



Project: WELD COUNTY
 Site: Edmundson Pad
 Well: EDMUNDSON 15NA
 Wellbore: OWB
 Design: PLAN #1
 Lat: 39.929876
 Long: -104.810063
 GL: 5052.0
 KB: KB 25 @ 5077.0usft

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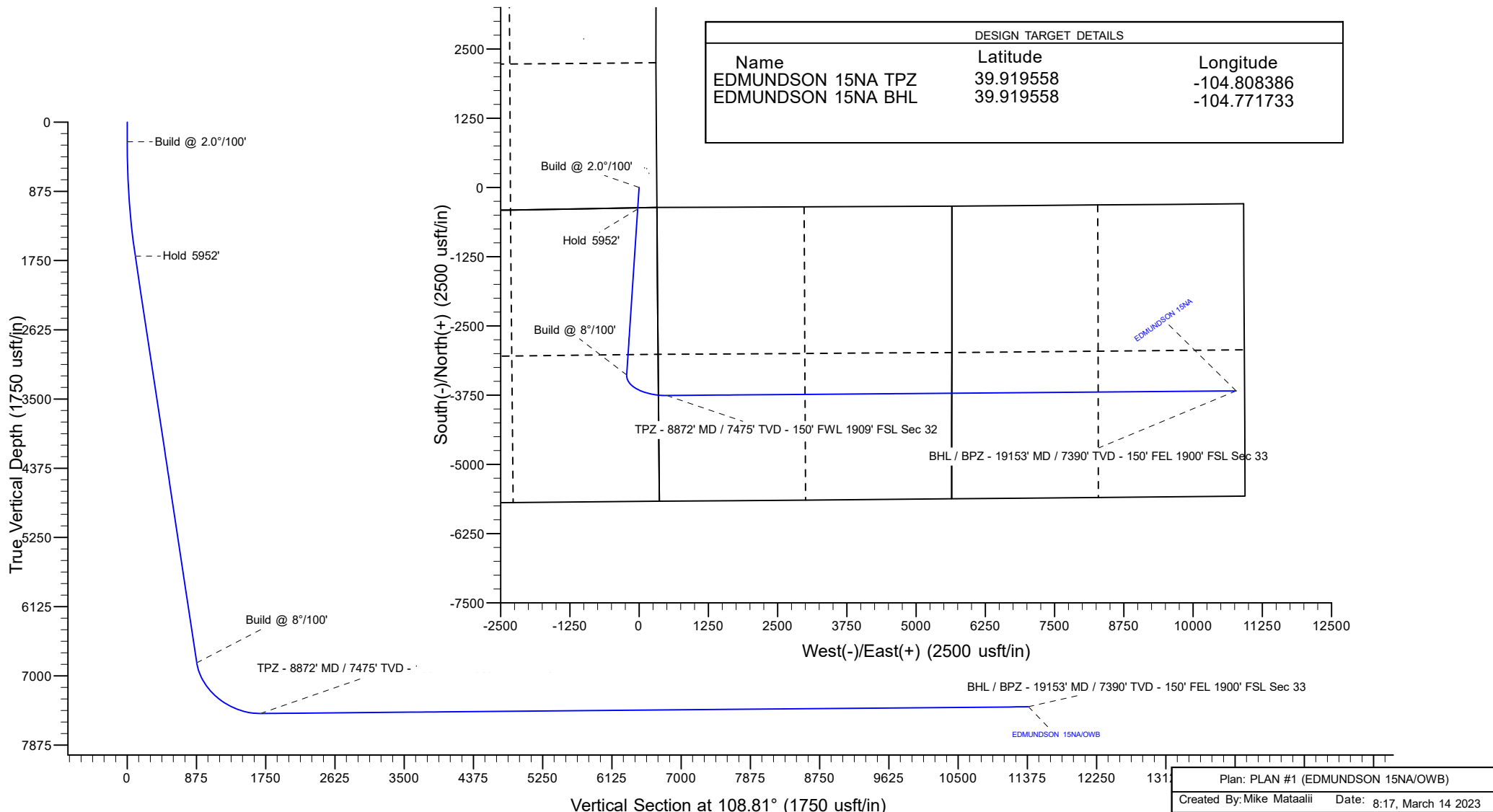
Azimuths to Grid North
 True North: -0.45°
 Magnetic North: 9.48°

