

Sec 9, T6S, R94W  
RWF 43-9  
Q220185 & RM-220174  
Plan 3

Company Name: Terra Energy Partners, LLP  
RWF 43-9  
Garfield County, CO (Nad 83)  
Rig: KB=30' @ 6399.40usft (H&P #329)  
Created by: Chase Chambers  
Date: 3:37, March 01 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



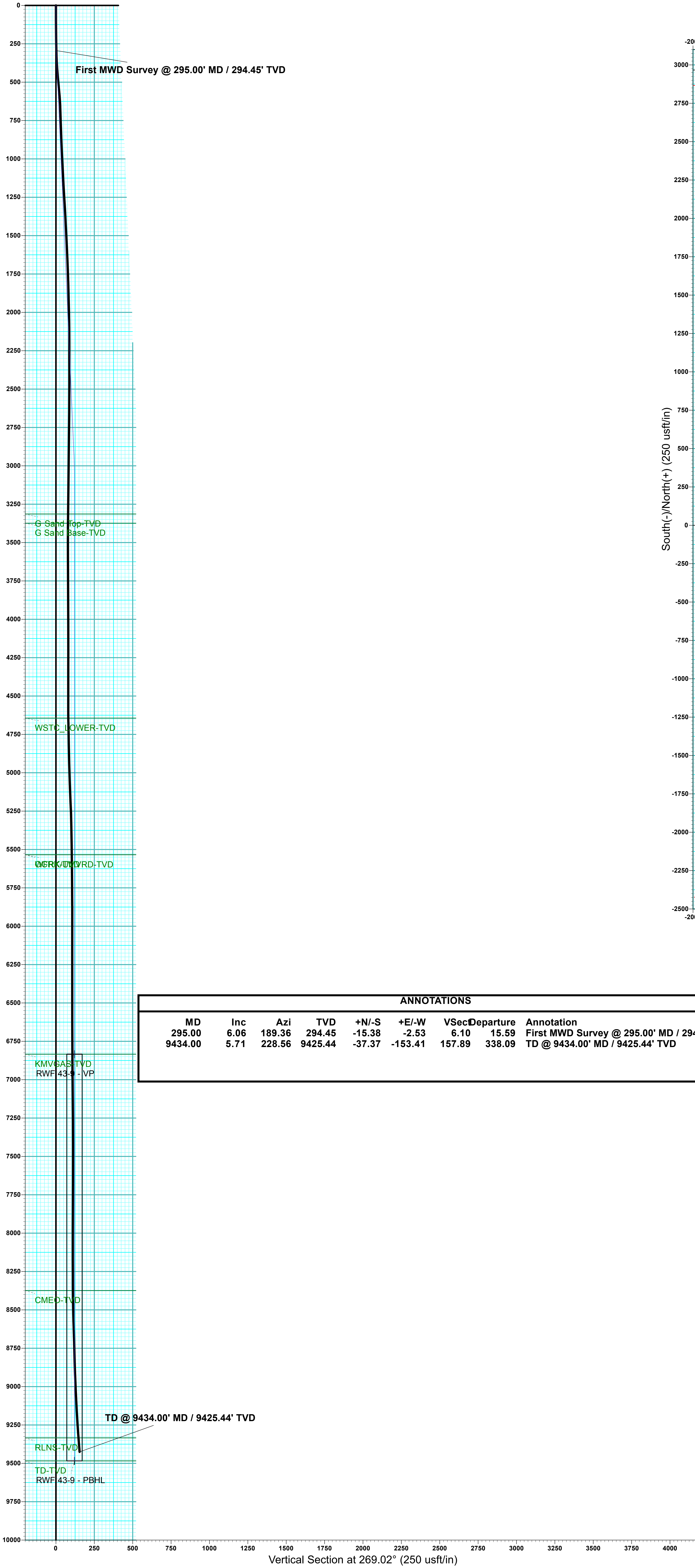
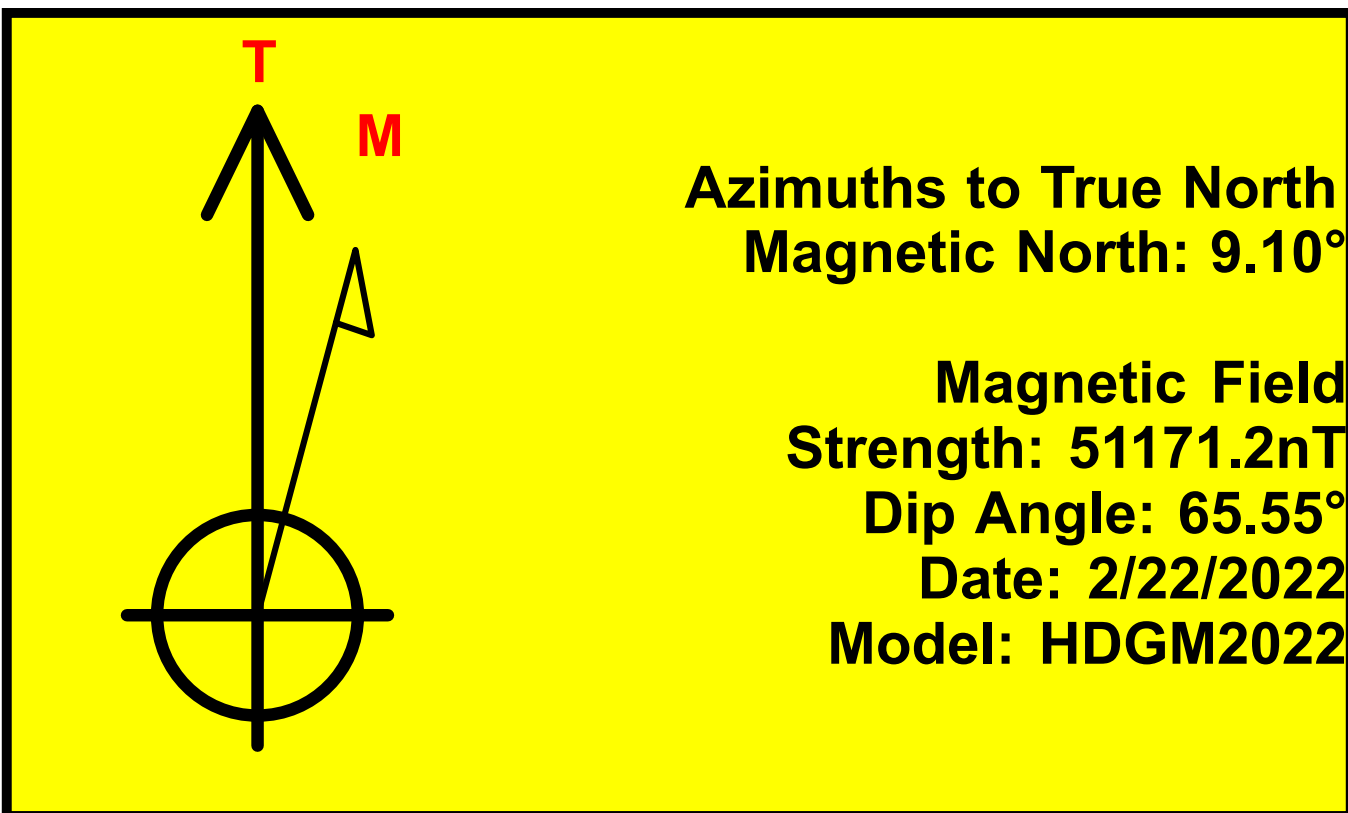
WELL DETAILS: RWF 43-9						
Ground Elevation: 6369.40						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	RWF 43-9
0.00	0.00	1630175.90	2327330.90	39.539370	-107.885401	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
RWF 43-9 - VP	6834.00	-2.07	-120.89	1630177.00	2327210.00	39.539364	-107.885829
RWF 43-9 - PBHL	9484.00	-2.07	-120.89	1630177.00	2327210.00	39.539364	-107.885829

