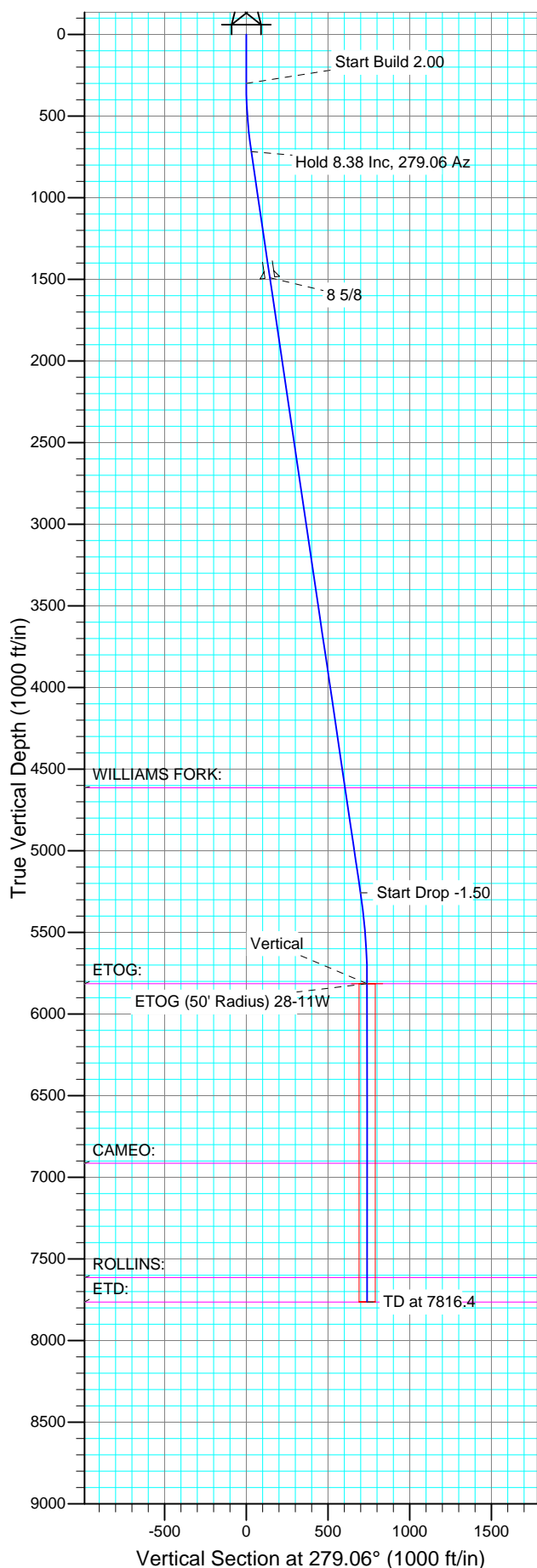




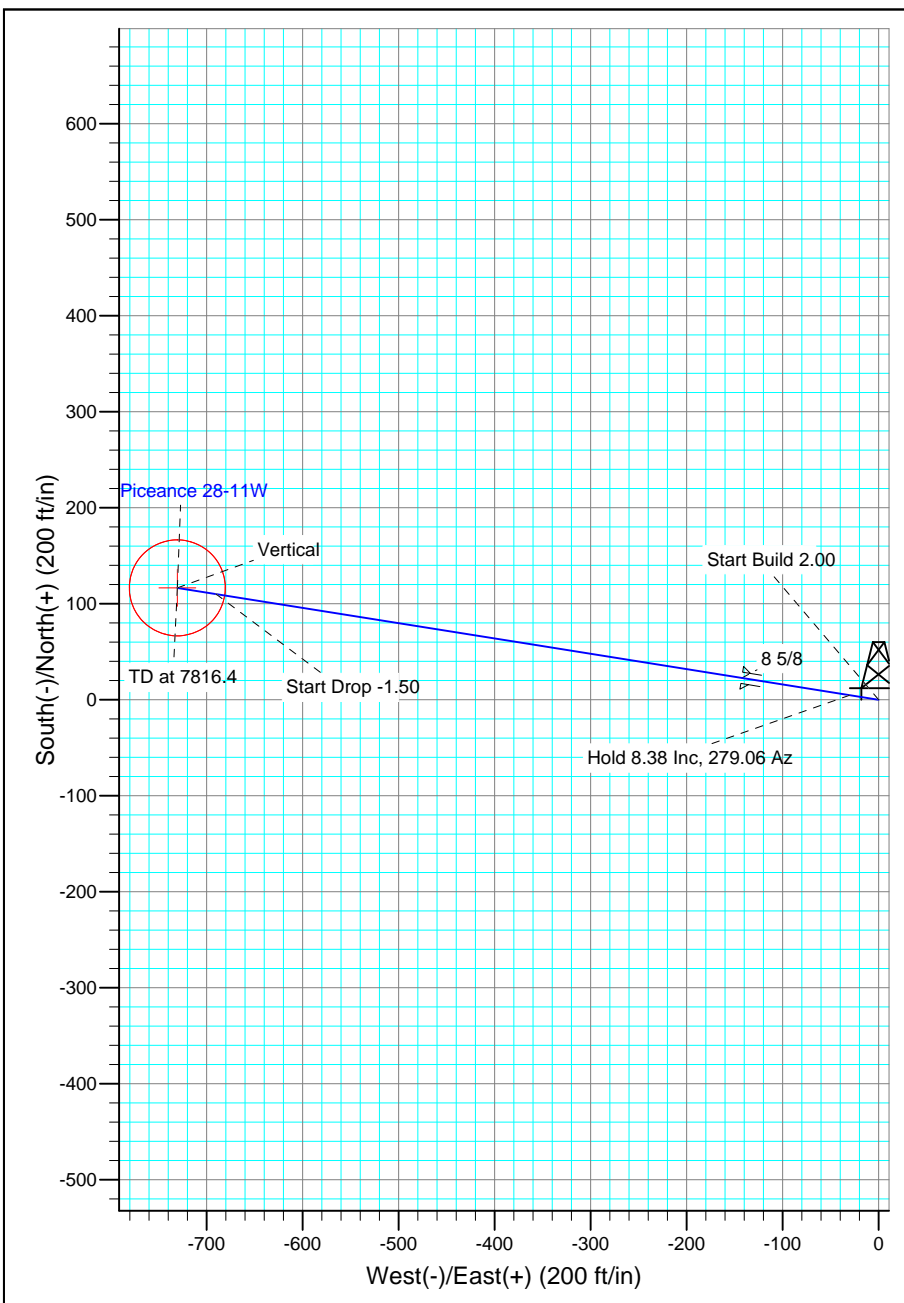
Well Name: Piceance 28-11W
Surface Location: Piceance 28-11 Pad
North American Datum 1983
US State Plane 1983 , Colorado Central Zone
Ground Elevation: 7580.0
WELL @ 7604.0ft (Original Well Elev)

Project: Mesa County, CO
Site: Piceance 28-11 Pad
Well: Piceance 28-11W
Wellbore: Wellbore #1
Design: Plan #1 10May14 kjs

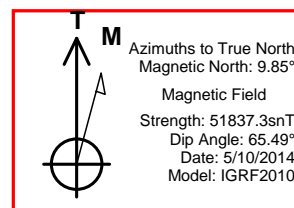
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1523237.69	2354922.70	39° 14' 52.116 N	107° 46' 41.124 W	



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	718.8	8.38	279.06	717.4	4.8	-30.2	2.00	279.06	30.6	
4	5308.0	8.38	279.06	5257.5	110.1	-690.4	0.00	0.00	699.1	
5	5866.4	0.00	0.00	5814.0	116.6	-730.6	1.50	180.00	739.9	ETOG (50' Radius) 28-11W
6	7816.4	0.00	0.00	7764.0	116.6	-730.6	0.00	0.00	739.9	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4614.0	4657.5	WILLIAMS FORK:
5814.0	5866.4	ETOG:
6914.0	6966.4	CAMEO:
7614.0	7666.4	ROLLINS:
7764.0	7816.4	ETD:



Piceance Energy, LLC

Mesa County, CO

Piceance 28-11 Pad

Piceance 28-11W

Wellbore #1

Plan: Plan #1 10May14 kjs

Standard Planning Report - Geographic

11 May, 2014

New Tech

Planning Report - Geographic

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well Piceance 28-11W
Company:	Piceance Energy, LLC	TVD Reference:	WELL @ 7604.0ft (Original Well Elev)
Project:	Mesa County, CO	MD Reference:	WELL @ 7604.0ft (Original Well Elev)
Site:	Piceance 28-11 Pad	North Reference:	True
Well:	Piceance 28-11W	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 10May14 kjs		

Project	Mesa County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Piceance 28-11 Pad			
Site Position:		Northing:	1,523,237.48 ft	Latitude:	39° 14' 52.116 N
From:	Lat/Long	Easting:	2,354,931.19 ft	Longitude:	107° 46' 41.016 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-1.44 °

Well	Piceance 28-11W					
Well Position	+N/-S	0.0 ft	Northing:	1,523,237.69 ft	Latitude:	39° 14' 52.116 N
	+E/-W	0.0 ft	Easting:	2,354,922.70 ft	Longitude:	107° 46' 41.124 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,580.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	5/10/2014	9.85	65.50	51,837

