

Sec 9, T6S, R94W
RWF 332-9
Q210934 & RM-210798
Plan 2

Company Name: Terra Energy Partners, LLP
RWF 332-9
Garfield County, CO (Nad 83)
Rig: KB=30' @ 6399.40usft (H&P #329)
Created by: Chase Chambers
Date: 15:45, November 27 2021

PROJECT DETAILS: Garfield County, CO (Nad 83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone
System Datum: Mean Sea Level



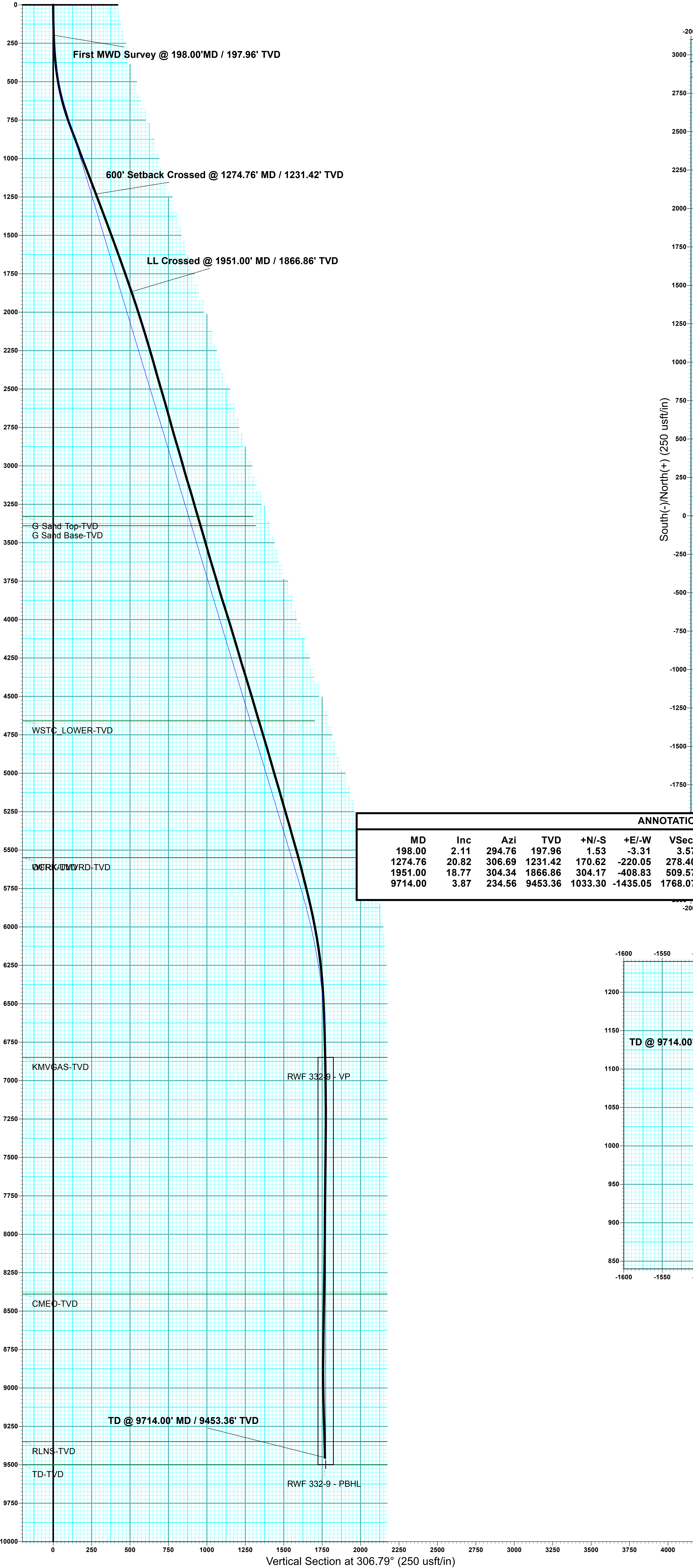
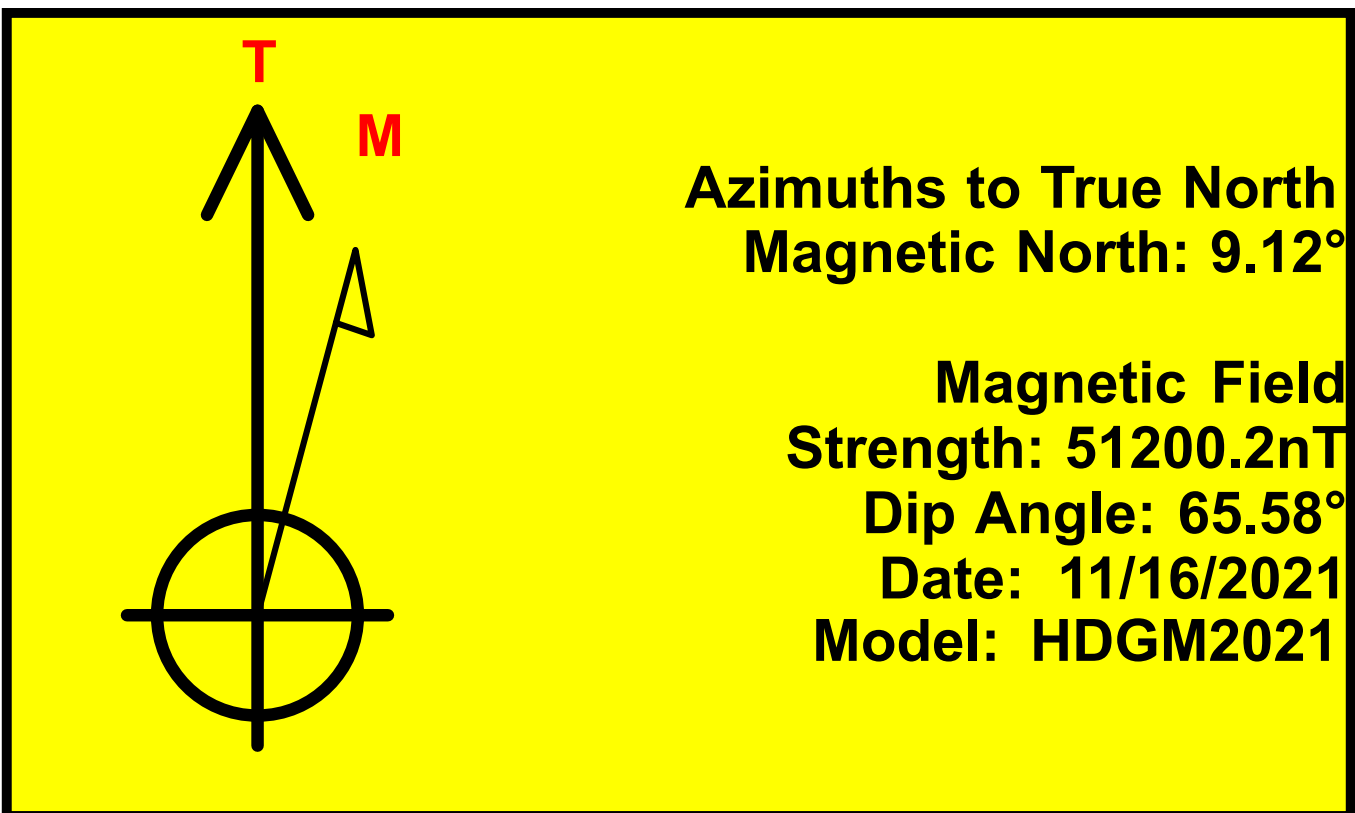
WELL DETAILS: RWF 332-9						
Ground Elevation:			6369.40			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	RWF 332-9
0.00	0.00	1630187.10	2327336.50	39.539401	-107.885382	