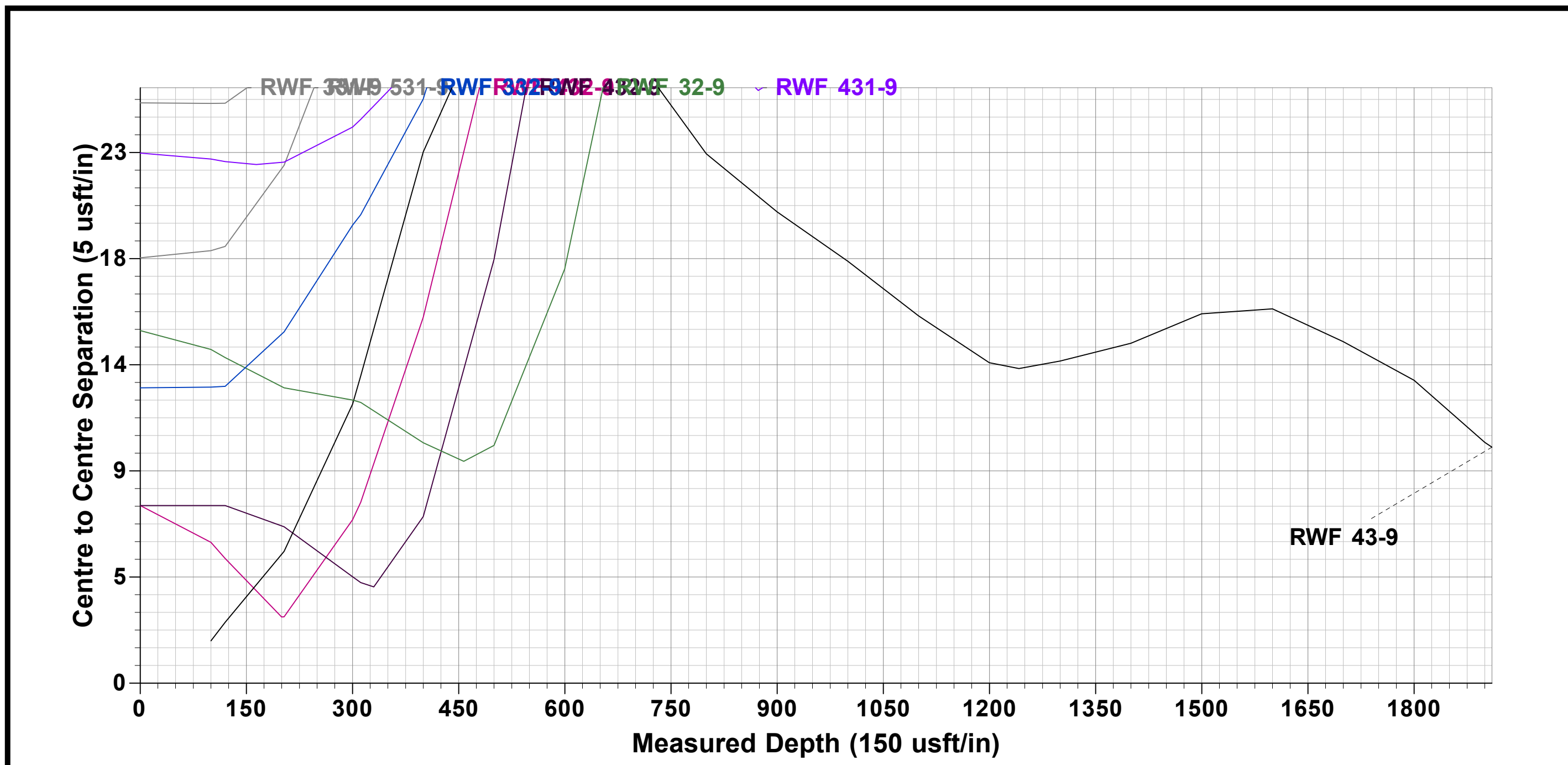
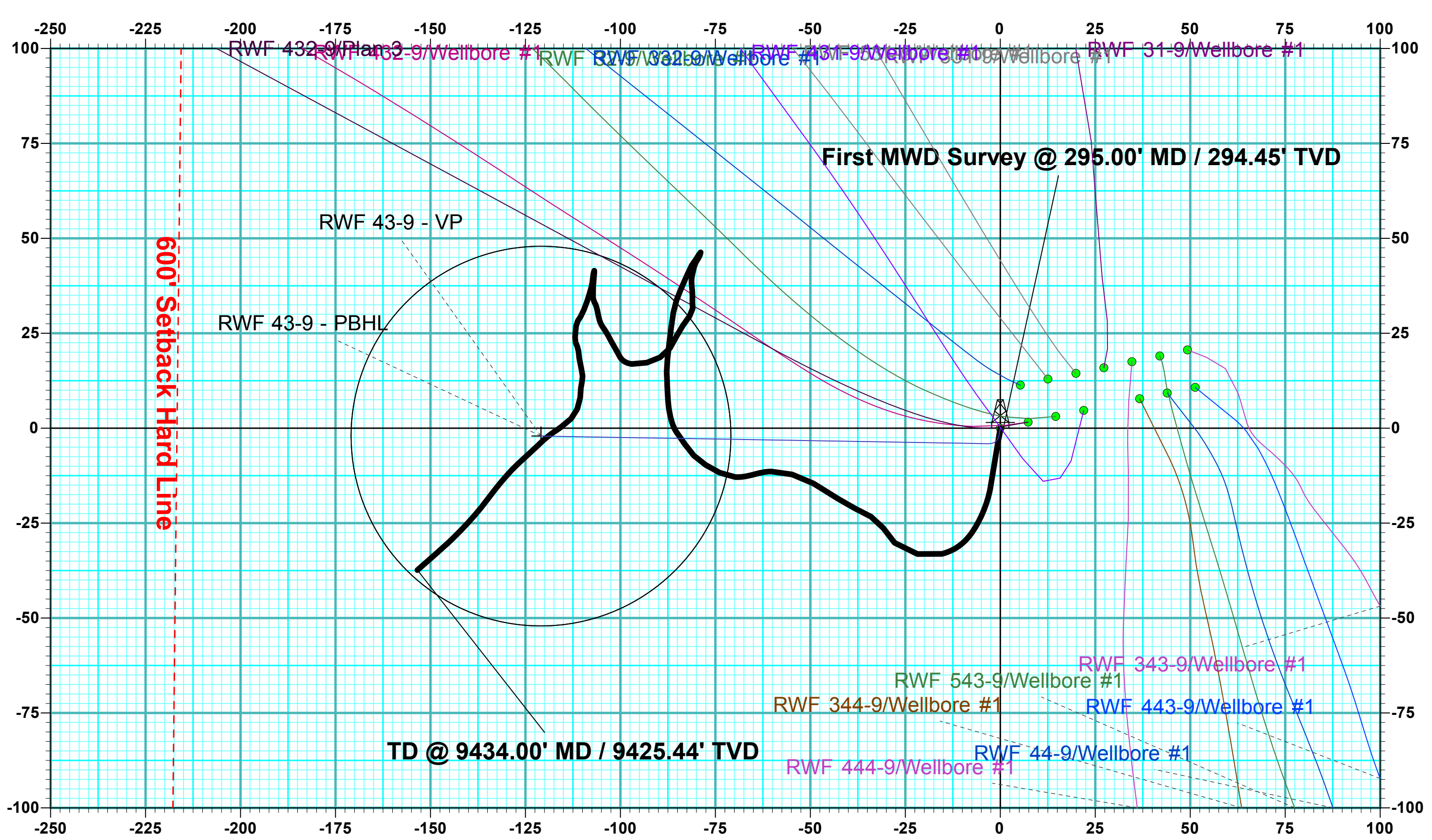
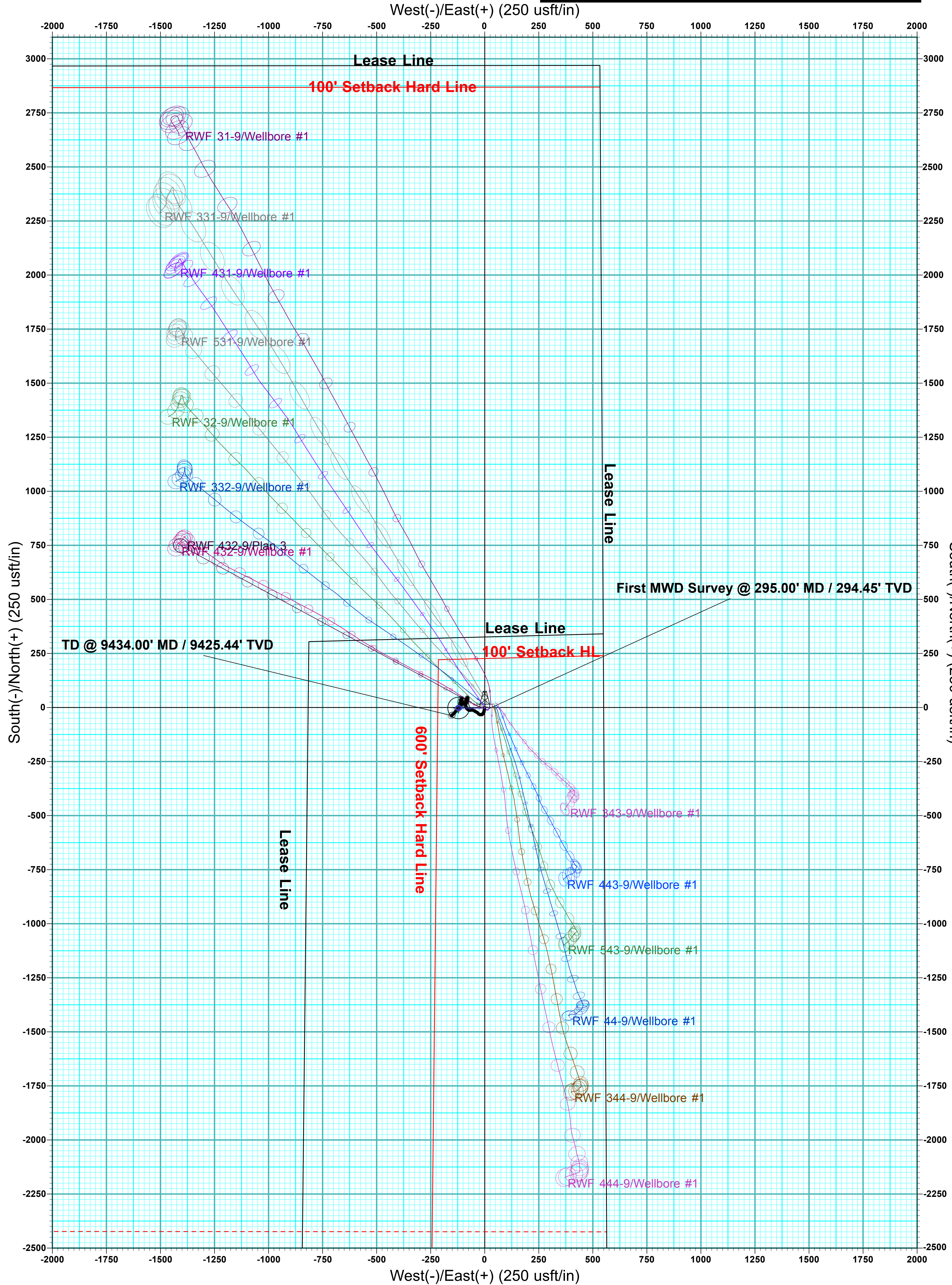
DESIGN ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	Start Build 3.00
203.33	2.50	190.00	203.31	-1.79	-0.32	0.35	1.82	Start DLS 3.00 TFO 130.42
311.59	2.50	270.97	311.49	-4.08	-3.09	3.16	6.34	Start 2614.18 hold at 311.59 MD
2925.78	2.50	270.97	2923.18	-2.14	-117.24	117.26	120.51	Start Drop -1.50
3092.65	0.00	0.00	3090.00	-2.07	-120.89	120.91	124.16	Start 6394.00 hold at 3092.65 MD
9486.65	0.00	0.00	9484.00	-2.07	-120.89	120.91	124.16	TD at 9486.65

