

PROJECT DETAILS: Rio Blanco 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 RG 514-18-297 - Slot (A6) RG 514-18-297, True North
 Vertical (TVD) Reference: KB=30' @ 6697.00usft (H&P #329)
 Section (VS) Reference: Slot - (A6) RG 514-18-297(0.00N, 0.00E)
 Measured Depth Reference: KB=30' @ 6697.00usft (H&P #329)
 Calculation Method: Minimum Curvature

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
RG 514-18-297 - VP	8027.00	248.21	2081.71	1755058.83	2205636.90	39.872476	-108.330486	Circle (Radius: 100.00)
RG 514-18-297 - PBHL	11807.00	248.21	2081.71	1755058.83	2205636.90	39.872476	-108.330486	Point

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSecDeparture	Annotation
140.00	0.00	0.00	140.00	0.00	0.00	0.00	Start Build 2.00
390.00	5.00	91.00	389.68	-0.19	10.90	10.80	Start DLS 2.00 TFO -11.16
989.52	16.92	83.06	977.23	9.93	124.05	124.36	Start 6206.66 hold at 989.52 MD
7196.19	16.92	83.06	6915.12	228.22	1917.52	1931.05	Start Drop -1.50
8324.40	0.00	0.00	8027.00	248.21	2081.71	2096.46	Start 3780.00 hold at 8324.40 MD
12104.40	0.00	0.00	11807.00	248.21	2081.71	2096.46	TD at 12104.40