Magnetic Field
 Strength: 53709.0nT
 Dip Angle: 66.97°
 Date: 12/31/2004
 Model: IGRF2000

WELL DETAILS: EDMUNDSON 15NA						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	1218055.19	3193485.24	39.929876	-104.810063	

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.0	Build @ 2.0°/100'
1763.8	30.28	183.79	1694.3	-389.9	-25.8	2.00	183.79	101.3	Hold 5952'
7715.8	30.28	183.79	6834.5	-3384.1	-224.4	0.00	0.00	878.9	Build @ 8°/100'
8872.7	90.47	89.54	7475.0	-3754.8	499.4	8.00	-93.44	1683.6	TPZ - 8872' MD / 7475' TVD - 150' FWL 1909' FSL Sec 32
19153.7	90.47	89.54	7390.0	-3672.4	10779.8	0.00	0.00	11388.2	BHL / BPZ - 19153' MD / 7390' TVD - 150' FEL 1900' FSL Sec 33

DESIGN TARGET DETAILS		
Name	Latitude	Longitude
EDMUNDSON 15NA TPZ	39.919558	-104.808386
EDMUNDSON 15NA BHL	39.919558	-104.771733



PDC Energy Inc.
Anticollision Summary Report

Company:	PDC - PLANNING DB	Local Co-ordinate Reference:	Well EDMUNDSON 15NA
Project:	WELD COUNTY	TVD Reference:	KB 25 @ 5077.0usft
Reference Site:	Edmundson Pad	MD Reference:	KB 25 @ 5077.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	EDMUNDSON 15NA	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Reference	PLAN #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 2,500.0 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	3/14/2023		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	19,153.7	PLAN #1 (OWB)	MWD	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Edmundson Offsets						
CUTLER 1-A - OWB - OWB	12,036.2	7,461.8	1,406.4	1,167.7	5.890	CC, ES, SF
CUTLER 1D - OWB - OWB	12,834.3	7,458.2	2,465.0	2,206.5	9.536	CC, ES
CUTLER 1D - OWB - OWB	13,000.0	7,456.9	2,470.5	2,210.5	9.503	SF
EDMUNDSON LE 33-082HC - OWB - OWB	464.9	466.8	22.1	17.5	4.890	CC
EDMUNDSON LE 33-082HC - OWB - OWB	500.0	501.7	22.4	17.5	4.618	ES
EDMUNDSON LE 33-082HC - OWB - OWB	19,100.0	18,443.0	2,204.0	1,637.0	3.887	SF
ERGER 1 - OWB - OWB	11,940.7	7,477.6	1,125.2	888.5	4.753	CC
ERGER 1 - OWB - OWB	12,000.0	7,477.1	1,126.8	886.9	4.698	ES
ERGER 1 - OWB - OWB	12,200.0	7,475.5	1,154.7	906.0	4.643	SF
ERNEST H KALLSEN 2 - OWB - OWB						Out of range
ERNST H KALLSEN 1 - OWB - OWB						Out of range
EVERETTE DAHLINGER A1 - OWB - OWB						Out of range
FARNER 1 - OWB - OWB	13,189.0	7,457.3	54.9	-94.3	0.368	No-Go Zone - Stop Drilling, (
FREEMAN 1 - OWB - OWB	8,052.7	7,138.2	230.8	52.3	1.293	Collision Avoidance Req., CC
FREEMAN 1 - OWB - OWB	8,100.0	7,174.7	234.0	51.9	1.285	Collision Avoidance Req., ES
FREEMAN 1-A - OWB - OWB	8,052.7	7,132.2	230.8	52.4	1.293	Collision Avoidance Req., CC
FREEMAN 1-A - OWB - OWB	8,100.0	7,168.7	234.0	52.0	1.285	Collision Avoidance Req., ES
GREEN 1 - OWB - OWB						Out of range
IKE 1 - OWB - OWB	19,153.7	7,448.0	2,330.8	2,106.6	10.394	CC, ES, SF
KIMMEL 12-33 - OWB - OWB	14,724.6	7,453.6	1,567.0	1,260.3	5.110	CC, ES, SF
OHD 1 - OWB - OWB						Out of range
PC 1S-66-2928 - OWB - OWB	286.6	322.4	2,179.8	2,176.5	667.317	CC
PC 1S-66-2928 - OWB - OWB	300.0	333.6	2,179.8	2,176.5	657.925	ES
PC 1S-66-2928 - OWB - OWB	1,800.0	1,769.6	2,488.7	2,474.7	178.502	SF
PC 1S-66-2928 14CDH - OWB - OWB	0.0	17.0	2,145.7			
PC 1S-66-2928 14CDH - OWB - OWB	200.0	199.2	2,146.7	2,144.1	830.766	ES
PC 1S-66-2928 14CDH - OWB - OWB	2,400.0	2,759.8	2,488.6	2,465.1	105.862	SF
PC 1S-66-2928 17NH - OWB - OWB	0.0	17.0	2,124.6			
PC 1S-66-2928 17NH - OWB - OWB	278.1	309.5	2,126.2	2,123.3	727.607	ES
PC 1S-66-2928 17NH - OWB - OWB	3,300.0	3,805.3	2,484.8	2,448.6	68.659	SF
PC 1S-66-2928 17NH - ST01 - ST01	0.0	17.0	2,124.6			
PC 1S-66-2928 17NH - ST01 - ST01	278.1	309.5	2,126.2	2,123.3	727.607	ES
PC 1S-66-2928 17NH - ST01 - ST01	3,300.0	3,805.3	2,484.8	2,448.6	68.659	SF
PC 1S-66-2928 19NH - OWB - OWB	1,610.4	2,352.6	1,966.2	1,946.2	98.418	CC, ES
PC 1S-66-2928 19NH - OWB - OWB	4,800.0	5,272.4	2,495.4	2,438.3	43.735	SF
PC 1S-66-2928 20CDH - OWB - OWB	1,561.8	2,235.1	1,894.9	1,874.4	92.334	CC
PC 1S-66-2928 20CDH - OWB - OWB	1,700.0	2,435.3	1,896.6	1,873.9	83.693	ES

