



CONCHO

NORTHERN DELAWARE BASIN

LEA COUNTY, NM

BULLDOG

DOMINATOR 25 FED #706H

OWB

Design: ACTUAL WELLPATH

Standard Survey Report

01 October, 2018



Survey Report

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: DOMINATOR 25 FED #706H
Wellbore: OWB
Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well DOMINATOR 25 FED #706H
TVD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
MD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM_Users

Project	LEA COUNTY, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	BULLDOG		
Site Position:		Northing:	398,637.10 usft
From:	Map	Easting:	741,887.40 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 5' 36.820 N
		Longitude:	103° 33' 8.116 W
		Grid Convergence:	0.42 °

Well	DOMINATOR 25 FED #706H		
Well Position	+N/-S	0.0 usft	Northing: 399,190.60 usft
	+E/-W	0.0 usft	Easting: 750,773.80 usft
Position Uncertainty	3.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 5' 41.649 N
		Longitude:	103° 31' 24.774 W
		Ground Level:	3,339.0 usft

Wellbore	OWB		
Magnetics	Model Name	Sample Date	Declination
	WMM2015	1/30/2018	(°) 6.88
			Dip Angle
			(°) 59.93
			Field Strength
			(nT) 47,789.90304429

Design	ACTUAL WELLPATH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°) 355.65

Survey Program	Date 9/27/2018		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.0	11,741.0	GYRO - INTERMEDIATE (OWB)	Standard Keeper 104
11,954.0	17,324.0	MWD-CURVE/LATERAL (OWB)	MWD+IFR1+MS
			Description
			Standard Wireline Keeper ver 1.0.4
			OWSG MWD + IFR1 + Multi-Station Correction

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.17	4.46	100.0	0.1	0.0	0.1	0.17	0.17	0.00
125.0	0.05	2.51	125.0	0.2	0.0	0.2	0.48	-0.48	-7.80
150.0	0.18	15.79	150.0	0.2	0.0	0.2	0.53	0.52	53.12
175.0	0.16	7.49	175.0	0.3	0.0	0.3	0.13	-0.08	-33.20
200.0	0.23	25.85	200.0	0.4	0.1	0.4	0.37	0.28	73.44
225.0	0.22	11.90	225.0	0.5	0.1	0.5	0.22	-0.04	-55.80
250.0	0.17	21.75	250.0	0.6	0.1	0.6	0.24	-0.20	39.40
275.0	0.19	19.33	275.0	0.6	0.2	0.6	0.09	0.08	-9.68
300.0	0.14	352.27	300.0	0.7	0.2	0.7	0.36	-0.20	-108.24



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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)
325.0	0.27	29.55	325.0	0.8	0.2	0.8	0.72	0.52	149.12
350.0	0.10	339.79	350.0	0.9	0.2	0.8	0.88	-0.68	-199.04
375.0	0.16	30.12	375.0	0.9	0.2	0.9	0.49	0.24	201.32
400.0	0.32	33.65	400.0	1.0	0.3	1.0	0.64	0.64	14.12
425.0	0.21	21.51	425.0	1.1	0.3	1.1	0.49	-0.44	-48.56
450.0	0.24	60.45	450.0	1.2	0.4	1.1	0.61	0.12	155.76
475.0	0.21	68.13	475.0	1.2	0.5	1.2	0.17	-0.12	30.72
500.0	0.43	60.69	500.0	1.3	0.6	1.2	0.89	0.88	-29.76
525.0	0.48	57.91	525.0	1.4	0.8	1.3	0.22	0.20	-11.12
550.0	0.38	67.37	550.0	1.5	0.9	1.4	0.49	-0.40	37.84
575.0	0.48	76.68	575.0	1.5	1.1	1.4	0.49	0.40	37.16
600.0	0.48	82.20	600.0	1.6	1.3	1.5	0.19	0.00	22.16
625.0	0.46	87.37	625.0	1.6	1.5	1.5	0.19	-0.08	20.68
650.0	0.44	89.68	650.0	1.6	1.7	1.5	0.11	-0.08	9.24
675.0	0.48	86.39	675.0	1.6	1.9	1.4	0.19	0.16	-13.16
700.0	0.55	81.92	700.0	1.6	2.1	1.5	0.32	0.28	-17.88
725.0	0.48	83.67	725.0	1.6	2.4	1.5	0.29	-0.28	7.00
750.0	0.42	84.44	750.0	1.7	2.6	1.5	0.24	-0.24	3.08
775.0	0.43	73.93	775.0	1.7	2.7	1.5	0.31	0.04	-42.04
800.0	0.32	72.84	800.0	1.7	2.9	1.5	0.44	-0.44	-4.36
825.0	0.25	63.67	825.0	1.8	3.0	1.6	0.33	-0.28	-36.68
850.0	0.22	58.43	850.0	1.8	3.1	1.6	0.15	-0.12	-20.96
875.0	0.23	55.83	875.0	1.9	3.2	1.6	0.06	0.04	-10.40
900.0	0.18	54.24	900.0	1.9	3.3	1.7	0.20	-0.20	-6.36
925.0	0.30	72.02	925.0	2.0	3.4	1.7	0.56	0.48	71.12
950.0	0.20	47.68	950.0	2.0	3.5	1.8	0.58	-0.40	-97.36
975.0	0.21	58.27	975.0	2.1	3.5	1.8	0.16	0.04	42.36
1,000.0	0.23	65.47	1,000.0	2.1	3.6	1.9	0.14	0.08	28.80
1,025.0	0.28	54.85	1,025.0	2.2	3.7	1.9	0.27	0.20	-42.48
1,050.0	0.16	29.86	1,050.0	2.3	3.8	2.0	0.60	-0.48	-99.96
1,075.0	0.24	38.57	1,075.0	2.3	3.8	2.0	0.34	0.32	34.84
1,100.0	0.17	60.23	1,100.0	2.4	3.9	2.1	0.41	-0.28	86.64
1,125.0	0.12	13.17	1,125.0	2.4	3.9	2.1	0.50	-0.20	-188.24
1,150.0	0.25	36.79	1,150.0	2.5	4.0	2.2	0.59	0.52	94.48
1,175.0	0.28	15.50	1,175.0	2.6	4.0	2.3	0.41	0.12	-85.16
1,200.0	0.26	12.49	1,200.0	2.7	4.0	2.4	0.10	-0.08	-12.04
1,225.0	0.21	353.12	1,225.0	2.8	4.0	2.5	0.37	-0.20	-77.48
1,250.0	0.23	354.84	1,250.0	2.9	4.0	2.6	0.08	0.08	6.88
1,275.0	0.12	329.12	1,275.0	3.0	4.0	2.7	0.53	-0.44	-102.88
1,300.0	0.19	337.60	1,300.0	3.0	4.0	2.7	0.29	0.28	33.92
1,325.0	0.21	352.55	1,325.0	3.1	4.0	2.8	0.22	0.08	59.80
1,350.0	0.25	9.23	1,350.0	3.2	4.0	2.9	0.31	0.16	66.72
1,375.0	0.20	341.53	1,375.0	3.3	4.0	3.0	0.47	-0.20	-110.80