WELL DETAILS: RG 514-18-297

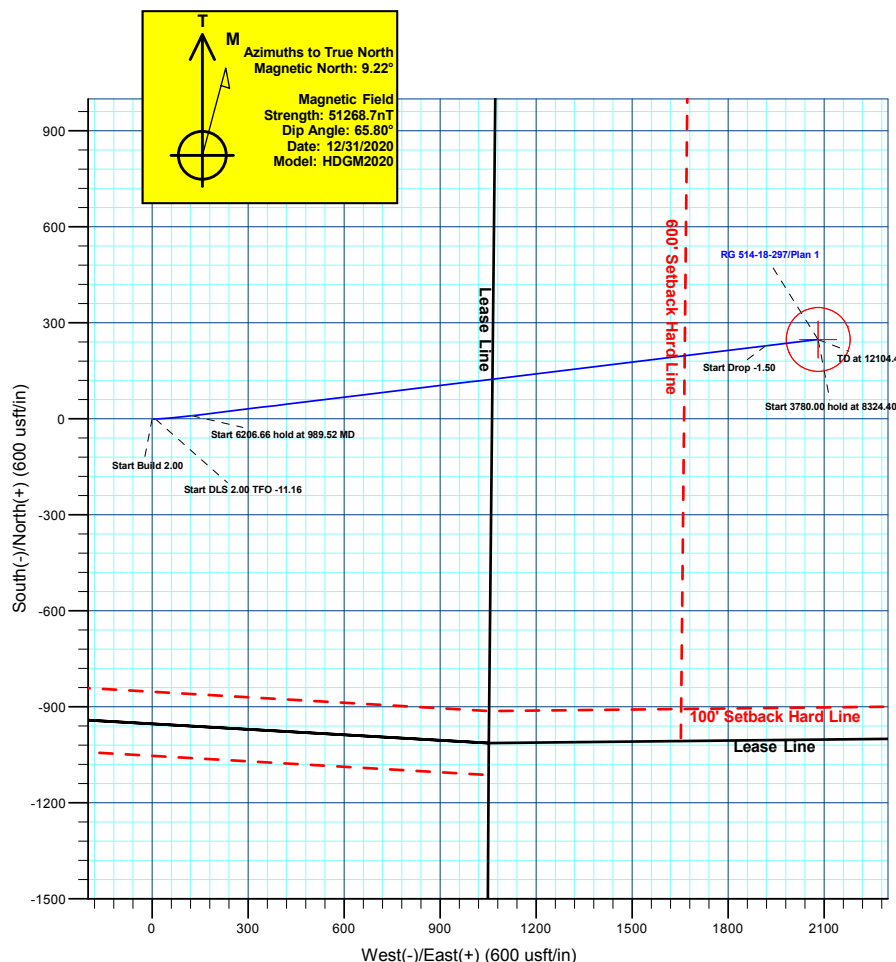
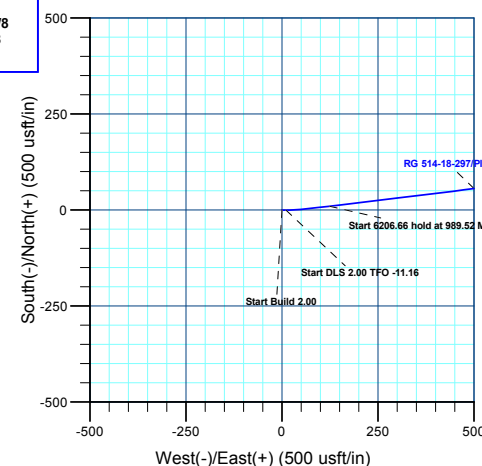
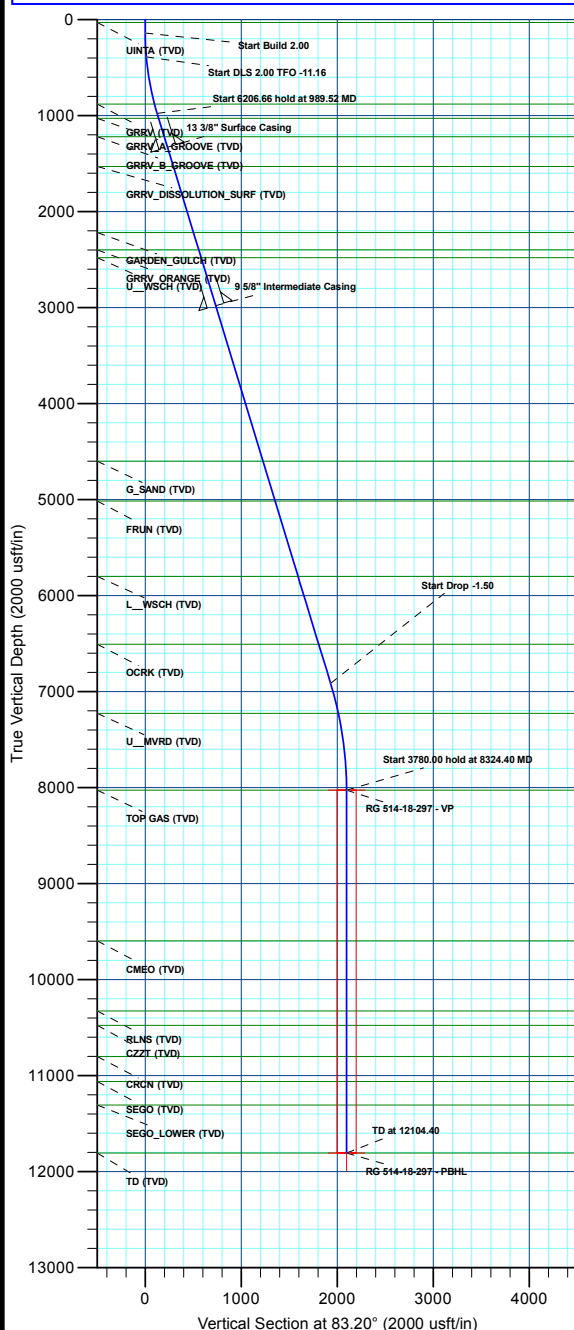
+N/-S	+E/-W	Northing	Ground Elev:	Latitude	Longitude	Slot
0.00	0.00	1754875.76	6667.00	39.871795	-108.337902	(A6) RG 514-18-297
			2203548.45			

CASING DETAILS

TVD	MD	Name	Size
1330.00	1358.26	13 3/8" Surface Casing	13-3/8
2980.00	3082.95	5/8" Intermediate Casing	9-5/8

