

C O N C H O

NORTHERN DELAWARE BASIN

LEA COUNTY, NM

BULLDOG

BASEBALL CAP FED COM #26H

OWB

Design: ACTUAL WELLPATH

Standard Survey Report

25 July, 2018

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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	BASEBALL CAP FED COM #26H		
Well Position	+N-S	0.0 usft	Northing: 431,084.20 usft
	+E-W	0.0 usft	Easting: 780,910.50 usft
Position Uncertainty	3.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 10' 54.870 N
		Longitude:	103° 25' 31.348 W
		Ground Level:	3,406.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	WMM2015	1/4/2017	6.95	60.04	47,964.92660757

Design	ACTUAL WELLPATH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	357.71

Survey Program	Date 2/12/2018			
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
100.0	11,909.0	GYRO (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
12,045.0	23,024.0	MWD-CURVE/LATERAL (OWB)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N-S	+E-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(usft)	(°)	(°)	(usft)	(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	0.31	22.57	100.0	0.2	0.1	0.2	0.31	0.31	0.00
125.0	0.20	6.29	125.0	0.4	0.1	0.3	0.52	-0.44	-65.12
150.0	0.30	18.64	150.0	0.5	0.2	0.5	0.45	0.40	49.40
175.0	0.33	21.94	175.0	0.6	0.2	0.6	0.14	0.12	13.20
200.0	0.33	25.95	200.0	0.7	0.3	0.7	0.09	0.00	16.04
225.0	0.37	27.47	225.0	0.9	0.3	0.8	0.16	0.16	6.08
250.0	0.17	1.54	250.0	1.0	0.4	1.0	0.92	-0.80	-103.72
275.0	0.42	25.53	275.0	1.1	0.4	1.1	1.09	1.00	95.96
300.0	0.39	24.93	300.0	1.2	0.5	1.2	0.12	-0.12	-2.40

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Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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)	
325.0	0.43	20.85	325.0	1.4	0.6	1.4	0.20	0.16	-16.32	
350.0	0.38	26.70	350.0	1.6	0.6	1.5	0.26	-0.20	23.40	
375.0	0.41	25.70	375.0	1.7	0.7	1.7	0.12	0.12	-4.00	
400.0	0.36	21.75	400.0	1.9	0.8	1.8	0.23	-0.20	-15.80	
425.0	0.36	20.23	425.0	2.0	0.8	2.0	0.04	0.00	-6.08	
450.0	0.42	26.59	450.0	2.2	0.9	2.1	0.30	0.24	25.44	
475.0	0.35	21.89	475.0	2.3	1.0	2.3	0.31	-0.28	-18.80	
500.0	0.31	16.52	500.0	2.5	1.0	2.4	0.20	-0.16	-21.48	
525.0	0.25	11.78	525.0	2.6	1.0	2.5	0.26	-0.24	-18.96	
550.0	0.19	11.37	550.0	2.7	1.1	2.6	0.24	-0.24	-1.64	
575.0	0.13	312.82	575.0	2.7	1.1	2.7	0.66	-0.24	-234.20	
600.0	0.43	237.72	600.0	2.7	1.0	2.7	1.66	1.20	-300.40	
625.0	0.81	228.58	625.0	2.5	0.7	2.5	1.57	1.52	-36.56	
650.0	1.06	227.48	650.0	2.3	0.4	2.3	1.00	1.00	-4.40	
675.0	1.22	226.38	675.0	1.9	0.1	1.9	0.65	0.64	-4.40	
700.0	1.23	225.55	700.0	1.6	-0.3	1.6	0.08	0.04	-3.32	
725.0	1.29	225.40	725.0	1.2	-0.7	1.2	0.24	0.24	-0.60	
750.0	1.33	226.12	750.0	0.8	-1.1	0.8	0.17	0.16	2.88	
775.0	1.40	226.02	775.0	0.4	-1.5	0.4	0.28	0.28	-0.40	
800.0	1.42	226.44	799.9	-0.1	-2.0	0.0	0.09	0.08	1.68	
825.0	1.49	226.95	824.9	-0.5	-2.4	-0.4	0.28	0.28	2.04	
850.0	1.52	227.04	849.9	-0.9	-2.9	-0.8	0.12	0.12	0.36	
875.0	1.58	226.04	874.9	-1.4	-3.4	-1.3	0.26	0.24	-4.00	
900.0	1.68	226.85	899.9	-1.9	-3.9	-1.7	0.41	0.40	3.24	
925.0	1.70	226.77	924.9	-2.4	-4.5	-2.2	0.08	0.08	-0.32	
950.0	1.75	227.12	949.9	-2.9	-5.0	-2.7	0.20	0.20	1.40	
975.0	1.73	227.46	974.9	-3.4	-5.6	-3.2	0.09	-0.08	1.36	
1,000.0	1.78	227.57	999.9	-4.0	-6.1	-3.7	0.20	0.20	0.44	
1,025.0	1.84	227.07	1,024.9	-4.5	-6.7	-4.2	0.25	0.24	-2.00	
1,050.0	1.89	226.05	1,049.8	-5.0	-7.3	-4.7	0.24	0.20	-4.08	
1,075.0	1.94	225.19	1,074.8	-5.6	-7.9	-5.3	0.23	0.20	-3.44	
1,100.0	1.97	223.12	1,099.8	-6.2	-8.5	-5.9	0.31	0.12	-8.28	
1,125.0	2.02	221.63	1,124.8	-6.9	-9.1	-6.5	0.29	0.20	-5.96	
1,150.0	2.05	221.61	1,149.8	-7.5	-9.7	-7.2	0.12	0.12	-0.08	
1,175.0	2.09	221.99	1,174.8	-8.2	-10.3	-7.8	0.17	0.16	1.52	
1,200.0	2.07	221.68	1,199.7	-8.9	-10.9	-8.5	0.09	-0.08	-1.24	
1,225.0	2.10	221.37	1,224.7	-9.6	-11.5	-9.1	0.13	0.12	-1.24	
1,250.0	2.15	220.98	1,249.7	-10.3	-12.1	-9.8	0.21	0.20	-1.56	
1,275.0	2.17	220.65	1,274.7	-11.0	-12.7	-10.5	0.09	0.08	-1.32	
1,300.0	2.26	219.30	1,299.7	-11.7	-13.3	-11.2	0.42	0.36	-5.40	
1,325.0	2.33	220.01	1,324.7	-12.5	-14.0	-11.9	0.30	0.28	2.84	
1,350.0	2.33	220.54	1,349.6	-13.3	-14.6	-12.7	0.09	0.00	2.12	
1,375.0	2.37	220.29	1,374.6	-14.1	-15.3	-13.4	0.17	0.16	-1.00	

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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)	
1,400.0	2.33	219.67	1,399.6	-14.8	-16.0	-14.2	0.19	-0.16	-2.48	
1,425.0	2.36	220.40	1,424.6	-15.6	-16.6	-14.9	0.17	0.12	2.92	
1,450.0	2.39	221.54	1,449.6	-16.4	-17.3	-15.7	0.22	0.12	4.56	
1,475.0	2.38	220.72	1,474.5	-17.2	-18.0	-16.5	0.14	-0.04	-3.28	
1,500.0	2.46	221.42	1,499.5	-18.0	-18.7	-17.2	0.34	0.32	2.80	
1,525.0	2.54	220.83	1,524.5	-18.8	-19.4	-18.0	0.34	0.32	-2.36	
1,550.0	2.60	221.11	1,549.5	-19.7	-20.1	-18.8	0.25	0.24	1.12	
1,575.0	2.56	222.33	1,574.4	-20.5	-20.9	-19.6	0.27	-0.16	4.88	
1,600.0	2.69	222.89	1,599.4	-21.3	-21.6	-20.5	0.53	0.52	2.24	
1,625.0	2.74	222.63	1,624.4	-22.2	-22.5	-21.3	0.21	0.20	-1.04	
1,650.0	2.72	222.53	1,649.4	-23.1	-23.3	-22.1	0.08	-0.08	-0.40	
1,675.0	2.71	222.58	1,674.3	-24.0	-24.1	-23.0	0.04	-0.04	0.20	
1,700.0	2.71	222.39	1,699.3	-24.8	-24.9	-23.8	0.04	0.00	-0.76	
1,725.0	2.69	222.94	1,724.3	-25.7	-25.7	-24.6	0.13	-0.08	2.20	
1,750.0	2.76	223.36	1,749.2	-26.6	-26.5	-25.5	0.29	0.28	1.68	
1,775.0	2.76	222.49	1,774.2	-27.4	-27.3	-26.3	0.17	0.00	-3.48	
1,800.0	2.79	222.99	1,799.2	-28.3	-28.1	-27.2	0.15	0.12	2.00	
1,825.0	2.73	222.42	1,824.2	-29.2	-28.9	-28.0	0.26	-0.24	-2.28	
1,850.0	2.68	222.66	1,849.1	-30.1	-29.7	-28.9	0.21	-0.20	0.96	
1,875.0	2.63	222.74	1,874.1	-30.9	-30.5	-29.7	0.20	-0.20	0.32	
1,900.0	2.74	222.64	1,899.1	-31.8	-31.3	-30.5	0.44	0.44	-0.40	
1,925.0	2.62	222.05	1,924.0	-32.7	-32.1	-31.4	0.49	-0.48	-2.36	
1,950.0	2.66	221.92	1,949.0	-33.5	-32.9	-32.2	0.16	0.16	-0.52	
1,975.0	2.83	220.65	1,974.0	-34.4	-33.7	-33.0	0.72	0.68	-5.08	
2,000.0	2.83	222.43	1,999.0	-35.3	-34.5	-33.9	0.35	0.00	7.12	
2,025.0	2.80	222.29	2,023.9	-36.2	-35.3	-34.8	0.12	-0.12	-0.56	
2,050.0	2.83	222.74	2,048.9	-37.2	-36.1	-35.7	0.15	0.12	1.80	
2,075.0	2.81	223.07	2,073.9	-38.1	-37.0	-36.5	0.10	-0.08	1.32	
2,100.0	2.87	224.29	2,098.8	-38.9	-37.8	-37.4	0.34	0.24	4.88	
2,125.0	2.82	223.41	2,123.8	-39.8	-38.7	-38.3	0.27	-0.20	-3.52	
2,150.0	2.83	224.05	2,148.8	-40.7	-39.5	-39.1	0.13	0.04	2.56	
2,175.0	2.79	223.97	2,173.7	-41.6	-40.4	-40.0	0.16	-0.16	-0.32	
2,200.0	2.87	223.84	2,198.7	-42.5	-41.2	-40.8	0.32	0.32	-0.52	
2,225.0	2.83	223.35	2,223.7	-43.4	-42.1	-41.7	0.19	-0.16	-1.96	
2,250.0	2.83	223.25	2,248.7	-44.3	-42.9	-42.6	0.02	0.00	-0.40	
2,275.0	2.85	223.40	2,273.6	-45.2	-43.8	-43.4	0.09	0.08	0.60	
2,300.0	2.88	223.97	2,298.6	-46.1	-44.7	-44.3	0.17	0.12	2.28	
2,325.0	2.87	223.42	2,323.6	-47.0	-45.5	-45.2	0.12	-0.04	-2.20	
2,350.0	2.87	223.69	2,348.5	-47.9	-46.4	-46.0	0.05	0.00	1.08	
2,375.0	2.89	223.54	2,373.5	-48.8	-47.2	-46.9	0.09	0.08	-0.60	
2,400.0	3.03	223.56	2,398.5	-49.8	-48.1	-47.8	0.56	0.56	0.08	
2,425.0	3.12	224.42	2,423.4	-50.7	-49.1	-48.7	0.40	0.36	3.44	
2,450.0	3.44	226.16	2,448.4	-51.7	-50.1	-49.7	1.34	1.28	6.96	

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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)
2,475.0	4.07	228.49	2,473.3	-52.8	-51.3	-50.8	2.59	2.52	9.32
2,500.0	3.98	226.60	2,498.3	-54.0	-52.6	-51.9	0.64	-0.36	-7.56
2,525.0	4.08	226.29	2,523.2	-55.2	-53.9	-53.0	0.41	0.40	-1.24
2,550.0	4.04	226.35	2,548.1	-56.5	-55.1	-54.2	0.16	-0.16	0.24
2,575.0	4.13	225.71	2,573.1	-57.7	-56.4	-55.4	0.40	0.36	-2.56
2,600.0	4.13	226.20	2,598.0	-58.9	-57.7	-56.6	0.14	0.00	1.96
2,625.0	4.13	225.61	2,623.0	-60.2	-59.0	-57.8	0.17	0.00	-2.36
2,650.0	4.17	225.33	2,647.9	-61.5	-60.3	-59.0	0.18	0.16	-1.12
2,675.0	4.15	224.66	2,672.8	-62.8	-61.6	-60.2	0.21	-0.08	-2.68
2,700.0	4.08	223.94	2,697.8	-64.0	-62.8	-61.5	0.35	-0.28	-2.88
2,725.0	4.14	223.87	2,722.7	-65.3	-64.1	-62.7	0.24	0.24	-0.28
2,750.0	4.11	223.02	2,747.6	-66.6	-65.3	-64.0	0.27	-0.12	-3.40
2,775.0	4.08	222.83	2,772.6	-67.9	-66.5	-65.2	0.13	-0.12	-0.76
2,800.0	4.11	222.50	2,797.5	-69.3	-67.7	-66.5	0.15	0.12	-1.32
2,825.0	4.11	221.88	2,822.4	-70.6	-68.9	-67.8	0.18	0.00	-2.48
2,850.0	4.07	220.85	2,847.4	-71.9	-70.1	-69.1	0.33	-0.16	-4.12
2,875.0	4.11	221.84	2,872.3	-73.3	-71.3	-70.4	0.32	0.16	3.96
2,900.0	4.10	221.31	2,897.2	-74.6	-72.5	-71.6	0.16	-0.04	-2.12
2,925.0	4.07	221.20	2,922.2	-75.9	-73.7	-72.9	0.12	-0.12	-0.44
2,950.0	4.02	219.35	2,947.1	-77.3	-74.8	-74.2	0.56	-0.20	-7.40
2,975.0	4.00	219.11	2,972.1	-78.6	-75.9	-75.5	0.10	-0.08	-0.96
3,000.0	3.95	219.49	2,997.0	-80.0	-77.0	-76.8	0.23	-0.20	1.52
3,025.0	3.93	218.47	3,021.9	-81.3	-78.1	-78.1	0.29	-0.08	-4.08
3,050.0	3.88	216.98	3,046.9	-82.7	-79.1	-79.4	0.45	-0.20	-5.96
3,075.0	3.92	217.31	3,071.8	-84.0	-80.2	-80.7	0.18	0.16	1.32
3,100.0	3.92	215.42	3,096.8	-85.4	-81.2	-82.1	0.52	0.00	-7.56
3,125.0	3.87	215.76	3,121.7	-86.8	-82.2	-83.4	0.22	-0.20	1.36
3,150.0	3.97	216.77	3,146.6	-88.1	-83.2	-84.8	0.49	0.40	4.04
3,175.0	3.91	216.57	3,171.6	-89.5	-84.2	-86.1	0.25	-0.24	-0.80
3,200.0	3.93	216.46	3,196.5	-90.9	-85.2	-87.4	0.09	0.08	-0.44
3,225.0	3.98	215.87	3,221.5	-92.3	-86.2	-88.8	0.26	0.20	-2.36
3,250.0	3.98	215.81	3,246.4	-93.7	-87.2	-90.1	0.02	0.00	-0.24
3,275.0	3.95	216.25	3,271.4	-95.1	-88.3	-91.5	0.17	-0.12	1.76
3,300.0	4.01	215.96	3,296.3	-96.5	-89.3	-92.9	0.25	0.24	-1.16
3,325.0	3.99	216.81	3,321.2	-97.9	-90.3	-94.2	0.25	-0.08	3.40
3,350.0	3.99	216.17	3,346.2	-99.3	-91.4	-95.6	0.18	0.00	-2.56
3,375.0	4.05	215.60	3,371.1	-100.7	-92.4	-97.0	0.29	0.24	-2.28
3,400.0	4.00	215.32	3,396.0	-102.2	-93.4	-98.3	0.21	-0.20	-1.12
3,425.0	3.95	214.74	3,421.0	-103.6	-94.4	-99.7	0.26	-0.20	-2.32
3,450.0	3.99	214.68	3,445.9	-105.0	-95.4	-101.1	0.16	0.16	-0.24
3,475.0	4.05	214.57	3,470.9	-106.4	-96.4	-102.5	0.24	0.24	-0.44
3,500.0	4.03	214.87	3,495.8	-107.9	-97.4	-103.9	0.12	-0.08	1.20
3,525.0	4.04	214.58	3,520.7	-109.3	-98.4	-105.3	0.09	0.04	-1.16
3,550.0	4.04	215.08	3,545.7	-110.8	-99.4	-106.7	0.14	0.00	2.00