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Reference Well:	EDMUNDSON 15NA	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary						
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Edmundson Offsets						
PC 1S-66-2928 20CDH - OWB - OWB	5,900.0	6,381.0	2,495.2	2,423.9	35.025	SF
PC 1S-66-2928 9NH - OWB - OWB	0.0	15.0	1,958.7			
PC 1S-66-2928 9NH - OWB - OWB	200.0	201.7	1,959.7	1,957.1	755.474	ES
PC 1S-66-2928 9NH - OWB - OWB	2,200.0	1,881.2	2,471.7	2,453.4	135.444	SF
POLLARD 1 - OWB - OWB						Out of range
PRAIRIE LE 31-369HC - OWB - OWB	7,989.8	17,403.4	1,945.3	1,739.9	9.468	CC
PRAIRIE LE 31-369HC - OWB - OWB	8,000.0	17,407.0	1,945.4	1,739.4	9.444	ES
PRAIRIE LE 31-369HC - OWB - OWB	8,200.0	17,496.1	1,984.4	1,769.2	9.225	SF
REASONER 1 - OWB - OWB	10,018.9	7,507.5	931.9	737.7	4.798	CC
REASONER 1 - OWB - OWB	10,100.0	7,506.9	935.4	737.3	4.722	ES
REASONER 1 - OWB - OWB	10,200.0	7,506.0	949.4	746.5	4.681	SF
REASONER 1-A - OWB - OWB	10,686.7	7,509.0	55.1	-152.9	0.265	No-Go Zone - Stop Drilling, (
REASONER 1A-X - OWB - OWB	10,018.9	7,515.5	931.9	737.6	4.795	CC
REASONER 1A-X - OWB - OWB	10,100.0	7,514.9	935.4	737.2	4.718	ES
REASONER 1A-X - OWB - OWB	10,200.0	7,514.0	949.4	746.4	4.677	SF
SUPERS 1 - OWB - OWB	5,499.2	4,930.3	1,134.2	1,007.3	8.937	CC
SUPERS 1 - OWB - OWB	5,600.0	5,017.3	1,135.3	1,006.0	8.781	ES
SUPERS 1 - OWB - OWB	9,365.8	7,480.9	1,406.8	1,224.1	7.700	SF