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
30.00	30.00	UINTA (TVD)
880.00	888.41	GRRV (TVD)
1030.00	1044.68	GRRV_A_GROOVE (TVD)
1220.00	1243.28	GRRV_B_GROOVE (TVD)
1530.00	1567.31	GRRV_DISSOLUTION_SURF (TVD)
2220.00	2288.55	GARDEN_GULCH (TVD)
2400.00	2476.69	GRRV_ORANGE (TVD)
2480.00	2560.32	U_WSCH (TVD)
4600.00	4776.28	G_SAND (TVD)
5015.00	5210.06	FRUN (TVD)
5800.00	6030.59	L_WSCH (TVD)
6507.00	6769.59	OCRK (TVD)
7227.00	7518.43	U_MVRD (TVD)
8027.00	8324.40	TOP GAS (TVD)
9597.00	9894.40	CMEQ (TVD)
10327.00	10624.40	RLNS (TVD)
10477.00	10774.40	CZZT (TVD)
10802.00	11099.40	CRCN (TVD)
11062.00	11359.40	SEGO (TVD)
11307.00	11604.40	SEGO_LOWER (TVD)
11807.00	12104.40	TD (TVD)





Terra Energy Partners, LLP

Rio Blanco County, CO

Fed 298-13-1 Pad

RG 514-18-297 - Slot (A6) RG 514-18-297

Wellbore #1

Plan: Plan 1

KLX Well Planning Report

15 March, 2022



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 514-18-297 - Slot (A6) RG 514-18-297
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6697.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6697.00usft (H&P #329)
Site:	Fed 298-13-1 Pad	North Reference:	True
Well:	RG 514-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Project	Rio Blanco 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	Fed 298-13-1 Pad			
Site Position:		Northing:	1,754,850.43 usft	Latitude: 39.871723
From: Map		Easting:	2,203,520.82 usft	Longitude: -108.337998
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: -1.79 °

Well	RG 514-18-297 - Slot (A6) RG 514-18-297			
Well Position	+N/-S	26.18 usft	Northing:	1,754,875.76 usft
	+E/-W	26.83 usft	Easting:	2,203,548.45 usft
Position Uncertainty		0.00 usft	Wellhead Elevation:	Ground Level: 6,667.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	12/31/2020	9.22	65.80	51,268.70000000

Design	Plan 1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	83.20

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140.00	0.00	0.00	140.00	0.00	0.00	0.00	0.00	0.00	0.00	
390.00	5.00	91.00	389.68	-0.19	10.90	2.00	2.00	0.00	91.00	
989.52	16.92	83.06	977.23	9.93	124.05	2.00	1.99	-1.32	-11.16	
7,196.19	16.92	83.06	6,915.12	228.22	1,917.52	0.00	0.00	0.00	0.00	
8,324.40	0.00	0.00	8,027.00	248.21	2,081.71	1.50	-1.50	0.00	180.00	RG 514-18-297 - VP
12,104.40	0.00	0.00	11,807.00	248.21	2,081.71	0.00	0.00	0.00	0.00	RG 514-18-297 - PBH