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
RWF 332-9 - VP	6849.00	1061.99	-1419.87	1631286.00	2325945.00	39.542317
RWF 332-9 - PBHL	9499.00	1061.99	-1419.87	1631286.00	2325945.00	39.542317

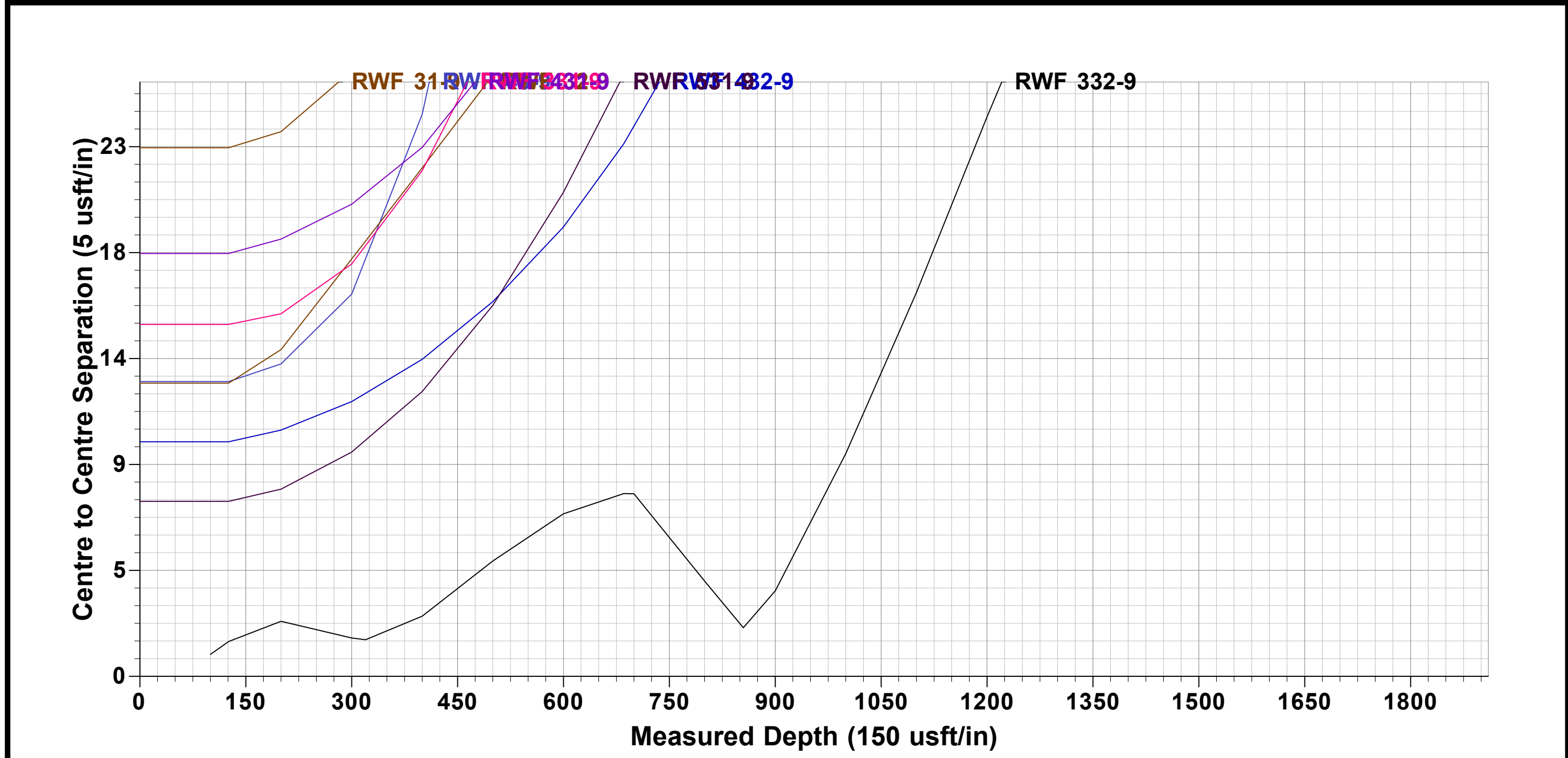