SLOTS				
Slot Name	+N/-S	+E/-W	Northing	Easting
RWF 31-9	15.92	27.29	1630191.10	2327358.60
RWF 32-9	3.09	14.62	1630178.60	2327345.60
RWF 331-9	14.43	19.93	1630189.80	2327351.20
RWF 332-9	11.34	5.30	1630187.10	2327336.50
RWF 343-9	20.60	49.28	1630195.20	2327380.70
RWF 344-9	7.77	36.71	1630182.70	2327367.80
RWF 431-9	4.68	21.98	1630180.00	2327353.00
RWF 432-9	1.59	7.36	1630177.30	2327338.30
RWF 43-9	0.00	0.00	1630175.90	2327330.90
RWF 443-9	10.75	51.34	1630185.30	2327382.50
RWF 444-9	17.52	34.65	1630192.50	2327366.00
RWF 44-9	9.26	43.97	1630184.00	2327375.10
RWF 531-9	12.93	12.56	1630188.50	2327343.80
RWF 543-9	19.01	42.02	1630193.80	2327373.40

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3314.00	3316.65	G Sand Top-TVD
3374.00	3376.65	G Sand Base-TVD
4644.00	4646.65	WSTC_LOWER-TVD
5534.00	5536.65	OCRK-TVD
5534.00	5536.65	WFRK/UMVRD-TVD
6834.00	6836.65	KMVCAS-TVD
8374.00	8376.65	CMEO-TVD
9334.00	9336.65	RLNS-TVD
9484.00	9486.65	TD-TVD



ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
295.00	6.06	189.36	294.45	-15.38	-2.53	6.10	15.59	First MWD Survey @ 295.00' MD / 294.45' TVD
9434.00	5.71	228.56	9425.44	-37.37	-153.41	157.89	338.09	TD @ 9434.00' MD / 9425.44' TVD







## **Terra Energy Partners, LLP**

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

**Sec 9, T6S, R94W**

**RWF 43-9 - Slot RWF 43-9**

**Wellbore #1**

**Design: Wellbore #1**

## **KLX Survey Report**

**01 March, 2022**



<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 43-9 - Slot RWF 43-9
<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 43-9	<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 43-9 - Slot RWF 43-9				
Well Position	+N/-S	0.00 usft	Northing:	1,630,175.90 usft	Latitude:	39.539370
	+E/-W	0.00 usft	Easting:	2,327,330.90 usft	Longitude:	-107.885401
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>
	HDGM2022	2/22/2022	9.10	65.55	51,171.20000000

<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	256.31	

<b>Survey Program</b>	<b>Date</b>	3/1/2022			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
295.00	9,434.00	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 @ 295.00' MD / 294.45' TVD</b>										
295.00	6.06	189.36	294.45	-15.38	-2.53	6.10	2.05	2.05	0.00	
389.00	7.12	208.61	387.84	-25.39	-6.13	11.97	2.59	1.13	20.48	
483.00	5.71	246.67	481.29	-32.36	-13.22	20.50	4.66	-1.50	40.49	
576.00	5.49	283.85	573.88	-33.13	-21.79	29.01	3.84	-0.24	39.98	
669.00	3.12	317.95	666.62	-30.18	-27.81	34.16	3.65	-2.55	36.67	
764.00	2.81	327.44	761.49	-26.30	-30.79	36.14	0.61	-0.33	9.99	
858.00	2.77	297.82	855.39	-23.30	-34.04	38.59	1.52	-0.04	-31.51	
952.00	3.03	297.21	949.27	-21.10	-38.26	42.16	0.28	0.28	-0.65	
1,046.00	3.30	301.60	1,043.12	-18.55	-42.77	45.95	0.39	0.29	4.67	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 43-9 - Slot RWF 43-9
<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 43-9	<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)
1,172.00	3.56	302.13	1,168.90	-14.57	-49.17	51.22	0.21	0.21	0.42
1,266.00	3.96	284.81	1,262.70	-12.19	-54.78	56.11	1.28	0.43	-18.43
1,360.00	2.86	268.38	1,356.53	-11.42	-60.27	61.26	1.55	-1.17	-17.48
1,454.00	3.03	253.17	1,450.41	-12.21	-64.99	66.03	0.85	0.18	-16.18
1,548.00	2.81	271.19	1,544.29	-12.88	-69.67	70.74	1.00	-0.23	19.17
1,642.00	2.64	301.07	1,638.19	-11.71	-73.83	74.50	1.50	-0.18	31.79
1,736.00	2.55	296.15	1,732.09	-9.67	-77.56	77.64	0.26	-0.10	-5.23
1,831.00	2.33	322.08	1,827.01	-7.22	-80.64	80.06	1.17	-0.23	27.29
1,924.00	2.42	321.55	1,919.93	-4.19	-83.03	81.66	0.10	0.10	-0.57
2,018.00	2.42	328.58	2,013.84	-0.94	-85.29	83.09	0.32	0.00	7.48
2,113.00	2.72	347.74	2,108.75	2.97	-86.82	83.65	0.95	0.32	20.17
2,206.00	2.46	355.92	2,201.66	7.12	-87.43	83.26	0.49	-0.28	8.80
2,300.00	2.59	357.59	2,295.56	11.25	-87.66	82.51	0.16	0.14	1.78
2,394.00	2.07	358.64	2,389.49	15.07	-87.79	81.73	0.56	-0.55	1.12
2,488.00	2.02	8.48	2,483.43	18.41	-87.59	80.74	0.38	-0.05	10.47
2,583.00	2.42	5.14	2,578.36	22.06	-87.16	79.46	0.44	0.42	-3.52
2,677.00	2.68	8.31	2,672.26	26.21	-86.66	78.00	0.31	0.28	3.37
2,771.00	2.46	7.96	2,766.17	30.38	-86.07	76.43	0.23	-0.23	-0.37
2,866.00	1.67	23.60	2,861.11	33.67	-85.23	74.84	1.01	-0.83	16.46
2,956.00	1.89	19.73	2,951.06	36.27	-84.21	73.23	0.28	0.24	-4.30
3,046.00	1.76	27.73	3,041.02	38.89	-83.06	71.50	0.32	-0.14	8.89
3,137.00	1.23	19.03	3,131.99	41.05	-82.09	70.04	0.63	-0.58	-9.56
3,229.00	1.27	32.22	3,223.96	42.85	-81.23	68.78	0.32	0.04	14.34
3,321.00	1.10	38.19	3,315.94	44.40	-80.14	67.35	0.23	-0.18	6.49
3,409.00	1.19	26.59	3,403.93	45.89	-79.21	66.10	0.28	0.10	-13.18
3,501.00	0.53	190.68	3,495.92	46.32	-78.86	65.65	1.85	-0.72	178.36
3,592.00	0.48	198.59	3,586.92	45.55	-79.06	66.03	0.09	-0.05	8.69
3,682.00	0.70	214.06	3,676.91	44.73	-79.48	66.64	0.30	0.24	17.19
3,772.00	0.79	211.42	3,766.91	43.75	-80.12	67.49	0.11	0.10	-2.93
3,862.00	0.75	188.48	3,856.90	42.64	-80.53	68.15	0.34	-0.04	-25.49
3,952.00	0.88	198.15	3,946.89	41.40	-80.83	68.73	0.21	0.14	10.74
4,042.00	0.92	187.87	4,036.88	40.03	-81.14	69.36	0.18	0.04	-11.42
4,133.00	0.57	182.68	4,127.87	38.85	-81.26	69.76	0.39	-0.38	-5.70
4,224.00	0.83	176.18	4,218.86	37.74	-81.24	70.00	0.30	0.29	-7.14
4,316.00	1.01	172.40	4,310.85	36.27	-81.09	70.20	0.21	0.20	-4.11
4,408.00	0.88	183.39	4,402.84	34.76	-81.02	70.49	0.24	-0.14	11.95
4,499.00	1.01	178.64	4,493.83	33.26	-81.05	70.87	0.17	0.14	-5.22
4,589.00	1.14	173.54	4,583.81	31.58	-80.93	71.15	0.18	0.14	-5.67
4,681.00	1.85	219.77	4,675.78	29.53	-81.77	72.46	1.46	0.77	50.25
4,772.00	1.98	210.81	4,766.73	27.05	-83.52	74.74	0.36	0.14	-9.85
4,863.00	2.11	210.72	4,857.67	24.26	-85.18	77.02	0.14	0.14	-0.10
4,955.00	2.42	207.73	4,949.60	21.08	-86.95	79.49	0.36	0.34	-3.25
5,046.00	2.33	247.28	5,040.53	18.67	-89.55	82.59	1.77	-0.10	43.46