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Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6697.00usft (H&P #329)
Site:	Fed 298-13-1 Pad	North Reference:	True
Well:	RG 514-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
UINTA (TVD)										
30.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 2.00										
140.00	0.00	0.00	140.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	1.20	91.00	200.00	-0.01	0.63	0.62	2.00	2.00	0.00	
300.00	3.20	91.00	299.92	-0.08	4.47	4.43	2.00	2.00	0.00	
Start DLS 2.00 TFO -11.16										
390.00	5.00	91.00	389.68	-0.19	10.90	10.80	2.00	2.00	0.00	
400.00	5.20	90.57	399.64	-0.20	11.79	11.68	2.00	1.96	-4.27	
500.00	7.17	87.59	499.06	0.02	22.55	22.40	2.00	1.97	-2.98	
600.00	9.16	85.89	598.04	0.85	36.73	36.57	2.00	1.99	-1.70	
700.00	11.15	84.79	696.47	2.30	54.29	54.18	2.00	1.99	-1.10	
800.00	13.14	84.03	794.23	4.36	75.23	75.21	2.00	1.99	-0.77	
GRRV (TVD)										
888.41	14.90	83.52	880.00	6.69	96.52	96.63	2.00	2.00	-0.58	
900.00	15.14	83.46	891.19	7.03	99.51	99.64	2.00	2.00	-0.50	
Start 6206.66 hold at 989.52 MD										
989.52	16.92	83.06	977.23	9.93	124.05	124.36	2.00	2.00	-0.44	
1,000.00	16.92	83.06	987.25	10.30	127.08	127.41	0.00	0.00	0.00	
GRRV_A_GROOVE (TVD)										
1,044.68	16.92	83.06	1,030.00	11.87	139.99	140.41	0.00	0.00	0.00	
1,100.00	16.92	83.06	1,082.92	13.82	155.98	156.52	0.00	0.00	0.00	
1,200.00	16.92	83.06	1,178.59	17.34	184.87	185.62	0.00	0.00	0.00	
GRRV_B_GROOVE (TVD)										
1,243.28	16.92	83.06	1,220.00	18.86	197.38	198.22	0.00	0.00	0.00	
1,300.00	16.92	83.06	1,274.26	20.85	213.77	214.73	0.00	0.00	0.00	
13 3/8" Surface Casing										
1,358.26	16.92	83.06	1,330.00	22.90	230.60	231.69	0.00	0.00	0.00	
1,400.00	16.92	83.06	1,369.93	24.37	242.66	243.84	0.00	0.00	0.00	
1,500.00	16.92	83.06	1,465.60	27.89	271.56	272.95	0.00	0.00	0.00	
GRRV DISSOLUTION_SURF (TVD)										
1,567.31	16.92	83.06	1,530.00	30.25	291.01	292.55	0.00	0.00	0.00	
1,600.00	16.92	83.06	1,561.27	31.40	300.46	302.06	0.00	0.00	0.00	
1,700.00	16.92	83.06	1,656.94	34.92	329.35	331.17	0.00	0.00	0.00	
1,800.00	16.92	83.06	1,752.61	38.44	358.25	360.28	0.00	0.00	0.00	
1,900.00	16.92	83.06	1,848.28	41.96	387.14	389.39	0.00	0.00	0.00	
2,000.00	16.92	83.06	1,943.95	45.47	416.04	418.50	0.00	0.00	0.00	
2,100.00	16.92	83.06	2,039.62	48.99	444.93	447.60	0.00	0.00	0.00	
2,200.00	16.92	83.06	2,135.29	52.51	473.83	476.71	0.00	0.00	0.00	
GARDEN_GULCH (TVD)										
2,288.55	16.92	83.06	2,220.00	55.62	499.42	502.49	0.00	0.00	0.00	
2,300.00	16.92	83.06	2,230.96	56.02	502.73	505.82	0.00	0.00	0.00	
2,400.00	16.92	83.06	2,326.63	59.54	531.62	534.93	0.00	0.00	0.00	
GRRV_ORANGE (TVD)										
2,476.69	16.92	83.06	2,400.00	62.24	553.78	557.26	0.00	0.00	0.00	
2,500.00	16.92	83.06	2,422.30	63.06	560.52	564.04	0.00	0.00	0.00	
U_WSCH (TVD)										
2,560.32	16.92	83.06	2,480.00	65.18	577.95	581.60	0.00	0.00	0.00	
2,600.00	16.92	83.06	2,517.97	66.57	589.41	593.15	0.00	0.00	0.00	
2,700.00	16.92	83.06	2,613.64	70.09	618.31	622.26	0.00	0.00	0.00	

