

Sec 9, T6S, R94W  
RWF 343-9  
Q220030 & RM-220036  
Plan 2

Company Name: Terra Energy Partners, LLP  
RWF 343-9  
Garfield County, CO (Nad 83)  
Rig: KB=30' @ 6399.40usft (H&P #329)  
Created by: Chase Chambers  
Date: 3:52, January 14 2022

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



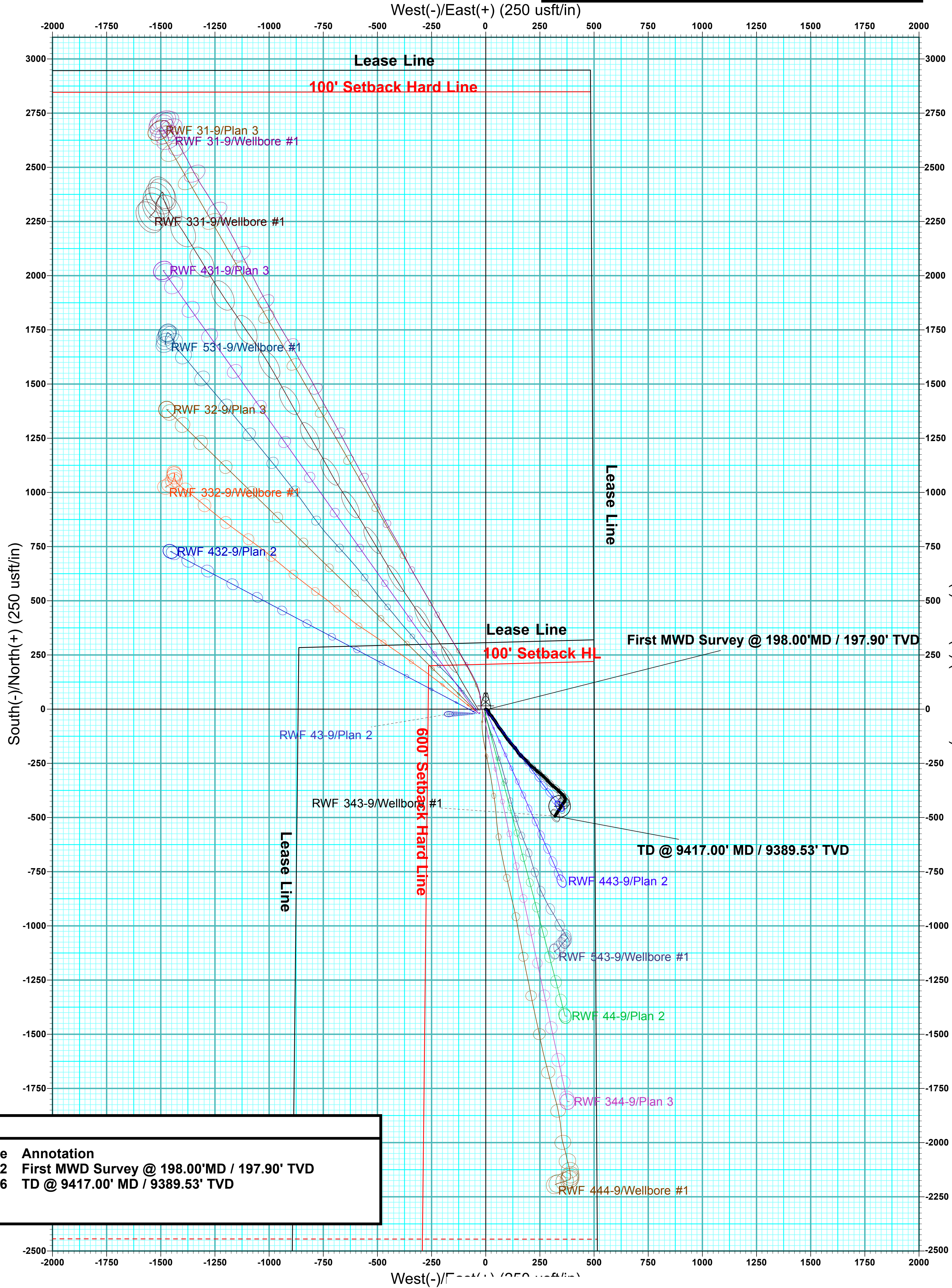
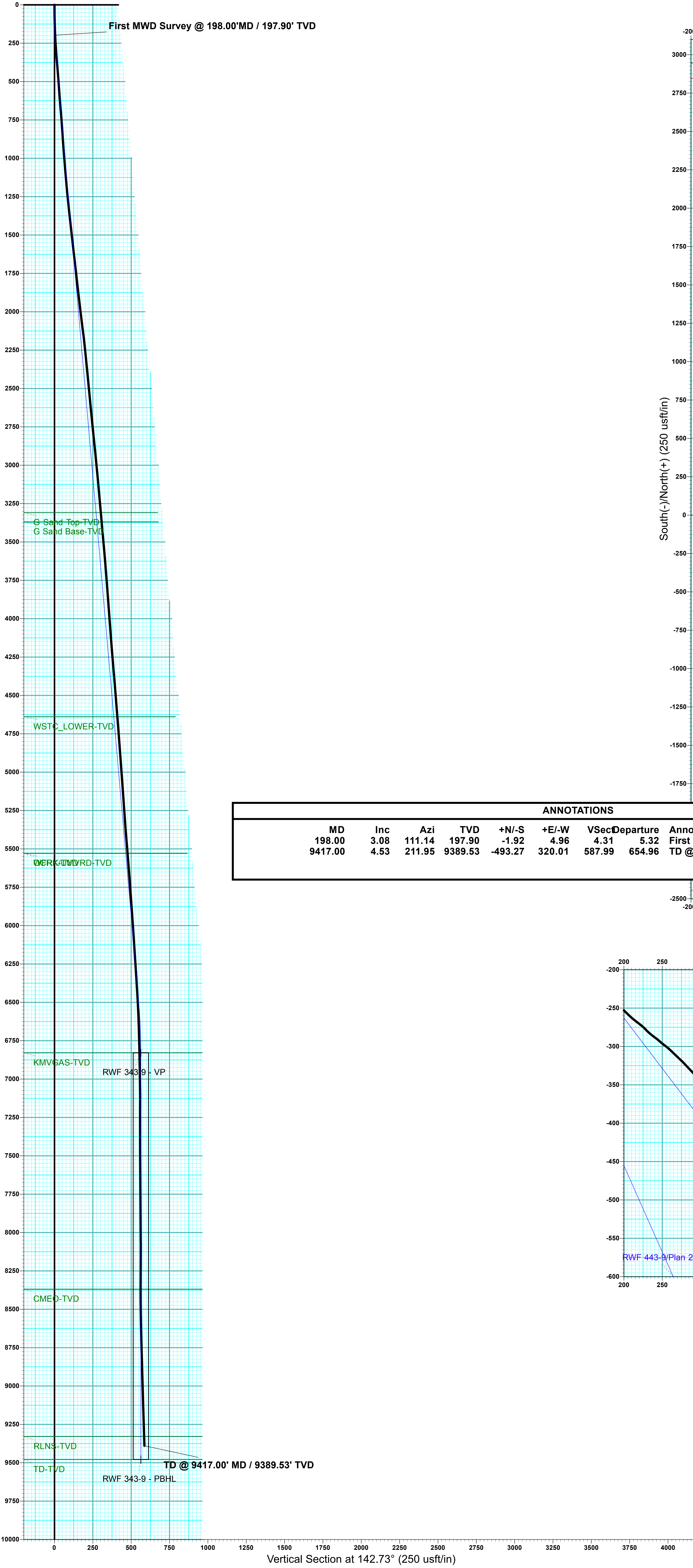
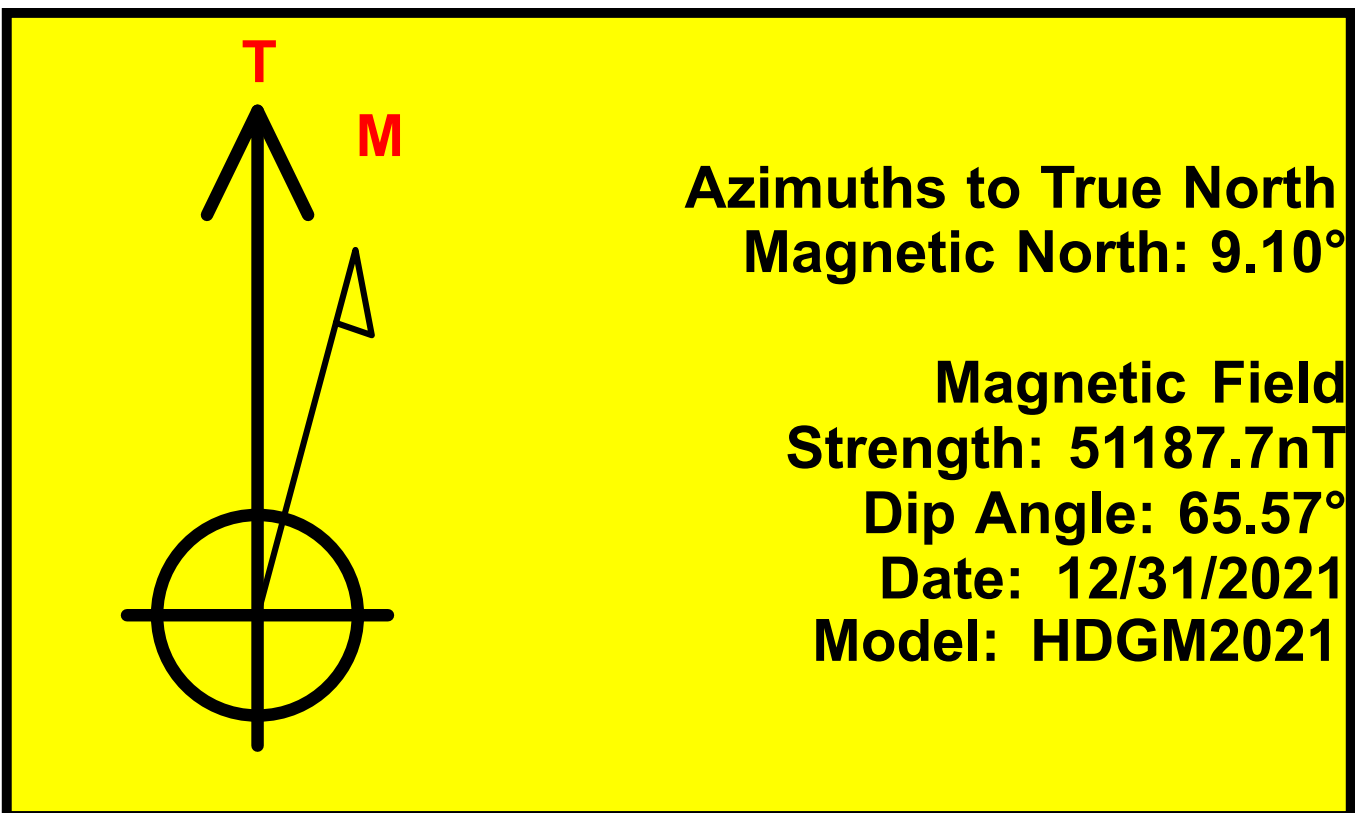
WELL DETAILS: RWF 343-9						
Ground Elevation: 6369.40						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	RWF 343-9
0.00	0.00	1630195.20	2327380.70	39.539427	-107.885226	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
RWF 343-9 - VP	6829.00	-448.40	341.19	1629738.00	2327710.00	39.538196	-107.884016
RWF 343-9 - PBHL	9479.00	-448.40	341.19	1629738.00	2327710.00	39.538196	-107.884016