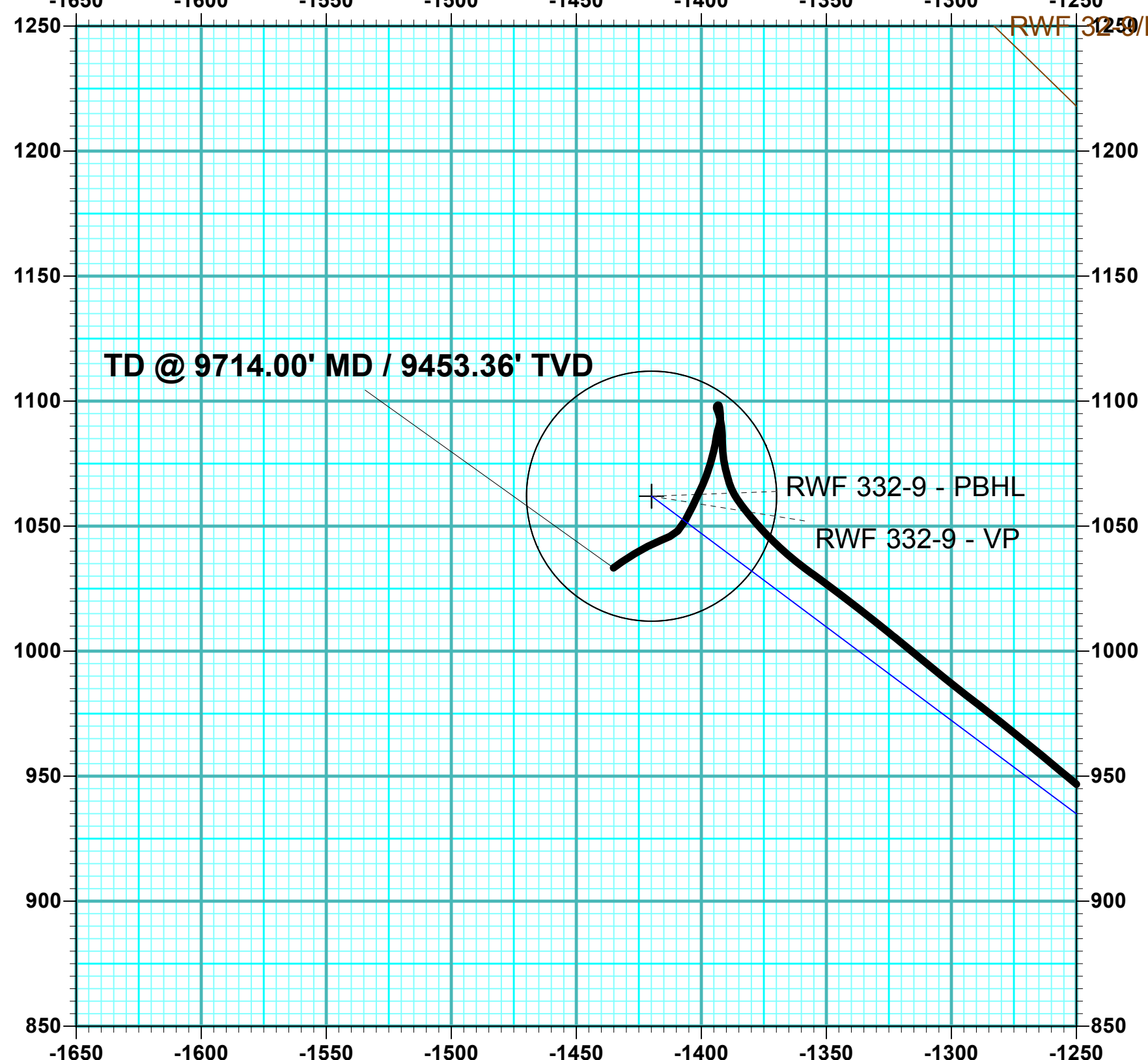
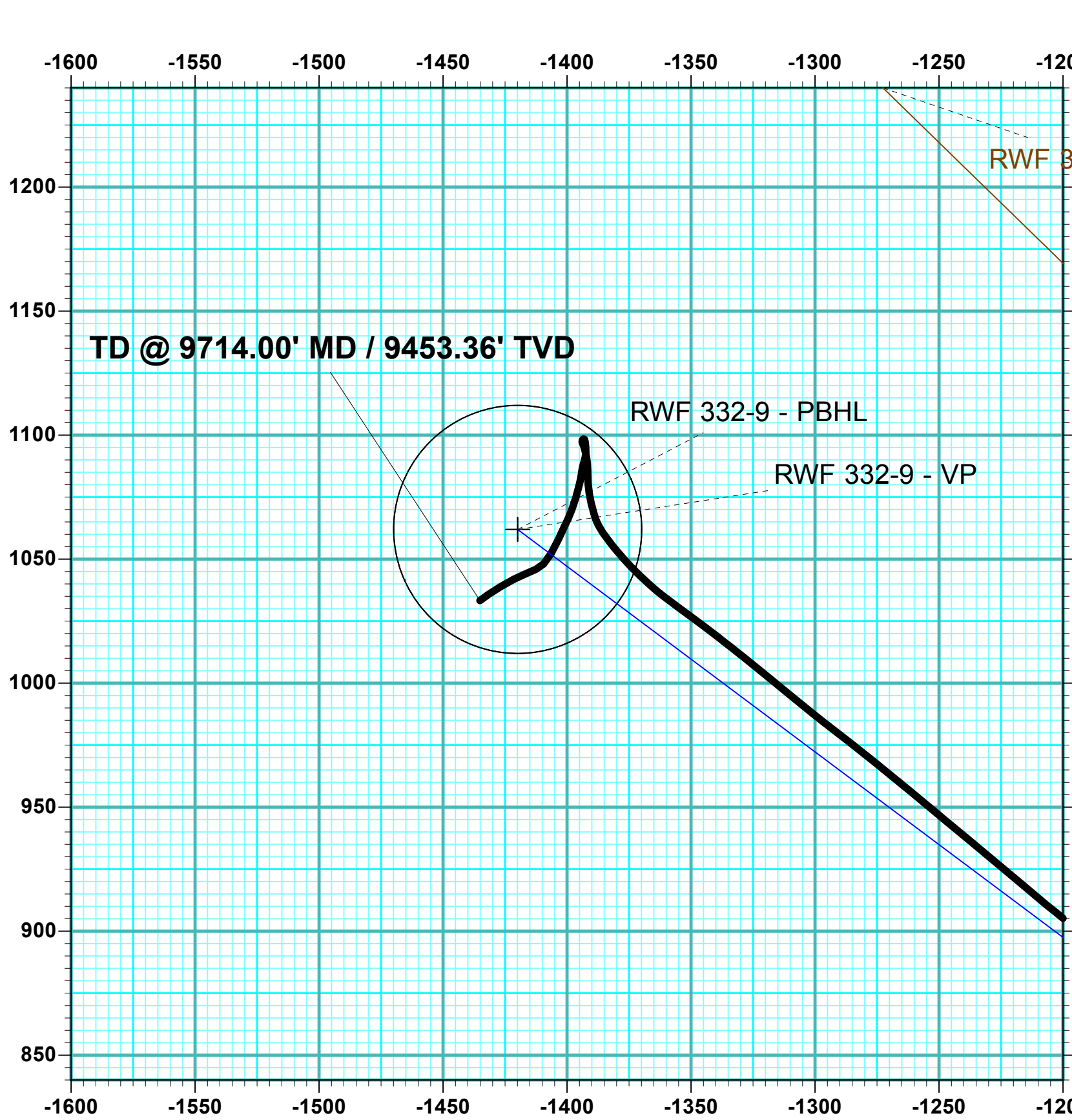
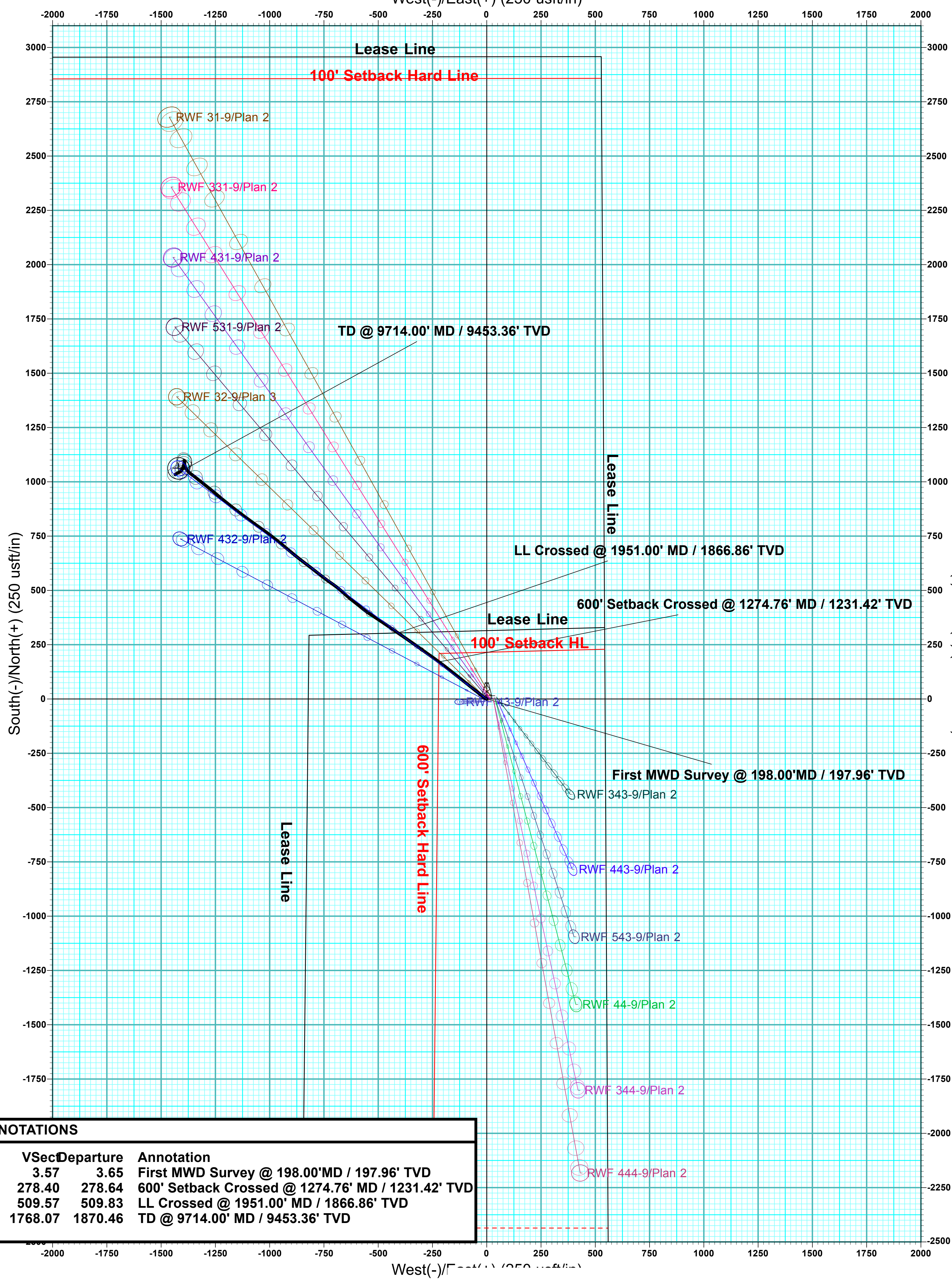
DESIGN ANNOTATIONS						
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec
126.00	0.00	0.00	126.00	0.00	0.00	0.00
685.57	16.79	306.79	677.59	48.75	-65.17	81.39
5979.38	16.79	306.79	5745.81	964.49	-1289.52	1610.32
7098.51	0.00	0.00	6849.00	1061.99	-1419.87	1773.09
9748.51	0.00	0.00	9499.00	1061.99	-1419.87	1773.09