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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	3.97	214.81	3,570.6	-112.2	-100.4	-108.1	0.29	-0.28	-1.08
3,600.0	4.02	217.01	3,595.6	-113.6	-101.4	-109.5	0.64	0.20	8.80
3,625.0	3.93	219.97	3,620.5	-115.0	-102.5	-110.8	0.90	-0.36	11.84
3,650.0	3.97	220.07	3,645.4	-116.3	-103.6	-112.1	0.16	0.16	0.40
3,675.0	3.90	221.50	3,670.4	-117.6	-104.7	-113.3	0.48	-0.28	5.72
3,700.0	3.86	221.39	3,695.3	-118.9	-105.8	-114.5	0.16	-0.16	-0.44
3,725.0	3.89	221.40	3,720.3	-120.1	-106.9	-115.8	0.12	0.12	0.04
3,750.0	4.08	222.27	3,745.2	-121.4	-108.1	-117.0	0.80	0.76	3.48
3,775.0	4.29	223.89	3,770.1	-122.8	-109.4	-118.3	0.96	0.84	6.48
3,800.0	3.88	221.40	3,795.1	-124.1	-110.6	-119.6	1.79	-1.64	-9.96
3,825.0	3.93	221.99	3,820.0	-125.3	-111.7	-120.8	0.26	0.20	2.36
3,850.0	4.07	224.70	3,845.0	-126.6	-112.9	-122.0	0.94	0.56	10.84
3,875.0	4.23	227.89	3,869.9	-127.8	-114.2	-123.2	1.12	0.64	12.76
3,900.0	4.35	231.04	3,894.8	-129.1	-115.6	-124.3	1.06	0.48	12.60
3,925.0	4.40	234.31	3,919.7	-130.2	-117.1	-125.4	1.02	0.20	13.08
3,950.0	4.46	233.87	3,944.7	-131.3	-118.7	-126.5	0.28	0.24	-1.76
3,975.0	4.50	233.59	3,969.6	-132.5	-120.3	-127.6	0.18	0.16	-1.12
4,000.0	4.50	233.95	3,994.5	-133.7	-121.9	-128.7	0.11	0.00	1.44
4,025.0	4.46	234.61	4,019.4	-134.8	-123.4	-129.8	0.26	-0.16	2.64
4,050.0	4.46	234.95	4,044.4	-135.9	-125.0	-130.8	0.11	0.00	1.36
4,075.0	4.48	234.15	4,069.3	-137.1	-126.6	-131.9	0.26	0.08	-3.20
4,100.0	4.51	234.03	4,094.2	-138.2	-128.2	-133.0	0.13	0.12	-0.48
4,125.0	4.54	234.39	4,119.1	-139.4	-129.8	-134.1	0.17	0.12	1.44
4,150.0	4.49	234.38	4,144.1	-140.5	-131.4	-135.2	0.20	-0.20	-0.04
4,175.0	4.40	234.46	4,169.0	-141.6	-133.0	-136.2	0.36	-0.36	0.32
4,200.0	4.45	234.52	4,193.9	-142.8	-134.6	-137.3	0.20	0.20	0.24
4,225.0	4.41	233.12	4,218.8	-143.9	-136.1	-138.3	0.46	-0.16	-5.60
4,250.0	4.50	233.09	4,243.8	-145.1	-137.7	-139.5	0.36	0.36	-0.12
4,275.0	4.49	233.22	4,268.7	-146.2	-139.2	-140.6	0.06	-0.04	0.52
4,300.0	4.46	233.29	4,293.6	-147.4	-140.8	-141.7	0.12	-0.12	0.28
4,325.0	4.47	232.31	4,318.5	-148.6	-142.3	-142.8	0.31	0.04	-3.92
4,350.0	4.39	232.00	4,343.5	-149.8	-143.9	-143.9	0.33	-0.32	-1.24
4,375.0	4.39	231.86	4,368.4	-150.9	-145.4	-145.0	0.04	0.00	-0.56
4,400.0	4.36	230.93	4,393.3	-152.1	-146.9	-146.2	0.31	-0.12	-3.72
4,425.0	4.39	230.16	4,418.2	-153.3	-148.3	-147.3	0.26	0.12	-3.08
4,450.0	4.39	227.69	4,443.2	-154.6	-149.8	-148.5	0.76	0.00	-9.88
4,475.0	4.45	226.14	4,468.1	-155.9	-151.2	-149.8	0.53	0.24	-6.20
4,500.0	4.34	223.84	4,493.0	-157.3	-152.5	-151.1	0.83	-0.44	-9.20
4,525.0	4.25	220.39	4,517.9	-158.7	-153.8	-152.4	1.09	-0.36	-13.80
4,550.0	4.24	217.83	4,542.9	-160.1	-155.0	-153.8	0.76	-0.04	-10.24
4,575.0	4.31	215.33	4,567.8	-161.6	-156.1	-155.2	0.80	0.28	-10.00
4,600.0	4.27	212.10	4,592.7	-163.1	-157.1	-156.7	0.98	-0.16	-12.92
4,625.0	4.19	209.38	4,617.7	-164.7	-158.1	-158.3	0.86	-0.32	-10.88

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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)	
4,650.0	4.15	204.88	4,642.6	-166.3	-158.9	-159.9	1.32	-0.16	-18.00	
4,675.0	4.19	202.12	4,667.5	-168.0	-159.6	-161.5	0.82	0.16	-11.04	
4,700.0	4.29	200.13	4,692.5	-169.7	-160.3	-163.2	0.71	0.40	-7.96	
4,725.0	4.32	196.82	4,717.4	-171.5	-160.9	-165.0	1.00	0.12	-13.24	
4,750.0	4.33	194.47	4,742.3	-173.3	-161.4	-166.8	0.71	0.04	-9.40	
4,775.0	4.30	193.80	4,767.3	-175.2	-161.8	-168.6	0.23	-0.12	-2.68	
4,800.0	4.35	193.31	4,792.2	-177.0	-162.3	-170.4	0.25	0.20	-1.96	
4,825.0	4.38	192.95	4,817.1	-178.8	-162.7	-172.2	0.16	0.12	-1.44	
4,850.0	4.38	192.74	4,842.0	-180.7	-163.1	-174.1	0.06	0.00	-0.84	
4,875.0	4.43	194.03	4,867.0	-182.6	-163.6	-175.9	0.44	0.20	5.16	
4,900.0	4.42	194.55	4,891.9	-184.4	-164.1	-177.7	0.17	-0.04	2.08	
4,925.0	4.38	196.58	4,916.8	-186.3	-164.6	-179.6	0.64	-0.16	8.12	
4,950.0	4.41	199.60	4,941.7	-188.1	-165.2	-181.4	0.93	0.12	12.08	
4,975.0	4.38	201.49	4,966.7	-189.9	-165.8	-183.1	0.59	-0.12	7.56	
5,000.0	4.32	201.89	4,991.6	-191.7	-166.5	-184.9	0.27	-0.24	1.60	
5,025.0	4.22	203.60	5,016.5	-193.4	-167.3	-186.6	0.65	-0.40	6.84	
5,050.0	4.19	204.48	5,041.5	-195.1	-168.0	-188.2	0.28	-0.12	3.52	
5,075.0	4.12	206.76	5,066.4	-196.7	-168.8	-189.8	0.72	-0.28	9.12	
5,100.0	4.01	211.05	5,091.3	-198.2	-169.6	-191.3	1.29	-0.44	17.16	
5,125.0	4.00	218.37	5,116.3	-199.7	-170.6	-192.7	2.04	-0.04	29.28	
5,150.0	3.95	222.37	5,141.2	-201.0	-171.8	-194.0	1.13	-0.20	16.00	
5,175.0	3.99	225.53	5,166.1	-202.2	-173.0	-195.2	0.89	0.16	12.64	
5,200.0	4.00	229.52	5,191.1	-203.4	-174.2	-196.3	1.11	0.04	15.96	
5,225.0	4.05	233.78	5,216.0	-204.5	-175.6	-197.3	1.21	0.20	17.04	
5,250.0	4.08	234.66	5,241.0	-205.5	-177.1	-198.3	0.28	0.12	3.52	
5,275.0	4.03	234.76	5,265.9	-206.6	-178.5	-199.3	0.20	-0.20	0.40	
5,300.0	3.95	236.06	5,290.8	-207.5	-179.9	-200.2	0.48	-0.32	5.20	
5,325.0	3.84	235.96	5,315.8	-208.5	-181.3	-201.1	0.44	-0.44	-0.40	
5,350.0	3.83	236.52	5,340.7	-209.4	-182.7	-202.0	0.16	-0.04	2.24	
5,375.0	3.83	237.24	5,365.7	-210.3	-184.1	-202.8	0.19	0.00	2.88	
5,400.0	3.85	236.64	5,390.6	-211.2	-185.5	-203.7	0.18	0.08	-2.40	
5,425.0	3.91	236.68	5,415.6	-212.2	-186.9	-204.6	0.24	0.24	0.16	
5,450.0	3.95	238.42	5,440.5	-213.1	-188.4	-205.4	0.50	0.16	6.96	
5,475.0	4.09	242.67	5,465.4	-214.0	-189.9	-206.2	1.32	0.56	17.00	
5,500.0	4.34	246.22	5,490.4	-214.7	-191.6	-206.9	1.44	1.00	14.20	
5,525.0	4.38	247.51	5,515.3	-215.5	-193.3	-207.6	0.42	0.16	5.16	
5,550.0	4.39	247.51	5,540.2	-216.2	-195.1	-208.3	0.04	0.04	0.00	
5,575.0	4.52	247.01	5,565.1	-217.0	-196.9	-209.0	0.54	0.52	-2.00	
5,600.0	4.43	247.53	5,590.1	-217.7	-198.7	-209.6	0.39	-0.36	2.08	
5,625.0	4.41	247.04	5,615.0	-218.5	-200.4	-210.3	0.17	-0.08	-1.96	
5,650.0	4.38	248.03	5,639.9	-219.2	-202.2	-211.0	0.33	-0.12	3.96	
5,675.0	4.34	246.76	5,664.9	-219.9	-204.0	-211.6	0.42	-0.16	-5.08	
5,700.0	4.42	246.99	5,689.8	-220.7	-205.7	-212.3	0.33	0.32	0.92	

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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)
5,725.0	4.38	246.72	5,714.7	-221.4	-207.5	-213.0	0.18	-0.16	-1.08
5,750.0	4.32	247.81	5,739.6	-222.2	-209.2	-213.7	0.41	-0.24	4.36
5,775.0	4.35	247.02	5,764.6	-222.9	-211.0	-214.3	0.27	0.12	-3.16
5,800.0	4.47	247.50	5,789.5	-223.6	-212.8	-215.0	0.50	0.48	1.92
5,825.0	4.42	247.36	5,814.4	-224.4	-214.5	-215.6	0.20	-0.20	-0.56
5,850.0	4.34	247.31	5,839.3	-225.1	-216.3	-216.3	0.32	-0.32	-0.20
5,875.0	4.36	247.86	5,864.3	-225.8	-218.1	-217.0	0.19	0.08	2.20
5,900.0	4.44	247.71	5,889.2	-226.6	-219.8	-217.6	0.32	0.32	-0.60
5,925.0	4.38	248.16	5,914.1	-227.3	-221.6	-218.3	0.28	-0.24	1.80
5,950.0	4.26	248.22	5,939.0	-228.0	-223.4	-218.9	0.48	-0.48	0.24
5,975.0	4.27	247.56	5,964.0	-228.7	-225.1	-219.5	0.20	0.04	-2.64
6,000.0	4.26	247.51	5,988.9	-229.4	-226.8	-220.2	0.04	-0.04	-0.20
6,025.0	4.37	248.07	6,013.8	-230.1	-228.6	-220.8	0.47	0.44	2.24
6,050.0	4.21	247.52	6,038.8	-230.8	-230.3	-221.5	0.66	-0.64	-2.20
6,075.0	4.19	246.48	6,063.7	-231.5	-232.0	-222.1	0.31	-0.08	-4.16
6,100.0	4.17	246.87	6,088.6	-232.3	-233.6	-222.8	0.14	-0.08	1.56
6,125.0	4.16	246.64	6,113.6	-233.0	-235.3	-223.4	0.08	-0.04	-0.92
6,150.0	4.18	246.35	6,138.5	-233.7	-237.0	-224.1	0.12	0.08	-1.16
6,175.0	4.21	246.55	6,163.4	-234.4	-238.7	-224.7	0.13	0.12	0.80
6,200.0	4.21	246.85	6,188.4	-235.2	-240.3	-225.4	0.09	0.00	1.20
6,225.0	4.18	245.66	6,213.3	-235.9	-242.0	-226.0	0.37	-0.12	-4.76
6,250.0	4.21	245.51	6,238.2	-236.6	-243.7	-226.7	0.13	0.12	-0.60
6,275.0	4.17	245.24	6,263.2	-237.4	-245.3	-227.4	0.18	-0.16	-1.08
6,300.0	4.17	245.54	6,288.1	-238.2	-247.0	-228.1	0.09	0.00	1.20
6,325.0	4.21	244.78	6,313.0	-238.9	-248.6	-228.8	0.27	0.16	-3.04
6,350.0	4.19	245.11	6,338.0	-239.7	-250.3	-229.5	0.13	-0.08	1.32
6,375.0	4.26	245.30	6,362.9	-240.5	-252.0	-230.2	0.29	0.28	0.76
6,400.0	4.34	244.66	6,387.8	-241.3	-253.7	-231.0	0.37	0.32	-2.56
6,425.0	4.43	243.59	6,412.8	-242.1	-255.4	-231.7	0.49	0.36	-4.28
6,450.0	4.43	243.59	6,437.7	-243.0	-257.1	-232.5	0.00	0.00	0.00
6,475.0	4.46	244.42	6,462.6	-243.8	-258.9	-233.3	0.28	0.12	3.32
6,500.0	4.44	244.60	6,487.5	-244.6	-260.6	-234.1	0.10	-0.08	0.72
6,525.0	4.48	243.18	6,512.5	-245.5	-262.4	-234.8	0.47	0.16	-5.68
6,550.0	4.51	243.41	6,537.4	-246.4	-264.1	-235.7	0.14	0.12	0.92
6,575.0	4.48	243.97	6,562.3	-247.3	-265.9	-236.5	0.21	-0.12	2.24
6,600.0	4.49	243.86	6,587.2	-248.1	-267.6	-237.2	0.05	0.04	-0.44
6,625.0	4.52	243.71	6,612.1	-249.0	-269.4	-238.0	0.13	0.12	-0.60
6,650.0	4.53	243.96	6,637.1	-249.8	-271.2	-238.8	0.09	0.04	1.00
6,675.0	4.57	243.38	6,662.0	-250.7	-272.9	-239.6	0.24	0.16	-2.32
6,700.0	4.60	243.55	6,686.9	-251.6	-274.7	-240.5	0.13	0.12	0.68
6,725.0	4.59	243.47	6,711.8	-252.5	-276.5	-241.3	0.05	-0.04	-0.32
6,750.0	4.58	244.04	6,736.8	-253.4	-278.3	-242.1	0.19	-0.04	2.28
6,775.0	4.61	243.48	6,761.7	-254.3	-280.1	-242.9	0.22	0.12	-2.24
6,800.0	4.62	243.27	6,786.6	-255.2	-281.9	-243.7	0.08	0.04	-0.84