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1,400.0	0.23	354.75	1,400.0	3.4	3.9	3.1	0.23	0.12	52.88
1,425.0	0.27	333.91	1,425.0	3.5	3.9	3.2	0.39	0.16	-83.36
1,450.0	0.14	354.10	1,450.0	3.6	3.9	3.3	0.59	-0.52	80.76
1,475.0	0.41	295.13	1,475.0	3.7	3.8	3.4	1.43	1.08	-235.88
1,500.0	0.67	278.10	1,500.0	3.7	3.6	3.5	1.21	1.04	-68.12
1,525.0	1.37	261.90	1,525.0	3.7	3.1	3.5	3.00	2.80	-64.80
1,550.0	1.75	263.52	1,550.0	3.6	2.5	3.4	1.53	1.52	6.48
1,575.0	2.17	257.99	1,575.0	3.5	1.6	3.4	1.84	1.68	-22.12
1,600.0	2.26	257.10	1,599.9	3.3	0.7	3.2	0.39	0.36	-3.56
1,625.0	2.60	256.63	1,624.9	3.0	-0.4	3.1	1.36	1.36	-1.88
1,650.0	3.19	254.43	1,649.9	2.7	-1.6	2.8	2.40	2.36	-8.80
1,675.0	3.84	258.49	1,674.8	2.4	-3.1	2.6	2.78	2.60	16.24
1,700.0	4.56	256.46	1,699.8	2.0	-4.9	2.3	2.94	2.88	-8.12
1,725.0	4.99	255.79	1,724.7	1.5	-6.9	2.0	1.73	1.72	-2.68
1,750.0	5.42	255.36	1,749.6	0.9	-9.1	1.6	1.73	1.72	-1.72
1,775.0	5.47	254.93	1,774.5	0.3	-11.4	1.2	0.26	0.20	-1.72
1,800.0	6.44	253.03	1,799.3	-0.4	-13.9	0.6	3.96	3.88	-7.60
1,825.0	6.63	252.26	1,824.2	-1.3	-16.6	0.0	0.84	0.76	-3.08
1,850.0	6.78	252.36	1,849.0	-2.2	-19.4	-0.7	0.60	0.60	0.40
1,875.0	6.91	252.15	1,873.8	-3.1	-22.2	-1.4	0.53	0.52	-0.84
1,900.0	6.74	252.81	1,898.6	-4.0	-25.0	-2.1	0.75	-0.68	2.64
1,925.0	6.87	252.26	1,923.5	-4.9	-27.8	-2.7	0.58	0.52	-2.20
1,950.0	6.89	252.79	1,948.3	-5.8	-30.7	-3.4	0.27	0.08	2.12
1,975.0	6.84	252.30	1,973.1	-6.7	-33.6	-4.1	0.31	-0.20	-1.96
2,000.0	6.79	251.38	1,997.9	-7.6	-36.4	-4.8	0.48	-0.20	-3.68
2,025.0	6.58	248.74	2,022.8	-8.6	-39.1	-5.6	1.49	-0.84	-10.56
2,050.0	6.36	246.03	2,047.6	-9.6	-41.7	-6.5	1.51	-0.88	-10.84
2,075.0	6.02	240.24	2,072.5	-10.9	-44.1	-7.5	2.84	-1.36	-23.16
2,100.0	5.85	237.62	2,097.3	-12.2	-46.3	-8.6	1.28	-0.68	-10.48
2,125.0	5.86	237.06	2,122.2	-13.6	-48.5	-9.9	0.23	0.04	-2.24
2,150.0	5.77	237.23	2,147.1	-14.9	-50.6	-11.1	0.37	-0.36	0.68
2,175.0	5.75	236.62	2,171.9	-16.3	-52.7	-12.3	0.26	-0.08	-2.44
2,200.0	5.82	237.82	2,196.8	-17.7	-54.8	-13.5	0.56	0.28	4.80
2,225.0	5.83	237.12	2,221.7	-19.0	-57.0	-14.7	0.29	0.04	-2.80
2,250.0	5.72	236.49	2,246.5	-20.4	-59.1	-15.9	0.51	-0.44	-2.52
2,275.0	5.59	236.18	2,271.4	-21.8	-61.1	-17.1	0.53	-0.52	-1.24
2,300.0	5.71	236.75	2,296.3	-23.1	-63.2	-18.3	0.53	0.48	2.28
2,325.0	5.43	235.40	2,321.2	-24.5	-65.2	-19.5	1.24	-1.12	-5.40
2,350.0	5.20	235.41	2,346.1	-25.8	-67.1	-20.6	0.92	-0.92	0.04
2,375.0	4.92	234.25	2,371.0	-27.1	-68.9	-21.8	1.19	-1.12	-4.64
2,400.0	4.82	233.73	2,395.9	-28.3	-70.6	-22.9	0.44	-0.40	-2.08
2,425.0	4.65	233.94	2,420.8	-29.6	-72.3	-24.0	0.68	-0.68	0.84
2,450.0	4.75	233.68	2,445.7	-30.8	-73.9	-25.1	0.41	0.40	-1.04



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2,475.0	4.44	234.89	2,470.6	-31.9	-75.6	-26.1	1.30	-1.24	4.84
2,500.0	4.22	237.67	2,495.6	-33.0	-77.1	-27.0	1.22	-0.88	11.12
2,525.0	3.95	243.28	2,520.5	-33.9	-78.7	-27.8	1.93	-1.08	22.44
2,550.0	3.97	246.22	2,545.4	-34.6	-80.2	-28.4	0.82	0.08	11.76
2,575.0	3.88	246.19	2,570.4	-35.3	-81.8	-29.0	0.36	-0.36	-0.12
2,600.0	3.65	248.55	2,595.3	-35.9	-83.3	-29.5	1.11	-0.92	9.44
2,625.0	3.53	252.10	2,620.3	-36.4	-84.8	-29.9	1.01	-0.48	14.20
2,650.0	3.50	262.32	2,645.2	-36.8	-86.3	-30.1	2.51	-0.12	40.88
2,675.0	3.61	265.57	2,670.2	-36.9	-87.8	-30.2	0.92	0.44	13.00
2,700.0	3.54	266.33	2,695.1	-37.1	-89.4	-30.2	0.34	-0.28	3.04
2,725.0	3.55	266.88	2,720.1	-37.1	-90.9	-30.1	0.14	0.04	2.20
2,750.0	3.45	267.05	2,745.0	-37.2	-92.4	-30.1	0.40	-0.40	0.68
2,775.0	3.44	269.42	2,770.0	-37.3	-93.9	-30.0	0.57	-0.04	9.48
2,800.0	3.43	266.53	2,795.0	-37.3	-95.4	-30.0	0.69	-0.04	-11.56
2,825.0	3.61	265.69	2,819.9	-37.4	-97.0	-30.0	0.75	0.72	-3.36
2,850.0	3.74	264.11	2,844.9	-37.6	-98.6	-30.0	0.66	0.52	-6.32
2,875.0	4.27	262.18	2,869.8	-37.8	-100.3	-30.1	2.19	2.12	-7.72
2,900.0	4.34	262.16	2,894.7	-38.0	-102.2	-30.2	0.28	0.28	-0.08
2,925.0	4.37	262.48	2,919.7	-38.3	-104.0	-30.3	0.15	0.12	1.28
2,950.0	4.48	262.59	2,944.6	-38.5	-105.9	-30.4	0.44	0.44	0.44
2,975.0	4.44	262.34	2,969.5	-38.8	-107.9	-30.5	0.18	-0.16	-1.00
3,000.0	4.32	261.68	2,994.4	-39.1	-109.8	-30.6	0.52	-0.48	-2.64
3,025.0	4.38	261.98	3,019.4	-39.3	-111.6	-30.7	0.26	0.24	1.20
3,050.0	4.86	258.07	3,044.3	-39.7	-113.6	-30.9	2.30	1.92	-15.64
3,075.0	5.04	255.66	3,069.2	-40.2	-115.7	-31.3	1.10	0.72	-9.64
3,100.0	4.90	255.55	3,094.1	-40.7	-117.8	-31.7	0.56	-0.56	-0.44
3,125.0	5.04	253.13	3,119.0	-41.3	-119.9	-32.1	1.01	0.56	-9.68
3,150.0	4.88	253.33	3,143.9	-41.9	-122.0	-32.5	0.84	-0.64	0.80
3,175.0	4.87	251.79	3,168.8	-42.6	-124.0	-33.0	0.53	-0.04	-6.16
3,200.0	4.89	253.18	3,193.7	-43.2	-126.0	-33.5	0.48	0.08	5.56
3,225.0	4.85	251.22	3,218.6	-43.8	-128.0	-34.0	0.68	-0.16	-7.84
3,250.0	4.67	249.09	3,243.5	-44.6	-130.0	-34.6	1.01	-0.72	-8.52
3,275.0	4.46	246.83	3,268.5	-45.3	-131.8	-35.2	1.11	-0.84	-9.04
3,300.0	4.29	245.19	3,293.4	-46.1	-133.6	-35.8	0.84	-0.68	-6.56
3,325.0	4.28	244.76	3,318.3	-46.9	-135.3	-36.5	0.13	-0.04	-1.72
3,350.0	4.20	244.91	3,343.3	-47.6	-137.0	-37.1	0.32	-0.32	0.60
3,375.0	4.35	243.80	3,368.2	-48.5	-138.6	-37.8	0.69	0.60	-4.44
3,400.0	4.20	245.97	3,393.1	-49.2	-140.3	-38.5	0.88	-0.60	8.68
3,425.0	4.24	255.13	3,418.1	-49.9	-142.0	-38.9	2.70	0.16	36.64
3,450.0	4.13	255.77	3,443.0	-50.3	-143.8	-39.3	0.48	-0.44	2.56
3,475.0	4.10	257.54	3,467.9	-50.7	-145.6	-39.5	0.52	-0.12	7.08
3,500.0	4.08	262.81	3,492.9	-51.0	-147.3	-39.7	1.51	-0.08	21.08
3,525.0	4.09	264.18	3,517.8	-51.2	-149.1	-39.8	0.39	0.04	5.48
3,550.0	3.92	262.98	3,542.7	-51.4	-150.8	-39.8	0.76	-0.68	-4.80



