surface Location: TR 32-21-597 Pad

North American Datum 1983 , US State Plane 1983 , Colorado Central Zone

Ground Elevation: 8576.0

+N/-S
0.0

+E/-W
0.0

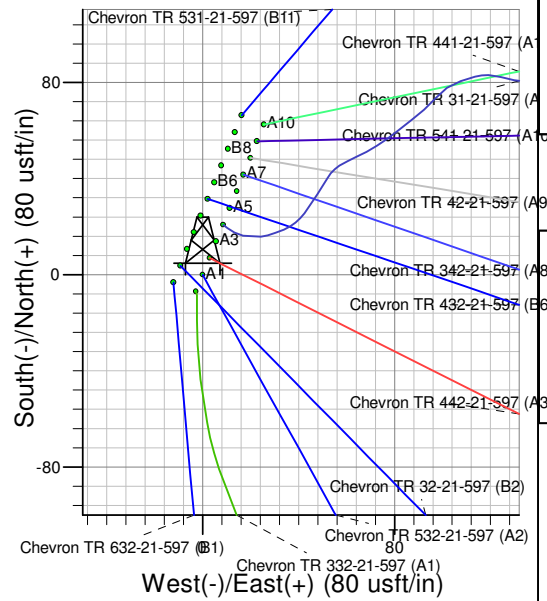
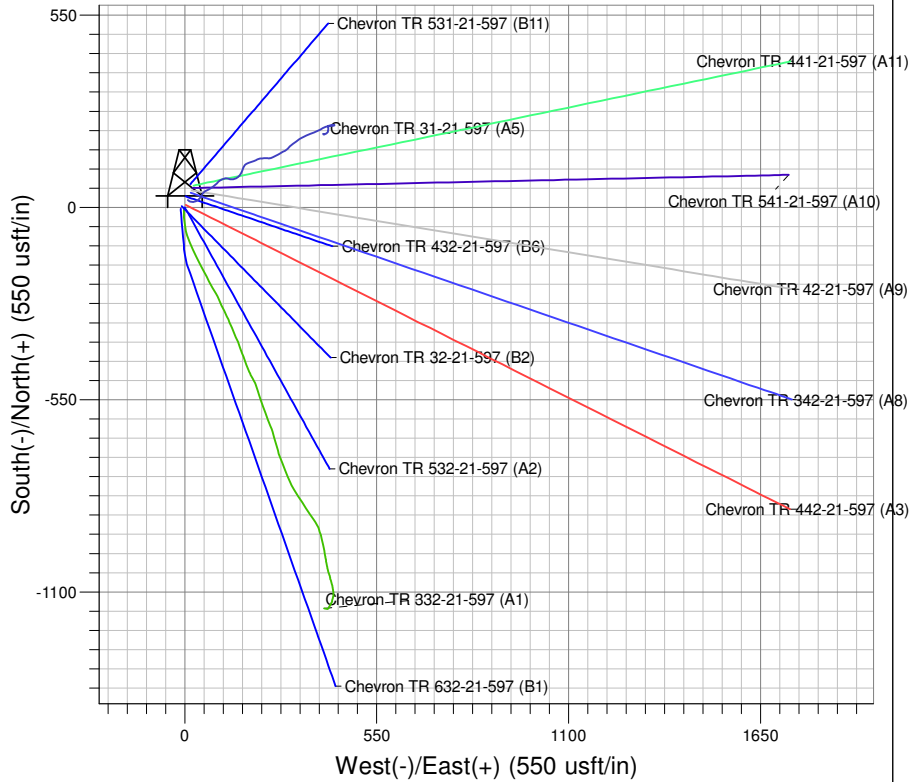
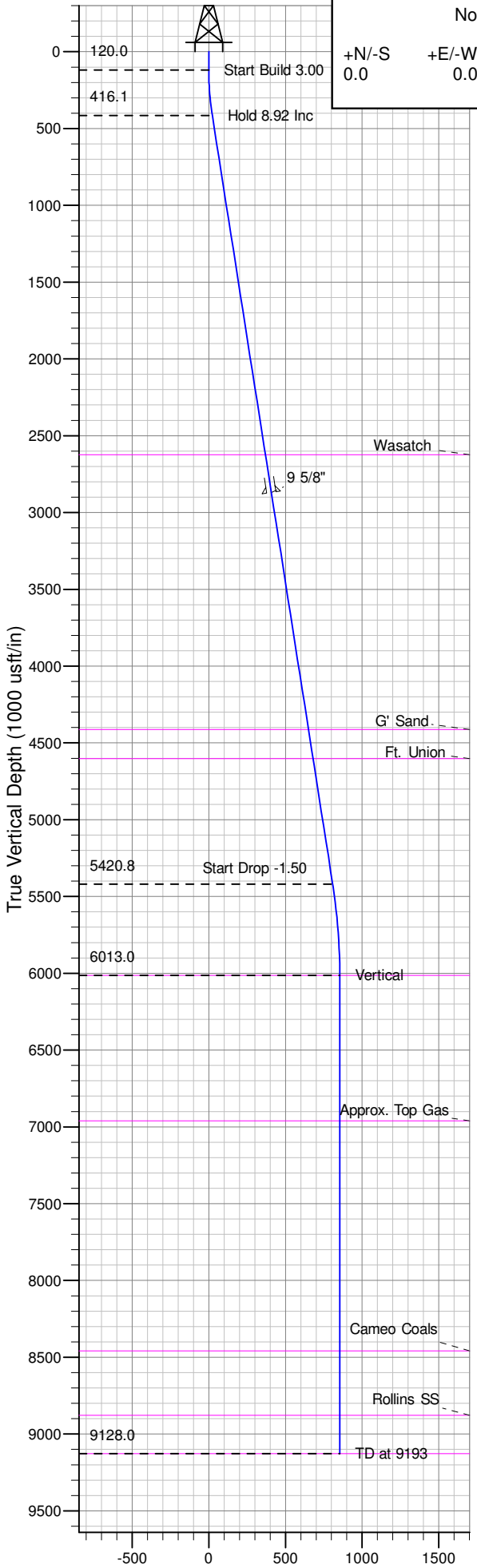
Northing
1656386.40