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<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)
5,137.00	2.42	248.81	5,131.45	17.26	-93.05	86.32	0.12	0.10	1.68
5,229.00	2.77	279.10	5,223.36	16.91	-97.05	90.29	1.52	0.38	32.92
5,321.00	2.24	330.60	5,315.28	18.83	-100.13	92.83	2.42	-0.58	55.98
5,412.00	1.98	331.31	5,406.22	21.76	-101.76	93.72	0.29	-0.29	0.78
5,503.00	1.85	331.04	5,497.17	24.42	-103.22	94.51	0.14	-0.14	-0.30
5,593.00	1.36	323.40	5,587.14	26.55	-104.56	95.31	0.59	-0.54	-8.49
5,685.00	1.58	345.37	5,679.11	28.65	-105.54	95.76	0.65	0.24	23.88
5,776.00	1.54	348.89	5,770.07	31.07	-106.09	95.72	0.11	-0.04	3.87
5,868.00	1.14	330.69	5,862.05	33.08	-106.78	95.91	0.63	-0.43	-19.78
5,959.00	1.54	1.63	5,953.02	35.09	-107.18	95.83	0.89	0.44	34.00
6,051.00	1.41	0.49	6,044.99	37.46	-107.14	95.23	0.14	-0.14	-1.24
6,142.00	1.23	8.31	6,135.97	39.54	-106.99	94.59	0.28	-0.20	8.59
6,235.00	0.57	359.17	6,228.96	40.99	-106.85	94.11	0.72	-0.71	-9.83
6,327.00	0.04	4.09	6,320.95	41.48	-106.85	94.00	0.58	-0.58	5.35
6,419.00	0.35	200.09	6,412.95	41.25	-106.95	94.15	0.42	0.34	-178.26
6,511.00	0.48	189.98	6,504.95	40.61	-107.11	94.46	0.16	0.14	-10.99
6,602.00	0.83	186.02	6,595.95	39.58	-107.25	94.83	0.39	0.38	-4.35
6,694.00	0.83	186.55	6,687.94	38.25	-107.39	95.29	0.01	0.00	0.58
6,786.00	0.92	198.68	6,779.93	36.89	-107.71	95.91	0.22	0.10	13.18
6,878.00	1.10	193.14	6,871.91	35.33	-108.14	96.71	0.22	0.20	-6.02
6,970.00	1.32	201.32	6,963.89	33.48	-108.73	97.71	0.30	0.24	8.89
7,062.00	1.71	200.26	7,055.86	31.21	-109.59	99.09	0.42	0.42	-1.15
7,154.00	0.83	217.66	7,147.84	29.39	-110.47	100.38	1.03	-0.96	18.91
7,246.00	0.97	208.17	7,239.82	28.18	-111.25	101.42	0.22	0.15	-10.32
7,338.00	0.79	184.44	7,331.81	26.86	-111.66	102.13	0.44	-0.20	-25.79
7,429.00	0.88	185.23	7,422.80	25.54	-111.78	102.56	0.10	0.10	0.87
7,521.00	1.05	185.14	7,514.79	24.00	-111.92	103.06	0.18	0.18	-0.10
7,613.00	0.75	160.27	7,606.78	22.59	-111.79	103.27	0.53	-0.33	-27.03
7,705.00	0.66	153.50	7,698.77	21.55	-111.35	103.08	0.13	-0.10	-7.36
7,796.00	1.01	173.02	7,789.76	20.28	-111.02	103.06	0.49	0.38	21.45
7,887.00	1.36	174.25	7,880.74	18.41	-110.81	103.30	0.39	0.38	1.35
7,978.00	1.85	164.84	7,971.71	15.92	-110.32	103.42	0.61	0.54	-10.34
8,069.00	0.97	179.52	8,062.68	13.73	-109.93	103.55	1.04	-0.97	16.13
8,159.00	0.97	194.20	8,152.67	12.23	-110.11	104.09	0.28	0.00	16.31
8,250.00	1.19	184.88	8,243.65	10.54	-110.38	104.75	0.31	0.24	-10.24
8,341.00	1.93	184.09	8,334.62	8.07	-110.57	105.52	0.81	0.81	-0.87
8,432.00	2.02	203.87	8,425.56	5.08	-111.33	106.96	0.75	0.10	21.74
8,523.00	1.85	222.15	8,516.51	2.52	-112.96	109.15	0.70	-0.19	20.09
8,613.00	2.46	235.51	8,606.45	0.35	-115.53	112.16	0.87	0.68	14.84
8,703.00	1.98	234.45	8,696.38	-1.64	-118.38	115.41	0.54	-0.53	-1.18
8,792.00	1.93	225.49	8,785.33	-3.59	-120.70	118.12	0.35	-0.06	-10.07
8,884.00	2.46	227.51	8,877.26	-6.01	-123.27	121.19	0.58	0.58	2.20
8,974.00	3.16	227.51	8,967.15	-8.99	-126.52	125.05	0.78	0.78	0.00

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 43-9 - Slot RWF 43-9
<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 43-9	<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)	
9,064.00	4.09	220.92	9,056.97	-13.09	-130.45	129.84	1.13	1.03	-7.32	
9,155.00	4.70	216.70	9,147.70	-18.53	-134.80	135.36	0.76	0.67	-4.64	
9,246.00	5.45	222.15	9,238.35	-24.72	-139.93	141.81	0.98	0.82	5.99	
9,338.00	5.71	227.86	9,329.91	-31.03	-146.26	149.45	0.67	0.28	6.21	
9,369.00	5.71	228.56	9,360.76	-33.09	-148.56	152.17	0.22	0.00	2.26	
TD @ 9434.00' MD / 9425.44' TVD										
9,434.00	5.71	228.56	9,425.44	-37.37	-153.41	157.89	0.00	0.00	0.00	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
295.00	294.45	-15.38	-2.53	First MWD Survey @ 295.00' MD / 294.45' TVD	
9,434.00	9,425.44	-37.37	-153.41	TD @ 9434.00' MD / 9425.44' TVD	