Survey Report

Company: NORTHERN DELAWARE BASIN
 Project: LEA COUNTY, NM
 Site: BULLDOG
 Well: DOMINATOR 25 FED #706H
 Wellbore: OWB
 Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well DOMINATOR 25 FED #706H
 TVD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
 MD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM_Users

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)
3,575.0	4.34	264.59	3,567.7	-51.6	-152.6	-39.9	1.74	1.68	6.44
3,600.0	5.87	264.49	3,592.6	-51.8	-154.8	-39.9	6.12	6.12	-0.40
3,625.0	5.78	265.76	3,617.4	-52.1	-157.4	-40.0	0.63	-0.36	5.08
3,650.0	5.90	264.67	3,642.3	-52.3	-159.9	-40.0	0.65	0.48	-4.36
3,675.0	5.98	265.29	3,667.2	-52.5	-162.5	-40.0	0.41	0.32	2.48
3,700.0	5.93	264.28	3,692.0	-52.7	-165.0	-40.0	0.46	-0.20	-4.04
3,725.0	6.03	264.41	3,716.9	-53.0	-167.6	-40.1	0.40	0.40	0.52
3,750.0	5.96	265.18	3,741.8	-53.2	-170.2	-40.1	0.43	-0.28	3.08
3,775.0	5.86	265.28	3,766.6	-53.4	-172.8	-40.2	0.40	-0.40	0.40
3,800.0	5.81	263.96	3,791.5	-53.7	-175.3	-40.2	0.57	-0.20	-5.28
3,825.0	5.95	264.93	3,816.4	-53.9	-177.9	-40.3	0.69	0.56	3.88
3,850.0	5.71	263.94	3,841.2	-54.2	-180.4	-40.3	1.04	-0.96	-3.96
3,875.0	5.44	265.82	3,866.1	-54.4	-182.8	-40.3	1.30	-1.08	7.52
3,900.0	5.09	264.08	3,891.0	-54.6	-185.1	-40.4	1.54	-1.40	-6.96
3,925.0	4.99	260.29	3,915.9	-54.9	-187.3	-40.5	1.39	-0.40	-15.16
3,950.0	4.74	251.55	3,940.8	-55.4	-189.3	-40.9	3.13	-1.00	-34.96
3,975.0	4.61	244.78	3,965.8	-56.1	-191.2	-41.5	2.27	-0.52	-27.08
4,000.0	4.47	242.70	3,990.7	-57.0	-193.0	-42.2	0.86	-0.56	-8.32
4,025.0	4.56	241.81	4,015.6	-57.9	-194.7	-43.0	0.50	0.36	-4.36
4,050.0	4.27	241.63	4,040.5	-58.9	-196.4	-43.8	1.16	-1.16	0.08
4,075.0	4.11	240.54	4,065.5	-59.7	-198.0	-44.5	0.71	-0.64	-4.36
4,100.0	4.50	243.47	4,090.4	-60.6	-199.7	-45.3	1.79	1.56	11.72
4,125.0	4.80	250.33	4,115.3	-61.4	-201.6	-45.9	2.53	1.20	27.44
4,150.0	5.16	253.55	4,140.2	-62.1	-203.6	-46.4	1.82	1.44	12.88
4,175.0	5.08	255.31	4,165.1	-62.7	-205.8	-46.9	0.71	-0.32	7.04
4,200.0	5.22	255.51	4,190.0	-63.2	-207.9	-47.3	0.56	0.56	0.80
4,225.0	5.13	257.62	4,214.9	-63.8	-210.1	-47.6	0.84	-0.36	8.44
4,250.0	5.04	257.18	4,239.8	-64.2	-212.3	-47.9	0.39	-0.36	-1.76
4,275.0	5.09	259.60	4,264.7	-64.7	-214.5	-48.2	0.88	0.20	9.68
4,300.0	5.12	257.77	4,289.6	-65.1	-216.6	-48.5	0.66	0.12	-7.32
4,325.0	5.20	257.80	4,314.5	-65.6	-218.8	-48.8	0.32	0.32	0.12
4,350.0	5.15	258.16	4,339.4	-66.1	-221.0	-49.1	0.24	-0.20	1.44
4,375.0	5.36	254.62	4,364.3	-66.6	-223.3	-49.5	1.54	0.84	-14.16
4,400.0	5.52	250.08	4,389.2	-67.3	-225.5	-50.0	1.84	0.64	-18.16
4,425.0	5.58	248.71	4,414.1	-68.2	-227.8	-50.7	0.58	0.24	-5.48
4,450.0	5.44	245.54	4,439.0	-69.1	-230.0	-51.5	1.34	-0.56	-12.68
4,475.0	5.51	245.28	4,463.8	-70.1	-232.2	-52.3	0.30	0.28	-1.04
4,500.0	5.05	239.62	4,488.7	-71.2	-234.2	-53.2	2.78	-1.84	-22.64
4,525.0	4.83	237.11	4,513.6	-72.3	-236.0	-54.2	1.23	-0.88	-10.04
4,550.0	4.61	233.79	4,538.6	-73.5	-237.7	-55.2	1.40	-0.88	-13.28
4,575.0	4.49	233.45	4,563.5	-74.6	-239.3	-56.3	0.49	-0.48	-1.36
4,600.0	4.46	232.75	4,588.4	-75.8	-240.9	-57.3	0.25	-0.12	-2.80
4,625.0	4.49	232.20	4,613.3	-77.0	-242.4	-58.4	0.21	0.12	-2.20



Survey Report

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: DOMINATOR 25 FED #706H
Wellbore: OWB
Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well DOMINATOR 25 FED #706H
TVD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
MD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM_Users

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)
4,650.0	4.61	232.69	4,638.2	-78.2	-244.0	-59.5	0.50	0.48	1.96
4,675.0	4.83	235.75	4,663.2	-79.4	-245.7	-60.5	1.34	0.88	12.24
4,700.0	5.14	235.70	4,688.1	-80.6	-247.5	-61.6	1.24	1.24	-0.20
4,725.0	4.92	235.88	4,713.0	-81.9	-249.3	-62.7	0.88	-0.88	0.72
4,750.0	4.83	236.24	4,737.9	-83.0	-251.0	-63.8	0.38	-0.36	1.44
4,775.0	4.83	234.61	4,762.8	-84.2	-252.8	-64.8	0.55	0.00	-6.52
4,800.0	4.88	234.09	4,787.7	-85.5	-254.5	-65.9	0.27	0.20	-2.08
4,825.0	4.85	234.72	4,812.6	-86.7	-256.2	-67.0	0.25	-0.12	2.52
4,850.0	4.77	244.49	4,837.5	-87.8	-258.0	-67.9	3.29	-0.32	39.08
4,875.0	4.88	245.47	4,862.4	-88.7	-259.9	-68.7	0.55	0.44	3.92
4,900.0	4.80	245.73	4,887.3	-89.5	-261.8	-69.4	0.33	-0.32	1.04
4,925.0	4.85	244.27	4,912.3	-90.4	-263.8	-70.1	0.53	0.20	-5.84
4,950.0	4.79	245.55	4,937.2	-91.3	-265.7	-70.9	0.49	-0.24	5.12
4,975.0	4.53	247.53	4,962.1	-92.1	-267.5	-71.5	1.22	-1.04	7.92
5,000.0	4.54	250.04	4,987.0	-92.8	-269.4	-72.1	0.79	0.04	10.04
5,025.0	5.18	263.51	5,011.9	-93.3	-271.4	-72.4	5.22	2.56	53.88
5,050.0	5.58	270.14	5,036.8	-93.4	-273.8	-72.4	2.95	1.60	26.52
5,075.0	5.65	270.15	5,061.7	-93.4	-276.2	-72.2	0.28	0.28	0.04
5,100.0	6.22	271.37	5,086.6	-93.4	-278.8	-72.0	2.34	2.28	4.88
5,125.0	6.90	270.42	5,111.4	-93.3	-281.6	-71.7	2.75	2.72	-3.80
5,150.0	6.98	269.59	5,136.2	-93.3	-284.7	-71.5	0.51	0.32	-3.32
5,175.0	6.94	270.75	5,161.0	-93.3	-287.7	-71.2	0.58	-0.16	4.64
5,200.0	6.81	269.86	5,185.8	-93.3	-290.7	-71.0	0.67	-0.52	-3.56
5,225.0	6.66	268.80	5,210.7	-93.3	-293.6	-70.8	0.78	-0.60	-4.24
5,250.0	6.56	266.67	5,235.5	-93.5	-296.5	-70.7	1.06	-0.40	-8.52
5,275.0	6.57	267.65	5,260.3	-93.6	-299.3	-70.6	0.45	0.04	3.92
5,300.0	6.66	260.13	5,285.2	-93.9	-302.2	-70.7	3.48	0.36	-30.08
5,325.0	6.66	259.46	5,310.0	-94.4	-305.1	-71.0	0.31	0.00	-2.68
5,350.0	6.65	257.92	5,334.8	-95.0	-307.9	-71.3	0.71	-0.04	-6.16
5,375.0	6.68	258.24	5,359.7	-95.6	-310.7	-71.7	0.19	0.12	1.28
5,400.0	6.64	257.85	5,384.5	-96.2	-313.6	-72.1	0.24	-0.16	-1.56
5,425.0	6.51	256.07	5,409.3	-96.8	-316.4	-72.5	0.97	-0.52	-7.12
5,450.0	6.10	254.17	5,434.2	-97.5	-319.0	-73.0	1.84	-1.64	-7.60
5,475.0	5.76	250.33	5,459.1	-98.3	-321.5	-73.6	2.09	-1.36	-15.36
5,500.0	5.51	247.70	5,483.9	-99.2	-323.8	-74.3	1.44	-1.00	-10.52
5,525.0	5.32	247.21	5,508.8	-100.1	-325.9	-75.1	0.78	-0.76	-1.96
5,550.0	5.30	247.21	5,533.7	-101.0	-328.1	-75.8	0.08	-0.08	0.00
5,575.0	5.15	246.30	5,558.6	-101.9	-330.2	-76.5	0.69	-0.60	-3.64
5,600.0	5.26	246.50	5,583.5	-102.8	-332.2	-77.3	0.45	0.44	0.80
5,625.0	5.22	245.83	5,608.4	-103.7	-334.3	-78.1	0.29	-0.16	-2.68
5,650.0	4.48	240.25	5,633.3	-104.7	-336.2	-78.9	3.51	-2.96	-22.32
5,675.0	3.86	233.32	5,658.2	-105.7	-337.7	-79.7	3.19	-2.48	-27.72
5,700.0	3.56	228.69	5,683.2	-106.7	-339.0	-80.6	1.69	-1.20	-18.52