Easting
2216155.70

Latitude
39° 36' 9.429 N
Longitude
108° 16' 56.151 W

Slot
A2

KELLY BUSHING @ 8604.0usft (Frontier 10 (28' RKB) jib)



Project: TR 21-05S-097W
Site: TR 32-21-597 Pad
Well: Chevron TR 532-21-597
Plan #2 26Oct09 kjs

Azimuths to True North
Magnetic North: 11.16°
Magnetic Field
Strength: 52794.5nT
Dip Angle: 65.92°
Date: 3/10/2006
Model: IGRF2005-10

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	V Sect	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 3.00
416.1	417.3	8.92	150.97	-20.2	11.2	23.1	23.1	Hold 8.92 Inc
5420.8	5483.2	8.92	150.97	-707.0	392.4	808.5	808.5	Start Drop -1.50
6013.0	6077.9	0.00	0.00	-747.3	414.8	854.7	854.7	Vertical
9128.0	9192.9	0.00	0.00	-747.3	414.8	854.7	854.7	TD at 9193

PICEANCE HL NAD 83

TR 21-05S-097W

TR 32-21-597 Pad

Chevron TR 532-21-597 - Slot A2

Chevron TR 532-21-597

Plan: Plan #2 26Oct09 kjs

Standard Planning Report - Geographic

03 May, 2010

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Chevron TR 532-21-597 (A2) - Slot A2
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 8604.0usft (Frontier 10 (28' RKB) jib)
Project:	TR 21-05S-097W	MD Reference:	KELLY BUSHING @ 8604.0usft (Frontier 10 (28' RKB) jib)
Site:	TR 32-21-597 Pad	North Reference:	True
Well:	Chevron TR 532-21-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	Chevron TR 532-21-597		
Design:	Plan #2 26Oct09 kjs		