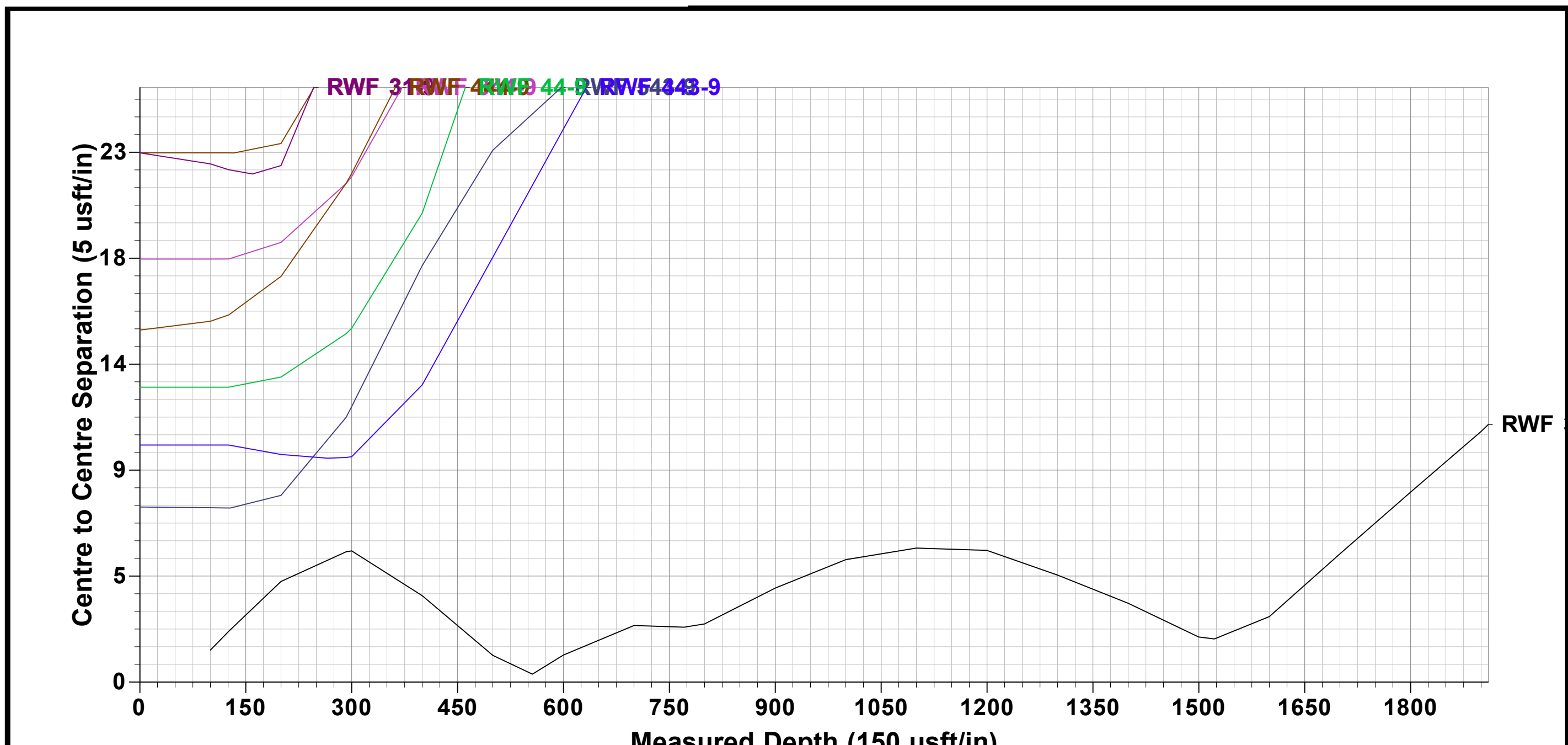
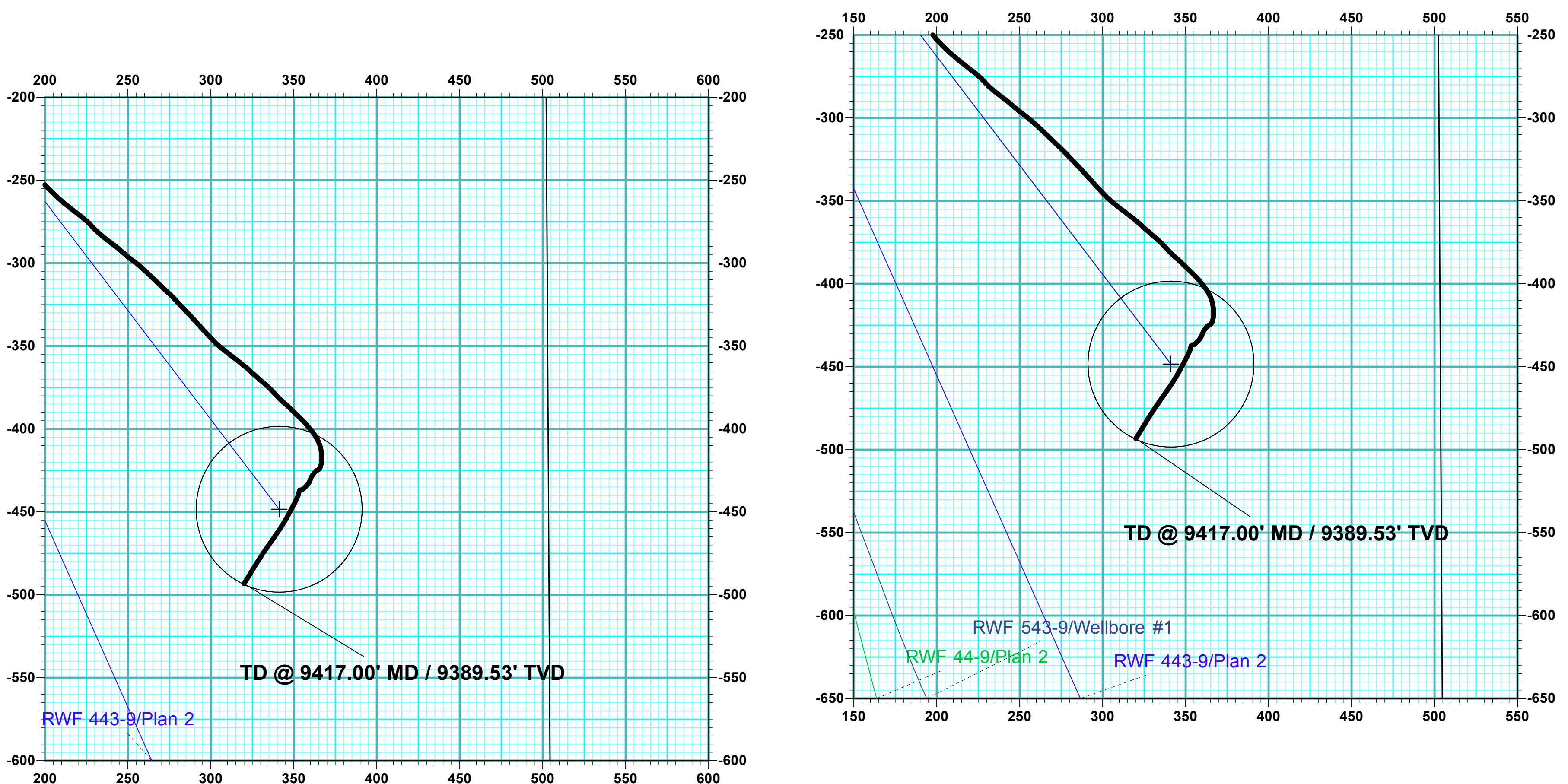
DESIGN ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
126.00	0.00	0.00	126.00	0.00	0.00	0.00	0.00	Start Build 3.00
292.33	4.99	142.73	292.12	-5.76	4.38	7.24	7.24	Start 6228.25 hold at 292.33 MD
6520.58	4.99	142.73	6496.76	-436.88	332.42	548.97	548.97	Start Drop -1.50
6853.24	0.00	0.00	6829.00	-448.40	341.19	563.45	563.45	Start 2650.00 hold at 6853.24 MD
9503.24	0.00	0.00	9479.00	-448.40	341.19	563.45	563.45	TD at 9503.24