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Project:	WELD COUNTY	TVD Reference:	KB 25 @ 5077.0usft
Reference Site:	Edmundson Pad	MD Reference:	KB 25 @ 5077.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	EDMUNDSON 15NA	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Edmundson Pad						
Edmundson Pad						
EDMUNDSON 01N - OWB - PLAN #1	534.8	540.0	54.8	47.3	7.235	CC, ES
EDMUNDSON 01N - OWB - PLAN #1	700.0	705.0	59.9	50.5	6.369	SF
EDMUNDSON 02N - OWB - PLAN #1	596.8	603.0	51.2	42.2	5.660	CC
EDMUNDSON 02N - OWB - PLAN #1	600.0	606.2	51.2	42.1	5.632	ES
EDMUNDSON 02N - OWB - PLAN #1	700.0	706.1	53.2	42.9	5.179	SF
EDMUNDSON 03N - OWB - PLAN #1	250.0	250.0	50.0	47.2	18.115	CC
EDMUNDSON 03N - OWB - PLAN #1	700.0	707.1	51.1	41.1	5.104	ES
EDMUNDSON 03N - OWB - PLAN #1	800.0	807.0	54.4	43.5	4.994	SF
EDMUNDSON 04NA - OWB - PLAN #1	250.0	250.0	51.5	48.8	18.673	CC
EDMUNDSON 04NA - OWB - PLAN #1	700.0	707.3	53.0	43.2	5.387	ES
EDMUNDSON 04NA - OWB - PLAN #1	900.0	908.3	57.6	46.0	4.977	SF
EDMUNDSON 05N - OWB - PLAN #1	250.0	250.0	55.9	53.1	20.254	CC
EDMUNDSON 05N - OWB - PLAN #1	900.0	910.5	58.1	46.7	5.090	ES
EDMUNDSON 05N - OWB - PLAN #1	19,153.7	18,483.9	2,117.4	1,532.5	3.620	SF
EDMUNDSON 06N - OWB - PLAN #1	250.0	250.0	62.5	59.7	22.644	CC
EDMUNDSON 06N - OWB - PLAN #1	1,000.0	1,011.8	65.0	53.3	5.575	ES
EDMUNDSON 06N - OWB - PLAN #1	19,153.7	18,621.3	1,910.8	1,326.0	3.268	SF
EDMUNDSON 07NA - OWB - PLAN #1	250.0	250.0	70.7	68.0	25.619	CC
EDMUNDSON 07NA - OWB - PLAN #1	1,100.0	1,113.3	72.7	60.9	6.168	ES
EDMUNDSON 07NA - OWB - PLAN #1	19,153.7	18,464.7	1,690.5	1,105.9	2.892	SF
EDMUNDSON 08C - OWB - PLAN #1	250.0	250.0	80.0	77.3	28.999	CC
EDMUNDSON 08C - OWB - PLAN #1	1,200.0	1,213.9	81.3	69.2	6.742	ES
EDMUNDSON 08C - OWB - PLAN #1	19,153.7	18,890.6	1,517.8	939.6	2.625	SF
EDMUNDSON 09N - OWB - PLAN #1	1,265.8	1,281.4	89.3	77.0	7.261	CC
EDMUNDSON 09N - OWB - PLAN #1	1,300.0	1,315.6	89.4	76.7	7.079	ES
EDMUNDSON 09N - OWB - PLAN #1	19,153.7	18,728.2	1,275.0	689.8	2.179	SF
EDMUNDSON 10N - OWB - PLAN #1	1,357.0	1,373.7	98.1	85.2	7.611	CC
EDMUNDSON 10N - OWB - PLAN #1	1,400.0	1,416.6	98.2	84.8	7.345	ES
EDMUNDSON 10N - OWB - PLAN #1	19,153.7	18,891.4	1,073.5	491.2	1.843	Collision Risk Procedures Re
EDMUNDSON 11NA - OWB - PLAN #1	1,506.9	1,525.3	106.2	91.8	7.388	CC
EDMUNDSON 11NA - OWB - PLAN #1	1,600.0	1,618.3	106.8	91.1	6.803	ES
EDMUNDSON 11NA - OWB - PLAN #1	19,153.7	18,777.3	845.3	259.8	1.444	Collision Avoidance Req., SF
EDMUNDSON 12C - OWB - PLAN #1	1,557.1	1,575.9	115.1	100.2	7.750	CC
EDMUNDSON 12C - OWB - PLAN #1	1,700.0	1,718.5	116.6	99.5	6.826	ES
EDMUNDSON 12C - OWB - PLAN #1	19,153.7	19,199.0	726.6	191.5	1.358	Collision Avoidance Req., SF
EDMUNDSON 13N - OWB - PLAN #1	1,696.4	1,697.2	19.2	3.2	1.204	Collision Avoidance Req., CC
EDMUNDSON 13N - OWB - PLAN #1	19,153.7	19,048.3	445.2	-122.7	0.784	No-Go Zone - Stop Drilling, E
EDMUNDSON 14N - OWB - PLAN #1	1,712.2	1,712.7	9.5	-6.6	0.592	No-Go Zone - Stop Drilling, C
EDMUNDSON 14N - OWB - PLAN #1	1,800.0	1,800.4	10.2	-8.5	0.547	No-Go Zone - Stop Drilling, C
EDMUNDSON 14N - OWB - PLAN #1	19,150.6	19,230.0	287.5	-184.7	0.609	No-Go Zone - Stop Drilling, E
EDMUNDSON 16C - OWB - PLAN #1	4,056.3	4,055.9	1.8	-45.9	0.037	No-Go Zone - Stop Drilling, C
EDMUNDSON 16C - OWB - PLAN #1	4,100.0	4,099.6	1.8	-46.3	0.037	No-Go Zone - Stop Drilling, C
EDMUNDSON 16C - OWB - PLAN #1	7,800.0	7,799.4	10.5	-108.2	0.089	No-Go Zone - Stop Drilling, E
EDMUNDSON 17N - OWB - PLAN #1	1,926.9	1,925.7	29.5	9.8	1.500	Collision Avoidance Req., CC
EDMUNDSON 17N - OWB - PLAN #1	19,153.7	19,468.9	446.8	-102.4	0.814	No-Go Zone - Stop Drilling, E
EDMUNDSON 18N - OWB - PLAN #1	1,942.4	1,940.9	39.3	19.4	1.975	Collision Risk Procedures Re
EDMUNDSON 18N - OWB - PLAN #1	2,100.0	2,098.2	40.5	17.4	1.750	Collision Risk Procedures Re
EDMUNDSON 18N - OWB - PLAN #1	19,153.7	19,661.6	666.3	113.7	1.206	Collision Avoidance Req., SF
EDMUNDSON 19NA - OWB - PLAN #1	1,973.0	1,971.2	49.0	28.5	2.396	CC
EDMUNDSON 19NA - OWB - PLAN #1	2,100.0	2,097.2	50.9	27.7	2.196	ES
EDMUNDSON 19NA - OWB - PLAN #1	19,153.7	19,614.2	845.3	259.3	1.443	Collision Avoidance Req., SF
EDMUNDSON 20C - OWB - PLAN #1	2,001.4	1,999.3	58.7	37.8	2.804	CC
EDMUNDSON 20C - OWB - PLAN #1	2,100.0	2,097.2	59.7	36.8	2.599	ES

