



Company: ConocoPhillips
Lease/Well: UL 20 Paddle Tail B/503H
API: 42-301-36079
Rig Name: Open Hole
State/County: Texas/Loving
VS-Azi: 0.00 Degrees
Latitude: 31.74177, Longitude: -103.35956
Grid North = True North +1.56 degs (NAD 27)
Grid Correction Applied = +1.56 degs



Depth Reference = : 32.5 ft

DRILLOG HA GYRO SURVEY CALCULATIONS

Error Model: VESSI_GYROFLEX.IPM

Filename: UL 20 Paddle Tail B 503H.ut

Minimum Curvature Method

Report Date/Time: 12/19/2022 / 07:12

Vaughn Energy Services

PO Box 728 Cisco, TX 76437

254-488-2642

Gregg Wilson

UL 20 Paddle Tail B 503H API# 12/17/2022

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.26	3.41	100.00	0.22	0.01	0.22	0.22	3.41	0.26
200.00	0.47	9.50	200.00	0.85	0.09	0.85	0.86	6.34	0.22
300.00	0.58	36.12	299.99	1.67	0.46	1.67	1.73	15.41	0.26
400.00	0.31	21.80	399.99	2.32	0.86	2.32	2.48	20.22	0.29
500.00	0.54	340.39	499.99	3.02	0.80	3.02	3.12	14.81	0.37
600.00	0.45	288.00	599.98	3.58	0.26	3.58	3.59	4.22	0.44
700.00	0.76	236.23	699.98	3.33	-0.66	3.33	3.40	348.76	0.60
800.00	0.83	218.74	799.97	2.40	-1.67	2.40	2.92	325.18	0.25
900.00	0.62	171.18	899.96	1.30	-2.04	1.30	2.42	302.45	0.62
1000.00	0.49	186.37	999.96	0.34	-2.01	0.34	2.03	279.60	0.19
1100.00	0.32	184.85	1099.96	-0.36	-2.08	-0.36	2.11	260.03	0.17
1167.00	0.58	210.67	1166.95	-0.85	-2.27	-0.85	2.42	249.53	0.49

HORIZONTAL DISPLACEMENT IS
2.42 FEET AT 249.53 DEGREES



I Gregg Wilson certify that I am employed by Vaughn Energy Services Inc.
That I did on the day(s) of 12/17/2022 conduct or supervise the take of a
Rate Gyro survey from a depth of 0.00 feet to a depth of 1,167.00
feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services
Inc., that I am authorized and qualified to make this report; that this survey was conducted at the request of
ConocoPhillips for the UL 20 Paddle Tail B Well # 503H
API# 42-301-36079 in Loving County/ Parish Texas
; and I have reviewed this report and find that it conforms to the principles and procedures as set forth by Vaughn
Energy Services Inc.

Gregg Wilson
Service Technician
Vaughn Energy Services Inc.

OPERATOR: PDEH LLC

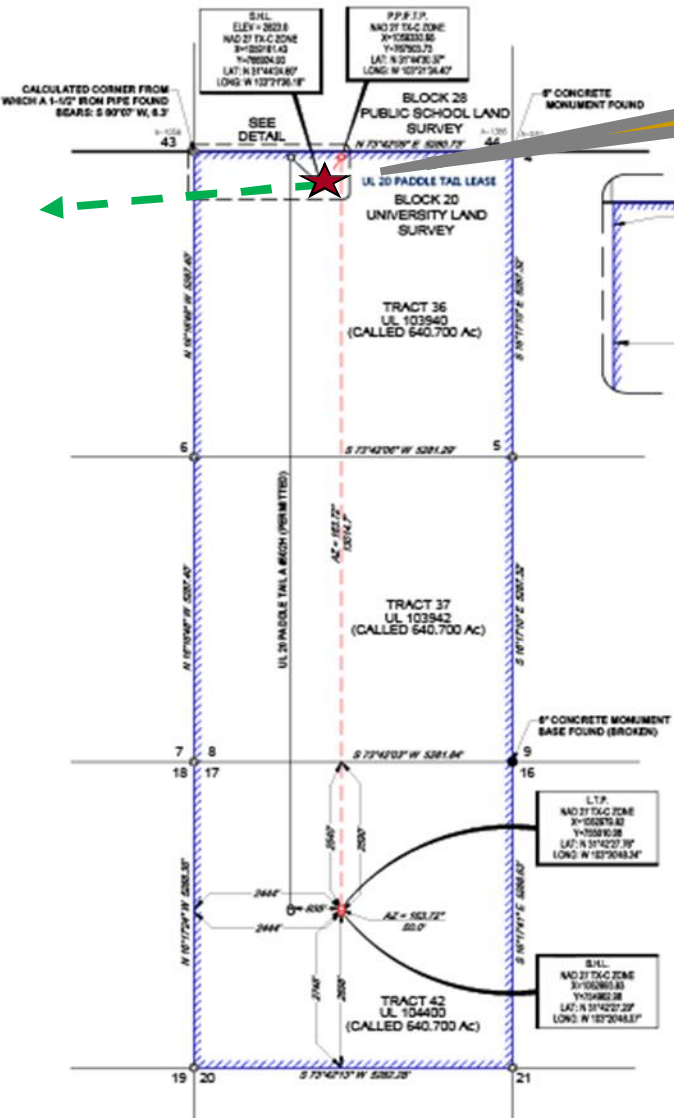
WELL LOCATION

LEASE NAME & WELL NO.:
UL 20 PADDLE TAIL B #503H

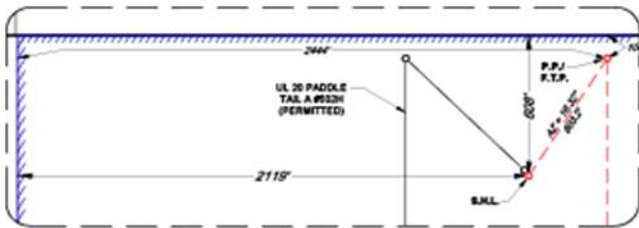
PSA ACREAGE:
1,922.10 ACRES (CALLED)