Survey Report

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: DOMINATOR 25 FED #706H
Wellbore: OWB
Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well DOMINATOR 25 FED #706H
TVD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
MD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM_Users

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
5,725.0	3.57	225.04	5,708.1	-107.7	-340.1	-81.6	0.91	0.04	-14.60
5,750.0	3.33	224.09	5,733.1	-108.8	-341.2	-82.6	0.99	-0.96	-3.80
5,775.0	3.31	225.73	5,758.1	-109.8	-342.2	-83.5	0.39	-0.08	6.56
5,800.0	2.87	221.60	5,783.0	-110.8	-343.1	-84.4	1.97	-1.76	-16.52
5,825.0	1.79	218.42	5,808.0	-111.6	-343.8	-85.2	4.35	-4.32	-12.72
5,850.0	0.93	202.06	5,833.0	-112.1	-344.1	-85.6	3.74	-3.44	-65.44
5,875.0	0.78	188.71	5,858.0	-112.4	-344.2	-86.0	0.99	-0.60	-53.40
5,900.0	0.69	174.04	5,883.0	-112.8	-344.2	-86.3	0.83	-0.36	-58.68
5,925.0	0.63	171.36	5,908.0	-113.0	-344.2	-86.6	0.27	-0.24	-10.72
5,950.0	0.65	172.48	5,933.0	-113.3	-344.2	-86.9	0.09	0.08	4.48
5,975.0	0.51	144.17	5,958.0	-113.6	-344.1	-87.1	1.26	-0.56	-113.24
6,000.0	0.74	100.70	5,983.0	-113.7	-343.8	-87.2	2.04	0.92	-173.88
6,025.0	1.35	72.41	6,008.0	-113.6	-343.4	-87.2	3.13	2.44	-113.16
6,050.0	1.44	69.11	6,033.0	-113.4	-342.8	-87.1	0.48	0.36	-13.20
6,075.0	1.51	67.99	6,058.0	-113.2	-342.2	-86.9	0.30	0.28	-4.48
6,100.0	1.47	68.50	6,083.0	-112.9	-341.6	-86.7	0.17	-0.16	2.04
6,125.0	1.47	69.21	6,107.9	-112.7	-341.0	-86.5	0.07	0.00	2.84
6,150.0	1.53	66.50	6,132.9	-112.5	-340.4	-86.3	0.37	0.24	-10.84
6,175.0	1.52	67.14	6,157.9	-112.2	-339.8	-86.1	0.08	-0.04	2.56
6,200.0	1.57	69.69	6,182.9	-111.9	-339.2	-85.9	0.34	0.20	10.20
6,225.0	1.49	67.57	6,207.9	-111.7	-338.6	-85.7	0.39	-0.32	-8.48
6,250.0	1.49	69.48	6,232.9	-111.5	-338.0	-85.5	0.20	0.00	7.64
6,275.0	1.44	68.54	6,257.9	-111.2	-337.4	-85.3	0.22	-0.20	-3.76
6,300.0	1.44	69.37	6,282.9	-111.0	-336.8	-85.1	0.08	0.00	3.32
6,325.0	1.50	67.32	6,307.9	-110.8	-336.2	-84.9	0.32	0.24	-8.20
6,350.0	1.55	67.80	6,332.9	-110.5	-335.6	-84.7	0.21	0.20	1.92
6,375.0	1.48	65.79	6,357.9	-110.3	-335.0	-84.5	0.35	-0.28	-8.04
6,400.0	1.42	68.74	6,382.9	-110.0	-334.4	-84.3	0.38	-0.24	11.80
6,425.0	1.47	66.71	6,407.8	-109.8	-333.8	-84.1	0.29	0.20	-8.12
6,450.0	1.43	63.89	6,432.8	-109.5	-333.2	-83.9	0.33	-0.16	-11.28
6,475.0	1.47	65.12	6,457.8	-109.2	-332.6	-83.7	0.20	0.16	4.92
6,500.0	1.41	64.79	6,482.8	-109.0	-332.1	-83.5	0.24	-0.24	-1.32
6,525.0	1.49	63.88	6,507.8	-108.7	-331.5	-83.2	0.33	0.32	-3.64
6,550.0	1.46	65.86	6,532.8	-108.4	-330.9	-83.0	0.24	-0.12	7.92
6,575.0	1.49	64.61	6,557.8	-108.2	-330.3	-82.8	0.18	0.12	-5.00
6,600.0	1.05	69.82	6,582.8	-107.9	-329.8	-82.6	1.82	-1.76	20.84
6,625.0	0.86	68.72	6,607.8	-107.8	-329.4	-82.5	0.76	-0.76	-4.40
6,650.0	0.55	74.12	6,632.8	-107.7	-329.2	-82.4	1.27	-1.24	21.60
6,675.0	0.35	69.31	6,657.8	-107.6	-329.0	-82.3	0.81	-0.80	-19.24
6,700.0	0.33	57.14	6,682.8	-107.6	-328.8	-82.3	0.30	-0.08	-48.68
6,725.0	0.17	61.35	6,707.8	-107.5	-328.7	-82.2	0.64	-0.64	16.84
6,750.0	0.24	72.78	6,732.8	-107.5	-328.7	-82.2	0.32	0.28	45.72
6,775.0	0.14	70.20	6,757.8	-107.4	-328.6	-82.2	0.40	-0.40	-10.32
6,800.0	0.18	81.08	6,782.8	-107.4	-328.5	-82.2	0.20	0.16	43.52



Survey Report

Company: NORTHERN DELAWARE BASIN
 Project: LEA COUNTY, NM
 Site: BULLDOG
 Well: DOMINATOR 25 FED #706H
 Wellbore: OWB
 Design: ACTUAL WELLPATH

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 TVD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
 MD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM_Users