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Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6697.00usft (H&P #329)
Site:	Fed 298-13-1 Pad	North Reference:	True
Well:	RG 514-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,800.00	16.92	83.06	2,709.31	73.61	647.20	651.37	0.00	0.00	0.00
2,900.00	16.92	83.06	2,804.98	77.13	676.10	680.48	0.00	0.00	0.00
3,000.00	16.92	83.06	2,900.64	80.64	705.00	709.58	0.00	0.00	0.00
9 5/8" Intermediate Casing									
3,082.95	16.92	83.06	2,980.00	83.56	728.96	733.73	0.00	0.00	0.00
3,100.00	16.92	83.06	2,996.31	84.16	733.89	738.69	0.00	0.00	0.00
3,200.00	16.92	83.06	3,091.98	87.68	762.79	767.80	0.00	0.00	0.00
3,300.00	16.92	83.06	3,187.65	91.19	791.68	796.91	0.00	0.00	0.00
3,400.00	16.92	83.06	3,283.32	94.71	820.58	826.02	0.00	0.00	0.00
3,500.00	16.92	83.06	3,378.99	98.23	849.47	855.13	0.00	0.00	0.00
3,600.00	16.92	83.06	3,474.66	101.74	878.37	884.24	0.00	0.00	0.00
3,700.00	16.92	83.06	3,570.33	105.26	907.27	913.35	0.00	0.00	0.00
3,800.00	16.92	83.06	3,666.00	108.78	936.16	942.46	0.00	0.00	0.00
3,900.00	16.92	83.06	3,761.67	112.30	965.06	971.56	0.00	0.00	0.00
4,000.00	16.92	83.06	3,857.34	115.81	993.95	1,000.67	0.00	0.00	0.00
4,100.00	16.92	83.06	3,953.01	119.33	1,022.85	1,029.78	0.00	0.00	0.00
4,200.00	16.92	83.06	4,048.68	122.85	1,051.74	1,058.89	0.00	0.00	0.00
4,300.00	16.92	83.06	4,144.35	126.36	1,080.64	1,088.00	0.00	0.00	0.00
4,400.00	16.92	83.06	4,240.02	129.88	1,109.54	1,117.11	0.00	0.00	0.00
4,500.00	16.92	83.06	4,335.69	133.40	1,138.43	1,146.22	0.00	0.00	0.00
4,600.00	16.92	83.06	4,431.36	136.91	1,167.33	1,175.33	0.00	0.00	0.00
4,700.00	16.92	83.06	4,527.03	140.43	1,196.22	1,204.44	0.00	0.00	0.00
G_SAND (TVD)									
4,776.28	16.92	83.06	4,600.00	143.11	1,218.26	1,226.64	0.00	0.00	0.00
4,800.00	16.92	83.06	4,622.70	143.95	1,225.12	1,233.55	0.00	0.00	0.00
4,900.00	16.92	83.06	4,718.37	147.47	1,254.01	1,262.65	0.00	0.00	0.00
5,000.00	16.92	83.06	4,814.04	150.98	1,282.91	1,291.76	0.00	0.00	0.00
5,100.00	16.92	83.06	4,909.71	154.50	1,311.81	1,320.87	0.00	0.00	0.00
5,200.00	16.92	83.06	5,005.38	158.02	1,340.70	1,349.98	0.00	0.00	0.00
FRUN (TVD)									
5,210.06	16.92	83.06	5,015.00	158.37	1,343.61	1,352.91	0.00	0.00	0.00
5,300.00	16.92	83.06	5,101.04	161.53	1,369.60	1,379.09	0.00	0.00	0.00
5,400.00	16.92	83.06	5,196.71	165.05	1,398.49	1,408.20	0.00	0.00	0.00
5,500.00	16.92	83.06	5,292.38	168.57	1,427.39	1,437.31	0.00	0.00	0.00
5,600.00	16.92	83.06	5,388.05	172.09	1,456.28	1,466.42	0.00	0.00	0.00
5,700.00	16.92	83.06	5,483.72	175.60	1,485.18	1,495.53	0.00	0.00	0.00
5,800.00	16.92	83.06	5,579.39	179.12	1,514.08	1,524.63	0.00	0.00	0.00
5,900.00	16.92	83.06	5,675.06	182.64	1,542.97	1,553.74	0.00	0.00	0.00
6,000.00	16.92	83.06	5,770.73	186.15	1,571.87	1,582.85	0.00	0.00	0.00
L_WSCH (TVD)									
6,030.59	16.92	83.06	5,800.00	187.23	1,580.71	1,591.76	0.00	0.00	0.00
6,100.00	16.92	83.06	5,866.40	189.67	1,600.76	1,611.96	0.00	0.00	0.00
6,200.00	16.92	83.06	5,962.07	193.19	1,629.66	1,641.07	0.00	0.00	0.00
6,300.00	16.92	83.06	6,057.74	196.70	1,658.56	1,670.18	0.00	0.00	0.00
6,400.00	16.92	83.06	6,153.41	200.22	1,687.45	1,699.29	0.00	0.00	0.00
6,500.00	16.92	83.06	6,249.08	203.74	1,716.35	1,728.40	0.00	0.00	0.00
6,600.00	16.92	83.06	6,344.75	207.26	1,745.24	1,757.51	0.00	0.00	0.00
6,700.00	16.92	83.06	6,440.42	210.77	1,774.14	1,786.61	0.00	0.00	0.00
OCRK (TVD)									
6,769.60	16.92	83.06	6,507.00	213.22	1,794.25	1,806.87	0.00	0.00	0.00
6,800.00	16.92	83.06	6,536.09	214.29	1,803.03	1,815.72	0.00	0.00	0.00
6,900.00	16.92	83.06	6,631.76	217.81	1,831.93	1,844.83	0.00	0.00	0.00