Project	TR 21-05S-097W, Garfield County, CO, TR 21-05S-097W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	TR 32-21-597 Pad		
Site Position:		Northing:	1,656,390.50 usft
From:	Map	Easting:	2,216,146.60 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	39° 36' 9.467 N
		Longitude:	108° 16' 56.268 W
		Grid Convergence:	-1.755 °

Well	Chevron TR 532-21-597 - Slot A2		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	Chevron TR 532-21-597				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	3/10/2006	11.156	65.919	52,794

Design	Plan #2 26Oct09 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	150.97

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.000	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.00	0.000	
417.3	8.92	150.97	416.1	-20.2	11.2	3.00	3.00	0.00	150.970	
5,483.2	8.92	150.97	5,420.8	-707.0	392.4	0.00	0.00	0.00	0.000	
6,077.9	0.00	0.00	6,013.0	-747.3	414.8	1.50	-1.50	0.00	180.000	Mesaverde (25' Radiu
9,192.9	0.00	0.00	9,128.0	-747.3	414.8	0.00	0.00	0.00	0.000	

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Planning Report - Geographic

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Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 8604.0usft (Frontier 10 (28' RKB) jib)
Project:	TR 21-05S-097W	MD Reference:	KELLY BUSHING @ 8604.0usft (Frontier 10 (28' RKB) jib)
Site:	TR 32-21-597 Pad	North Reference:	True
Well:	Chevron TR 532-21-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	Chevron TR 532-21-597		
Design:	Plan #2 26Oct09 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,656,386.40	2,216,155.70	39° 36' 9.429 N	108° 16' 56.151 W
120.0	0.00	0.00	120.0	0.0	0.0	1,656,386.40	2,216,155.70	39° 36' 9.429 N	108° 16' 56.151 W
417.3	8.92	150.97	416.1	-20.2	11.2	1,656,365.87	2,216,166.28	39° 36' 9.230 N	108° 16' 56.007 W
5,483.2	8.92	150.97	5,420.8	-707.0	392.4	1,655,667.75	2,216,526.23	39° 36' 2.442 N	108° 16' 51.138 W
6,077.9	0.00	0.00	6,013.0	-747.3	414.8	1,655,626.70	2,216,547.40	39° 36' 2.043 N	108° 16' 50.851 W
9,192.9	0.00	0.00	9,128.0	-747.3	414.8	1,655,626.70	2,216,547.40	39° 36' 2.043 N	108° 16' 50.851 W

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Mesaverde (50' Radius)	0.00	0.00	6,013.0	-747.3	414.8	1,655,626.70	2,216,547.40	39° 36' 2.043 N	108° 16' 50.851 W
- plan hits target center									
- Circle (radius 50.0)									
Mesaverde (25' Radius)	0.00	0.00	6,013.0	-747.3	414.8	1,655,626.70	2,216,547.40	39° 36' 2.043 N	108° 16' 50.851 W
- plan hits target center									
- Circle (radius 25.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,902.0	2,870.8	9 5/8"	9.625	14.750	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,652.2	2,624.0	Wasatch				
4,462.1	4,412.0	G' Sand				
4,654.4	4,602.0	Ft. Union				
6,077.9	6,013.0	Mesaverde				
7,024.9	6,960.0	Approx. Top Gas				
8,522.9	8,458.0	Cameo Coals				
8,942.9	8,878.0	Rollins SS				
9,192.9	9,128.0	TD				

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Well:	Chevron TR 532-21-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	Chevron TR 532-21-597		
Design:	Plan #2 26Oct09 kjs		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.0	120.0	0.0	0.0	Start Build 3.00
417.3	416.1	-20.2	11.2	Hold 8.92 Inc
5,483.2	5,420.8	-707.0	392.4	Start Drop -1.50
6,077.9	6,013.0	-747.3	414.8	Vertical
9,192.9	9,128.0	-747.3	414.8	TD at 9193