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)
6,825.0	0.20	87.95	6,807.8	-107.4	-328.4	-82.2	0.12	0.08	27.48
6,850.0	0.17	77.65	6,832.8	-107.4	-328.4	-82.2	0.18	-0.12	-41.20
6,875.0	0.17	66.68	6,857.8	-107.4	-328.3	-82.2	0.13	0.00	-43.88
6,900.0	0.23	58.28	6,882.8	-107.4	-328.2	-82.1	0.27	0.24	-33.60
6,925.0	0.19	73.31	6,907.8	-107.3	-328.1	-82.1	0.27	-0.16	60.12
6,950.0	0.14	38.34	6,932.8	-107.3	-328.1	-82.1	0.44	-0.20	-139.88
6,975.0	0.17	62.00	6,957.8	-107.2	-328.0	-82.0	0.28	0.12	94.64
7,000.0	0.21	36.52	6,982.8	-107.2	-328.0	-82.0	0.37	0.16	-101.92
7,025.0	0.25	23.70	7,007.8	-107.1	-327.9	-81.9	0.26	0.16	-51.28
7,050.0	0.19	16.58	7,032.8	-107.0	-327.9	-81.8	0.26	-0.24	-28.48
7,075.0	0.22	25.08	7,057.8	-106.9	-327.8	-81.7	0.17	0.12	34.00
7,100.0	0.23	37.10	7,082.8	-106.8	-327.8	-81.6	0.19	0.04	48.08
7,125.0	0.38	34.33	7,107.8	-106.7	-327.7	-81.5	0.60	0.60	-11.08
7,150.0	0.15	75.10	7,132.8	-106.7	-327.6	-81.5	1.14	-0.92	163.08
7,175.0	0.24	41.18	7,157.8	-106.6	-327.6	-81.4	0.57	0.36	-135.68
7,200.0	0.22	40.87	7,182.8	-106.5	-327.5	-81.4	0.08	-0.08	-1.24
7,225.0	0.25	47.31	7,207.8	-106.5	-327.4	-81.3	0.16	0.12	25.76
7,250.0	0.28	56.84	7,232.8	-106.4	-327.3	-81.2	0.21	0.12	38.12
7,275.0	0.30	35.32	7,257.8	-106.3	-327.2	-81.2	0.44	0.08	-86.08
7,300.0	0.29	36.19	7,282.8	-106.2	-327.2	-81.1	0.04	-0.04	3.48
7,325.0	0.24	34.65	7,307.8	-106.1	-327.1	-81.0	0.20	-0.20	-6.16
7,350.0	0.20	35.81	7,332.8	-106.0	-327.0	-80.9	0.16	-0.16	4.64
7,375.0	0.29	32.81	7,357.8	-105.9	-327.0	-80.8	0.36	0.36	-12.00
7,400.0	0.17	55.23	7,382.8	-105.9	-326.9	-80.7	0.59	-0.48	89.68
7,425.0	0.16	50.43	7,407.8	-105.8	-326.9	-80.7	0.07	-0.04	-19.20
7,450.0	0.16	92.87	7,432.8	-105.8	-326.8	-80.7	0.46	0.00	169.76
7,475.0	0.17	54.80	7,457.8	-105.8	-326.7	-80.7	0.43	0.04	-152.28
7,500.0	0.20	58.76	7,482.8	-105.7	-326.7	-80.6	0.13	0.12	15.84
7,525.0	0.26	23.54	7,507.8	-105.7	-326.6	-80.6	0.60	0.24	-140.88
7,550.0	0.21	71.97	7,532.8	-105.6	-326.5	-80.5	0.79	-0.20	193.72
7,575.0	0.15	52.19	7,557.8	-105.6	-326.5	-80.5	0.34	-0.24	-79.12
7,600.0	0.12	94.10	7,582.8	-105.5	-326.4	-80.5	0.40	-0.12	167.64
7,625.0	0.16	261.79	7,607.8	-105.5	-326.4	-80.5	1.11	0.16	670.76
7,650.0	0.52	210.34	7,632.8	-105.6	-326.5	-80.6	1.75	1.44	-205.80
7,675.0	0.54	205.55	7,657.8	-105.9	-326.6	-80.8	0.19	0.08	-19.16
7,700.0	0.47	212.82	7,682.8	-106.0	-326.7	-80.9	0.38	-0.28	29.08
7,725.0	0.49	211.65	7,707.8	-106.2	-326.9	-81.1	0.09	0.08	-4.68
7,750.0	0.47	189.56	7,732.8	-106.4	-326.9	-81.3	0.74	-0.08	-88.36
7,775.0	0.54	209.33	7,757.8	-106.6	-327.0	-81.5	0.75	0.28	79.08
7,800.0	0.64	202.98	7,782.8	-106.8	-327.1	-81.7	0.48	0.40	-25.40
7,825.0	0.52	206.94	7,807.8	-107.1	-327.2	-81.9	0.51	-0.48	15.84
7,850.0	0.50	197.82	7,832.8	-107.3	-327.3	-82.1	0.33	-0.08	-36.48
7,875.0	0.58	213.16	7,857.8	-107.5	-327.4	-82.3	0.66	0.32	61.36



Survey Report

Company: NORTHERN DELAWARE BASIN
 Project: LEA COUNTY, NM
 Site: BULLDOG
 Well: DOMINATOR 25 FED #706H
 Wellbore: OWB
 Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well DOMINATOR 25 FED #706H
 TVD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
 MD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM_Users

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)
7,900.0	0.70	207.46	7,882.8	-107.7	-327.5	-82.6	0.54	0.48	-22.80
7,925.0	0.77	202.12	7,907.8	-108.0	-327.7	-82.8	0.39	0.28	-21.36
7,950.0	0.62	199.80	7,932.8	-108.3	-327.8	-83.1	0.61	-0.60	-9.28
7,975.0	0.66	197.69	7,957.8	-108.6	-327.9	-83.4	0.19	0.16	-8.44
8,000.0	0.61	205.60	7,982.8	-108.8	-328.0	-83.6	0.40	-0.20	31.64
8,025.0	0.59	204.04	8,007.8	-109.1	-328.1	-83.8	0.10	-0.08	-6.24
8,050.0	0.64	200.66	8,032.8	-109.3	-328.2	-84.1	0.25	0.20	-13.52
8,075.0	0.71	208.38	8,057.8	-109.6	-328.3	-84.3	0.46	0.28	30.88
8,100.0	0.66	204.29	8,082.8	-109.9	-328.4	-84.6	0.28	-0.20	-16.36
8,125.0	0.63	203.26	8,107.8	-110.1	-328.6	-84.8	0.13	-0.12	-4.12
8,150.0	0.55	202.35	8,132.7	-110.3	-328.7	-85.1	0.32	-0.32	-3.64
8,175.0	0.65	209.77	8,157.7	-110.6	-328.8	-85.3	0.51	0.40	29.68
8,200.0	0.54	215.76	8,182.7	-110.8	-328.9	-85.5	0.50	-0.44	23.96
8,225.0	0.55	198.39	8,207.7	-111.0	-329.0	-85.7	0.66	0.04	-69.48
8,250.0	0.54	188.92	8,232.7	-111.2	-329.1	-85.9	0.36	-0.04	-37.88
8,275.0	0.27	206.13	8,257.7	-111.4	-329.1	-86.1	1.17	-1.08	68.84
8,300.0	0.28	199.28	8,282.7	-111.5	-329.2	-86.2	0.14	0.04	-27.40
8,325.0	0.10	193.86	8,307.7	-111.6	-329.2	-86.3	0.72	-0.72	-21.68
8,350.0	0.21	184.51	8,332.7	-111.7	-329.2	-86.4	0.45	0.44	-37.40
8,375.0	0.02	200.29	8,357.7	-111.7	-329.2	-86.4	0.76	-0.76	63.12
8,400.0	0.15	208.96	8,382.7	-111.7	-329.2	-86.4	0.52	0.52	34.68
8,425.0	0.15	200.80	8,407.7	-111.8	-329.3	-86.5	0.09	0.00	-32.64
8,450.0	0.12	184.11	8,432.7	-111.8	-329.3	-86.5	0.20	-0.12	-66.76
8,475.0	0.24	175.88	8,457.7	-111.9	-329.3	-86.6	0.49	0.48	-32.92
8,500.0	0.14	252.17	8,482.7	-112.0	-329.3	-86.7	0.99	-0.40	305.16
8,525.0	0.20	255.50	8,507.7	-112.0	-329.4	-86.7	0.24	0.24	13.32
8,550.0	0.18	252.74	8,532.7	-112.0	-329.4	-86.7	0.09	-0.08	-11.04
8,575.0	0.25	244.51	8,557.7	-112.1	-329.5	-86.7	0.31	0.28	-32.92
8,600.0	0.32	250.05	8,582.7	-112.1	-329.6	-86.8	0.30	0.28	22.16
8,625.0	0.27	259.10	8,607.7	-112.2	-329.8	-86.8	0.27	-0.20	36.20
8,650.0	0.24	255.40	8,632.7	-112.2	-329.9	-86.8	0.14	-0.12	-14.80
8,675.0	0.36	271.65	8,657.7	-112.2	-330.0	-86.8	0.58	0.48	65.00
8,700.0	0.45	273.40	8,682.7	-112.2	-330.2	-86.8	0.36	0.36	7.00
8,725.0	0.42	267.65	8,707.7	-112.2	-330.4	-86.8	0.21	-0.12	-23.00
8,750.0	0.46	253.79	8,732.7	-112.2	-330.6	-86.8	0.45	0.16	-55.44
8,775.0	0.45	265.45	8,757.7	-112.3	-330.8	-86.8	0.37	-0.04	46.64
8,800.0	0.42	267.31	8,782.7	-112.3	-330.9	-86.8	0.13	-0.12	7.44
8,825.0	0.54	266.95	8,807.7	-112.3	-331.1	-86.8	0.48	0.48	-1.44
8,850.0	0.49	259.62	8,832.7	-112.3	-331.4	-86.8	0.33	-0.20	-29.32
8,875.0	0.45	274.41	8,857.7	-112.3	-331.6	-86.8	0.51	-0.16	59.16
8,900.0	0.52	264.77	8,882.7	-112.3	-331.8	-86.8	0.43	0.28	-38.56
8,925.0	0.58	267.62	8,907.7	-112.3	-332.0	-86.8	0.26	0.24	11.40
8,950.0	0.52	263.17	8,932.7	-112.4	-332.3	-86.8	0.29	-0.24	-17.80