SLOTS				
Slot Name	+N/-S	+E/-W	Northing	Easting
RWF 31-9	4.58	21.99	1630191.10	2327358.60
RWF 32-9	-8.26	9.32	1630178.60	2327345.60
RWF 331-9	3.09	14.62	1630189.80	2327351.20
RWF 332-9	0.00	0.00	1630187.10	2327336.50
RWF 343-9	9.26	43.97	1630195.20	2327380.70
RWF 344-9	-3.58	31.40	1630182.70	2327367.80
RWF 431-9	-6.66	16.68	1630180.00	2327353.00
RWF 432-9	-9.75	2.06	1630177.30	2327338.30
RWF 43-9	-11.34	-5.30	1630175.90	2327330.90
RWF 443-9	-0.59	46.03	1630185.30	2327382.50
RWF 444-9	6.17	29.35	1630192.50	2327366.00
RWF 44-9	-2.09	38.67	1630184.00	2327375.10
RWF 531-9	1.59	7.26	1630188.50	2327343.80
RWF 543-9	7.67	36.71	1630193.80	2327373.40

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3329.00	3454.99	G Sand Top-TVD
3389.00	3517.66	G Sand Base-TVD
4659.00	4844.19	WSTC_LOWER-TVD
5549.00	5773.81	OCRK-TVD
5549.00	5773.81	WFRK/UMVRD-TVD
6849.00	7098.51	KMV GAS-TVD
8389.00	8638.51	CMEO-TVD
9349.00	9598.51	RLNS-TVD
9499.00	9748.51	TD-TVD



ANNOTATIONS						
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec
198.00	2.11	294.76	197.96	1.53	-3.31	3.57
1274.76	20.82	306.69	1231.42	170.62	-220.05	278.40
1951.00	18.77	304.34	1866.86	304.17	-408.83	509.57
9714.00	3.87	234.56	9453.36	1033.30	-1435.05	1768.07





Terra Energy Partners, LLP

Garfield County, CO (Nad 83)