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Project:	WELD COUNTY	TVD Reference:	KB 25 @ 5077.0usft
Reference Site:	Edmundson Pad	MD Reference:	KB 25 @ 5077.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	EDMUNDSON 15NA	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Edmundson Pad						
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EDMUNDSON 20C - OWB - PLAN #1	19,153.7	20,024.7	1,117.8	568.7	2.036	SF
EDMUNDSON 21N - OWB - PLAN #1	2,027.6	2,025.2	68.6	47.2	3.204	CC
EDMUNDSON 21N - OWB - PLAN #1	2,100.0	2,096.8	69.2	46.3	3.021	ES
EDMUNDSON 21N - OWB - PLAN #1	19,153.7	19,963.5	1,276.7	697.3	2.203	SF
EDMUNDSON 22N - OWB - PLAN #1	2,051.1	2,048.5	78.9	57.0	3.611	CC
EDMUNDSON 22N - OWB - PLAN #1	2,100.0	2,096.8	79.1	56.3	3.467	ES
EDMUNDSON 22N - OWB - PLAN #1	19,153.7	20,163.5	1,494.0	916.6	2.587	SF
EDMUNDSON 23N - OWB - PLAN #1	2,074.4	2,071.5	88.9	66.7	3.996	CC
EDMUNDSON 23N - OWB - PLAN #1	2,200.0	2,194.9	91.0	66.2	3.669	ES
EDMUNDSON 23N - OWB - PLAN #1	19,153.7	20,233.0	1,697.1	1,115.0	2.915	SF