Survey Report

Company: NORTHERN DELAWARE BASIN
 Project: LEA COUNTY, NM
 Site: BULLDOG
 Well: DOMINATOR 25 FED #706H
 Wellbore: OWB
 Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well DOMINATOR 25 FED #706H
 TVD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
 MD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM_Users

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)
8,975.0	0.56	264.14	8,957.7	-112.4	-332.5	-86.8	0.16	0.16	3.88
9,000.0	0.50	274.52	8,982.7	-112.4	-332.7	-86.8	0.45	-0.24	41.52
9,025.0	0.63	265.13	9,007.7	-112.4	-333.0	-86.8	0.64	0.52	-37.56
9,050.0	0.53	274.16	9,032.7	-112.4	-333.2	-86.8	0.54	-0.40	36.12
9,075.0	0.55	267.36	9,057.7	-112.4	-333.5	-86.7	0.27	0.08	-27.20
9,100.0	0.49	271.31	9,082.7	-112.4	-333.7	-86.7	0.28	-0.24	15.80
9,125.0	0.59	259.74	9,107.7	-112.4	-333.9	-86.7	0.59	0.40	-46.28
9,150.0	0.56	267.36	9,132.7	-112.4	-334.2	-86.7	0.33	-0.12	30.48
9,175.0	0.69	266.85	9,157.7	-112.5	-334.4	-86.7	0.52	0.52	-2.04
9,200.0	0.52	272.55	9,182.7	-112.5	-334.7	-86.7	0.72	-0.68	22.80
9,225.0	0.59	269.11	9,207.7	-112.5	-334.9	-86.7	0.31	0.28	-13.76
9,250.0	0.51	258.58	9,232.7	-112.5	-335.2	-86.7	0.51	-0.32	-42.12
9,275.0	0.56	274.34	9,257.7	-112.5	-335.4	-86.7	0.62	0.20	63.04
9,300.0	0.54	260.20	9,282.7	-112.5	-335.7	-86.7	0.55	-0.08	-56.56
9,325.0	0.49	251.79	9,307.7	-112.6	-335.9	-86.7	0.36	-0.20	-33.64
9,350.0	0.66	264.70	9,332.7	-112.6	-336.1	-86.8	0.85	0.68	51.64
9,375.0	0.73	262.87	9,357.7	-112.6	-336.4	-86.8	0.29	0.28	-7.32
9,400.0	0.64	264.73	9,382.7	-112.7	-336.7	-86.8	0.37	-0.36	7.44
9,425.0	0.64	261.07	9,407.7	-112.7	-337.0	-86.8	0.16	0.00	-14.64
9,450.0	0.71	261.01	9,432.7	-112.7	-337.3	-86.8	0.28	0.28	-0.24
9,475.0	0.76	256.60	9,457.7	-112.8	-337.6	-86.9	0.30	0.20	-17.64
9,500.0	0.84	246.59	9,482.7	-112.9	-337.9	-86.9	0.64	0.32	-40.04
9,525.0	0.71	250.66	9,507.7	-113.0	-338.2	-87.0	0.56	-0.52	16.28
9,550.0	0.55	268.53	9,532.7	-113.1	-338.5	-87.1	1.01	-0.64	71.48
9,575.0	0.60	244.69	9,557.7	-113.2	-338.7	-87.1	0.97	0.20	-95.36
9,600.0	0.30	249.60	9,582.7	-113.2	-338.9	-87.2	1.21	-1.20	19.64
9,625.0	0.17	204.17	9,607.7	-113.3	-339.0	-87.2	0.87	-0.52	-181.72
9,650.0	0.22	183.37	9,632.7	-113.4	-339.0	-87.3	0.34	0.20	-83.20
9,675.0	0.21	160.26	9,657.7	-113.5	-339.0	-87.4	0.35	-0.04	-92.44
9,700.0	0.33	107.71	9,682.7	-113.5	-338.9	-87.5	1.05	0.48	-210.20
9,725.0	0.33	119.63	9,707.7	-113.6	-338.8	-87.5	0.27	0.00	47.68
9,750.0	0.38	102.02	9,732.7	-113.6	-338.6	-87.6	0.48	0.20	-70.44
9,775.0	0.45	112.65	9,757.7	-113.7	-338.5	-87.7	0.42	0.28	42.52
9,800.0	0.56	115.76	9,782.7	-113.8	-338.3	-87.8	0.45	0.44	12.44
9,825.0	0.53	117.80	9,807.7	-113.9	-338.1	-87.9	0.14	-0.12	8.16
9,850.0	0.69	120.25	9,832.7	-114.0	-337.8	-88.0	0.65	0.64	9.80
9,875.0	0.71	118.87	9,857.7	-114.2	-337.6	-88.2	0.10	0.08	-5.52
9,900.0	0.79	118.56	9,882.7	-114.3	-337.3	-88.4	0.32	0.32	-1.24
9,925.0	0.89	129.05	9,907.7	-114.5	-337.0	-88.6	0.73	0.40	41.96
9,950.0	0.81	135.66	9,932.7	-114.8	-336.7	-88.9	0.51	-0.32	26.44
9,975.0	0.98	136.65	9,957.7	-115.1	-336.4	-89.2	0.68	0.68	3.96
10,000.0	0.97	134.31	9,982.7	-115.4	-336.1	-89.5	0.16	-0.04	-9.36
10,025.0	0.97	136.23	10,007.7	-115.7	-335.8	-89.8	0.13	0.00	7.68
10,050.0	0.59	115.38	10,032.7	-115.9	-335.6	-90.1	1.87	-1.52	-83.40



Survey Report

Company: NORTHERN DELAWARE BASIN
 Project: LEA COUNTY, NM
 Site: BULLDOG
 Well: DOMINATOR 25 FED #706H
 Wellbore: OWB
 Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well DOMINATOR 25 FED #706H
 TVD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
 MD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM_Users