Sec 9, T6S, R94W

RWF 332-9 - Slot RWF 332-9

Wellbore #1

Design: Wellbore #1

KLX Survey Report

27 November, 2021



Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 332-9 - Slot RWF 332-9
Project:	Garfield County, CO (Nad 83)	TVD Reference:	KB=30' @ 6399.40usft (H&P #329)
Site:	Sec 9, T6S, R94W	MD Reference:	KB=30' @ 6399.40usft (H&P #329)
Well:	RWF 332-9	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Garfield County, CO (Nad 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	Sec 9, T6S, R94W				
Site Position:		Northing:	1,630,177.30 usft	Latitude:	39.539375
From:	Map	Easting:	2,327,338.30 usft	Longitude:	-107.885375
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.50 °

Well	RWF 332-9 - Slot RWF 332-9					
Well Position	+N/-S	0.00 usft	Northing:	1,630,187.10 usft	Latitude:	39.539401
	+E/-W	0.00 usft	Easting:	2,327,336.50 usft	Longitude:	-107.885382
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	6,369.40 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2021	11/16/2021	9.12	65.58	51,200.20000000

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	306.79	

Survey Program	Date	11/27/2021			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
198.00	9,714.00	KLX MWD Surveys (Wellbore #1)	OWSG (REV5) MWD HDGM	OWSG MWD - Standard	

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
First MWD Survey @ 198.00'MD / 197.96' TVD									
198.00	2.11	294.76	197.96	1.53	-3.31	3.57	1.07	1.07	0.00
295.00	3.60	301.36	294.83	3.86	-7.53	8.34	1.57	1.54	6.80
389.00	6.24	308.12	388.48	8.55	-14.07	16.39	2.87	2.81	7.19
483.00	9.18	308.83	481.62	16.41	-23.94	28.99	3.13	3.13	0.76
577.00	12.44	308.48	573.94	27.41	-37.71	46.61	3.47	3.47	-0.37
671.00	15.95	308.91	665.05	41.83	-55.69	69.65	3.74	3.73	0.46
765.00	19.86	308.48	754.48	59.88	-78.25	98.52	4.16	4.16	-0.46
859.00	20.65	308.56	842.67	80.15	-103.71	131.05	0.84	0.84	0.09
953.00	20.21	308.30	930.76	100.54	-129.41	163.85	0.48	-0.47	-0.28

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 332-9 - Slot RWF 332-9
Project:	Garfield County, CO (Nad 83)	TVD Reference:	KB=30' @ 6399.40usft (H&P #329)
Site:	Sec 9, T6S, R94W	MD Reference:	KB=30' @ 6399.40usft (H&P #329)
Well:	RWF 332-9	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)
1,047.00	20.74	308.56	1,018.82	120.98	-155.17	196.72	0.57	0.56	0.28
1,178.00	21.27	307.07	1,141.11	149.76	-192.26	243.66	0.57	0.40	-1.14
1,271.00	20.83	306.72	1,227.91	169.82	-218.98	277.07	0.49	-0.47	-0.38
600' Setback Crossed @ 1274.76' MD / 1231.42' TVD									
1,274.76	20.82	306.69	1,231.42	170.62	-220.05	278.40	0.33	-0.19	-0.74
1,366.00	20.65	306.01	1,316.75	189.77	-246.07	310.71	0.33	-0.19	-0.75
1,460.00	20.35	305.40	1,404.80	208.98	-272.80	343.62	0.39	-0.32	-0.65
1,554.00	20.30	305.40	1,492.95	227.89	-299.41	376.26	0.05	-0.05	0.00
1,648.00	20.00	304.96	1,581.19	246.55	-325.88	408.63	0.36	-0.32	-0.47
1,742.00	19.64	305.31	1,669.62	264.89	-351.94	440.49	0.40	-0.38	0.37
1,836.00	19.47	304.52	1,758.20	282.90	-377.74	471.93	0.33	-0.18	-0.84
1,930.00	18.90	304.26	1,846.98	300.35	-403.23	502.80	0.61	-0.61	-0.28
LL Crossed @ 1951.00' MD / 1866.86' TVD									
1,951.00	18.77	304.34	1,866.86	304.17	-408.83	509.57	0.63	-0.62	0.36
2,024.00	18.32	304.61	1,936.07	317.31	-427.97	532.77	0.63	-0.62	0.37
2,118.00	17.71	304.52	2,025.46	333.80	-451.91	561.82	0.65	-0.65	-0.10
2,212.00	17.09	304.17	2,115.16	349.66	-475.12	589.90	0.67	-0.66	-0.37
2,306.00	16.65	303.73	2,205.11	364.90	-497.75	617.15	0.49	-0.47	-0.47
2,400.00	16.04	303.29	2,295.31	379.51	-519.80	643.56	0.66	-0.65	-0.47
2,494.00	15.47	302.85	2,385.78	393.43	-541.19	669.03	0.62	-0.61	-0.47
2,589.00	16.57	308.74	2,477.09	408.78	-562.40	695.21	2.06	1.16	6.20
2,683.00	16.04	308.83	2,567.31	425.32	-582.97	721.58	0.56	-0.56	0.10
2,777.00	15.64	308.21	2,657.74	441.30	-603.05	747.23	0.46	-0.43	-0.66
2,871.00	15.21	307.86	2,748.36	456.70	-622.74	772.22	0.47	-0.46	-0.37
2,963.00	16.74	311.73	2,836.80	472.93	-642.16	797.49	2.03	1.66	4.21
3,054.00	16.39	311.73	2,924.03	490.20	-661.52	823.34	0.38	-0.38	0.00
3,145.00	15.25	310.23	3,011.58	506.47	-680.24	848.08	1.33	-1.25	-1.65
3,237.00	17.18	305.75	3,099.92	522.23	-700.51	873.74	2.50	2.10	-4.87
3,327.00	16.44	304.96	3,186.07	537.29	-721.73	899.76	0.86	-0.82	-0.88
3,419.00	15.69	306.63	3,274.48	552.17	-742.38	925.22	0.96	-0.82	1.82
3,510.00	16.83	308.30	3,361.84	567.68	-762.60	950.69	1.35	1.25	1.84
3,600.00	16.13	307.77	3,448.14	583.41	-782.70	976.21	0.80	-0.78	-0.59
3,691.00	15.56	307.68	3,535.68	598.62	-802.36	1,001.06	0.63	-0.63	-0.10
3,782.00	16.92	307.68	3,623.05	614.17	-822.50	1,026.50	1.49	1.49	0.00
3,874.00	16.57	307.42	3,711.15	630.33	-843.51	1,053.01	0.39	-0.38	-0.28
3,964.00	15.86	307.77	3,797.57	645.66	-863.43	1,078.14	0.80	-0.79	0.39
4,056.00	18.02	309.71	3,885.57	662.45	-884.31	1,104.92	2.43	2.35	2.11
4,147.00	17.31	310.06	3,972.28	680.16	-905.50	1,132.49	0.79	-0.78	0.38
4,239.00	16.79	309.44	4,060.24	697.41	-926.24	1,159.43	0.60	-0.57	-0.67
4,331.00	16.66	309.09	4,148.35	714.16	-946.74	1,185.88	0.18	-0.14	-0.38
4,423.00	16.13	309.18	4,236.60	730.55	-966.88	1,211.83	0.58	-0.58	0.10
4,514.00	17.40	307.33	4,323.74	746.79	-987.50	1,238.07	1.51	1.40	-2.03
4,606.00	16.74	306.45	4,411.68	763.00	-1,009.09	1,265.07	0.77	-0.72	-0.96