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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	4.62	243.54	6,811.5	-256.1	-283.7	-244.6	0.09	0.00	1.08
6,850.0	4.64	243.22	6,836.4	-257.0	-285.5	-245.4	0.13	0.08	-1.28
6,875.0	4.71	242.92	6,861.3	-257.9	-287.3	-246.3	0.30	0.28	-1.20
6,900.0	4.74	242.00	6,886.3	-258.9	-289.2	-247.1	0.33	0.12	-3.68
6,925.0	4.83	241.74	6,911.2	-259.9	-291.0	-248.0	0.37	0.36	-1.04
6,950.0	4.86	239.27	6,936.1	-260.9	-292.8	-249.0	0.84	0.12	-9.88
6,975.0	4.88	237.55	6,961.0	-262.0	-294.6	-250.0	0.59	0.08	-6.88
7,000.0	4.98	237.27	6,985.9	-263.2	-296.4	-251.1	0.41	0.40	-1.12
7,025.0	5.02	236.36	7,010.8	-264.4	-298.3	-252.2	0.36	0.16	-3.64
7,050.0	4.96	236.08	7,035.7	-265.6	-300.1	-253.4	0.26	-0.24	-1.12
7,075.0	4.91	234.71	7,060.6	-266.8	-301.8	-254.5	0.51	-0.20	-5.48
7,100.0	4.80	233.23	7,085.5	-268.0	-303.6	-255.7	0.67	-0.44	-5.92
7,125.0	4.70	232.03	7,110.4	-269.3	-305.2	-256.9	0.56	-0.40	-4.80
7,150.0	4.62	231.13	7,135.4	-270.5	-306.8	-258.1	0.43	-0.32	-3.60
7,175.0	4.54	230.04	7,160.3	-271.8	-308.3	-259.3	0.47	-0.32	-4.36
7,200.0	4.51	229.99	7,185.2	-273.1	-309.8	-260.5	0.12	-0.12	-0.20
7,225.0	4.53	229.55	7,210.1	-274.4	-311.4	-261.7	0.16	0.08	-1.76
7,250.0	4.49	228.86	7,235.0	-275.6	-312.8	-262.9	0.27	-0.16	-2.76
7,275.0	4.43	228.17	7,260.0	-276.9	-314.3	-264.2	0.32	-0.24	-2.76
7,300.0	4.20	225.84	7,284.9	-278.2	-315.7	-265.4	1.16	-0.92	-9.32
7,325.0	3.97	225.07	7,309.8	-279.5	-316.9	-266.6	0.95	-0.92	-3.08
7,350.0	3.88	224.77	7,334.8	-280.7	-318.2	-267.8	0.37	-0.36	-1.20
7,375.0	3.65	223.67	7,359.7	-281.8	-319.3	-268.9	0.96	-0.92	-4.40
7,400.0	3.47	222.77	7,384.7	-283.0	-320.4	-270.0	0.75	-0.72	-3.60
7,425.0	3.38	223.98	7,409.6	-284.1	-321.4	-271.0	0.46	-0.36	4.84
7,450.0	3.07	225.06	7,434.6	-285.1	-322.4	-272.0	1.26	-1.24	4.32
7,475.0	2.99	225.35	7,459.6	-286.0	-323.3	-272.9	0.33	-0.32	1.16
7,500.0	2.86	223.92	7,484.5	-286.9	-324.2	-273.7	0.60	-0.52	-5.72
7,525.0	2.83	225.86	7,509.5	-287.8	-325.1	-274.6	0.40	-0.12	7.76
7,550.0	2.73	225.52	7,534.5	-288.6	-325.9	-275.4	0.41	-0.40	-1.36
7,575.0	2.76	224.81	7,559.4	-289.5	-326.8	-276.2	0.18	0.12	-2.84
7,600.0	2.72	225.30	7,584.4	-290.3	-327.6	-277.0	0.19	-0.16	1.96
7,625.0	2.67	224.99	7,609.4	-291.1	-328.5	-277.8	0.21	-0.20	-1.24
7,650.0	2.63	224.09	7,634.4	-292.0	-329.3	-278.6	0.23	-0.16	-3.60
7,675.0	2.59	224.75	7,659.3	-292.8	-330.1	-279.4	0.20	-0.16	2.64
7,700.0	2.62	224.66	7,684.3	-293.6	-330.9	-280.2	0.12	0.12	-0.36
7,725.0	2.35	226.68	7,709.3	-294.3	-331.7	-280.9	1.14	-1.08	8.08
7,750.0	2.04	228.62	7,734.3	-295.0	-332.4	-281.5	1.27	-1.24	7.76
7,775.0	1.77	230.16	7,759.2	-295.5	-333.0	-282.0	1.10	-1.08	6.16
7,800.0	1.62	231.18	7,784.2	-296.0	-333.6	-282.5	0.61	-0.60	4.08
7,825.0	1.39	234.52	7,809.2	-296.4	-334.1	-282.8	0.98	-0.92	13.36
7,850.0	1.17	238.39	7,834.2	-296.7	-334.6	-283.1	0.95	-0.88	15.48
7,875.0	1.06	238.91	7,859.2	-297.0	-335.0	-283.4	0.44	-0.44	2.08

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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	1.02	239.31	7,884.2	-297.2	-335.4	-283.6	0.16	-0.16	1.60
7,925.0	1.08	236.96	7,909.2	-297.4	-335.7	-283.8	0.30	-0.24	-9.40
7,950.0	1.08	240.63	7,934.2	-297.7	-336.2	-284.0	0.28	0.00	14.68
7,975.0	1.08	237.85	7,959.2	-297.9	-336.6	-284.3	0.21	0.00	-11.12
8,000.0	1.08	239.22	7,984.2	-298.2	-337.0	-284.5	0.10	0.00	5.48
8,025.0	1.06	238.13	8,009.2	-298.4	-337.4	-284.7	0.11	-0.08	-4.36
8,050.0	1.05	239.48	8,034.2	-298.6	-337.7	-284.9	0.11	-0.04	5.40
8,075.0	1.03	239.23	8,059.2	-298.9	-338.1	-285.2	0.08	-0.08	-1.00
8,100.0	0.96	241.09	8,084.2	-299.1	-338.5	-285.4	0.31	-0.28	7.44
8,125.0	0.79	248.25	8,109.2	-299.3	-338.9	-285.5	0.81	-0.68	28.64
8,150.0	0.61	268.65	8,134.2	-299.3	-339.2	-285.6	1.22	-0.72	81.60
8,175.0	0.56	270.66	8,159.2	-299.3	-339.4	-285.6	0.22	-0.20	8.04
8,200.0	0.62	266.55	8,184.2	-299.3	-339.7	-285.6	0.29	0.24	-16.44
8,225.0	0.60	269.61	8,209.2	-299.3	-339.9	-285.6	0.15	-0.08	12.24
8,250.0	0.59	269.69	8,234.2	-299.3	-340.2	-285.5	0.04	-0.04	0.32
8,275.0	0.52	275.66	8,259.2	-299.3	-340.4	-285.5	0.36	-0.28	23.88
8,300.0	0.44	297.33	8,284.2	-299.3	-340.6	-285.5	0.79	-0.32	86.68
8,325.0	0.39	305.06	8,309.2	-299.2	-340.8	-285.4	0.30	-0.20	30.92
8,350.0	0.40	310.59	8,334.2	-299.1	-340.9	-285.3	0.16	0.04	22.12
8,375.0	0.37	305.54	8,359.2	-299.0	-341.1	-285.1	0.18	-0.12	-20.20
8,400.0	0.42	296.31	8,384.2	-298.9	-341.2	-285.0	0.32	0.20	-36.92
8,425.0	0.35	295.12	8,409.2	-298.8	-341.4	-285.0	0.28	-0.28	-4.76
8,450.0	0.41	302.89	8,434.2	-298.7	-341.5	-284.9	0.32	0.24	31.08
8,475.0	0.42	297.98	8,459.2	-298.6	-341.7	-284.8	0.15	0.04	-19.64
8,500.0	0.41	306.85	8,484.2	-298.6	-341.8	-284.7	0.26	-0.04	35.48
8,525.0	0.40	308.96	8,509.2	-298.4	-341.9	-284.6	0.07	-0.04	8.44
8,550.0	0.39	302.81	8,534.2	-298.3	-342.1	-284.5	0.17	-0.04	-24.60
8,575.0	0.37	304.68	8,559.2	-298.2	-342.2	-284.4	0.09	-0.08	7.48
8,600.0	0.40	301.30	8,584.2	-298.2	-342.4	-284.3	0.15	0.12	-13.52
8,625.0	0.41	305.97	8,609.2	-298.1	-342.5	-284.2	0.14	0.04	18.68
8,650.0	0.39	299.46	8,634.2	-298.0	-342.7	-284.1	0.20	-0.08	-26.04
8,675.0	0.42	298.33	8,659.2	-297.9	-342.8	-284.0	0.12	0.12	-4.52
8,700.0	0.39	294.41	8,684.2	-297.8	-343.0	-283.9	0.16	-0.12	-15.68
8,725.0	0.39	299.64	8,709.2	-297.7	-343.1	-283.8	0.14	0.00	20.92
8,750.0	0.38	300.10	8,734.2	-297.6	-343.3	-283.7	0.04	-0.04	1.84
8,775.0	0.42	299.38	8,759.2	-297.6	-343.4	-283.6	0.16	0.16	-2.88
8,800.0	0.48	301.49	8,784.2	-297.5	-343.6	-283.5	0.25	0.24	8.44
8,825.0	0.49	304.93	8,809.2	-297.3	-343.8	-283.4	0.12	0.04	13.76
8,850.0	0.46	309.43	8,834.2	-297.2	-343.9	-283.3	0.19	-0.12	18.00
8,875.0	0.47	300.91	8,859.1	-297.1	-344.1	-283.1	0.28	0.04	-34.08
8,900.0	0.55	308.94	8,884.1	-297.0	-344.3	-283.0	0.43	0.32	32.12
8,925.0	0.63	309.88	8,909.1	-296.8	-344.5	-282.8	0.32	0.32	3.76
8,950.0	0.60	313.03	8,934.1	-296.6	-344.7	-282.6	0.18	-0.12	12.60

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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	0.62	308.58	8,959.1	-296.5	-344.9	-282.5	0.21	0.08	-17.80
9,000.0	0.65	307.55	8,984.1	-296.3	-345.1	-282.3	0.13	0.12	-4.12
9,025.0	0.68	315.13	9,009.1	-296.1	-345.3	-282.1	0.37	0.12	30.32
9,050.0	0.68	310.45	9,034.1	-295.9	-345.5	-281.9	0.22	0.00	-18.72
9,075.0	0.74	313.94	9,059.1	-295.7	-345.8	-281.7	0.30	0.24	13.96
9,100.0	0.76	314.92	9,084.1	-295.5	-346.0	-281.4	0.10	0.08	3.92
9,125.0	0.81	310.59	9,109.1	-295.2	-346.2	-281.2	0.31	0.20	-17.32
9,150.0	0.85	313.16	9,134.1	-295.0	-346.5	-280.9	0.22	0.16	10.28
9,175.0	0.84	313.76	9,159.1	-294.7	-346.8	-280.7	0.05	-0.04	2.40
9,200.0	0.88	313.31	9,184.1	-294.5	-347.1	-280.4	0.16	0.16	-1.80
9,225.0	0.87	314.16	9,209.1	-294.2	-347.3	-280.1	0.07	-0.04	3.40
9,250.0	0.86	313.96	9,234.1	-293.9	-347.6	-279.8	0.04	-0.04	-0.80
9,275.0	0.92	313.14	9,259.1	-293.7	-347.9	-279.6	0.25	0.24	-3.28
9,300.0	0.93	313.33	9,284.1	-293.4	-348.2	-279.3	0.04	0.04	0.76
9,325.0	0.99	314.90	9,309.1	-293.1	-348.5	-279.0	0.26	0.24	6.28
9,350.0	0.98	314.40	9,334.1	-292.8	-348.8	-278.7	0.05	-0.04	-2.00
9,375.0	1.04	313.55	9,359.1	-292.5	-349.1	-278.3	0.25	0.24	-3.40
9,400.0	1.03	313.21	9,384.1	-292.2	-349.4	-278.0	0.05	-0.04	-1.36
9,425.0	1.04	312.89	9,409.1	-291.9	-349.8	-277.7	0.05	0.04	-1.28
9,450.0	1.11	310.28	9,434.1	-291.6	-350.1	-277.4	0.34	0.28	-10.44
9,475.0	1.14	311.36	9,459.1	-291.2	-350.5	-277.0	0.15	0.12	4.32
9,500.0	1.13	311.97	9,484.1	-290.9	-350.8	-276.7	0.06	-0.04	2.44
9,525.0	1.20	311.02	9,509.1	-290.6	-351.2	-276.3	0.29	0.28	-3.80
9,550.0	1.24	311.50	9,534.1	-290.2	-351.6	-276.0	0.17	0.16	1.92
9,575.0	1.26	308.65	9,559.1	-289.9	-352.0	-275.6	0.26	0.08	-11.40
9,600.0	1.29	307.55	9,584.1	-289.5	-352.5	-275.2	0.15	0.12	-4.40
9,625.0	1.35	307.81	9,609.0	-289.2	-352.9	-274.9	0.24	0.24	1.04
9,650.0	1.30	307.43	9,634.0	-288.8	-353.4	-274.5	0.20	-0.20	-1.52
9,675.0	1.31	307.12	9,659.0	-288.5	-353.9	-274.1	0.05	0.04	-1.24
9,700.0	1.35	307.57	9,684.0	-288.1	-354.3	-273.8	0.17	0.16	1.80
9,725.0	1.32	306.99	9,709.0	-287.8	-354.8	-273.4	0.13	-0.12	-2.32
9,750.0	1.48	304.30	9,734.0	-287.4	-355.3	-273.0	0.69	0.64	-10.76
9,775.0	1.59	300.43	9,759.0	-287.1	-355.8	-272.6	0.60	0.44	-15.48
9,800.0	1.73	299.23	9,784.0	-286.7	-356.5	-272.3	0.58	0.56	-4.80
9,825.0	1.83	297.84	9,809.0	-286.3	-357.2	-271.9	0.44	0.40	-5.56
9,850.0	1.84	295.74	9,834.0	-286.0	-357.9	-271.5	0.27	0.04	-8.40
9,875.0	1.84	298.48	9,859.0	-285.6	-358.6	-271.1	0.35	0.00	10.96
9,900.0	1.86	297.66	9,883.9	-285.2	-359.3	-270.7	0.13	0.08	-3.28
9,925.0	1.86	297.96	9,908.9	-284.9	-360.0	-270.3	0.04	0.00	1.20
9,950.0	1.92	297.33	9,933.9	-284.5	-360.7	-269.9	0.25	0.24	-2.52
9,975.0	1.89	298.62	9,958.9	-284.1	-361.5	-269.4	0.21	-0.12	5.16
10,000.0	1.88	298.56	9,983.9	-283.7	-362.2	-269.0	0.04	-0.04	-0.24
10,025.0	1.94	298.70	10,008.9	-283.3	-362.9	-268.6	0.24	0.24	0.56
10,050.0	1.90	299.09	10,033.9	-282.9	-363.7	-268.2	0.17	-0.16	1.56