SLOTS				
Slot Name	+N/-S	+E/-W	Northing	Easting
RWF 31-9	-4.68	-21.98	1630191.10	2327358.60
RWF 32-9	-17.52	-34.65	1630178.60	2327345.60
RWF 331-9	-6.17	-29.35	1630189.80	2327351.20
RWF 332-9	-9.26	-43.97	1630187.10	2327336.50
RWF 343-9	0.00	0.00	1630195.20	2327380.70
RWF 344-9	-12.83	-12.57	1630182.70	2327367.80
RWF 431-9	-15.92	-27.29	1630180.00	2327353.00
RWF 432-9	-19.01	-41.92	1630177.30	2327338.30
RWF 43-9	-20.60	-49.28	1630175.90	2327330.90
RWF 443-9	-9.85	2.06	1630185.30	2327382.50
RWF 444-9	-3.08	-14.62	1630192.50	2327366.00
RWF 44-9	-11.34	-5.30	1630184.00	2327375.10
RWF 531-9	-7.67	-36.71	1630188.50	2327343.80
RWF 543-9	-1.59	-7.26	1630193.80	2327373.40

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3309.00	3320.69	G Sand Top-TVD
3369.00	3380.92	G Sand Base-TVD
4639.00	4655.75	WSTC_LOWER-TVD
5529.00	5549.13	OCRK-TVD
5529.00	5549.13	WFRK/UMVRD-TVD
6829.00	6853.24	KMV GAS-TVD
8369.00	8393.24	CMEQ-TVD
9329.00	9353.24	RLNS-TVD
9479.00	9503.24	TD-TVD



ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
198.00	3.08	111.14	197.90	-1.92	4.96	4.31	5.32	First MWD Survey @ 198.00' MD / 197.90' TVD
9417.00	4.53	211.95	9389.53	-493.27	320.01	587.99	654.96	TD @ 9417.00' MD / 9389.53' TVD