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Site:	Sec 9, T6S, R94W	MD Reference:	KB=30' @ 6399.40usft (H&P #329)
Well:	RWF 332-9	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)	
4,696.00	16.52	305.93	4,497.92	778.21	-1,029.88	1,290.83	0.30	-0.24	-0.58	
4,788.00	16.08	305.40	4,586.22	793.27	-1,050.86	1,316.64	0.50	-0.48	-0.58	
4,880.00	16.91	305.93	4,674.43	808.50	-1,072.08	1,342.76	0.92	0.90	0.58	
4,972.00	16.66	306.19	4,762.51	824.14	-1,093.56	1,369.32	0.28	-0.27	0.28	
5,064.00	16.30	306.28	4,850.73	839.57	-1,114.61	1,395.42	0.39	-0.39	0.10	
5,156.00	15.73	307.07	4,939.16	854.72	-1,134.97	1,420.80	0.66	-0.62	0.86	
5,249.00	16.57	307.51	5,028.49	870.40	-1,155.54	1,446.67	0.91	0.90	0.47	
5,342.00	16.08	308.39	5,117.74	886.47	-1,176.16	1,472.80	0.59	-0.53	0.95	
5,433.00	15.78	308.12	5,205.25	901.94	-1,195.77	1,497.77	0.34	-0.33	-0.30	
5,525.00	16.61	310.32	5,293.60	918.17	-1,215.64	1,523.40	1.12	0.90	2.39	
5,616.00	15.29	309.53	5,381.09	934.22	-1,234.81	1,548.37	1.47	-1.45	-0.87	
5,708.00	16.26	309.88	5,469.63	950.20	-1,254.05	1,573.35	1.06	1.05	0.38	
5,799.00	15.29	309.00	5,557.20	965.92	-1,273.15	1,598.06	1.10	-1.07	-0.97	
5,891.00	13.67	307.51	5,646.27	980.17	-1,291.20	1,621.05	1.81	-1.76	-1.62	
5,983.00	14.50	309.53	5,735.51	994.12	-1,308.71	1,643.43	1.05	0.90	2.20	
6,075.00	13.10	308.91	5,824.85	1,008.00	-1,325.71	1,665.35	1.53	-1.52	-0.67	
6,167.00	12.12	307.51	5,914.63	1,020.43	-1,341.48	1,685.43	1.12	-1.07	-1.52	
6,259.00	10.77	305.75	6,004.80	1,031.34	-1,356.12	1,703.68	1.52	-1.47	-1.91	
6,351.00	9.18	312.96	6,095.41	1,041.36	-1,368.47	1,719.58	2.19	-1.73	7.84	
6,443.00	7.69	318.93	6,186.41	1,051.00	-1,377.89	1,732.89	1.88	-1.62	6.49	
6,535.00	6.24	324.30	6,277.73	1,059.71	-1,384.85	1,743.68	1.73	-1.58	5.84	
6,627.00	5.19	343.63	6,369.28	1,067.76	-1,388.94	1,751.78	2.37	-1.14	21.01	
6,718.00	4.26	348.99	6,459.97	1,075.03	-1,390.74	1,757.57	1.13	-1.02	5.89	
6,810.00	3.43	358.31	6,551.76	1,081.13	-1,391.48	1,761.82	1.13	-0.90	10.13	
6,902.00	2.72	357.78	6,643.63	1,086.06	-1,391.64	1,764.90	0.77	-0.77	-0.58	
6,994.00	1.98	353.21	6,735.55	1,089.82	-1,391.92	1,767.37	0.83	-0.80	-4.97	
7,085.00	1.62	346.09	6,826.51	1,092.63	-1,392.41	1,769.45	0.46	-0.40	-7.82	
7,177.00	1.14	343.02	6,918.48	1,094.77	-1,392.99	1,771.20	0.53	-0.52	-3.34	
7,268.00	0.74	336.07	7,009.47	1,096.17	-1,393.49	1,772.44	0.46	-0.44	-7.64	
7,360.00	0.66	346.00	7,101.46	1,097.23	-1,393.86	1,773.37	0.16	-0.09	10.79	
7,451.00	0.48	37.86	7,192.46	1,098.04	-1,393.76	1,773.77	0.58	-0.20	56.99	
7,542.00	0.26	67.39	7,283.46	1,098.42	-1,393.33	1,773.66	0.31	-0.24	32.45	
7,631.00	0.31	138.58	7,372.45	1,098.32	-1,392.99	1,773.32	0.38	0.06	79.99	
7,721.00	0.83	170.31	7,462.45	1,097.49	-1,392.71	1,772.61	0.65	0.58	35.26	
7,811.00	0.92	175.15	7,552.44	1,096.13	-1,392.54	1,771.65	0.13	0.10	5.38	
7,901.00	1.14	176.73	7,642.43	1,094.52	-1,392.43	1,770.60	0.25	0.24	1.76	
7,989.00	1.01	180.33	7,730.41	1,092.87	-1,392.39	1,769.57	0.17	-0.15	4.09	
8,079.00	0.92	194.04	7,820.40	1,091.37	-1,392.57	1,768.82	0.27	-0.10	15.23	
8,171.00	1.01	193.43	7,912.38	1,089.87	-1,392.93	1,768.22	0.10	0.10	-0.66	
8,261.00	1.36	199.40	8,002.36	1,088.09	-1,393.47	1,767.58	0.41	0.39	6.63	
8,351.00	1.45	185.69	8,092.34	1,085.95	-1,393.94	1,766.67	0.39	0.10	-15.23	
8,476.00	1.58	190.17	8,217.29	1,082.68	-1,394.40	1,765.09	0.14	0.10	3.58	
8,566.00	2.20	195.10	8,307.24	1,079.79	-1,395.07	1,763.89	0.71	0.69	5.48	
8,656.00	2.50	195.27	8,397.17	1,076.23	-1,396.04	1,762.53	0.33	0.33	0.19	