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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)
10,075.0	1.92	297.95	10,058.8	-282.5	-364.4	-267.7	0.17	0.08	-4.56
10,100.0	1.96	297.42	10,083.8	-282.1	-365.1	-267.3	0.18	0.16	-2.12
10,125.0	1.92	298.44	10,108.8	-281.7	-365.9	-266.9	0.21	-0.16	4.08
10,150.0	1.95	297.77	10,133.8	-281.3	-366.6	-266.5	0.15	0.12	-2.68
10,175.0	1.89	299.45	10,158.8	-280.9	-367.4	-266.0	0.33	-0.24	6.72
10,200.0	1.81	295.71	10,183.8	-280.5	-368.1	-265.6	0.58	-0.32	-14.96
10,225.0	1.73	290.65	10,208.8	-280.2	-368.8	-265.3	0.70	-0.32	-20.24
10,250.0	1.66	289.15	10,233.8	-280.0	-369.5	-265.0	0.33	-0.28	-6.00
10,275.0	1.63	290.08	10,258.7	-279.7	-370.2	-264.7	0.16	-0.12	3.72
10,300.0	1.67	289.56	10,283.7	-279.5	-370.8	-264.5	0.17	0.16	-2.08
10,325.0	1.68	289.63	10,308.7	-279.2	-371.5	-264.2	0.04	0.04	0.28
10,350.0	1.66	289.97	10,333.7	-279.0	-372.2	-263.9	0.09	-0.08	1.36
10,375.0	1.65	288.88	10,358.7	-278.8	-372.9	-263.7	0.36	-0.04	-12.36
10,400.0	1.65	286.41	10,383.7	-278.6	-373.6	-263.4	0.05	0.00	-1.88
10,425.0	1.59	284.06	10,408.7	-278.4	-374.3	-263.2	0.36	-0.24	-9.40
10,450.0	1.26	279.43	10,433.7	-278.2	-374.9	-263.1	1.40	-1.32	-18.52
10,475.0	1.23	274.81	10,458.7	-278.2	-375.4	-263.0	0.42	-0.12	-18.48
10,500.0	1.17	277.31	10,483.7	-278.1	-375.9	-262.9	0.32	-0.24	10.00
10,525.0	1.19	272.72	10,508.7	-278.1	-376.5	-262.8	0.39	0.08	-18.36
10,550.0	1.26	274.40	10,533.7	-278.0	-377.0	-262.8	0.31	0.28	6.72
10,575.0	1.25	271.21	10,558.6	-278.0	-377.5	-262.7	0.28	-0.04	-12.76
10,600.0	1.34	272.64	10,583.6	-278.0	-378.1	-262.7	0.38	0.36	5.72
10,625.0	1.22	269.66	10,608.6	-278.0	-378.7	-262.7	0.55	-0.48	-11.92
10,650.0	1.35	271.69	10,633.6	-278.0	-379.2	-262.6	0.55	0.52	8.12
10,675.0	1.30	272.64	10,658.6	-278.0	-379.8	-262.6	0.22	-0.20	3.80
10,700.0	1.29	271.86	10,683.6	-277.9	-380.4	-262.5	0.08	-0.04	-3.12
10,725.0	0.86	269.89	10,708.6	-277.9	-380.8	-262.5	1.73	-1.72	-7.88
10,750.0	0.36	259.71	10,733.6	-277.9	-381.1	-262.5	2.04	-2.00	-40.72
10,775.0	0.21	247.49	10,758.6	-278.0	-381.2	-262.5	0.64	-0.60	-48.88
10,800.0	0.25	239.03	10,783.6	-278.0	-381.3	-262.6	0.21	0.16	-33.84
10,825.0	0.19	231.25	10,808.6	-278.1	-381.4	-262.6	0.27	-0.24	-31.12
10,850.0	0.38	129.45	10,833.6	-278.1	-381.3	-262.7	1.83	0.76	-407.20
10,875.0	0.85	117.53	10,858.6	-278.3	-381.1	-262.9	1.94	1.88	-47.68
10,900.0	0.95	117.01	10,883.6	-278.5	-380.8	-263.1	0.40	0.40	-2.08
10,925.0	1.06	119.05	10,908.6	-278.7	-380.4	-263.3	0.46	0.44	8.16
10,950.0	1.37	115.90	10,933.6	-278.9	-379.9	-263.5	1.27	1.24	-12.60
10,975.0	1.57	114.56	10,958.6	-279.2	-379.3	-263.8	0.81	0.80	-5.36
11,000.0	1.58	116.69	10,983.6	-279.5	-378.7	-264.2	0.24	0.04	8.52
11,025.0	1.57	114.00	11,008.6	-279.8	-378.1	-264.5	0.30	-0.04	-10.76
11,050.0	1.63	114.17	11,033.6	-280.1	-377.5	-264.8	0.24	0.24	0.68
11,075.0	1.72	115.37	11,058.5	-280.4	-376.8	-265.1	0.39	0.36	4.80
11,100.0	1.73	114.70	11,083.5	-280.7	-376.1	-265.5	0.09	0.04	-2.68
11,125.0	1.71	115.38	11,108.5	-281.0	-375.4	-265.8	0.11	-0.08	2.72

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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	1.74	116.54	11,133.5	-281.3	-374.8	-266.2	0.18	0.12	4.64
11,175.0	1.75	115.04	11,158.5	-281.7	-374.1	-266.5	0.19	0.04	-6.00
11,200.0	1.77	120.49	11,183.5	-282.0	-373.4	-266.9	0.67	0.08	21.80
11,225.0	1.76	121.45	11,208.5	-282.4	-372.7	-267.3	0.12	-0.04	3.84
11,250.0	1.75	124.39	11,233.5	-282.8	-372.1	-267.8	0.36	-0.04	11.76
11,275.0	1.83	130.57	11,258.5	-283.3	-371.5	-268.3	0.84	0.32	24.72
11,300.0	1.74	133.74	11,283.4	-283.8	-370.9	-268.8	0.53	-0.36	12.68
11,325.0	1.84	138.39	11,308.4	-284.4	-370.3	-269.4	0.71	0.40	18.60
11,350.0	1.81	140.25	11,333.4	-285.0	-369.8	-270.0	0.27	-0.12	7.44
11,375.0	1.88	140.88	11,358.4	-285.6	-369.3	-270.7	0.29	0.28	2.52
11,400.0	1.89	143.15	11,383.4	-286.3	-368.8	-271.3	0.30	0.04	9.08
11,425.0	1.98	147.18	11,408.4	-287.0	-368.3	-272.0	0.65	0.36	16.12
11,450.0	2.11	151.85	11,433.4	-287.7	-367.9	-272.8	0.85	0.52	18.68
11,475.0	2.23	156.08	11,458.3	-288.6	-367.5	-273.7	0.80	0.48	16.92
11,500.0	2.24	159.23	11,483.3	-289.5	-367.1	-274.6	0.49	0.04	12.60
11,525.0	2.29	163.33	11,508.3	-290.4	-366.8	-275.6	0.68	0.20	16.40
11,550.0	2.29	168.70	11,533.3	-291.4	-366.5	-276.5	0.86	0.00	21.48
11,575.0	2.25	173.38	11,558.3	-292.4	-366.4	-277.5	0.76	-0.16	18.72
11,600.0	2.31	177.47	11,583.2	-293.4	-366.3	-278.5	0.69	0.24	16.36
11,625.0	2.26	180.35	11,608.2	-294.4	-366.3	-279.5	0.50	-0.20	11.52
11,650.0	2.27	179.63	11,633.2	-295.3	-366.3	-280.5	0.12	0.04	-2.88
11,675.0	2.37	181.74	11,658.2	-296.4	-366.3	-281.5	0.53	0.40	8.44
11,700.0	2.41	183.55	11,683.2	-297.4	-366.3	-282.5	0.34	0.16	7.24
11,725.0	2.44	185.59	11,708.1	-298.4	-366.4	-283.6	0.37	0.12	8.16
11,750.0	2.40	184.18	11,733.1	-299.5	-366.5	-284.6	0.29	-0.16	-5.64
11,775.0	2.16	181.33	11,758.1	-300.5	-366.6	-285.6	1.06	-0.96	-11.40
11,800.0	1.59	169.08	11,783.1	-301.3	-366.5	-286.4	2.77	-2.28	-49.00
11,825.0	1.43	161.11	11,808.1	-301.9	-366.3	-287.1	1.05	-0.64	-31.88
11,850.0	1.52	153.10	11,833.1	-302.5	-366.1	-287.7	0.90	0.36	-32.04
11,875.0	1.51	151.64	11,858.1	-303.1	-365.8	-288.3	0.16	-0.04	-5.84
11,900.0	1.69	156.42	11,883.0	-303.7	-365.5	-288.9	0.90	0.72	19.12
11,909.0	1.76	157.89	11,892.0	-304.0	-365.4	-289.2	0.92	0.78	16.33
12,045.0	1.40	169.21	12,028.0	-307.6	-364.3	-292.8	0.35	-0.26	8.32
12,137.0	1.14	193.16	12,120.0	-309.6	-364.3	-294.8	0.64	-0.28	26.03
12,199.0	0.30	135.56	12,182.0	-310.3	-364.3	-295.5	1.63	-1.35	-92.90
12,231.0	1.99	40.49	12,214.0	-309.9	-363.9	-295.1	6.37	5.28	-297.09
12,262.0	3.70	43.68	12,244.9	-308.8	-362.8	-294.1	5.54	5.52	10.29
12,294.0	4.19	35.60	12,276.8	-307.1	-361.5	-292.4	2.31	1.53	-25.25
12,326.0	4.93	32.21	12,308.7	-305.0	-360.0	-290.4	2.46	2.31	-10.59
12,357.0	6.77	21.72	12,339.6	-302.1	-358.7	-287.6	6.84	5.94	-33.84
12,388.0	10.53	10.34	12,370.2	-297.7	-357.5	-283.2	13.27	12.13	-36.71
12,420.0	15.74	2.54	12,401.4	-290.4	-356.8	-276.0	17.16	16.28	-24.38
12,451.0	19.61	357.62	12,430.9	-281.0	-356.8	-266.6	13.37	12.48	-15.87

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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)
12,482.0	22.53	356.55	12,459.8	-269.9	-357.4	-255.4	9.50	9.42	-3.45
12,514.0	23.65	358.14	12,489.3	-257.4	-357.9	-242.9	4.01	3.50	4.97
12,545.0	25.90	358.21	12,517.4	-244.4	-358.3	-229.9	7.26	7.26	0.23
12,577.0	29.85	355.55	12,545.7	-229.5	-359.2	-214.9	12.94	12.34	-8.31
12,608.0	31.57	356.88	12,572.4	-213.7	-360.2	-199.1	5.97	5.55	4.29
12,639.0	31.67	355.85	12,598.8	-197.4	-361.3	-182.9	1.77	0.32	-3.32
12,671.0	36.14	356.60	12,625.3	-179.6	-362.4	-165.0	14.03	13.97	2.34
12,702.0	40.41	356.49	12,649.6	-160.5	-363.6	-145.8	13.78	13.77	-0.35
12,733.0	43.74	356.36	12,672.6	-139.7	-364.9	-125.1	10.75	10.74	-0.42
12,765.0	46.56	356.34	12,695.2	-117.1	-366.3	-102.4	8.81	8.81	-0.06
12,796.0	48.05	359.26	12,716.2	-94.3	-367.2	-79.6	8.43	4.81	9.42
12,828.0	50.81	4.22	12,737.0	-70.1	-366.4	-55.4	14.59	8.63	15.50
12,859.0	53.49	5.05	12,756.1	-45.7	-364.4	-31.1	8.90	8.65	2.68
12,891.0	55.87	4.44	12,774.6	-19.6	-362.3	-5.2	7.60	7.44	-1.91
12,922.0	57.62	5.98	12,791.6	6.2	-359.9	20.5	7.01	5.65	4.97
12,954.0	60.75	6.19	12,808.0	33.5	-357.0	47.7	9.80	9.78	0.66
12,985.0	63.64	7.45	12,822.4	60.7	-353.8	74.8	9.99	9.32	4.06
13,017.0	66.14	6.01	12,836.0	89.5	-350.4	103.4	8.81	7.81	-4.50
13,048.0	70.30	4.58	12,847.5	118.1	-347.7	131.9	14.09	13.42	-4.61
13,079.0	72.33	2.59	12,857.4	147.5	-345.9	161.1	8.94	6.55	-6.42
13,111.0	74.33	2.03	12,866.6	178.1	-344.6	191.7	6.47	6.25	-1.75
13,142.0	77.26	2.61	12,874.2	208.1	-343.4	221.6	9.62	9.45	1.87
13,174.0	80.32	3.38	12,880.4	239.4	-341.8	252.9	9.85	9.56	2.41
13,205.0	83.43	2.76	12,884.8	270.1	-340.1	283.4	10.23	10.03	-2.00
13,238.0	87.15	1.40	12,887.5	302.9	-339.0	316.2	12.00	11.27	-4.12
13,269.0	88.83	0.12	12,888.6	333.9	-338.5	347.2	6.81	5.42	-4.13
13,301.0	89.49	0.34	12,889.1	365.9	-338.4	379.1	2.17	2.06	0.69
13,395.0	92.70	2.34	12,887.3	459.9	-336.2	472.9	4.02	3.41	2.13
13,489.0	92.37	3.47	12,883.1	553.6	-331.5	566.4	1.25	-0.35	1.20
13,583.0	90.41	3.33	12,880.8	647.4	-325.9	659.9	2.09	-2.09	-0.15
13,678.0	91.92	4.43	12,878.9	742.2	-319.5	754.4	1.97	1.59	1.16
13,772.0	88.47	0.20	12,878.6	836.1	-315.7	848.0	5.81	-3.67	-4.50
13,866.0	90.70	5.09	12,879.3	930.0	-311.3	941.6	5.72	2.37	5.20
13,960.0	89.28	0.72	12,879.3	1,023.8	-306.6	1,035.2	4.89	-1.51	-4.65
14,054.0	89.72	1.87	12,880.1	1,117.8	-304.4	1,129.0	1.31	0.47	1.22
14,148.0	89.88	2.97	12,880.4	1,211.7	-300.5	1,222.7	1.18	0.17	1.17
14,243.0	90.89	359.73	12,879.8	1,306.7	-298.2	1,317.5	3.57	1.06	-3.41
14,337.0	92.17	359.24	12,877.3	1,400.6	-299.1	1,411.4	1.46	1.36	-0.52
14,431.0	90.42	358.41	12,875.2	1,494.6	-301.0	1,505.4	2.06	-1.86	-0.88
14,526.0	90.67	357.56	12,874.3	1,589.5	-304.3	1,600.4	0.93	0.26	-0.89
14,620.0	90.62	356.29	12,873.2	1,683.4	-309.4	1,694.4	1.35	-0.05	-1.35
14,714.0	90.06	355.24	12,872.6	1,777.1	-316.3	1,788.3	1.27	-0.60	-1.12
14,746.0	89.96	354.81	12,872.6	1,809.0	-319.1	1,820.3	1.38	-0.31	-1.34
14,777.0	92.36	354.29	12,872.0	1,839.8	-322.0	1,851.2	7.92	7.74	-1.68

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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)
14,809.0	94.75	354.20	12,870.0	1,871.6	-325.3	1,883.1	7.47	7.47	-0.28
14,840.0	96.58	354.57	12,867.0	1,902.3	-328.3	1,913.9	6.02	5.90	1.19
14,871.0	96.54	354.59	12,863.4	1,933.0	-331.2	1,944.6	0.14	-0.13	0.06
14,903.0	97.41	355.30	12,859.5	1,964.6	-334.0	1,976.4	3.50	2.72	2.22
14,934.0	97.50	356.17	12,855.5	1,995.3	-336.3	2,007.1	2.80	0.29	2.81
14,966.0	96.74	358.23	12,851.6	2,027.0	-337.8	2,038.8	6.82	-2.38	6.44
14,997.0	94.97	0.52	12,848.4	2,057.8	-338.1	2,069.6	9.31	-5.71	7.39
15,029.0	95.17	1.87	12,845.6	2,089.7	-337.5	2,101.5	4.25	0.63	4.22
15,060.0	95.26	1.89	12,842.7	2,120.5	-336.5	2,132.3	0.30	0.29	0.06
15,091.0	95.33	1.63	12,839.9	2,151.4	-335.5	2,163.0	0.87	0.23	-0.84
15,123.0	95.08	1.61	12,837.0	2,183.2	-334.6	2,194.8	0.78	-0.78	-0.06
15,154.0	94.73	1.41	12,834.3	2,214.1	-333.8	2,225.7	1.30	-1.13	-0.65
15,186.0	94.54	1.45	12,831.7	2,246.0	-333.0	2,257.5	0.61	-0.59	0.13
15,217.0	93.21	1.31	12,829.7	2,276.9	-332.3	2,288.4	4.31	-4.29	-0.45
15,249.0	92.95	1.74	12,827.9	2,308.9	-331.4	2,320.2	1.57	-0.81	1.34
15,280.0	93.05	1.92	12,826.3	2,339.8	-330.4	2,351.1	0.66	0.32	0.58
15,312.0	91.96	2.15	12,824.9	2,371.7	-329.3	2,383.0	3.48	-3.41	0.72
15,343.0	90.33	2.94	12,824.3	2,402.7	-327.9	2,413.9	5.84	-5.26	2.55
15,374.0	89.46	4.12	12,824.3	2,433.6	-326.0	2,444.7	4.73	-2.81	3.81
15,472.0	88.92	4.27	12,825.7	2,531.4	-318.8	2,542.1	0.57	-0.55	0.15
15,566.0	91.54	4.95	12,825.4	2,625.1	-311.3	2,635.4	2.88	2.79	0.72
15,660.0	89.17	3.59	12,824.8	2,718.8	-304.3	2,728.8	2.91	-2.52	-1.45
15,754.0	89.10	1.54	12,826.2	2,812.7	-300.1	2,822.4	2.18	-0.07	-2.18
15,849.0	88.85	0.70	12,827.9	2,907.6	-298.2	2,917.2	0.92	-0.26	-0.88
15,943.0	88.56	359.80	12,830.0	3,001.6	-297.8	3,011.1	1.01	-0.31	-0.96
16,037.0	89.50	358.43	12,831.6	3,095.6	-299.3	3,105.1	1.77	1.00	-1.46
16,132.0	90.00	357.99	12,832.0	3,190.5	-302.2	3,200.1	0.70	0.53	-0.46
16,226.0	89.61	357.07	12,832.3	3,284.5	-306.3	3,294.1	1.06	-0.41	-0.98
16,320.0	88.23	357.23	12,834.1	3,378.3	-311.0	3,388.0	1.48	-1.47	0.17
16,414.0	91.66	356.44	12,834.2	3,472.2	-316.1	3,482.0	3.74	3.65	-0.84
16,509.0	93.38	351.85	12,830.0	3,566.5	-325.8	3,576.7	5.16	1.81	-4.83
16,603.0	95.03	353.84	12,823.1	3,659.6	-337.5	3,670.1	2.75	1.76	2.12
16,697.0	92.60	354.24	12,816.9	3,752.8	-347.2	3,763.7	2.62	-2.59	0.43
16,791.0	92.55	359.88	12,812.7	3,846.6	-352.1	3,857.6	5.99	-0.05	6.00
16,885.0	91.01	3.10	12,809.7	3,940.5	-349.6	3,951.3	3.80	-1.64	3.43
16,979.0	93.63	6.30	12,805.9	4,034.1	-341.9	4,044.5	4.40	2.79	3.40
17,074.0	92.31	7.17	12,801.0	4,128.3	-330.8	4,138.2	1.66	-1.39	0.92
17,168.0	91.48	6.10	12,797.9	4,221.6	-319.9	4,231.0	1.44	-0.88	-1.14
17,262.0	93.93	6.77	12,793.5	4,314.9	-309.4	4,323.8	2.70	2.61	0.71
17,356.0	94.92	6.71	12,786.2	4,408.0	-298.4	4,416.4	1.06	1.05	-0.06
17,451.0	94.11	6.16	12,778.7	4,502.1	-287.8	4,510.0	1.03	-0.85	-0.58
17,545.0	90.12	3.01	12,775.3	4,595.7	-280.3	4,603.2	5.41	-4.24	-3.35
17,639.0	88.86	359.87	12,776.1	4,689.6	-277.9	4,697.0	3.60	-1.34	-3.34