## **Terra Energy Partners, LLP**

**Garfield County, CO (Nad 83)**

**Sec 9, T6S, R94W**

**RWF 343-9 - Slot RWF 343-9**

**Wellbore #1**

**Design: Wellbore #1**

## **KLX Survey Report**

**14 January, 2022**



<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 343-9 - Slot RWF 343-9
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>TVD Reference:</b>	KB=30' @ 6399.40usft (H&P #329)
<b>Site:</b>	Sec 9, T6S, R94W	<b>MD Reference:</b>	KB=30' @ 6399.40usft (H&P #329)
<b>Well:</b>	RWF 343-9	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b>	Garfield County, CO (Nad 83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	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 343-9 - Slot RWF 343-9				
Well Position	+N/-S	0.00 usft	Northing:	1,630,195.20 usft	Latitude:	39.539427
	+E/-W	0.00 usft	Easting:	2,327,380.70 usft	Longitude:	-107.885226
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	6,369.40 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM2021	12/31/2021	9.10	65.57	51,187.70000000

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	147.03	

<b>Survey Program</b>	<b>Date</b>	1/14/2022			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
198.00	9,417.00	KLX MWD Surveys (Wellbore #1)	OWSG (REV5) MWD HDGM	OWSG MWD - Standard	

<b>Survey</b>									
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>First MWD Survey @ 198.00' MD / 197.90' TVD</b>									
198.00	3.08	111.14	197.90	-1.92	4.96	4.31	1.56	1.56	0.00
295.00	3.91	128.63	294.73	-4.92	9.98	9.56	1.38	0.86	18.03
389.00	5.80	168.27	388.41	-11.58	13.45	17.03	3.98	2.01	42.17
483.00	4.39	157.99	482.04	-19.56	15.76	24.99	1.78	-1.50	-10.94
576.00	4.00	128.37	574.80	-24.88	19.64	31.56	2.34	-0.42	-31.85
670.00	5.36	134.61	668.48	-30.00	25.34	38.95	1.54	1.45	6.64
764.00	4.13	155.61	762.17	-36.16	29.86	46.59	2.24	-1.31	22.34
859.00	3.91	142.25	856.94	-41.84	33.25	53.20	1.01	-0.23	-14.06
953.00	4.31	141.38	950.69	-47.13	37.42	59.91	0.43	0.43	-0.93

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 343-9 - Slot RWF 343-9
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>TVD Reference:</b>	KB=30' @ 6399.40usft (H&P #329)
<b>Site:</b>	Sec 9, T6S, R94W	<b>MD Reference:</b>	KB=30' @ 6399.40usft (H&P #329)
<b>Well:</b>	RWF 343-9	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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	4.70	142.17	1,044.40	-52.94	41.99	67.26	0.42	0.41	0.84
1,178.00	5.10	152.80	1,174.93	-62.35	47.94	78.40	0.76	0.31	8.11
1,272.00	5.93	148.32	1,268.49	-70.20	52.40	87.41	0.99	0.88	-4.77
1,366.00	6.20	150.16	1,361.96	-78.74	57.48	97.34	0.35	0.29	1.96