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Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
7,000.00	16.92	83.06	6,727.43	221.32	1,860.83	1,873.94	0.00	0.00	0.00	
7,100.00	16.92	83.06	6,823.10	224.84	1,889.72	1,903.05	0.00	0.00	0.00	
Start Drop -1.50										
7,196.19	16.92	83.06	6,915.12	228.22	1,917.52	1,931.05	0.00	0.00	0.00	
7,200.00	16.87	83.06	6,918.77	228.36	1,918.62	1,932.16	1.50	-1.50	0.00	
7,300.00	15.37	83.06	7,014.83	231.71	1,946.17	1,959.91	1.50	-1.50	0.00	
7,400.00	13.87	83.06	7,111.60	234.76	1,971.22	1,985.15	1.50	-1.50	0.00	
7,500.00	12.37	83.06	7,208.98	237.50	1,993.74	2,007.84	1.50	-1.50	0.00	
U_MVRD (TVD)										
7,518.43	12.09	83.06	7,227.00	237.97	1,997.62	2,011.74	1.50	-1.50	0.00	
7,600.00	10.87	83.06	7,306.93	239.93	2,013.73	2,027.97	1.50	-1.50	0.00	
7,700.00	9.37	83.06	7,405.38	242.06	2,031.17	2,045.54	1.50	-1.50	0.00	
7,800.00	7.87	83.06	7,504.24	243.87	2,046.04	2,060.52	1.50	-1.50	0.00	
7,900.00	6.37	83.06	7,603.47	245.36	2,058.33	2,072.91	1.50	-1.50	0.00	
8,000.00	4.87	83.06	7,702.99	246.55	2,068.05	2,082.69	1.50	-1.50	0.00	
8,100.00	3.37	83.06	7,802.73	247.41	2,075.17	2,089.87	1.50	-1.50	0.00	
8,200.00	1.87	83.06	7,902.62	247.96	2,079.70	2,094.43	1.50	-1.50	0.00	
8,300.00	0.37	83.06	8,002.60	248.20	2,081.64	2,096.38	1.50	-1.50	0.00	
Start 3780.00 hold at 8324.40 MD - TOP GAS (TVD)										
8,324.40	0.00	0.00	8,027.00	248.21	2,081.71	2,096.46	1.50	-1.50	0.00	
8,400.00	0.00	0.00	8,102.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,202.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,302.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,402.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,502.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,602.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,702.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,802.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
9,200.00	0.00	0.00	8,902.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,002.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,102.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,202.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,302.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,402.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,502.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
CME0 (TVD)										
9,894.40	0.00	0.00	9,597.00	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,602.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
10,000.00	0.00	0.00	9,702.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
10,100.00	0.00	0.00	9,802.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
10,200.00	0.00	0.00	9,902.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
10,300.00	0.00	0.00	10,002.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
10,400.00	0.00	0.00	10,102.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
10,500.00	0.00	0.00	10,202.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
10,600.00	0.00	0.00	10,302.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
RLNS (TVD)										
10,624.40	0.00	0.00	10,327.00	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
10,700.00	0.00	0.00	10,402.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
CZZT (TVD)										
10,774.40	0.00	0.00	10,477.00	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
10,800.00	0.00	0.00	10,502.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
10,900.00	0.00	0.00	10,602.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 514-18-297 - Slot (A6) RG 514-18-297
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6697.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6697.00usft (H&P #329)
Site:	Fed 298-13-1 Pad	North Reference:	True
Well:	RG 514-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,000.00	0.00	0.00	10,702.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
CRCN (TVD)										
11,099.40	0.00	0.00	10,802.00	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
11,100.00	0.00	0.00	10,802.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
11,200.00	0.00	0.00	10,902.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
11,300.00	0.00	0.00	11,002.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
SEGO (TVD)										
11,359.40	0.00	0.00	11,062.00	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
11,400.00	0.00	0.00	11,102.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
11,500.00	0.00	0.00	11,202.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
11,600.00	0.00	0.00	11,302.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
SEGO_LOWER (TVD)										
11,604.40	0.00	0.00	11,307.00	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
11,700.00	0.00	0.00	11,402.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
11,800.00	0.00	0.00	11,502.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
11,900.00	0.00	0.00	11,602.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
12,000.00	0.00	0.00	11,702.60	248.21	2,081.71	2,096.46	0.00	0.00	0.00	
TD at 12104.40										
12,104.40	0.00	0.00	11,807.00	248.21	2,081.71	2,096.46	0.00	0.00	0.00	