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)	
10,075.0	0.30	133.41	10,057.7	-116.0	-335.4	-90.2	1.27	-1.16	72.12	
10,100.0	0.17	129.27	10,082.7	-116.0	-335.3	-90.3	0.52	-0.52	-16.56	
10,125.0	0.35	177.53	10,107.7	-116.1	-335.3	-90.4	1.07	0.72	193.04	
10,150.0	0.43	208.24	10,132.7	-116.3	-335.3	-90.5	0.88	0.32	122.84	
10,175.0	0.50	217.03	10,157.7	-116.5	-335.5	-90.7	0.40	0.28	35.16	
10,200.0	0.63	208.50	10,182.7	-116.7	-335.6	-90.9	0.62	0.52	-34.12	
10,225.0	0.63	215.53	10,207.7	-116.9	-335.7	-91.1	0.31	0.00	28.12	
10,250.0	0.64	215.09	10,232.7	-117.1	-335.9	-91.3	0.04	0.04	-1.76	
10,275.0	0.85	212.08	10,257.7	-117.4	-336.1	-91.6	0.85	0.84	-12.04	
10,300.0	1.01	208.08	10,282.7	-117.8	-336.3	-91.9	0.69	0.64	-16.00	
10,325.0	1.05	218.36	10,307.7	-118.1	-336.5	-92.3	0.76	0.16	41.12	
10,350.0	1.19	230.24	10,332.6	-118.5	-336.9	-92.6	1.08	0.56	47.52	
10,375.0	1.22	256.03	10,357.6	-118.7	-337.3	-92.8	2.15	0.12	103.16	
10,400.0	1.40	269.66	10,382.6	-118.8	-337.9	-92.8	1.43	0.72	54.52	
10,425.0	1.49	275.71	10,407.6	-118.7	-338.5	-92.7	0.71	0.36	24.20	
10,450.0	1.51	287.04	10,432.6	-118.6	-339.1	-92.5	1.19	0.08	45.32	
10,475.0	1.65	294.73	10,457.6	-118.4	-339.8	-92.2	1.02	0.56	30.76	
10,500.0	1.58	292.72	10,482.6	-118.1	-340.4	-91.9	0.36	-0.28	-8.04	
10,525.0	1.67	294.95	10,507.6	-117.8	-341.1	-91.6	0.44	0.36	8.92	
10,550.0	1.73	292.28	10,532.6	-117.5	-341.8	-91.2	0.40	0.24	-10.68	
10,575.0	1.60	290.84	10,557.6	-117.2	-342.4	-90.9	0.55	-0.52	-5.76	
10,600.0	1.49	290.29	10,582.6	-117.0	-343.1	-90.6	0.44	-0.44	-2.20	
10,625.0	0.88	300.11	10,607.6	-116.8	-343.5	-90.4	2.56	-2.44	39.28	
10,650.0	0.52	301.26	10,632.6	-116.6	-343.8	-90.2	1.44	-1.44	4.60	
10,675.0	0.43	310.67	10,657.5	-116.5	-344.0	-90.1	0.48	-0.36	37.64	
10,700.0	0.41	313.58	10,682.5	-116.4	-344.1	-89.9	0.12	-0.08	11.64	
10,725.0	0.39	327.88	10,707.5	-116.3	-344.2	-89.8	0.41	-0.08	57.20	
10,750.0	0.59	354.78	10,732.5	-116.1	-344.3	-89.6	1.20	0.80	107.60	
10,775.0	0.64	0.70	10,757.5	-115.8	-344.3	-89.3	0.32	0.20	23.88	
10,800.0	0.69	0.84	10,782.5	-115.5	-344.3	-89.0	0.20	0.20	0.56	
10,825.0	0.68	5.19	10,807.5	-115.2	-344.3	-88.7	0.21	-0.04	17.40	
10,850.0	0.60	5.34	10,832.5	-114.9	-344.2	-88.5	0.32	-0.32	0.60	
10,875.0	0.61	1.61	10,857.5	-114.7	-344.2	-88.2	0.16	0.04	-14.92	
10,900.0	0.57	359.51	10,882.5	-114.4	-344.2	-87.9	0.18	-0.16	-8.40	
10,925.0	0.53	5.14	10,907.5	-114.2	-344.2	-87.7	0.27	-0.16	22.52	
10,950.0	0.53	30.75	10,932.5	-114.0	-344.1	-87.5	0.94	0.00	102.44	
10,975.0	0.52	27.15	10,957.5	-113.8	-344.0	-87.3	0.14	-0.04	-14.40	
11,000.0	0.49	36.21	10,982.5	-113.6	-343.9	-87.1	0.34	-0.12	36.24	
11,025.0	0.50	31.77	11,007.5	-113.4	-343.8	-87.0	0.16	0.04	-17.76	
11,050.0	0.53	33.68	11,032.5	-113.2	-343.7	-86.8	0.14	0.12	7.64	
11,075.0	0.47	29.83	11,057.5	-113.0	-343.6	-86.6	0.27	-0.24	-15.40	
11,100.0	0.38	22.75	11,082.5	-112.8	-343.5	-86.4	0.42	-0.36	-28.32	
11,125.0	0.40	346.38	11,107.5	-112.7	-343.5	-86.3	0.98	0.08	-145.48	



Survey Report

Company: NORTHERN DELAWARE BASIN
 Project: LEA COUNTY, NM
 Site: BULLDOG
 Well: DOMINATOR 25 FED #706H
 Wellbore: OWB
 Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well DOMINATOR 25 FED #706H
 TVD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
 MD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM_Users

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)
11,150.0	0.59	332.66	11,132.5	-112.5	-343.5	-86.1	0.89	0.76	-54.88
11,175.0	0.88	316.89	11,157.5	-112.2	-343.7	-85.8	1.40	1.16	-63.08
11,200.0	1.02	314.52	11,182.5	-111.9	-344.0	-85.5	0.58	0.56	-9.48
11,225.0	1.18	310.35	11,207.5	-111.6	-344.4	-85.1	0.72	0.64	-16.68
11,250.0	1.19	311.09	11,232.5	-111.3	-344.8	-84.8	0.07	0.04	2.96
11,275.0	1.13	309.82	11,257.5	-110.9	-345.2	-84.4	0.26	-0.24	-5.08
11,300.0	1.21	316.43	11,282.5	-110.6	-345.5	-84.1	0.63	0.32	26.44
11,325.0	1.26	313.05	11,307.5	-110.2	-345.9	-83.6	0.35	0.20	-13.52
11,350.0	1.32	319.68	11,332.5	-109.8	-346.3	-83.2	0.64	0.24	26.52
11,375.0	1.22	344.26	11,357.5	-109.3	-346.6	-82.7	2.20	-0.40	98.32
11,400.0	1.54	17.03	11,382.5	-108.8	-346.5	-82.1	3.35	1.28	131.08
11,425.0	1.70	20.76	11,407.5	-108.1	-346.3	-81.5	0.77	0.64	14.92
11,450.0	1.78	21.24	11,432.5	-107.4	-346.0	-80.8	0.33	0.32	1.92
11,475.0	1.93	24.95	11,457.4	-106.6	-345.7	-80.1	0.77	0.60	14.84
11,500.0	1.75	19.89	11,482.4	-105.9	-345.4	-79.4	0.97	-0.72	-20.24
11,525.0	0.75	16.98	11,507.4	-105.4	-345.2	-78.9	4.01	-4.00	-11.64
11,550.0	0.14	264.04	11,532.4	-105.2	-345.2	-78.7	3.26	-2.44	-451.76
11,575.0	0.39	219.29	11,557.4	-105.3	-345.3	-78.8	1.23	1.00	-179.00
11,600.0	0.55	210.53	11,582.4	-105.5	-345.4	-78.9	0.70	0.64	-35.04
11,625.0	0.62	211.84	11,607.4	-105.7	-345.5	-79.2	0.29	0.28	5.24
11,650.0	0.46	163.70	11,632.4	-105.9	-345.6	-79.4	1.86	-0.64	-192.56
11,675.0	0.76	127.23	11,657.4	-106.1	-345.4	-79.6	1.91	1.20	-145.88
11,700.0	0.93	122.82	11,682.4	-106.3	-345.1	-79.8	0.73	0.68	-17.64
11,725.0	0.97	116.40	11,707.4	-106.5	-344.8	-80.0	0.45	0.16	-25.68
11,741.0	1.09	122.65	11,723.4	-106.7	-344.5	-80.2	1.03	0.75	39.06
11,954.0	0.89	188.58	11,936.4	-109.4	-343.0	-83.0	0.51	-0.09	30.95
12,017.0	0.53	187.09	11,999.4	-110.2	-343.2	-83.8	0.57	-0.57	-2.37
12,049.0	0.59	173.62	12,031.4	-110.5	-343.2	-84.1	0.45	0.19	-42.13
12,080.0	0.49	161.87	12,062.4	-110.7	-343.1	-84.4	0.48	-0.32	-37.90
12,112.0	2.52	5.04	12,094.3	-110.2	-343.0	-83.8	9.30	6.34	-490.09
12,144.0	5.82	4.75	12,126.3	-107.9	-342.8	-81.5	10.31	10.31	-0.91
12,175.0	8.99	4.01	12,157.0	-103.9	-342.5	-77.6	10.23	10.23	-2.39
12,207.0	11.86	7.85	12,188.5	-98.1	-341.9	-71.9	9.22	8.97	12.00
12,239.0	14.34	11.09	12,219.6	-91.0	-340.7	-64.9	8.08	7.75	10.13
12,270.0	17.62	10.76	12,249.4	-82.6	-339.0	-56.6	10.58	10.58	-1.06
12,302.0	18.79	10.22	12,279.8	-72.8	-337.2	-47.0	3.69	3.66	-1.69
12,334.0	21.21	9.82	12,309.9	-62.0	-335.3	-36.4	7.57	7.56	-1.25
12,365.0	25.55	7.77	12,338.3	-49.8	-333.5	-24.4	14.24	14.00	-6.61
12,397.0	29.65	6.12	12,368.7	-35.1	-331.7	-9.8	13.03	12.81	-5.16
12,428.0	33.08	5.35	12,393.2	-19.1	-330.1	6.0	11.14	11.06	-2.48
12,460.0	36.41	4.94	12,419.4	-0.9	-328.4	24.0	10.43	10.41	-1.28
12,492.0	40.45	2.08	12,444.5	19.0	-327.3	43.7	13.78	12.62	-8.93
12,524.0	44.69	358.82	12,468.1	40.6	-327.1	65.3	14.93	13.25	-10.19