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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)
17,734.0	89.96	359.88	12,777.1	4,784.6	-278.1	4,791.9	1.16	1.16	0.01
17,828.0	86.31	358.12	12,780.1	4,878.5	-279.8	4,885.8	4.31	-3.88	-1.87
17,923.0	88.74	355.95	12,784.2	4,973.3	-284.7	4,980.7	3.43	2.56	-2.28
18,017.0	90.03	355.91	12,785.2	5,067.1	-291.4	5,074.7	1.37	1.37	-0.04
18,111.0	91.16	355.71	12,784.3	5,160.8	-298.2	5,168.6	1.22	1.20	-0.21
18,205.0	91.30	356.58	12,782.3	5,254.6	-304.5	5,262.5	0.94	0.15	0.93
18,299.0	90.31	358.14	12,780.9	5,348.5	-308.9	5,356.5	1.97	-1.05	1.66
18,393.0	91.00	358.42	12,779.9	5,442.4	-311.7	5,450.5	0.79	0.73	0.30
18,488.0	94.13	358.48	12,775.6	5,537.3	-314.3	5,545.4	3.30	3.29	0.06
18,582.0	92.81	358.70	12,769.9	5,631.1	-316.6	5,639.2	1.42	-1.40	0.23
18,675.0	90.58	359.45	12,767.2	5,724.0	-318.1	5,732.1	2.53	-2.40	0.81
18,769.0	90.63	359.00	12,766.2	5,818.0	-319.3	5,826.1	0.48	0.05	-0.48
18,864.0	90.87	358.79	12,764.9	5,913.0	-321.2	5,921.1	0.34	0.25	-0.22
18,957.0	92.48	359.67	12,762.2	6,005.9	-322.4	6,014.0	1.97	1.73	0.95
19,052.0	90.66	359.23	12,759.6	6,100.9	-323.3	6,108.9	1.97	-1.92	-0.46
19,146.0	89.64	359.53	12,759.4	6,194.9	-324.4	6,202.9	1.13	-1.09	0.32
19,240.0	89.64	359.21	12,760.0	6,288.9	-325.4	6,296.8	0.34	0.00	-0.34
19,334.0	89.96	358.92	12,760.3	6,382.8	-326.9	6,390.8	0.46	0.34	-0.31
19,429.0	90.15	359.00	12,760.2	6,477.8	-328.6	6,485.8	0.22	0.20	0.08
19,523.0	90.84	359.65	12,759.4	6,571.8	-329.8	6,579.7	1.01	0.73	0.69
19,617.0	91.67	0.11	12,757.3	6,665.8	-330.0	6,673.7	1.01	0.88	0.49
19,711.0	91.95	0.47	12,754.3	6,759.7	-329.5	6,767.5	0.49	0.30	0.38
19,805.0	91.46	359.92	12,751.6	6,853.7	-329.2	6,861.4	0.78	-0.52	-0.59
19,900.0	90.56	0.82	12,749.9	6,948.7	-328.5	6,956.3	1.34	-0.95	0.95
19,994.0	89.78	0.34	12,749.6	7,042.7	-327.6	7,050.1	0.97	-0.83	-0.51
20,088.0	89.47	359.93	12,750.2	7,136.7	-327.4	7,144.1	0.55	-0.33	-0.44
20,182.0	89.73	359.89	12,750.9	7,230.7	-327.5	7,238.0	0.28	0.28	-0.04
20,276.0	89.86	359.96	12,751.2	7,324.7	-327.6	7,331.9	0.16	0.14	0.07
20,370.0	90.00	0.25	12,751.3	7,418.7	-327.5	7,425.8	0.34	0.15	0.31
20,464.0	90.75	359.89	12,750.7	7,512.7	-327.4	7,519.7	0.89	0.80	-0.38
20,559.0	90.88	359.42	12,749.4	7,607.7	-327.9	7,614.7	0.51	0.14	-0.49
20,653.0	91.16	359.80	12,747.7	7,701.6	-328.6	7,708.6	0.50	0.30	0.40
20,747.0	90.33	358.81	12,746.5	7,795.6	-329.7	7,802.6	1.37	-0.88	-1.05
20,841.0	91.07	359.21	12,745.3	7,889.6	-331.3	7,896.5	0.89	0.79	0.43
20,936.0	90.23	359.09	12,744.2	7,984.6	-332.7	7,991.5	0.89	-0.88	-0.13
21,030.0	88.97	358.43	12,744.9	8,078.6	-334.8	8,085.5	1.51	-1.34	-0.70
21,128.0	89.92	358.74	12,745.8	8,176.5	-337.2	8,183.5	1.02	0.97	0.32
21,222.0	93.30	359.27	12,743.2	8,270.5	-338.8	8,277.4	3.64	3.60	0.56
21,316.0	95.31	359.24	12,736.1	8,364.2	-340.0	8,371.1	2.14	2.14	-0.03
21,411.0	94.84	358.57	12,727.7	8,458.8	-341.9	8,465.7	0.86	-0.49	-0.71
21,505.0	95.58	358.56	12,719.2	8,552.4	-344.2	8,559.3	0.79	0.79	-0.01
21,621.0	95.03	357.47	12,708.5	8,667.8	-348.2	8,674.8	1.05	-0.47	-0.94
21,693.0	94.32	357.00	12,702.6	8,739.5	-351.7	8,746.6	1.18	-0.99	-0.65

Company:	NORTHERN DELAWARE BASIN	Local Co-ordinate Reference:	Well BASEBALL CAP FED COM #26H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3406+26 @ 3432.0usft (MCVAY 8)
Well:	BASEBALL CAP FED COM #26H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	ACTUAL WELLPATH	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)
21,787.0	91.66	357.97	12,697.7	8,833.3	-355.8	8,840.4	3.01	-2.83	1.03
21,882.0	89.84	0.15	12,696.5	8,928.2	-357.3	8,935.4	2.99	-1.92	2.29
21,976.0	87.88	1.50	12,698.3	9,022.2	-356.0	9,029.2	2.53	-2.09	1.44
22,080.0	86.68	1.78	12,703.3	9,126.0	-353.0	9,132.8	1.18	-1.15	0.27
22,174.0	89.80	1.78	12,706.2	9,219.9	-350.1	9,226.5	3.32	3.32	0.00
22,269.0	89.27	0.99	12,706.9	9,314.9	-347.8	9,321.4	1.00	-0.56	-0.83
22,363.0	89.27	0.02	12,708.1	9,408.9	-347.0	9,415.2	1.03	0.00	-1.03
22,457.0	89.23	358.62	12,709.4	9,502.9	-348.1	9,509.2	1.49	-0.04	-1.49
22,551.0	90.51	358.79	12,709.6	9,596.8	-350.2	9,603.2	1.37	1.36	0.18
22,646.0	89.58	358.44	12,709.5	9,691.8	-352.5	9,698.2	1.05	-0.98	-0.37
22,740.0	88.92	358.00	12,710.7	9,785.8	-355.4	9,792.1	0.84	-0.70	-0.47
22,834.0	89.41	357.39	12,712.1	9,879.7	-359.2	9,886.1	0.83	0.52	-0.65
22,929.0	90.37	357.91	12,712.3	9,974.6	-363.1	9,981.1	1.15	1.01	0.55
22,989.0	90.33	357.65	12,711.9	10,034.5	-365.4	10,041.1	0.44	-0.07	-0.43
23,024.0	90.33	357.65	12,711.7	10,069.5	-366.9	10,076.1	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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COG

SURVEY REPORT

BASEBALL CAP FEDERAL COM #26H

SCANDRILL QUEST

12/29/2017

This survey is correct to the best of my knowledge and is supported by actual field data.

Kolton Cotton

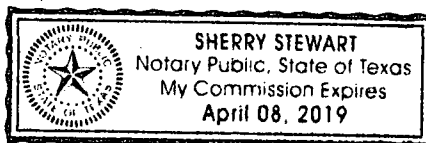
Notarized this date 9 of February, 2018.

Sherry Stewart

Notary Signature

County of Midland

State of Texas



Scientific Drilling

The Ultimate Partner In Wellbore Placement

CUSTOMER
PROJECT
FIELD

COG
Baseball Cap Federal Com #26H
Baseball Cap Federal Com #26H

SDI JOB NO.
SDI DISTRICT
SDI KIT/UNIT

OP.006717
Midland

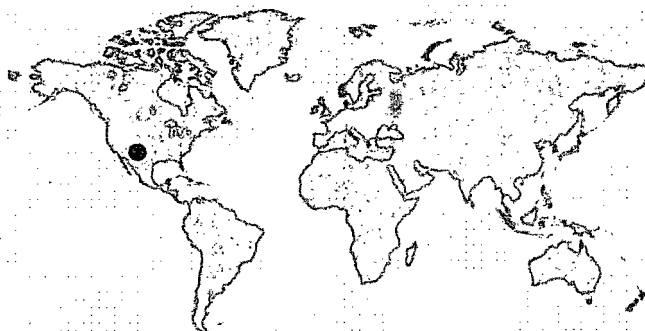
SITE INFORMATION

Site Name Baseball Cap Federal Com #26H
Lat/Long 32.0935611° N, 103.5522544° W
Northing 431,084.2 ft
Easting 780,910.5 ft

Section
Township
Range

MAP INFORMATION

North Reference Grid North
Grid Correction -0.48 deg
System US State Plane 1927
Datum North American Datum 1927 (Clarke 1866)
Map Zone New Mexico East: 3001

**WELL INFORMATION**

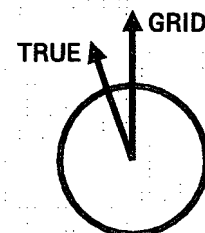
Lat/Long 32.1819083° N, 103.4253744° W
Northing 431,084.2 ft
Easting 780,910.5 ft
UWI 30-025-44153

DEPTH AND ELEVATION REFERENCE

Ground Level 3406 ft above Mean Sea Level
Reference Datum KB
Reference Height 30 ft above G.L.
Reference Elevation 3436 ft

VERTICAL SECTION REFERENCE

+N/-S 0 ft
+E/-W 0 ft
Proposal Direction 359.59°
Calculation Method Minimum Curvature

**LOCAL GRAVITY REFERENCE INFORMATION**

Local Gravity 998.496 mG [computed]
True to Grid subtract 0.48°

WELL NOTES

Kepeer Gyro Survey ran in 4 1/2" Drill Pipe to 11,909'

OPERATORS

C. Booher

SDI Operator Name (Printed)

SIGNATURE

DATE

MD	INC	AZIM	TVD	VS	N/S	E/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	/100ft	ft	deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	0.00	0.00
100.00	0.31	22.57	100.00	0.25	0.25	0.10	0.31	0.27	22.57
125.00	0.20	6.29	125.00	0.35	0.35	0.13	0.50	0.38	20.69
150.00	0.30	18.64	150.00	0.46	0.46	0.16	0.46	0.49	19.12
175.00	0.33	21.94	175.00	0.59	0.59	0.21	0.13	0.62	19.39
200.00	0.33	25.95	200.00	0.72	0.72	0.27	0.09	0.77	20.25
225.00	0.37	27.47	225.00	0.86	0.86	0.33	0.14	0.92	21.33
250.00	0.17	1.54	250.00	0.96	0.97	0.37	0.92	1.04	21.12
275.00	0.42	25.53	275.00	1.08	1.09	0.41	1.10	1.16	20.86
300.00	0.39	24.93	300.00	1.24	1.25	0.49	0.12	1.34	21.44
325.00	0.43	20.85	325.00	1.41	1.41	0.56	0.19	1.52	21.60
350.00	0.38	26.70	350.00	1.57	1.57	0.63	0.27	1.69	21.81
375.00	0.41	25.70	374.99	1.72	1.72	0.70	0.12	1.86	22.21
400.00	0.36	21.75	399.99	1.87	1.88	0.77	0.20	2.03	22.34
425.00	0.36	20.23	424.99	2.02	2.03	0.83	0.04	2.19	22.25
450.00	0.42	26.59	449.99	2.18	2.18	0.90	0.29	2.36	22.35
475.00	0.35	21.89	474.99	2.33	2.34	0.97	0.32	2.53	22.49
500.00	0.31	16.52	499.99	2.47	2.47	1.02	0.21	2.67	22.32
525.00	0.25	11.78	524.99	2.58	2.59	1.05	0.26	2.79	21.98
550.00	0.19	11.37	549.99	2.68	2.68	1.06	0.22	2.89	21.64
575.00	0.13	312.82	574.99	2.74	2.74	1.05	0.67	2.94	20.96
600.00	0.43	237.72	599.99	2.71	2.71	0.95	1.65	2.88	19.32
625.00	0.81	228.58	624.99	2.54	2.55	0.74	1.60	2.65	16.20
650.00	1.06	227.48	649.99	2.27	2.27	0.44	1.00	2.31	10.86
675.00	1.22	226.38	674.98	1.93	1.93	0.07	0.62	1.93	2.16
700.00	1.23	225.55	699.98	1.56	1.56	-0.31	0.09	1.59	348.73
725.00	1.29	225.40	724.97	1.18	1.18	-0.70	0.23	1.37	329.11
750.00	1.33	226.12	749.96	0.78	0.78	-1.11	0.17	1.36	304.91
775.00	1.40	226.02	774.96	0.37	0.36	-1.54	0.29	1.59	283.24
800.00	1.42	226.44	799.95	-0.05	-0.06	-1.99	0.09	1.99	268.16
825.00	1.49	226.95	824.94	-0.48	-0.50	-2.45	0.27	2.50	258.47
850.00	1.52	227.04	849.93	-0.93	-0.95	-2.93	0.13	3.08	252.08