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									
RG 514-18-297 - VP	0.00	0.00	8,027.00	248.21	2,081.71	1,755,058.83	2,205,636.90	39.872476	-108.330486
- plan hits target center									
- Circle (radius 100.00)									
RG 514-18-297 - PBHL	0.00	0.00	11,807.00	248.21	2,081.71	1,755,058.83	2,205,636.90	39.872476	-108.330486
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,358.26	1,330.00	13 3/8" Surface Casing	13-3/8	17-1/2	
3,082.95	2,980.00	9 5/8" Intermediate Casing	9-5/8	12-1/4	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well RG 514-18-297 - Slot (A6) RG 514-18-297
Company:	Terra Energy Partners, LLP	TVD Reference:	KB=30' @ 6697.00usft (H&P #329)
Project:	Rio Blanco County, CO	MD Reference:	KB=30' @ 6697.00usft (H&P #329)
Site:	Fed 298-13-1 Pad	North Reference:	True
Well:	RG 514-18-297	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
30.00	30.00	UINTA (TVD)				
888.41	880.00	GRRV (TVD)				
1,044.68	1,030.00	GRRV_A_GROOVE (TVD)				
1,243.28	1,220.00	GRRV_B_GROOVE (TVD)				
1,567.31	1,530.00	GRRV DISSOLUTION_SURF (TVD)				
2,288.55	2,220.00	GARDEN_GULCH (TVD)				
2,476.69	2,400.00	GRRV_ORANGE (TVD)				
2,560.32	2,480.00	U_WSCH (TVD)				
4,776.28	4,600.00	G_SAND (TVD)				
5,210.06	5,015.00	FRUN (TVD)				
6,030.59	5,800.00	L_WSCH (TVD)				
6,769.60	6,507.00	OCRK (TVD)				
7,518.43	7,227.00	U_MVRD (TVD)				
8,324.40	8,027.00	TOP GAS (TVD)				
9,894.40	9,597.00	CMEO (TVD)				
10,624.40	10,327.00	RLNS (TVD)				
10,774.40	10,477.00	CZZT (TVD)				
11,099.40	10,802.00	CRCN (TVD)				
11,359.40	11,062.00	SEGO (TVD)				
11,604.40	11,307.00	SEGO_LOWER (TVD)				
12,104.40	11,807.00	TD (TVD)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
140.00	140.00	0.00	0.00	Start Build 2.00	
390.00	389.68	-0.19	10.90	Start DLS 2.00 TFO -11.16	
989.52	977.23	9.93	124.05	Start 6206.66 hold at 989.52 MD	
7,196.19	6,915.12	228.22	1,917.52	Start Drop -1.50	
8,324.40	8,027.00	248.21	2,081.71	Start 3780.00 hold at 8324.40 MD	
12,104.40	11,807.00	248.21	2,081.71	TD at 12104.40	