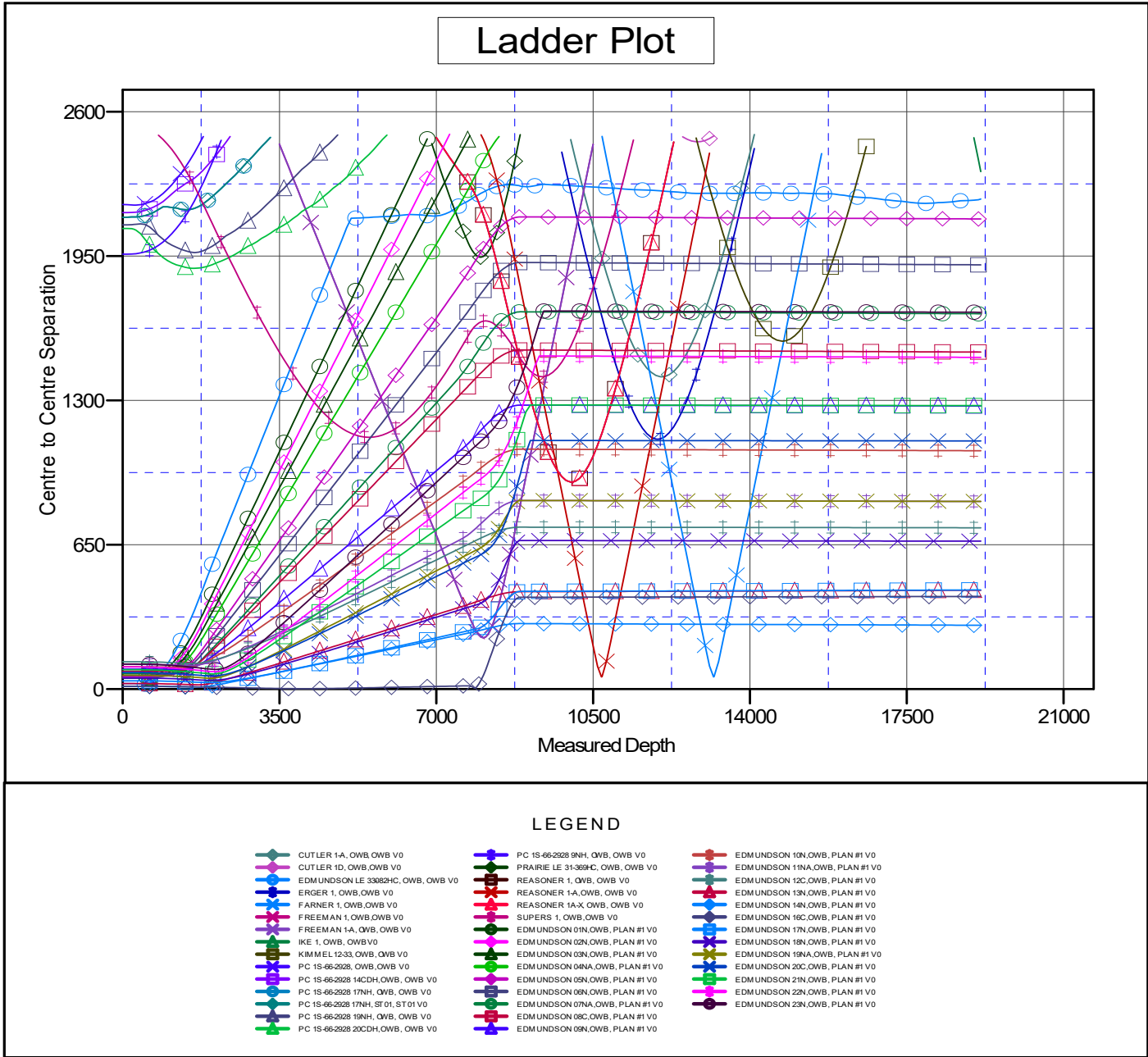
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Reference Site: Edmundson Pad	MD Reference: KB 25 @ 5077.0usft
Site Error: 0.0 usft	North Reference: Grid
Reference Well: EDMUNDSON 15NA	Survey Calculation Method: Minimum Curvature
Well Error: 0.0 usft	Output errors are at: 2.00 sigma
Reference Wellbore: OWB	Database: EDM 5000.15 Single User Db
Reference Design: PLAN #1	Offset TVD Reference: Offset Datum