MD ft	INC deg	AZIM deg	TVD ft	VS ft	N/S ft	E/W ft	DLS %/100ft	CLOSURE DIST ft	CLOSURE DIR deg
875.00	1.58	226.04	874.92	-1.39	-1.41	-3.42	0.27	3.70	247.56
900.00	1.68	226.85	899.91	-1.88	-1.91	-3.94	0.41	4.38	244.19
925.00	1.70	226.77	924.90	-2.38	-2.41	-4.48	0.05	5.08	241.71
950.00	1.75	227.12	949.89	-2.89	-2.92	-5.03	0.22	5.81	239.82
975.00	1.73	227.46	974.88	-3.40	-3.44	-5.58	0.08	6.56	238.38
1000.00	1.78	227.57	999.87	-3.91	-3.96	-6.15	0.19	7.31	237.25
1025.00	1.84	227.07	1024.85	-4.44	-4.49	-6.73	0.26	8.09	236.29
1050.00	1.89	226.05	1049.84	-5.00	-5.05	-7.32	0.24	8.89	235.40
1075.00	1.94	225.19	1074.83	-5.58	-5.64	-7.92	0.22	9.72	234.56
1100.00	1.97	223.12	1099.81	-6.19	-6.25	-8.51	0.31	10.56	233.73
1125.00	2.02	221.63	1124.80	-6.82	-6.89	-9.10	0.29	11.41	232.87
1150.00	2.05	221.61	1149.78	-7.48	-7.55	-9.69	0.11	12.28	232.06
1175.00	2.09	221.99	1174.77	-8.15	-8.23	-10.29	0.19	13.17	231.36
1200.00	2.07	221.68	1199.75	-8.82	-8.90	-10.89	0.11	14.07	230.75
1225.00	2.10	221.37	1224.73	-9.50	-9.58	-11.50	0.13	14.97	230.19
1250.00	2.15	220.98	1249.72	-10.19	-10.28	-12.11	0.21	15.88	229.67
1275.00	2.17	220.65	1274.70	-10.90	-10.99	-12.72	0.11	16.81	229.17
1300.00	2.26	219.30	1299.68	-11.64	-11.73	-13.34	0.41	17.77	228.67
1325.00	2.33	220.01	1324.66	-12.40	-12.50	-13.98	0.29	18.76	228.19
1350.00	2.33	220.54	1349.64	-13.18	-13.28	-14.64	0.09	19.77	227.79
1375.00	2.37	220.29	1374.62	-13.95	-14.06	-15.31	0.17	20.79	227.42
1400.00	2.33	219.67	1399.60	-14.73	-14.85	-15.97	0.19	21.80	227.08
1425.00	2.36	220.40	1424.57	-15.51	-15.63	-16.62	0.16	22.82	226.76
1450.00	2.39	221.54	1449.55	-16.29	-16.41	-17.30	0.23	23.85	226.51
1475.00	2.38	220.72	1474.53	-17.07	-17.20	-17.99	0.14	24.89	226.28
1500.00	2.46	221.42	1499.51	-17.86	-18.00	-18.68	0.34	25.94	226.07
1525.00	2.54	220.83	1524.49	-18.68	-18.82	-19.40	0.32	27.03	225.87
1550.00	2.60	221.11	1549.46	-19.52	-19.66	-20.13	0.24	28.14	225.68
1575.00	2.56	222.33	1574.43	-20.35	-20.50	-20.88	0.28	29.27	225.53
1600.00	2.69	222.89	1599.41	-21.19	-21.35	-21.66	0.56	30.41	225.42
1625.00	2.74	222.63	1624.38	-22.05	-22.22	-22.46	0.19	31.59	225.32
1650.00	2.72	222.53	1649.35	-22.92	-23.09	-23.27	0.06	32.78	225.22

MD	INC	AZIM	TVD	VS	HN/S	HE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	1/100ft	ft	deg
1675.00	2.71	222.58	1674.32	-23.79	-23.97	-24.07	0.04	33.97	225.12
1700.00	2.71	222.99	1699.30	-24.66	-24.84	-24.87	0.04	35.15	225.04
1725.00	2.69	222.94	1724.27	-25.52	-25.70	-25.67	0.13	36.32	224.96
1750.00	2.76	223.36	1749.24	-26.38	-26.57	-26.48	0.30	37.51	224.90
1775.00	2.76	222.49	1774.21	-27.26	-27.45	-27.30	0.17	38.72	224.84
1800.00	2.79	222.99	1799.18	-28.14	-28.34	-28.12	0.17	39.93	224.78
1825.00	2.73	222.42	1824.15	-29.02	-29.23	-28.94	0.26	41.13	224.72
1850.00	2.68	222.66	1849.12	-29.88	-30.10	-29.74	0.23	42.31	224.66
1875.00	2.63	222.74	1874.10	-30.73	-30.95	-30.52	0.18	43.47	224.60
1900.00	2.74	222.64	1899.07	-31.58	-31.81	-31.32	0.43	44.64	224.55
1925.00	2.62	222.05	1924.04	-32.44	-32.67	-32.10	0.48	45.81	224.50
1950.00	2.66	221.92	1949.02	-33.29	-33.53	-32.88	0.16	46.96	224.44
1975.00	2.83	220.65	1973.99	-34.19	-34.43	-33.67	0.70	48.15	224.36
2000.00	2.83	222.43	1998.96	-35.11	-35.35	-34.48	0.35	49.39	224.29
2025.00	2.80	222.29	2023.93	-36.01	-36.26	-35.31	0.12	50.61	224.24
2050.00	2.83	222.74	2048.90	-36.90	-37.16	-36.14	0.16	51.84	224.20
2075.00	2.81	223.07	2073.87	-37.80	-38.07	-36.98	0.11	53.07	224.17
2100.00	2.87	224.29	2098.84	-38.69	-38.96	-37.83	0.35	54.31	224.16
2125.00	2.82	223.41	2123.81	-39.58	-39.86	-38.69	0.26	55.55	224.15
2150.00	2.83	224.05	2148.77	-40.46	-40.75	-39.55	0.13	56.78	224.14
2175.00	2.79	223.97	2173.74	-41.34	-41.63	-40.40	0.17	58.01	224.14
2200.00	2.87	223.84	2198.71	-42.22	-42.52	-41.25	0.32	59.24	224.13
2225.00	2.83	223.35	2223.68	-43.12	-43.42	-42.11	0.18	60.48	224.12
2250.00	2.83	223.25	2248.65	-44.01	-44.32	-42.96	0.02	61.72	224.11
2275.00	2.85	223.40	2273.62	-44.90	-45.22	-43.81	0.07	62.96	224.09
2300.00	2.88	223.97	2298.59	-45.80	-46.12	-44.67	0.18	64.21	224.08
2325.00	2.87	223.42	2323.56	-46.70	-47.03	-45.54	0.12	65.46	224.08
2350.00	2.87	223.69	2348.53	-47.60	-47.94	-46.40	0.06	66.72	224.07
2375.00	2.89	223.54	2373.50	-48.51	-48.85	-47.27	0.10	67.97	224.06
2400.00	3.03	223.56	2398.46	-49.44	-49.78	-48.16	0.55	69.26	224.05
2425.00	3.12	224.42	2423.43	-50.40	-50.75	-49.09	0.41	70.61	224.05
2450.00	3.44	226.16	2448.39	-51.40	-51.76	-50.11	1.32	72.04	224.07

MD	INC	AZIM	TVD	VS	IN/S	BE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
2475.00	4.07	228.49	2473.33	-52.49	-52.86	-51.31	2.59	73.67	224.15
2500.00	3.98	226.60	2498.27	-53.67	-54.05	-52.61	0.64	75.42	224.23
2525.00	4.08	226.29	2523.21	-54.87	-55.26	-53.88	0.39	77.18	224.28
2550.00	4.04	226.35	2548.15	-56.08	-56.48	-55.16	0.14	78.95	224.32
2575.00	4.13	225.71	2573.08	-57.31	-57.72	-56.44	0.39	80.73	224.36
2600.00	4.13	226.20	2598.02	-58.55	-58.97	-57.74	0.14	82.53	224.39
2625.00	4.13	225.61	2622.95	-59.80	-60.22	-59.03	0.17	84.33	224.43
2650.00	4.17	225.33	2647.89	-61.06	-61.49	-60.32	0.20	86.14	224.45
2675.00	4.15	224.66	2672.82	-62.33	-62.77	-61.60	0.21	87.95	224.46
2700.00	4.08	223.94	2697.76	-63.61	-64.06	-62.86	0.35	89.75	224.46
2725.00	4.14	223.87	2722.69	-64.89	-65.35	-64.10	0.23	91.54	224.45
2750.00	4.11	223.02	2747.63	-66.19	-66.66	-65.34	0.27	93.34	224.43
2775.00	4.08	222.83	2772.56	-67.49	-67.96	-66.55	0.12	95.12	224.40
2800.00	4.11	222.50	2797.50	-68.79	-69.28	-67.76	0.13	96.91	224.37
2825.00	4.11	221.88	2822.44	-70.11	-70.61	-68.97	0.18	98.70	224.33
2850.00	4.07	220.85	2847.37	-71.44	-71.94	-70.14	0.35	100.48	224.27
2875.00	4.11	221.84	2872.31	-72.77	-73.28	-71.32	0.33	102.26	224.22
2900.00	4.10	221.31	2897.24	-74.10	-74.62	-72.51	0.16	104.05	224.18
2925.00	4.07	221.20	2922.18	-75.43	-75.96	-73.68	0.11	105.82	224.13
2950.00	4.02	219.35	2947.12	-76.76	-77.30	-74.82	0.56	107.58	224.07
2975.00	4.00	219.11	2972.06	-78.11	-78.66	-75.93	0.10	109.32	223.99
3000.00	3.95	219.49	2997.00	-79.44	-80.00	-77.03	0.22	111.05	223.92
3025.00	3.93	218.47	3021.94	-80.77	-81.33	-78.11	0.30	112.77	223.84
3050.00	3.88	216.98	3046.88	-82.11	-82.68	-79.15	0.46	114.46	223.75
3075.00	3.92	217.31	3071.82	-83.46	-84.04	-80.18	0.18	116.15	223.65
3100.00	3.92	215.42	3096.76	-84.83	-85.41	-81.19	0.52	117.84	223.55
3125.00	3.87	215.76	3121.71	-86.20	-86.79	-82.18	0.21	119.52	223.44
3150.00	3.97	216.77	3146.65	-87.57	-88.17	-83.19	0.48	121.22	223.33
3175.00	3.91	216.57	3171.59	-88.94	-89.55	-84.21	0.23	122.93	223.24
3200.00	3.93	216.46	3196.53	-90.31	-90.92	-85.23	0.06	124.62	223.15
3225.00	3.98	215.87	3221.47	-91.69	-92.31	-86.25	0.26	126.33	223.05
3250.00	3.98	215.81	3246.41	-93.09	-93.72	-87.26	0.02	128.05	222.96

MD	INC	AZIM	TVD	VS	HN/S	TE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%100ft	ft	deg
3275.00	3.95	216.25	3271.35	-94.48	-95.11	-88.28	0.17	129.77	222.87
3300.00	4.01	215.96	3296.29	-95.87	-96.51	-89.30	0.29	131.49	222.78
3325.00	3.99	216.81	3321.23	-97.27	-97.92	-90.34	0.25	133.22	222.69
3350.00	3.99	216.17	3346.17	-98.66	-99.32	-91.37	0.18	134.95	222.61
3375.00	4.05	215.60	3371.11	-100.07	-100.74	-92.40	0.29	136.69	222.53
3400.00	4.00	215.32	3396.05	-101.50	-102.17	-93.41	0.20	138.44	222.44
3425.00	3.95	214.74	3420.99	-102.91	-103.59	-94.41	0.27	140.15	222.35
3450.00	3.99	214.68	3445.93	-104.32	-105.01	-95.39	0.18	141.87	222.25
3475.00	4.05	214.57	3470.86	-105.76	-106.45	-96.39	0.25	143.61	222.16
3500.00	4.03	214.87	3495.80	-107.20	-107.90	-97.39	0.11	145.35	222.07
3525.00	4.04	214.58	3520.74	-108.64	-109.35	-98.40	0.08	147.10	221.98
3550.00	4.04	215.08	3545.68	-110.08	-110.79	-99.40	0.14	148.85	221.90
3575.00	3.97	214.81	3570.62	-111.50	-112.22	-100.40	0.27	150.58	221.82
3600.00	4.02	217.01	3595.56	-112.90	-113.63	-101.42	0.64	152.31	221.75
3625.00	3.93	219.97	3620.50	-114.25	-114.99	-102.50	0.89	154.04	221.71
3650.00	3.97	220.07	3645.44	-115.56	-116.31	-103.61	0.14	155.76	221.70
3675.00	3.90	221.50	3670.38	-116.85	-117.61	-104.73	0.48	157.48	221.69
3700.00	3.86	221.39	3695.32	-118.11	-118.87	-105.85	0.15	159.17	221.68
3725.00	3.89	221.40	3720.26	-119.37	-120.14	-106.97	0.11	160.86	221.68
3750.00	4.08	222.27	3745.20	-120.66	-121.43	-108.12	0.80	162.60	221.68
3775.00	4.29	223.89	3770.14	-121.98	-122.77	-109.37	0.96	164.42	221.70
3800.00	3.88	221.40	3795.07	-123.28	-124.07	-110.58	1.76	166.20	221.71
3825.00	3.93	221.99	3820.01	-124.54	-125.35	-111.71	0.25	167.90	221.71
3850.00	4.07	224.70	3844.95	-125.80	-126.61	-112.91	0.94	169.65	221.72
3875.00	4.23	227.89	3869.89	-127.04	-127.86	-114.22	1.11	171.45	221.77
3900.00	4.35	231.04	3894.82	-128.25	-129.08	-115.64	1.06	173.30	221.86
3925.00	4.40	234.31	3919.75	-129.39	-130.23	-117.15	1.02	175.17	221.97
3950.00	4.46	233.87	3944.67	-130.51	-131.36	-118.71	0.29	177.06	222.10
3975.00	4.50	233.59	3969.59	-131.65	-132.52	-120.29	0.18	178.97	222.23
4000.00	4.50	233.95	3994.52	-132.80	-133.68	-121.87	0.11	180.89	222.35
4025.00	4.46	234.61	4019.44	-133.93	-134.82	-123.46	0.25	182.80	222.48
4050.00	4.46	234.95	4044.36	-135.04	-135.94	-125.05	0.11	184.71	222.61

MD	INC	AZIM	TWD	VS	IN/S	FE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	ft/100ft	ft	deg
4075.00	4.48	234.15	4069.29	-136.16	-137.07	-126.63	0.27	186.61	222.73
4100.00	4.51	234.03	4094.21	-137.30	-138.22	-128.22	0.12	188.54	222.85
4125.00	4.54	234.39	4119.13	-138.44	-139.37	-129.82	0.16	190.47	222.97
4150.00	4.49	234.38	4144.06	-139.58	-140.52	-131.42	0.17	192.40	223.08
4175.00	4.40	234.46	4168.98	-140.69	-141.65	-133.00	0.38	194.30	223.20
4200.00	4.45	234.52	4193.91	-141.80	-142.77	-134.57	0.22	196.19	223.31
4225.00	4.41	233.12	4218.83	-142.93	-143.91	-136.13	0.47	198.09	223.41
4250.00	4.50	233.09	4243.76	-144.09	-145.07	-137.68	0.35	200.01	223.50
4275.00	4.49	233.22	4268.68	-145.25	-146.25	-139.25	0.04	201.94	223.60
4300.00	4.46	233.29	4293.60	-146.41	-147.42	-140.81	0.11	203.86	223.69
4325.00	4.47	232.31	4318.53	-147.57	-148.59	-142.36	0.31	205.78	223.77
4350.00	4.39	232.00	4343.45	-148.74	-149.78	-143.89	0.33	207.69	223.85
4375.00	4.39	231.86	4368.38	-149.91	-150.96	-145.39	0.05	209.59	223.92
4400.00	4.36	230.93	4393.31	-151.09	-152.15	-146.88	0.30	211.48	223.99
4425.00	4.39	230.16	4418.23	-152.30	-153.36	-148.36	0.26	213.38	224.05
4450.00	4.39	227.69	4443.16	-153.54	-154.62	-149.80	0.76	215.28	224.09
4475.00	4.45	226.14	4468.09	-154.85	-155.94	-151.21	0.53	217.21	224.12
4500.00	4.34	223.84	4493.01	-156.19	-157.29	-152.56	0.82	219.12	224.13
4525.00	4.25	220.39	4517.94	-157.57	-158.68	-153.82	1.09	220.99	224.11
4550.00	4.24	217.83	4542.87	-159.00	-160.11	-154.98	0.76	222.84	224.07
4575.00	4.31	215.33	4567.80	-160.49	-161.61	-156.09	0.79	224.68	224.01
4600.00	4.27	212.10	4592.73	-162.03	-163.16	-157.13	0.98	226.52	223.92
4625.00	4.19	209.38	4617.67	-163.61	-164.75	-158.07	0.87	228.32	223.82
4650.00	4.15	204.88	4642.60	-165.22	-166.36	-158.90	1.32	230.06	223.69
4675.00	4.19	202.12	4667.53	-166.88	-168.03	-159.63	0.81	231.77	223.53
4700.00	4.29	200.13	4692.47	-168.60	-169.75	-160.29	0.72	233.47	223.36
4725.00	4.32	196.82	4717.39	-170.38	-171.53	-160.89	1.00	235.18	223.17
4750.00	4.33	194.47	4742.32	-172.19	-173.35	-161.39	0.71	236.85	222.96
4775.00	4.30	193.80	4767.25	-174.01	-175.17	-161.85	0.23	238.50	222.74
4800.00	4.35	193.31	4792.18	-175.84	-177.00	-162.30	0.24	240.14	222.52
4825.00	4.38	192.95	4817.11	-177.68	-178.85	-162.73	0.17	241.80	222.30
4850.00	4.38	192.74	4842.04	-179.54	-180.71	-163.15	0.06	243.47	222.08