1,460.00	6.42	138.56	1,455.40	-87.08	63.48	107.60	1.37	0.23	-12.34
1,554.00	6.33	140.23	1,548.82	-95.00	70.27	117.95	0.22	-0.10	1.78
1,649.00	6.55	148.14	1,643.22	-103.63	76.48	128.56	0.96	0.23	8.33
1,743.00	6.59	142.61	1,736.60	-112.47	82.59	139.30	0.67	0.04	-5.88
1,837.00	6.37	148.06	1,830.00	-121.18	88.62	149.89	0.69	-0.23	5.80
1,931.00	6.50	144.19	1,923.41	-129.92	94.50	160.42	0.48	0.14	-4.12
2,025.00	7.16	141.20	2,016.75	-138.80	101.28	171.56	0.80	0.70	-3.18
2,119.00	7.43	143.75	2,109.98	-148.27	108.54	183.46	0.45	0.29	2.71
2,212.00	6.15	137.24	2,202.33	-156.77	115.48	194.37	1.60	-1.38	-7.00
2,307.00	5.89	139.97	2,296.81	-164.24	122.07	204.23	0.41	-0.27	2.87
2,401.00	5.41	139.88	2,390.35	-171.32	128.03	213.41	0.51	-0.51	-0.10
2,495.00	5.63	139.71	2,483.91	-178.23	133.87	222.38	0.23	0.23	-0.18
2,589.00	5.36	139.35	2,577.48	-185.08	139.71	231.30	0.29	-0.29	-0.38
2,683.00	5.76	148.58	2,671.04	-192.43	145.03	240.37	1.04	0.43	9.82
2,778.00	5.71	149.11	2,765.57	-200.56	149.94	249.86	0.08	-0.05	0.56
2,867.00	5.93	135.05	2,854.11	-207.61	155.46	258.78	1.62	0.25	-15.80
2,957.00	5.84	132.59	2,943.64	-214.00	162.12	267.76	0.30	-0.10	-2.73
3,047.00	5.54	132.67	3,033.19	-220.04	168.68	276.41	0.33	-0.33	0.09
3,137.00	5.36	134.17	3,122.79	-225.92	174.89	284.71	0.26	-0.20	1.67
3,227.00	5.01	133.99	3,212.42	-231.58	180.73	292.64	0.39	-0.39	-0.20
3,318.00	4.92	137.07	3,303.08	-237.19	186.25	300.35	0.31	-0.10	3.38
3,410.00	5.32	135.31	3,394.71	-243.11	191.94	308.42	0.47	0.43	-1.91
3,502.00	5.14	143.84	3,486.33	-249.47	197.37	316.71	0.87	-0.20	9.27
3,593.00	4.92	134.26	3,576.98	-255.49	202.57	324.58	0.95	-0.24	-10.53
3,684.00	4.66	132.85	3,667.66	-260.73	208.07	331.97	0.31	-0.29	-1.55
3,775.00	4.66	128.46	3,758.36	-265.54	213.68	339.06	0.39	0.00	-4.82
3,866.00	4.44	127.31	3,849.08	-269.97	219.37	345.88	0.26	-0.24	-1.26
3,957.00	4.31	131.00	3,939.81	-274.35	224.76	352.48	0.34	-0.14	4.05
4,049.00	4.13	137.77	4,031.56	-279.07	229.59	359.08	0.58	-0.20	7.36
4,140.00	4.61	128.81	4,122.30	-283.79	234.64	365.78	0.92	0.53	-9.85
4,232.00	4.79	126.35	4,213.99	-288.38	240.62	372.89	0.29	0.20	-2.67
4,323.00	5.05	131.62	4,304.65	-293.30	246.67	380.31	0.57	0.29	5.79
4,415.00	5.01	126.70	4,396.30	-298.39	252.92	387.98	0.47	-0.04	-5.35
4,506.00	4.57	131.97	4,486.98	-303.19	258.80	395.20	0.68	-0.48	5.79
4,597.00	4.44	134.43	4,577.70	-308.08	264.01	402.14	0.26	-0.14	2.70
4,688.00	4.53	133.11	4,668.42	-313.00	269.15	409.07	0.15	0.10	-1.45
4,779.00	4.53	133.20	4,759.14	-317.91	274.40	416.05	0.01	0.00	0.10
4,870.00	4.35	137.42	4,849.87	-322.92	279.35	422.94	0.41	-0.20	4.64
4,962.00	4.31	136.28	4,941.60	-327.98	284.10	429.77	0.10	-0.04	-1.24