Reference Depths are relative to KB 25 @ 5077.0usft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000

Coordinates are relative to: EDMUNDSON 15NA
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.45°



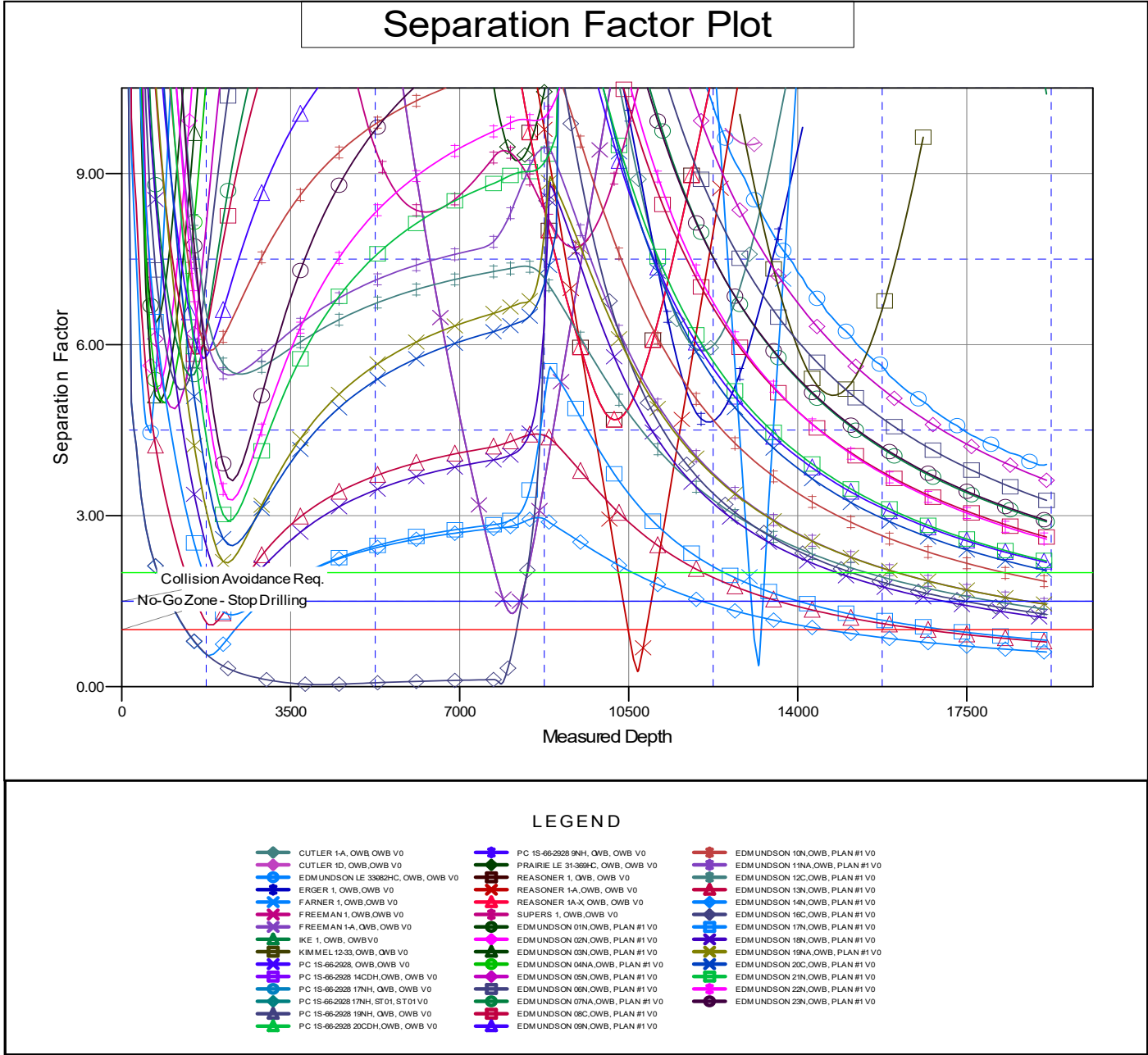
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