MD	INC	AZIM	TVD	VS	N/S	E/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
4875.00	4.43	194.03	4866.96	-181.40	-182.58	-163.60	0.44	245.15	221.86
4900.00	4.42	194.55	4891.89	-183.27	-184.45	-164.07	0.16	246.86	221.65
4925.00	4.38	196.58	4916.81	-185.11	-186.29	-164.59	0.64	248.58	221.46
4950.00	4.41	199.60	4941.74	-186.93	-188.11	-165.18	0.94	250.34	221.29
4975.00	4.38	201.49	4966.67	-188.72	-189.91	-165.85	0.59	252.14	221.13
5000.00	4.32	201.89	4991.60	-190.48	-191.67	-166.55	0.27	253.93	220.99
5025.00	4.22	203.60	5016.53	-192.19	-193.39	-167.27	0.65	255.70	220.86
5050.00	4.19	204.48	5041.46	-193.86	-195.06	-168.02	0.29	257.45	220.74
5075.00	4.12	206.76	5066.39	-195.48	-196.70	-168.80	0.71	259.20	220.64
5100.00	4.01	211.05	5091.33	-197.03	-198.25	-169.66	1.30	260.93	220.56
5125.00	4.00	218.37	5116.27	-198.45	-199.68	-170.65	2.04	262.67	220.52
5150.00	3.95	222.37	5141.21	-199.77	-201.00	-171.77	1.12	264.40	220.52
5175.00	3.99	225.53	5166.15	-201.00	-202.25	-172.97	0.89	266.13	220.54
5200.00	4.00	229.52	5191.09	-202.17	-203.42	-174.26	1.11	267.85	220.58
5225.00	4.05	233.78	5216.03	-203.25	-204.51	-175.63	1.21	269.58	220.66
5250.00	4.08	234.66	5240.96	-204.27	-205.55	-177.07	0.27	271.30	220.74
5275.00	4.03	234.76	5265.90	-205.28	-206.57	-178.51	0.21	273.02	220.83
5300.00	3.95	236.06	5290.84	-206.26	-207.56	-179.95	0.48	274.70	220.92
5325.00	3.84	235.96	5315.78	-207.20	-208.50	-181.35	0.44	276.34	221.02
5350.00	3.83	236.52	5340.73	-208.12	-209.43	-182.74	0.16	277.95	221.11
5375.00	3.83	237.24	5365.67	-209.02	-210.35	-184.14	0.19	279.56	221.20
5400.00	3.85	236.64	5390.62	-209.93	-211.26	-185.55	0.20	281.17	221.29
5425.00	3.91	236.68	5415.56	-210.85	-212.19	-186.96	0.22	282.80	221.38
5450.00	3.95	238.42	5440.50	-211.75	-213.11	-188.40	0.50	284.45	221.48
5475.00	4.09	242.67	5465.44	-212.60	-213.97	-189.93	1.32	286.10	221.59
5500.00	4.34	246.22	5490.37	-213.38	-214.76	-191.59	1.43	287.80	221.74
5525.00	4.38	247.51	5515.30	-214.12	-215.51	-193.33	0.43	289.52	221.90
5550.00	4.39	247.51	5540.22	-214.83	-216.24	-195.10	0.03	291.24	222.06
5575.00	4.52	247.01	5565.15	-215.57	-216.99	-196.89	0.57	293.00	222.22
5600.00	4.43	247.53	5590.07	-216.31	-217.74	-198.69	0.42	294.77	222.38
5625.00	4.41	247.04	5615.00	-217.04	-218.48	-200.47	0.18	296.52	222.54
5650.00	4.38	248.03	5639.93	-217.76	-219.22	-202.24	0.32	298.25	222.69

MD	INC	AZIM	TVD	VS	IN/S	E/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
5675.00	4.34	246.76	5664.85	-218.48	-219.95	-203.99	0.42	299.98	222.84
5700.00	4.42	246.99	5689.78	-219.22	-220.70	-205.75	0.36	301.73	222.99
5725.00	4.38	246.72	5714.71	-219.96	-221.45	-207.51	0.19	303.48	223.14
5750.00	4.32	247.81	5739.63	-220.68	-222.18	-209.26	0.40	305.21	223.28
5775.00	4.35	247.02	5764.56	-221.39	-222.91	-211.00	0.26	306.94	223.43
5800.00	4.47	247.50	5789.49	-222.12	-223.65	-212.78	0.49	308.70	223.57
5825.00	4.42	247.36	5814.41	-222.85	-224.40	-214.56	0.21	310.47	223.72
5850.00	4.34	247.31	5839.34	-223.58	-225.13	-216.33	0.30	312.22	223.86
5875.00	4.36	247.86	5864.27	-224.29	-225.85	-218.08	0.18	313.96	224.00
5900.00	4.44	247.71	5889.19	-225.00	-226.58	-219.85	0.32	315.71	224.14
5925.00	4.38	248.16	5914.12	-225.71	-227.30	-221.63	0.25	317.47	224.28
5950.00	4.26	248.22	5939.05	-226.40	-228.00	-223.38	0.49	319.19	224.41
5975.00	4.27	247.56	5963.98	-227.08	-228.70	-225.11	0.20	320.90	224.55
6000.00	4.26	247.51	5988.91	-227.78	-229.41	-226.82	0.02	322.61	224.68
6025.00	4.37	248.07	6013.84	-228.48	-230.12	-228.57	0.47	324.34	224.81
6050.00	4.21	247.52	6038.77	-229.18	-230.83	-230.30	0.66	326.07	224.93
6075.00	4.19	246.48	6063.70	-229.88	-231.54	-231.98	0.32	327.76	225.05
6100.00	4.17	246.87	6088.64	-230.59	-232.27	-233.66	0.14	329.46	225.17
6125.00	4.16	246.64	6113.57	-231.29	-232.98	-235.33	0.08	331.15	225.29
6150.00	4.18	246.35	6138.50	-232.01	-233.71	-236.99	0.12	332.84	225.40
6175.00	4.21	246.55	6163.44	-232.72	-234.44	-238.67	0.13	334.55	225.51
6200.00	4.21	246.85	6188.37	-233.44	-235.16	-240.35	0.09	336.26	225.63
6225.00	4.18	245.66	6213.30	-234.16	-235.90	-242.02	0.36	337.97	225.73
6250.00	4.21	245.51	6238.24	-234.90	-236.65	-243.69	0.11	339.69	225.84
6275.00	4.17	245.24	6263.17	-235.65	-237.42	-245.35	0.15	341.41	225.94
6300.00	4.17	245.54	6288.10	-236.40	-238.17	-247.00	0.09	343.13	226.04
6325.00	4.21	244.78	6313.04	-237.15	-238.94	-248.66	0.27	344.85	226.14
6350.00	4.19	245.11	6337.97	-237.92	-239.72	-250.32	0.14	346.59	226.24
6375.00	4.26	245.30	6362.90	-238.68	-240.49	-251.99	0.29	348.33	226.34
6400.00	4.34	244.66	6387.83	-239.46	-241.28	-253.69	0.37	350.10	226.44
6425.00	4.43	243.59	6412.76	-240.28	-242.11	-255.40	0.49	351.92	226.53
6450.00	4.43	243.59	6437.68	-241.13	-242.97	-257.13	0.01	353.77	226.62

MD	INC	AZIM	TVD	VS	INVS	EA/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	/100ft	ft	deg
6475.00	4.46	244.42	6462.61	-241.96	-243.82	-258.88	0.28	355.62	226.72
6500.00	4.44	244.60	6487.53	-242.78	-244.66	-260.63	0.09	357.47	226.81
6525.00	4.48	243.18	6512.46	-243.63	-245.51	-262.37	0.46	359.33	226.90
6550.00	4.51	243.41	6537.38	-244.50	-246.39	-264.12	0.16	361.21	226.99
6575.00	4.48	243.97	6562.30	-245.35	-247.26	-265.88	0.23	363.08	227.08
6600.00	4.49	243.86	6587.23	-246.20	-248.12	-267.64	0.06	364.96	227.17
6625.00	4.52	243.71	6612.15	-247.05	-248.99	-269.40	0.11	366.84	227.25
6650.00	4.53	243.96	6637.07	-247.91	-249.86	-271.17	0.10	368.73	227.34
6675.00	4.57	243.38	6661.99	-248.78	-250.74	-272.95	0.24	370.63	227.43
6700.00	4.60	243.55	6686.91	-249.66	-251.63	-274.73	0.13	372.55	227.51
6725.00	4.59	243.47	6711.83	-250.54	-252.52	-276.53	0.06	374.48	227.60
6750.00	4.58	244.04	6736.75	-251.41	-253.41	-278.32	0.18	376.40	227.68
6775.00	4.61	243.48	6761.67	-252.28	-254.29	-280.12	0.20	378.33	227.77
6800.00	4.62	243.27	6786.59	-253.17	-255.19	-281.91	0.08	380.26	227.85
6825.00	4.62	243.54	6811.51	-254.06	-256.10	-283.71	0.09	382.20	227.93
6850.00	4.64	243.22	6836.43	-254.95	-257.00	-285.52	0.12	384.15	228.01
6875.00	4.71	242.92	6861.35	-255.86	-257.92	-287.33	0.32	386.11	228.09
6900.00	4.74	242.00	6886.26	-256.80	-258.87	-289.16	0.32	388.11	228.16
6925.00	4.83	241.74	6911.17	-257.77	-259.86	-291.00	0.37	390.14	228.24
6950.00	4.86	239.27	6936.08	-258.80	-260.90	-292.84	0.84	392.20	228.30
6975.00	4.88	237.55	6960.99	-259.89	-262.01	-294.64	0.59	394.29	228.36
7000.00	4.98	237.27	6985.90	-261.04	-263.17	-296.45	0.43	396.41	228.40
7025.00	5.02	236.36	7010.81	-262.22	-264.36	-298.28	0.35	398.56	228.45
7050.00	4.96	236.08	7035.71	-263.41	-265.57	-300.08	0.26	400.72	228.49
7075.00	4.91	234.71	7060.62	-264.62	-266.79	-301.85	0.52	402.85	228.53
7100.00	4.80	233.23	7085.53	-265.85	-268.03	-303.56	0.66	404.96	228.56
7125.00	4.70	232.03	7110.44	-267.10	-269.29	-305.21	0.57	407.02	228.58
7150.00	4.62	231.13	7135.36	-268.35	-270.55	-306.80	0.42	409.05	228.59
7175.00	4.54	230.04	7160.28	-269.60	-271.82	-308.34	0.48	411.04	228.60
7200.00	4.51	229.99	7185.20	-270.86	-273.08	-309.85	0.10	413.02	228.61
7225.00	4.53	229.55	7210.13	-272.12	-274.36	-311.36	0.15	414.99	228.61
7250.00	4.49	228.86	7235.05	-273.39	-275.64	-312.84	0.26	416.95	228.62

MD	INC	AZIM	TVD	VS	IN/S	EA/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
7275.00	4.43	228.17	7259.97	-274.67	-276.93	-314.30	0.32	418.90	228.62
7300.00	4.20	225.84	7284.90	-275.94	-278.21	-315.68	1.17	420.78	228.61
7325.00	3.97	225.07	7309.84	-277.18	-279.46	-316.95	0.94	422.55	228.60
7350.00	3.88	224.77	7334.78	-278.39	-280.67	-318.16	0.38	424.26	228.58
7375.00	3.65	223.67	7359.73	-279.55	-281.85	-319.30	0.96	425.90	228.57
7400.00	3.47	222.77	7384.68	-280.68	-282.98	-320.36	0.75	427.45	228.55
7425.00	3.38	223.98	7409.63	-281.76	-284.06	-321.39	0.46	428.93	228.53
7450.00	3.07	225.06	7434.59	-282.75	-285.07	-322.38	1.28	430.34	228.51
7475.00	2.99	225.35	7459.56	-283.68	-286.00	-323.31	0.31	431.66	228.50
7500.00	2.86	223.92	7484.52	-284.58	-286.91	-324.21	0.60	432.93	228.49
7525.00	2.83	225.86	7509.49	-285.45	-287.78	-325.09	0.40	434.17	228.48
7550.00	2.73	225.52	7534.46	-286.29	-288.63	-325.95	0.39	435.38	228.48
7575.00	2.76	224.81	7559.44	-287.13	-289.48	-326.80	0.18	436.57	228.47
7600.00	2.72	225.30	7584.41	-287.97	-290.32	-327.65	0.18	437.77	228.46
7625.00	2.67	224.99	7609.38	-288.79	-291.15	-328.48	0.21	438.94	228.45
7650.00	2.63	224.09	7634.35	-289.61	-291.98	-329.29	0.23	440.10	228.44
7675.00	2.59	224.75	7659.33	-290.42	-292.79	-330.09	0.19	441.23	228.43
7700.00	2.62	224.66	7684.30	-291.22	-293.60	-330.89	0.12	442.37	228.42
7725.00	2.35	226.68	7709.28	-291.98	-294.36	-331.67	1.15	443.45	228.41
7750.00	2.04	228.62	7734.26	-292.62	-295.00	-332.37	1.29	444.41	228.41
7775.00	1.77	230.16	7759.25	-293.15	-295.55	-333.01	1.07	445.24	228.41
7800.00	1.62	231.18	7784.23	-293.62	-296.01	-333.58	0.65	445.98	228.41
7825.00	1.39	234.52	7809.23	-294.01	-296.41	-334.10	0.96	446.63	228.42
7850.00	1.17	238.39	7834.22	-294.32	-296.72	-334.56	0.95	447.19	228.43
7875.00	1.06	238.91	7859.21	-294.57	-296.97	-334.98	0.43	447.67	228.44
7900.00	1.02	239.31	7884.21	-294.80	-297.21	-335.37	0.17	448.11	228.45
7925.00	1.08	236.96	7909.21	-295.04	-297.45	-335.76	0.30	448.56	228.46
7950.00	1.08	240.63	7934.20	-295.28	-297.69	-336.16	0.28	449.03	228.47
7975.00	1.08	237.85	7959.20	-295.52	-297.93	-336.57	0.21	449.49	228.48
8000.00	1.08	239.22	7984.19	-295.76	-298.18	-336.97	0.11	449.95	228.49
8025.00	1.06	238.13	8009.19	-296.00	-298.42	-337.36	0.12	450.41	228.51
8050.00	1.05	239.48	8034.18	-296.24	-298.66	-337.76	0.10	450.86	228.52

