



Project: Mesa County, CO
Site: N Vega 28-11
Well: Piceance 28-12M
Wellbore: Wellbore #1
Design: Design #2
Latitude: 39° 14' 51.917 N
Longitude: 107° 46' 41.072 W
Ground Level: 7580.00
WELL @ 7602.00usft (Original Well Elev)

Archer

PROJECT DETAILS: Mesa County, CO

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone
System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Piceance 28-12M, True North
Vertical (TVD) Reference: WELL @ 7602.00usft (Original Well Elev)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: WELL @ 7602.00usft (Original Well Elev)
Calculation Method: Minimum Curvature

WELL DETAILS: Piceance 28-12M

+N/-S	+E/-W	Northing	Ground Level:	7580.00	Latitude	Longitude	Slot
0.00	0.00	1523217.422	Easting	2354926.320	39° 14' 51.917 N	107° 46' 41.072 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Piceance 28-12M tgt	7905.00	-125.49	972.90	1523067.575	2355895.770	39° 14' 50.676 N	107° 46' 28.704 W	Circle (Radius: 50.00)

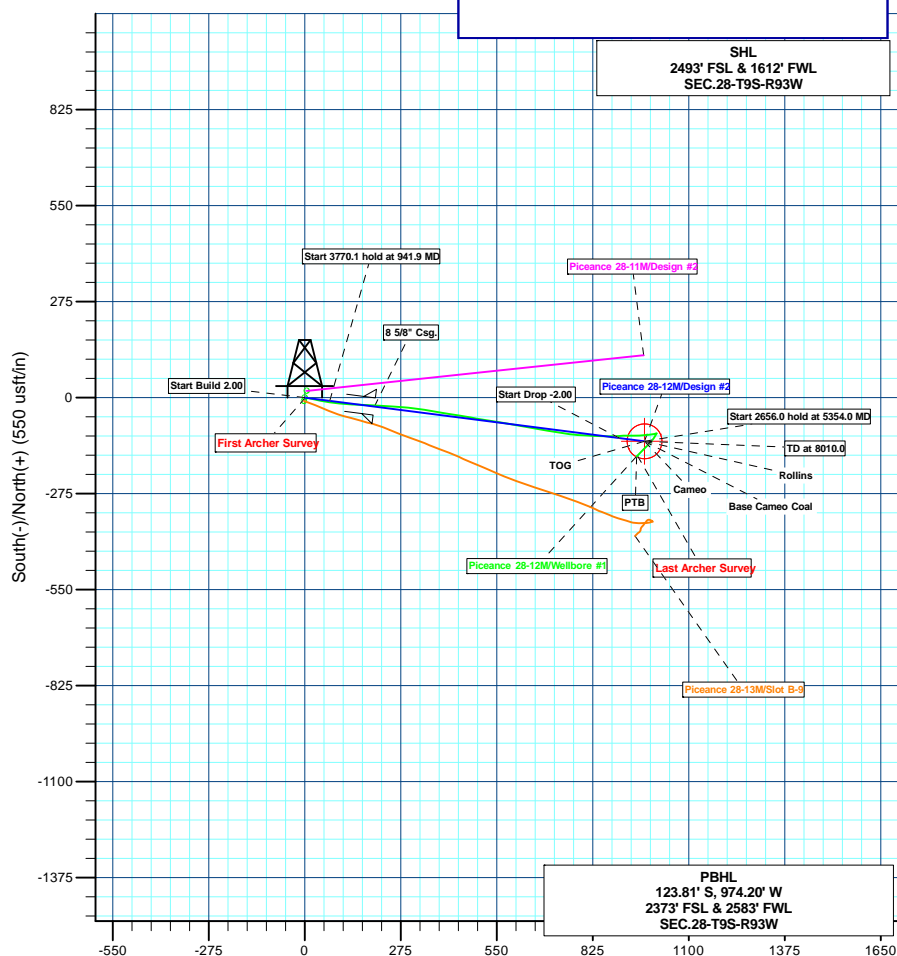
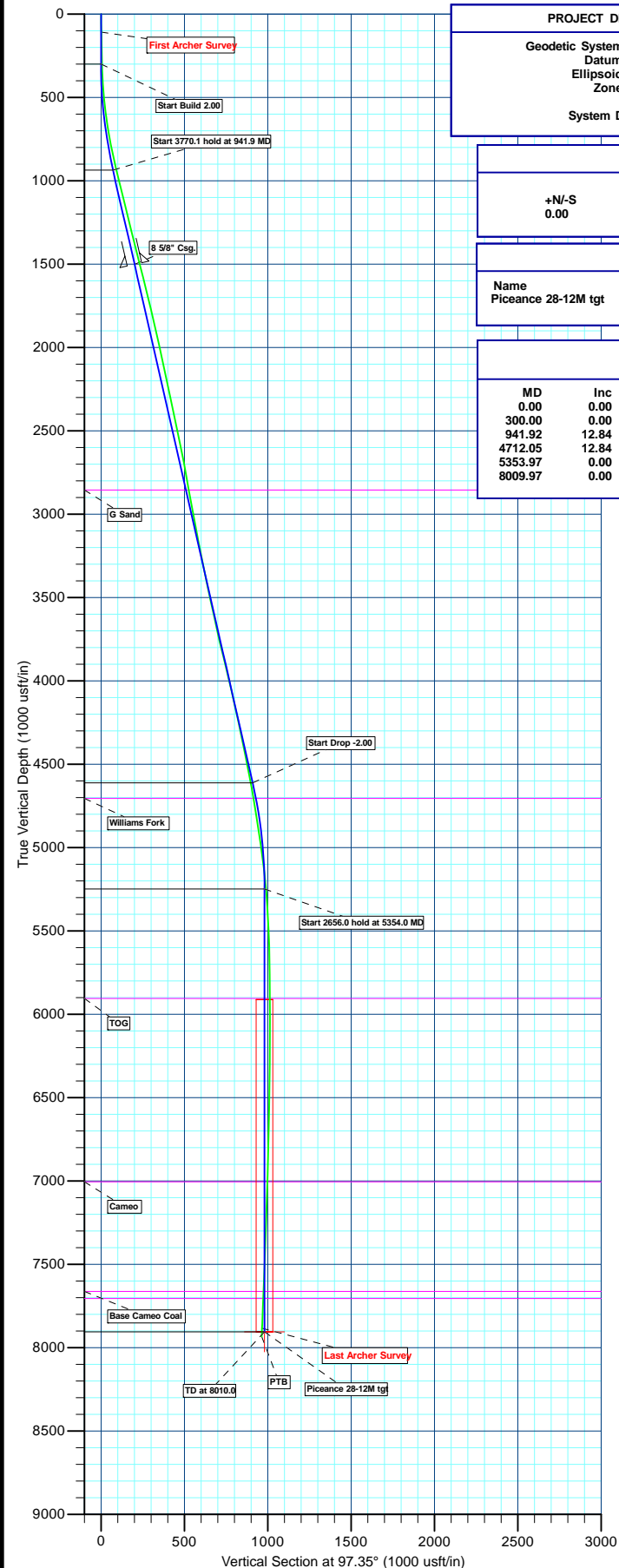
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0.00	0.00	0.00	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	Start Build 2.00
941.92	12.84	97.35	936.56	-9.16	71.03	2.00	97.35	71.62	Start 3770.1 hold at 941.9 MD
4712.05	12.84	97.35	4612.44	-116.33	901.87	0.00	0.00	909.35	Start Drop -2.00
5353.97	0.00	0.00	5249.00	-125.49	972.90	2.00	180.00	980.96	Start 2656.0 hold at 5354.0 MD
8009.97	0.00	0.00	7905.00	-125.49	972.90	0.00	0.00	980.96	TD at 8010.0

FORMATION TOP DETAILS

TVDPATH	MDPATH	Formation
2855.00	2909.55	G Sand
4705.00	4806.64	Williams Fork
5905.00	6009.97	TOG
7005.00	7109.97	Cameo
7663.00	7767.97	Base Cameo Coal
7705.00	7809.97	Rollins

Azimuths to True North
Magnetic North: 9.78°
Magnetic Field
Strength: 51787.9snT
Dip Angle: 65.48°
Date: 11/05/2014
Model: IGRF2010



Plan: Design #2 (Piceance 28-12M/Wellbore #1)

Created By: Ricky Osburn Date: 8:58, March 15 2015