Company:	Terra Energy Partners, LLP	Local Co-ordinate Reference:	Well RWF 332-9 - Slot RWF 332-9
Project:	Garfield County, CO (Nad 83)	TVD Reference:	KB=30' @ 6399.40usft (H&P #329)
Site:	Sec 9, T6S, R94W	MD Reference:	KB=30' @ 6399.40usft (H&P #329)
Well:	RWF 332-9	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)
8,746.00	2.81	197.03	8,487.07	1,072.23	-1,397.20	1,761.07	0.36	0.34	1.96
8,836.00	3.16	204.15	8,576.95	1,067.85	-1,398.86	1,759.78	0.57	0.39	7.91
8,928.00	3.30	204.68	8,668.80	1,063.13	-1,401.00	1,758.67	0.16	0.15	0.58
9,018.00	3.91	205.64	8,758.63	1,058.01	-1,403.41	1,757.53	0.68	0.68	1.07
9,108.00	4.26	209.16	8,848.40	1,052.33	-1,406.37	1,756.49	0.48	0.39	3.91
9,198.00	2.46	226.82	8,938.24	1,048.09	-1,409.41	1,756.39	2.28	-2.00	19.62
9,289.00	2.42	242.82	9,029.16	1,045.87	-1,412.54	1,757.57	0.75	-0.04	17.58
9,381.00	2.99	248.53	9,121.06	1,044.11	-1,416.50	1,759.68	0.68	0.62	6.21
9,472.00	3.82	243.34	9,211.90	1,041.88	-1,421.42	1,762.29	0.97	0.91	-5.70
9,564.00	3.77	238.87	9,303.69	1,038.94	-1,426.75	1,764.79	0.33	-0.05	-4.86
9,655.00	3.87	234.56	9,394.49	1,035.61	-1,431.81	1,766.86	0.33	0.11	-4.74
TD @ 9714.00' MD / 9453.36' TVD									
9,714.00	3.87	234.56	9,453.36	1,033.30	-1,435.05	1,768.07	0.00	0.00	0.00

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
198.00	197.96	1.53	-3.31	First MWD Survey @ 198.00' MD / 197.96' TVD
1,274.76	1,231.42	170.62	-220.05	600' Setback Crossed @ 1274.76' MD / 1231.42' TVD
1,951.00	1,866.86	304.17	-408.83	LL Crossed @ 1951.00' MD / 1866.86' TVD
9,714.00	9,453.36	1,033.30	-1,435.05	TD @ 9714.00' MD / 9453.36' TVD