MD ft	INC deg	AZIM deg	TVD ft	VS ft	N/S ft	E/W ft	DLS ft/100ft	CLOSURE DIST ft	CLOSURE DIR deg
8075.00	1.03	239.23	8059.18	-296.47	-298.89	-338.15	0.07	451.31	228.53
8100.00	0.96	241.09	8084.18	-296.68	-299.11	-338.53	0.32	451.74	228.54
8125.00	0.79	248.25	8109.17	-296.84	-299.27	-338.87	0.82	452.10	228.55
8150.00	0.61	268.65	8134.17	-296.91	-299.34	-339.16	1.21	452.37	228.57
8175.00	0.56	270.66	8159.17	-296.91	-299.34	-339.42	0.23	452.56	228.59
8200.00	0.62	266.55	8184.17	-296.91	-299.35	-339.68	0.30	452.76	228.61
8225.00	0.60	269.61	8209.17	-296.92	-299.36	-339.94	0.16	452.96	228.63
8250.00	0.59	269.69	8234.17	-296.92	-299.36	-340.20	0.03	453.16	228.65
8275.00	0.52	275.66	8259.17	-296.91	-299.35	-340.44	0.35	453.33	228.67
8300.00	0.44	297.33	8284.16	-296.85	-299.29	-340.64	0.80	453.45	228.70
8325.00	0.39	305.06	8309.16	-296.76	-299.20	-340.79	0.30	453.50	228.72
8350.00	0.40	310.59	8334.16	-296.65	-299.10	-340.93	0.16	453.53	228.74
8375.00	0.37	305.54	8359.16	-296.55	-298.99	-341.06	0.16	453.56	228.76
8400.00	0.42	296.31	8384.16	-296.46	-298.91	-341.21	0.32	453.62	228.78
8425.00	0.35	295.12	8409.16	-296.38	-298.83	-341.36	0.28	453.68	228.80
8450.00	0.41	302.89	8434.16	-296.30	-298.75	-341.51	0.32	453.74	228.82
8475.00	0.42	297.98	8459.16	-296.21	-298.66	-341.66	0.14	453.80	228.84
8500.00	0.41	306.85	8484.16	-296.11	-298.56	-341.81	0.26	453.85	228.86
8525.00	0.40	308.96	8509.16	-296.00	-298.45	-341.95	0.07	453.88	228.89
8550.00	0.39	302.81	8534.16	-295.90	-298.35	-342.09	0.18	453.92	228.91
8575.00	0.37	304.68	8559.16	-295.81	-298.26	-342.23	0.07	453.96	228.93
8600.00	0.40	301.30	8584.16	-295.71	-298.17	-342.37	0.15	454.01	228.95
8625.00	0.41	305.97	8609.16	-295.61	-298.07	-342.52	0.14	454.06	228.97
8650.00	0.39	299.46	8634.16	-295.52	-297.98	-342.67	0.21	454.10	228.99
8675.00	0.42	298.33	8659.16	-295.43	-297.89	-342.82	0.15	454.17	229.01
8700.00	0.39	294.41	8684.15	-295.35	-297.81	-342.98	0.18	454.23	229.03
8725.00	0.39	299.64	8709.15	-295.27	-297.74	-343.13	0.14	454.30	229.05
8750.00	0.38	300.10	8734.15	-295.19	-297.65	-343.28	0.05	454.35	229.07
8775.00	0.42	299.38	8759.15	-295.10	-297.57	-343.43	0.17	454.41	229.09
8800.00	0.48	301.49	8784.15	-295.00	-297.47	-343.60	0.27	454.47	229.12
8825.00	0.49	304.93	8809.15	-294.88	-297.35	-343.78	0.12	454.53	229.14
8850.00	0.46	309.43	8834.15	-294.76	-297.22	-343.94	0.18	454.57	229.17

MD	INC	AZIM	TVD	VS	N/S	E/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	%/100ft	ft	deg
8875.00	0.47	300.91	8859.15	-294.64	-297.11	-344.11	0.28	454.62	229.19
8900.00	0.55	308.94	8884.15	-294.51	-296.98	-344.29	0.43	454.68	229.22
8925.00	0.63	309.88	8909.15	-294.34	-296.82	-344.49	0.29	454.72	229.25
8950.00	0.60	313.03	8934.15	-294.17	-296.64	-344.69	0.17	454.76	229.28
8975.00	0.62	308.58	8959.14	-293.99	-296.47	-344.89	0.21	454.80	229.32
9000.00	0.65	307.55	8984.14	-293.82	-296.29	-345.11	0.12	454.85	229.35
9025.00	0.68	315.13	9009.14	-293.62	-296.10	-345.33	0.36	454.89	229.39
9050.00	0.68	310.45	9034.14	-293.42	-295.90	-345.54	0.22	454.93	229.43
9075.00	0.74	313.94	9059.14	-293.21	-295.69	-345.77	0.30	454.96	229.46
9100.00	0.76	314.92	9084.14	-292.98	-295.47	-346.00	0.09	454.99	229.50
9125.00	0.81	310.59	9109.13	-292.75	-295.24	-346.25	0.31	455.03	229.55
9150.00	0.85	313.16	9134.13	-292.51	-294.99	-346.52	0.24	455.08	229.59
9175.00	0.84	313.76	9159.13	-292.25	-294.74	-346.79	0.07	455.12	229.64
9200.00	0.88	313.31	9184.12	-291.99	-294.48	-347.06	0.17	455.16	229.69
9225.00	0.87	314.16	9209.12	-291.72	-294.22	-347.34	0.08	455.20	229.73
9250.00	0.86	313.96	9234.12	-291.46	-293.96	-347.61	0.03	455.24	229.78
9275.00	0.92	313.14	9259.12	-291.19	-293.69	-347.89	0.23	455.28	229.83
9300.00	0.93	313.33	9284.11	-290.91	-293.41	-348.18	0.07	455.33	229.88
9325.00	0.99	314.90	9309.11	-290.62	-293.12	-348.48	0.24	455.37	229.93
9350.00	0.98	314.40	9334.11	-290.32	-292.82	-348.79	0.05	455.41	229.99
9375.00	1.04	313.55	9359.10	-290.01	-292.51	-349.11	0.27	455.46	230.04
9400.00	1.03	313.21	9384.10	-289.70	-292.20	-349.43	0.07	455.51	230.10
9425.00	1.04	312.89	9409.09	-289.39	-291.90	-349.76	0.05	455.56	230.15
9450.00	1.11	310.28	9434.09	-289.07	-291.58	-350.12	0.36	455.63	230.21
9475.00	1.14	311.36	9459.08	-288.75	-291.26	-350.49	0.13	455.71	230.27
9500.00	1.13	311.97	9484.08	-288.42	-290.93	-350.86	0.07	455.79	230.33
9525.00	1.20	311.02	9509.07	-288.08	-290.60	-351.24	0.28	455.87	230.40
9550.00	1.24	311.50	9534.07	-287.72	-290.25	-351.64	0.16	455.95	230.46
9575.00	1.26	308.65	9559.06	-287.37	-289.90	-352.05	0.26	456.05	230.53
9600.00	1.29	307.55	9584.06	-287.03	-289.56	-352.49	0.16	456.17	230.60
9625.00	1.35	307.81	9609.05	-286.67	-289.20	-352.94	0.25	456.30	230.67
9650.00	1.30	307.43	9634.04	-286.32	-288.85	-353.40	0.19	456.43	230.74

MD	INC	AZIM	TVD	VS	N/S	E/W	DLS	CLOSURE	CLOSURE
ft	deg	deg	ft	ft	ft	ft	/100ft	DIST	DIR
9675.00	1.31	307.12	9659.04	-285.97	-288.51	-353.86	0.04	456.56	230.81
9700.00	1.35	307.57	9684.03	-285.61	-288.15	-354.32	0.17	456.70	230.88
9725.00	1.32	306.99	9709.02	-285.26	-287.80	-354.78	0.12	456.84	230.95
9750.00	1.48	304.30	9734.02	-284.90	-287.45	-355.28	0.70	457.00	231.02
9775.00	1.59	300.43	9759.01	-284.53	-287.09	-355.84	0.59	457.21	231.10
9800.00	1.73	299.23	9784.00	-284.17	-286.73	-356.47	0.60	457.48	231.19
9825.00	1.83	297.84	9808.98	-283.79	-286.36	-357.16	0.43	457.78	231.28
9850.00	1.84	295.74	9833.97	-283.43	-285.99	-357.87	0.27	458.11	231.37
9875.00	1.84	298.48	9858.96	-283.06	-285.63	-358.59	0.35	458.44	231.46
9900.00	1.86	297.66	9883.95	-282.67	-285.25	-359.30	0.14	458.76	231.55
9925.00	1.86	297.96	9908.93	-282.29	-284.87	-360.02	0.05	459.09	231.65
9950.00	1.92	297.33	9933.92	-281.90	-284.49	-360.75	0.27	459.43	231.74
9975.00	1.89	298.62	9958.90	-281.50	-284.10	-361.48	0.20	459.76	231.84
10000.00	1.88	298.56	9983.89	-281.11	-283.70	-362.20	0.05	460.09	231.93
10025.00	1.94	298.70	10008.88	-280.70	-283.30	-362.94	0.24	460.42	232.02
10050.00	1.90	299.09	10033.86	-280.29	-282.90	-363.67	0.18	460.75	232.12
10075.00	1.92	297.95	10058.85	-279.89	-282.50	-364.40	0.18	461.08	232.22
10100.00	1.96	297.42	10083.84	-279.49	-282.11	-365.15	0.17	461.43	232.31
10125.00	1.92	298.44	10108.82	-279.09	-281.71	-365.90	0.21	461.78	232.41
10150.00	1.95	297.77	10133.81	-278.68	-281.31	-366.65	0.13	462.13	232.50
10175.00	1.89	299.45	10158.79	-278.28	-280.91	-367.38	0.31	462.47	232.60
10200.00	1.81	295.71	10183.78	-277.90	-280.54	-368.10	0.59	462.81	232.69
10225.00	1.73	290.65	10208.77	-277.59	-280.24	-368.80	0.70	463.19	232.77
10250.00	1.66	289.15	10233.76	-277.33	-279.98	-369.50	0.33	463.59	232.85
10275.00	1.63	290.08	10258.75	-277.09	-279.74	-370.17	0.15	463.99	232.92
10300.00	1.67	289.56	10283.74	-276.84	-279.50	-370.85	0.17	464.38	233.00
10325.00	1.68	289.63	10308.73	-276.59	-279.25	-371.54	0.05	464.78	233.07
10350.00	1.66	289.97	10333.71	-276.34	-279.01	-372.23	0.09	465.18	233.15
10375.00	1.65	286.88	10358.70	-276.10	-278.78	-372.91	0.36	465.60	233.22
10400.00	1.65	286.41	10383.69	-275.89	-278.57	-373.60	0.05	466.03	233.29
10425.00	1.59	284.06	10408.68	-275.70	-278.39	-374.28	0.37	466.46	233.36
10450.00	1.26	279.43	10433.68	-275.57	-278.26	-374.89	1.40	466.87	233.42

MD	INC	AZIM	TVD	VS	TN/S	TE/W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	/100ft	ft	deg
10475.00	1.23	274.81	10458.67	-275.50	-278.19	-375.43	0.42	467.26	233.46
10500.00	1.17	277.31	10483.66	-275.44	-278.13	-375.95	0.32	467.65	233.50
10525.00	1.19	272.72	10508.66	-275.39	-278.09	-376.46	0.39	468.03	233.55
10550.00	1.26	274.40	10533.65	-275.35	-278.06	-376.99	0.32	468.44	233.59
10575.00	1.25	271.21	10558.65	-275.32	-278.03	-377.53	0.28	468.86	233.63
10600.00	1.34	272.64	10583.64	-275.30	-278.01	-378.10	0.42	469.31	233.67
10625.00	1.22	269.66	10608.64	-275.28	-278.00	-378.66	0.56	469.75	233.71
10650.00	1.35	271.69	10633.63	-275.27	-277.99	-379.22	0.54	470.20	233.76
10675.00	1.30	272.64	10658.62	-275.25	-277.97	-379.79	0.21	470.65	233.80
10700.00	1.29	271.86	10683.62	-275.22	-277.95	-380.36	0.08	471.09	233.84
10725.00	0.86	269.89	10708.61	-275.21	-277.94	-380.82	1.73	471.46	233.88
10750.00	0.36	259.71	10733.61	-275.22	-277.95	-381.09	2.03	471.68	233.89
10775.00	0.21	247.49	10758.61	-275.25	-277.99	-381.21	0.64	471.80	233.90
10800.00	0.25	239.03	10783.61	-275.29	-278.03	-381.30	0.20	471.90	233.90
10825.00	0.19	231.25	10808.61	-275.35	-278.08	-381.37	0.28	471.99	233.90
10850.00	0.38	129.45	10833.61	-275.43	-278.16	-381.34	1.80	472.01	233.89
10875.00	0.85	117.53	10858.61	-275.56	-278.30	-381.11	1.94	471.91	233.86
10900.00	0.95	117.01	10883.60	-275.75	-278.48	-380.77	0.41	471.73	233.82
10925.00	1.06	119.05	10908.60	-275.95	-278.68	-380.38	0.46	471.54	233.77
10950.00	1.37	115.90	10933.60	-276.20	-278.93	-379.91	1.29	471.31	233.71
10975.00	1.57	114.56	10958.59	-276.48	-279.20	-379.33	0.82	471.00	233.65
11000.00	1.58	116.69	10983.58	-276.78	-279.50	-378.71	0.24	470.68	233.57
11025.00	1.57	114.00	11008.57	-277.08	-279.79	-378.09	0.30	470.35	233.50
11050.00	1.63	114.17	11033.56	-277.37	-280.08	-377.45	0.23	470.01	233.42
11075.00	1.72	115.37	11058.55	-277.68	-280.38	-376.78	0.39	469.66	233.35
11100.00	1.73	114.70	11083.54	-278.00	-280.70	-376.10	0.08	469.30	233.26
11125.00	1.71	115.38	11108.52	-278.33	-281.02	-375.42	0.11	468.95	233.18
11150.00	1.74	116.54	11133.51	-278.66	-281.35	-374.74	0.17	468.61	233.10
11175.00	1.75	115.04	11158.50	-279.00	-281.68	-374.06	0.19	468.26	233.02
11200.00	1.77	120.49	11183.49	-279.36	-282.04	-373.38	0.67	467.93	232.93
11225.00	1.76	121.45	11208.48	-279.76	-282.43	-372.72	0.13	467.64	232.85
11250.00	1.75	124.39	11233.47	-280.18	-282.85	-372.08	0.36	467.38	232.76

MD ft	INC deg	AZIM deg	TVD ft	VS ft	N/S ft	HEAV ft	DLS 100ft	CLOSURE DIST ft	CLOSURE DIR deg
11275.00	1.83	130.57	11258.45	-280.66	-283.32	-371.46	0.84	467.18	232.67
11300.00	1.74	133.74	11283.44	-281.18	-283.85	-370.89	0.52	467.04	232.57
11325.00	1.84	138.39	11308.43	-281.75	-284.41	-370.34	0.70	466.95	232.48
11350.00	1.81	140.25	11333.42	-282.36	-285.01	-369.83	0.26	466.91	232.38
11375.00	1.88	140.88	11358.40	-282.98	-285.63	-369.31	0.29	466.88	232.28
11400.00	1.89	143.15	11383.39	-283.63	-286.28	-368.81	0.30	466.88	232.18
11425.00	1.98	147.18	11408.38	-284.33	-286.97	-368.33	0.65	466.93	232.08
11450.00	2.11	151.85	11433.36	-285.10	-287.74	-367.88	0.85	467.04	231.97
11475.00	2.23	156.08	11458.34	-285.95	-288.59	-367.46	0.80	467.24	231.86
11500.00	2.24	159.23	11483.32	-286.86	-289.49	-367.09	0.50	467.51	231.74
11525.00	2.29	163.33	11508.30	-287.80	-290.43	-366.78	0.68	467.84	231.63
11550.00	2.29	168.70	11533.28	-288.77	-291.40	-366.53	0.86	468.25	231.52
11575.00	2.25	173.38	11558.26	-289.75	-292.38	-366.38	0.76	468.74	231.41
11600.00	2.31	177.47	11583.24	-290.74	-293.37	-366.30	0.69	469.30	231.31
11625.00	2.26	180.35	11608.23	-291.74	-294.36	-366.28	0.49	469.91	231.21
11650.00	2.27	179.63	11633.21	-292.72	-295.35	-366.28	0.11	470.53	231.12
11675.00	2.37	181.74	11658.19	-293.73	-296.36	-366.29	0.53	471.17	231.02
11700.00	2.41	183.55	11683.16	-294.78	-297.41	-366.34	0.35	471.87	230.93
11725.00	2.44	185.59	11708.14	-295.83	-298.46	-366.43	0.36	472.60	230.84
11750.00	2.40	184.18	11733.12	-296.88	-299.51	-366.52	0.29	473.33	230.74
11775.00	2.16	181.33	11758.10	-297.87	-300.50	-366.57	1.05	474.00	230.66
11800.00	1.59	169.08	11783.09	-298.69	-301.32	-366.51	2.78	474.47	230.58
11825.00	1.43	161.11	11808.08	-299.32	-301.95	-366.34	1.06	474.75	230.50
11850.00	1.52	153.10	11833.07	-299.91	-302.54	-366.09	0.89	474.93	230.43
11875.00	1.51	151.64	11858.06	-300.50	-303.13	-365.79	0.16	475.06	230.35
11900.00	1.69	156.42	11883.05	-301.13	-303.75	-365.48	0.91	475.23	230.27
11909.00	1.76	157.89	11892.05	-301.38	-304.00	-365.38	0.91	475.31	230.24