Survey Report

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Project: LEA COUNTY, NM
Site: BULLDOG
Well: DOMINATOR 25 FED #706H
Wellbore: OWB
Design: ACTUAL WELLPATH

Local Co-ordinate Reference: Well DOMINATOR 25 FED #706H
TVD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
MD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM_Users

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)
12,556.0	47.48	356.19	12,490.3	63.6	-328.1	88.3	10.54	8.72	-8.22
12,588.0	50.00	354.93	12,511.4	87.6	-330.0	112.4	8.41	7.88	-3.94
12,619.0	53.32	355.43	12,530.6	111.8	-332.0	136.7	10.78	10.71	1.61
12,651.0	56.23	357.11	12,549.1	137.9	-333.7	162.8	10.05	9.09	5.25
12,683.0	57.34	359.22	12,566.6	164.7	-334.6	189.6	6.52	3.47	6.59
12,714.0	58.74	359.58	12,583.0	191.0	-334.9	215.8	4.62	4.52	1.16
12,746.0	60.81	359.35	12,599.1	218.6	-335.1	243.4	6.50	6.47	-0.72
12,778.0	62.76	0.14	12,614.3	246.8	-335.2	271.5	6.47	6.09	2.47
12,809.0	66.03	0.73	12,627.6	274.8	-335.0	299.4	10.69	10.55	1.90
12,841.0	69.83	0.84	12,639.7	304.4	-334.6	328.9	11.88	11.88	0.34
12,873.0	72.58	0.35	12,650.0	334.7	-334.3	359.1	8.72	8.59	-1.53
12,904.0	74.68	0.22	12,658.7	364.4	-334.2	388.7	6.79	6.77	-0.42
12,936.0	76.44	358.83	12,666.7	395.4	-334.4	419.7	6.92	5.50	-4.34
12,968.0	78.51	357.87	12,673.6	426.6	-335.3	450.9	7.10	6.47	-3.00
12,999.0	80.87	357.54	12,679.2	457.1	-336.5	481.3	7.68	7.61	-1.06
13,031.0	81.29	357.23	12,684.1	488.7	-338.0	512.9	1.62	1.31	-0.97
13,043.0	82.25	357.53	12,685.9	500.6	-338.5	524.8	8.37	8.00	2.50
13,074.0	86.33	358.87	12,688.9	531.4	-339.5	555.6	13.85	13.16	4.32
13,106.0	88.07	359.04	12,690.5	563.3	-340.1	587.5	5.46	5.44	0.53
13,138.0	88.21	359.01	12,691.5	595.3	-340.6	619.4	0.45	0.44	-0.09
13,233.0	90.06	359.37	12,693.0	690.3	-342.0	714.3	1.98	1.95	0.38
13,328.0	90.06	357.37	12,692.9	785.2	-344.7	809.1	2.11	0.00	-2.11
13,423.0	92.10	0.43	12,691.1	880.2	-346.5	904.0	3.87	2.15	3.22
13,518.0	91.93	0.65	12,687.7	975.1	-345.6	998.5	0.29	-0.18	0.23
13,613.0	91.65	1.59	12,684.8	1,070.1	-343.7	1,093.1	1.03	-0.29	0.99
13,708.0	90.84	3.01	12,682.7	1,165.0	-339.9	1,187.4	1.72	-0.85	1.49
13,803.0	90.59	1.78	12,681.5	1,259.9	-336.0	1,281.7	1.32	-0.26	-1.29
13,898.0	87.93	1.09	12,682.8	1,354.8	-333.6	1,376.2	2.89	-2.80	-0.73
13,994.0	88.18	1.56	12,686.0	1,450.7	-331.4	1,471.7	0.55	0.26	0.49
14,089.0	88.21	0.18	12,689.0	1,545.7	-329.9	1,566.3	1.45	0.03	-1.45
14,184.0	87.76	0.36	12,692.3	1,640.6	-329.5	1,660.9	0.51	-0.47	0.19
14,279.0	90.59	1.63	12,693.7	1,735.6	-327.8	1,755.5	3.27	2.98	1.34
14,374.0	91.48	4.14	12,692.0	1,830.4	-323.0	1,849.7	2.80	0.94	2.64
14,469.0	86.78	0.01	12,693.4	1,925.3	-319.6	1,944.0	6.58	-4.95	-4.35
14,564.0	86.61	357.67	12,698.9	2,020.1	-321.5	2,038.7	2.47	-0.18	-2.46
14,659.0	86.83	355.40	12,704.4	2,114.8	-327.2	2,133.5	2.40	0.23	-2.39
14,754.0	93.20	356.74	12,704.3	2,209.5	-333.8	2,228.5	6.85	6.71	1.41
14,849.0	94.13	356.71	12,698.3	2,304.2	-339.2	2,323.3	0.98	0.98	-0.03
14,944.0	93.14	357.90	12,692.2	2,398.9	-343.6	2,418.0	1.63	-1.04	1.25
15,039.0	91.12	359.70	12,688.7	2,493.8	-345.6	2,512.8	2.85	-2.13	1.89
15,135.0	88.07	357.75	12,689.4	2,589.7	-347.7	2,608.7	3.77	-3.18	-2.03
15,230.0	90.79	359.55	12,690.3	2,684.7	-350.0	2,703.5	3.43	2.86	1.89
15,325.0	91.04	359.55	12,688.8	2,779.7	-350.7	2,798.3	0.26	0.26	0.00
15,420.0	91.82	0.35	12,686.4	2,874.6	-350.8	2,893.0	1.18	0.82	0.84



Survey Report

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TVD Reference: RKB=3339+25 @ 3364.0usft (PRECISION 595)
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
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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)
15,514.0	89.69	359.51	12,685.2	2,968.6	-350.9	2,986.7	2.44	-2.27	-0.89
15,609.0	88.96	358.92	12,686.3	3,063.6	-352.2	3,081.5	0.99	-0.77	-0.62
15,703.0	89.21	1.19	12,687.8	3,157.6	-352.1	3,175.2	2.43	0.27	2.41
15,798.0	89.52	2.28	12,688.9	3,252.5	-349.3	3,269.7	1.19	0.33	1.15
15,893.0	91.85	2.44	12,687.7	3,347.5	-345.4	3,364.0	2.46	2.45	0.17
15,988.0	89.13	358.14	12,686.9	3,442.4	-344.9	3,458.7	5.36	-2.86	-4.53
16,083.0	91.74	1.14	12,686.2	3,537.4	-345.5	3,553.4	4.19	2.75	3.16
16,178.0	87.28	357.34	12,687.0	3,632.3	-346.7	3,648.2	6.17	-4.69	-4.00
16,273.0	87.03	355.84	12,691.7	3,727.1	-352.4	3,743.0	1.60	-0.26	-1.58
16,369.0	90.17	358.76	12,694.1	3,822.9	-356.9	3,839.0	4.47	3.27	3.04
16,464.0	92.69	1.96	12,691.7	3,917.8	-356.3	3,933.6	4.29	2.65	3.37
16,559.0	88.46	357.03	12,690.8	4,012.8	-357.1	4,028.3	6.84	-4.45	-5.19
16,654.0	91.34	359.03	12,690.9	4,107.7	-360.4	4,123.2	3.69	3.03	2.11
16,749.0	91.18	0.30	12,688.8	4,202.7	-361.0	4,218.0	1.35	-0.17	1.34
16,844.0	91.37	2.16	12,686.7	4,297.6	-358.9	4,312.5	1.97	0.20	1.96
16,939.0	89.13	1.67	12,686.3	4,392.6	-355.7	4,406.9	2.41	-2.36	-0.52
17,035.0	92.69	2.47	12,684.8	4,488.5	-352.3	4,502.3	3.80	3.71	0.83
17,128.0	91.43	0.96	12,681.4	4,581.4	-349.5	4,594.7	2.11	-1.35	-1.62
17,223.0	92.21	0.89	12,678.4	4,676.3	-348.0	4,689.2	0.82	0.82	-0.07
17,267.0	94.01	1.94	12,676.0	4,720.2	-346.9	4,733.0	4.73	4.09	2.39
17,324.0	94.01	1.94	12,672.0	4,777.1	-345.0	4,789.5	0.00	0.00	0.00

Checked By: _____

Approved By: _____

Date: _____