Design	Plan #1 10May14 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	279.06

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100ft)	(°/100ft)	(°/100ft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
718.8	8.38	279.06	717.4	4.8	-30.2	2.00	2.00	0.00	279.06	
5,308.0	8.38	279.06	5,257.5	110.1	-690.4	0.00	0.00	0.00	0.00	
5,866.4	0.00	0.00	5,814.0	116.6	-730.6	1.50	-1.50	0.00	180.00	ETOG (50' Radius) 28
7,816.4	0.00	0.00	7,764.0	116.6	-730.6	0.00	0.00	0.00	0.00	

New Tech

Planning Report - Geographic

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well Piceance 28-11W
Company:	Piceance Energy, LLC	TVD Reference:	WELL @ 7604.0ft (Original Well Elev)
Project:	Mesa County, CO	MD Reference:	WELL @ 7604.0ft (Original Well Elev)
Site:	Piceance 28-11 Pad	North Reference:	True
Well:	Piceance 28-11W	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 10May14 kjs		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,523,237.69	2,354,922.70	39° 14' 52.116 N	107° 46' 41.124 W
200.0	0.00	0.00	200.0	0.0	0.0	1,523,237.69	2,354,922.70	39° 14' 52.116 N	107° 46' 41.124 W
300.0	0.00	0.00	300.0	0.0	0.0	1,523,237.69	2,354,922.70	39° 14' 52.116 N	107° 46' 41.124 W
Start Build 2.00									
400.0	2.00	279.06	400.0	0.3	-1.7	1,523,238.01	2,354,920.98	39° 14' 52.119 N	107° 46' 41.146 W
600.0	6.00	279.06	599.5	2.5	-15.5	1,523,240.55	2,354,907.27	39° 14' 52.140 N	107° 46' 41.321 W
718.8	8.38	279.06	717.4	4.8	-30.2	1,523,243.27	2,354,892.65	39° 14' 52.164 N	107° 46' 41.508 W
Hold 8.38 Inclination									
800.0	8.38	279.06	797.6	6.7	-41.9	1,523,245.42	2,354,881.02	39° 14' 52.182 N	107° 46' 41.656 W
1,000.0	8.38	279.06	995.5	11.3	-70.6	1,523,250.73	2,354,852.37	39° 14' 52.227 N	107° 46' 42.022 W
1,200.0	8.38	279.06	1,193.4	15.9	-99.4	1,523,256.04	2,354,823.72	39° 14' 52.273 N	107° 46' 42.388 W
1,400.0	8.38	279.06	1,391.2	20.4	-128.2	1,523,261.35	2,354,795.08	39° 14' 52.318 N	107° 46' 42.753 W
1,500.0	8.38	279.06	1,490.2	22.7	-142.6	1,523,264.01	2,354,780.75	39° 14' 52.341 N	107° 46' 42.936 W
8 5/8									
1,600.0	8.38	279.06	1,589.1	25.0	-156.9	1,523,266.66	2,354,766.43	39° 14' 52.363 N	107° 46' 43.119 W
1,800.0	8.38	279.06	1,787.0	29.6	-185.7	1,523,271.97	2,354,737.78	39° 14' 52.409 N	107° 46' 43.485 W
2,000.0	8.38	279.06	1,984.8	34.2	-214.5	1,523,277.28	2,354,709.13	39° 14' 52.454 N	107° 46' 43.851 W
2,200.0	8.38	279.06	2,182.7	38.8	-243.3	1,523,282.59	2,354,680.48	39° 14' 52.500 N	107° 46' 44.216 W
2,400.0	8.38	279.06	2,380.6	43.4	-272.0	1,523,287.90	2,354,651.83	39° 14' 52.545 N	107° 46' 44.582 W
2,600.0	8.38	279.06	2,578.4	48.0	-300.8	1,523,293.21	2,354,623.18	39° 14' 52.590 N	107° 46' 44.948 W
2,800.0	8.38	279.06	2,776.3	52.6	-329.6	1,523,298.52	2,354,594.53	39° 14' 52.636 N	107° 46' 45.314 W
3,000.0	8.38	279.06	2,974.2	57.2	-358.4	1,523,303.83	2,354,565.89	39° 14' 52.681 N	107° 46' 45.680 W
3,200.0	8.38	279.06	3,172.0	61.8	-387.1	1,523,309.14	2,354,537.24	39° 14' 52.726 N	107° 46' 46.045 W
3,400.0	8.38	279.06	3,369.9	66.3	-415.9	1,523,314.45	2,354,508.59	39° 14' 52.772 N	107° 46' 46.411 W
3,600.0	8.38	279.06	3,567.8	70.9	-444.7	1,523,319.76	2,354,479.94	39° 14' 52.817 N	107° 46' 46.777 W
3,800.0	8.38	279.06	3,765.6	75.5	-473.5	1,523,325.07	2,354,451.29	39° 14' 52.862 N	107° 46' 47.143 W
4,000.0	8.38	279.06	3,963.5	80.1	-502.2	1,523,330.38	2,354,422.64	39° 14' 52.908 N	107° 46' 47.508 W
4,200.0	8.38	279.06	4,161.4	84.7	-531.0	1,523,335.69	2,354,393.99	39° 14' 52.953 N	107° 46' 47.874 W
4,400.0	8.38	279.06	4,359.2	89.3	-559.8	1,523,341.00	2,354,365.34	39° 14' 52.999 N	107° 46' 48.240 W
4,600.0	8.38	279.06	4,557.1	93.9	-588.5	1,523,346.31	2,354,336.69	39° 14' 53.044 N	107° 46' 48.606 W
4,657.5	8.38	279.06	4,614.0	95.2	-596.8	1,523,347.84	2,354,328.46	39° 14' 53.057 N	107° 46' 48.711 W
WILLIAMS FORK:									
4,800.0	8.38	279.06	4,755.0	98.5	-617.3	1,523,351.62	2,354,308.05	39° 14' 53.089 N	107° 46' 48.971 W
5,000.0	8.38	279.06	4,952.8	103.1	-646.1	1,523,356.93	2,354,279.40	39° 14' 53.135 N	107° 46' 49.337 W
5,200.0	8.38	279.06	5,150.7	107.7	-674.9	1,523,362.24	2,354,250.75	39° 14' 53.180 N	107° 46' 49.703 W
5,308.0	8.38	279.06	5,257.5	110.1	-690.4	1,523,365.11	2,354,235.28	39° 14' 53.205 N	107° 46' 49.900 W
Start Drop -1.50									
5,400.0	7.00	279.06	5,348.7	112.1	-702.6	1,523,367.35	2,354,223.18	39° 14' 53.224 N	107° 46' 50.055 W
5,600.0	4.00	279.06	5,547.8	115.1	-721.5	1,523,370.84	2,354,204.34	39° 14' 53.253 N	107° 46' 50.295 W
5,800.0	1.00	279.06	5,747.6	116.5	-730.1	1,523,372.43	2,354,195.78	39° 14' 53.267 N	107° 46' 50.405 W
5,866.4	0.00	0.00	5,814.0	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
Vertical @ ETOG - ETOG: - ETOG (50' Radius) 28-11W									
6,000.0	0.00	0.00	5,947.6	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
6,200.0	0.00	0.00	6,147.6	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
6,400.0	0.00	0.00	6,347.6	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
6,600.0	0.00	0.00	6,547.6	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
6,800.0	0.00	0.00	6,747.6	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
6,966.4	0.00	0.00	6,914.0	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
CAMEO:									
7,000.0	0.00	0.00	6,947.6	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
7,200.0	0.00	0.00	7,147.6	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
7,400.0	0.00	0.00	7,347.6	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
7,600.0	0.00	0.00	7,547.6	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W