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<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
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5,054.00	4.04	136.54	5,033.36	-332.83	288.72	436.36	0.29	-0.29	0.28	
5,145.00	4.04	139.18	5,124.13	-337.59	293.02	442.68	0.20	0.00	2.90	
5,235.00	4.00	136.54	5,213.91	-342.26	297.25	448.91	0.21	-0.04	-2.93	
5,327.00	3.96	136.29	5,305.69	-346.89	301.65	455.19	0.05	-0.04	-0.27	
5,419.00	4.83	128.37	5,397.42	-351.59	306.88	461.98	1.15	0.95	-8.61	
5,512.00	4.83	127.66	5,490.09	-356.41	313.05	469.38	0.06	0.00	-0.76	
5,603.00	4.79	128.54	5,580.77	-361.12	319.06	476.60	0.09	-0.04	0.97	
5,696.00	4.44	133.03	5,673.47	-366.00	324.73	483.78	0.54	-0.38	4.83	
5,787.00	4.39	129.60	5,764.20	-370.62	329.99	490.52	0.30	-0.05	-3.77	
5,879.00	4.09	133.99	5,855.95	-375.14	335.06	497.07	0.48	-0.33	4.77	
5,970.00	3.65	138.30	5,946.74	-379.56	339.32	503.10	0.58	-0.48	4.74	
6,062.00	4.13	130.74	6,038.53	-383.91	343.78	509.17	0.76	0.52	-8.22	
6,154.00	3.87	134.70	6,130.30	-388.25	348.50	515.38	0.41	-0.28	4.30	
6,247.00	3.78	132.94	6,223.09	-392.55	352.97	521.42	0.16	-0.10	-1.89	
6,338.00	3.78	138.56	6,313.90	-396.84	357.15	527.30	0.41	0.00	6.18	
6,430.00	3.25	140.67	6,405.72	-401.13	360.81	532.89	0.59	-0.58	2.29	
6,522.00	3.34	151.13	6,497.57	-405.50	363.76	538.16	0.66	0.10	11.37	
6,614.00	2.20	162.12	6,589.46	-409.52	365.60	542.54	1.36	-1.24	11.95	
6,706.00	1.76	169.32	6,681.41	-412.59	366.40	545.55	0.55	-0.48	7.83	
6,798.00	1.76	173.37	6,773.37	-415.39	366.82	548.12	0.14	0.00	4.40	
6,889.00	1.58	183.83	6,864.33	-418.03	366.90	550.38	0.39	-0.20	11.49	
6,981.00	1.54	186.64	6,956.29	-420.52	366.67	552.35	0.09	-0.04	3.05	
7,073.00	1.63	202.28	7,048.26	-422.96	366.04	554.04	0.48	0.10	17.00	
7,165.00	0.62	237.26	7,140.24	-424.44	365.12	554.79	1.28	-1.10	38.02	
7,256.00	0.31	253.70	7,231.24	-424.77	364.47	554.71	0.37	-0.34	18.07	
7,347.00	0.40	249.13	7,322.24	-424.96	363.94	554.58	0.10	0.10	-5.02	
7,438.00	0.70	225.75	7,413.23	-425.46	363.24	554.62	0.41	0.33	-25.69	
7,528.00	1.27	216.70	7,503.22	-426.64	362.25	555.07	0.65	0.63	-10.06	
7,619.00	0.83	217.66	7,594.20	-427.97	361.25	555.64	0.48	-0.48	1.05	
7,709.00	0.75	209.05	7,684.19	-429.00	360.56	556.13	0.16	-0.09	-9.57	
7,800.00	1.14	195.08	7,775.18	-430.40	360.04	557.02	0.49	0.43	-15.35	
7,891.00	1.23	209.31	7,866.16	-432.12	359.32	558.08	0.34	0.10	15.64	
7,982.00	1.32	223.47	7,957.14	-433.73	358.12	558.78	0.36	0.10	15.56	
8,072.00	1.89	223.38	8,047.10	-435.56	356.39	559.37	0.63	0.63	-0.10	
8,162.00	0.48	256.51	8,137.08	-436.73	355.01	559.60	1.68	-1.57	36.81	
8,252.00	0.22	279.10	8,227.08	-436.79	354.47	559.35	0.32	-0.29	25.10	
8,342.00	0.31	279.10	8,317.08	-436.73	354.06	559.08	0.10	0.10	0.00	
8,434.00	0.35	228.39	8,409.08	-436.87	353.60	558.95	0.31	0.04	-55.12	
8,523.00	1.05	190.51	8,498.07	-437.86	353.25	559.58	0.90	0.79	-42.56	
8,613.00	2.15	198.68	8,588.04	-440.27	352.56	561.23	1.25	1.22	9.08	
8,703.00	3.25	209.31	8,677.94	-444.09	350.77	563.46	1.34	1.22	11.81	
8,794.00	3.69	206.15	8,768.77	-448.97	348.22	566.17	0.53	0.48	-3.47	
8,886.00	4.35	210.02	8,860.54	-454.65	345.17	569.27	0.78	0.72	4.21	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 343-9 - Slot RWF 343-9
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>TVD Reference:</b>	KB=30' @ 6399.40usft (H&P #329)
<b>Site:</b>	Sec 9, T6S, R94W	<b>MD Reference:</b>	KB=30' @ 6399.40usft (H&P #329)
<b>Well:</b>	RWF 343-9	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)	
8,977.00	4.79	213.71	8,951.25	-460.79	341.33	572.34	0.58	0.48	4.05	
9,069.00	5.45	215.91	9,042.88	-467.53	336.64	575.43	0.75	0.72	2.39	
9,159.00	5.36	214.32	9,132.48	-474.46	331.76	578.60	0.19	-0.10	-1.77	
9,248.00	5.23	210.90	9,221.10	-481.38	327.33	581.99	0.38	-0.15	-3.84	
9,350.00	4.53	211.95	9,322.73	-488.78	322.81	585.74	0.69	-0.69	1.03	
<b>TD @ 9417.00' MD / 9389.53' TVD</b>										
9,417.00	4.53	211.95	9,389.53	-493.27	320.01	587.99	0.00	0.00	0.00	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
198.00	197.90	-1.92	4.96	First MWD Survey @ 198.00' MD / 197.90' TVD	
9,417.00	9,389.53	-493.27	320.01	TD @ 9417.00' MD / 9389.53' TVD	

Checked By: _____	Approved By: _____	Date: _____
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