New Tech
Planning Report - Geographic

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well Piceance 28-11W
Company:	Piceance Energy, LLC	TVD Reference:	WELL @ 7604.0ft (Original Well Elev)
Project:	Mesa County, CO	MD Reference:	WELL @ 7604.0ft (Original Well Elev)
Site:	Piceance 28-11 Pad	North Reference:	True
Well:	Piceance 28-11W	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 10May14 kjs		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
7,666.4	0.00	0.00	7,614.0	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
ROLLINS:									
7,800.0	0.00	0.00	7,747.6	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
7,816.4	0.00	0.00	7,764.0	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
TD at 7816.4 - ETD:									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
ETOG (50' Radius) 28-1	0.00	0.00	5,814.0	116.6	-730.6	1,523,372.54	2,354,195.21	39° 14' 53.268 N	107° 46' 50.412 W
- plan hits target									
- Circle (radius 50.0)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,500.0	1,490.2	8 5/8	8-5/8	8-5/8	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,657.5	4,614.0	WILLIAMS FORK:				
6,966.4	6,914.0	CAMEO:				
7,816.4	7,764.0	ETD:				
5,866.4	5,814.0	ETOG:				
7,666.4	7,614.0	ROLLINS:				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
300.0	300.0	0.0	0.0	Start Build 2.00	
718.8	717.4	4.8	-30.2	Hold 8.38 Inclination	
5,308.0	5,257.5	110.1	-690.4	Start Drop -1.50	
5,866.4	5,814.0	116.6	-730.6	Vertical @ ETOG	
7,816.4	7,764.0	116.6	-730.6	TD at 7816.4	