NEAREST TOWN IN COUNTY:
±14.2 MILES NORTHEAST OF MENTONE, TEXAS

DESCRIPTION:
S.H.L./P.P./F.T.P.: SECTION 5, BLOCK 20, UNIVERSITY LAND SURVEY
L.T./B.H.L.: SECTION 17, BLOCK 20, UNIVERSITY LAND SURVEY
LOVING COUNTY, TEXAS



VES Bottom Hole Location is
2.42' @ 249.53° of Surface
Location



PRODUCTIVE LATERAL

LENGTH (F.T.P. TO L.T.P.)	
1	5.187'
2	5.287'
3	2.540'
TOTAL	13.014'

TIES TABLE

POINT	PSA	SURVEY/SECTION
S.H.L.	809' FSWL	809' FSWL & 2118' FSWL
P.P./F.T.P.	2118' FSWL	2118' FSWL & 100' FSWL
L.T.P.	100' FSWL	100' FSWL & 2444' FSWL
S.H.L.	2444' FSWL	2444' FSWL & 2540' FSWL
S.H.L.	2540' FSWL	2540' FSWL & 2444' FSWL

LEGEND:

-----	PSA Boundary
-----	Block/Township Line
-----	Section Line
-----	Proposed Well Path
-----	Existing/Permitted Well Path
●	Monument Found
○	Calculated Corner
○	Well Point



1600 EVERMAN PARKWAY, STE. 100 • FT. WORTH, TEXAS 76104
TELEPHONE: (817) 744-1512 • FAX: (817) 744-1504
TEAS PSN REGISTRATION NO. 1104-2004
WWW.TOPOGPHIC.COM



John R. Anderson 7/26/2022
John R. Anderson, R.P.L.S. No. 6442

UL-20-S-P2 UL 20 PADDLE TAIL B #503H DATE: 07/23/2022 FILE: UL-20-S-P2 PADDLE TAIL B #503H DRAWN BY: A.C.L. SHEET: 1 OF 1	REVISION:		NOTES: 1. ORIGINAL DOCUMENT SIZE: 11"X 17" 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1983, UNLESS OTHERWISE NOTED. 3. THIS LOCATION AND/OR UNPLANNED BOUNDARY AND BEING CAPABLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED BY PERMANENT SURVEYING HOLDINGS, LLC. THIS PLAN WAS CREATED FOR THE SOLE PURPOSE OF PLACING A PERMIT WITH THE RAILROAD COMMISSION OF TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.R.P.L.S. MINIMUM STANDARDS OF PRACTICES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAN AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY. 4. ALL ELEVATION VALUES CONTAINED HEREIN ARE ORTHOMETRIC ONLY, BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) U.S. SURVEY FEET. 5. ALL MINERAL OWNERSHIP DATA SHOWN HEREIN IS BASED ON INFORMATION PROVIDED BY PERMANENT SURVEYING HOLDINGS, LLC OR ITS SUBSIDIARIES & AFFILIATES.
	INT	DATE	

NOTES CONT'D:
6. THE PRELIMINARY LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND DURING THE DATE OF JULY 2, 2022.
7. S.H.L. = SURFACE HOLE LOCATION
8. P.P. = POINT OF PENETRATION
9. F.T.P. = FIRST TIE POINT
10. L.T.P. = LAST TIE POINT
11. S.H.L. = BOTTOM HOLE LOCATION

VES Bottom Hole
Location is

2.42' @ 249.53°

of Surface
Location

MD / FT 1167'
North / FT South / FT
0.85'



1166.95' TVD / FT
East / FT West / FT
2.27'

Proposed Azimuth:	165.96
Target Inclination:	0.00

[illegible]



Survey Certification Letter

January 12, 2023

State of Texas
County of Loving

I, Roger Dubose, certify that; I am employed by **Integrity Services, LLC**; that I did on the day(s) of through 12/10/2022 through 12/12/2022 conducted and / or supervised the MWD survey(s) taken from the depth of 120 feet to depth of 1246 feet; that the data is true, correct, complete and within the specifications and limitations of the survey tool provided by **Integrity Services, LLC**; that I am authorized and qualified to make this survey report; that was requested by Conoco Phillips for the surveys performed on the **UL 20 Paddle Tail B 503H** API No. 42-301-36079. In Loving County, Texas; and that I have reviewed this report and find that it conforms to the principles and procedures set forth by **Integrity Services, LLC**.

Roger Dubose

Roger Dubose
Directional Manager
P.O. Box 5989 | Midland, TX 79704
Office: 432-661-6075
roger.dubose@integrity-serv.com

APRIL 1 2023
SURVEY REPORT

COP
WELL: UL 20 PADDLE TAIL B #503H
RIG: NABORS X04

SURVEY REPORT

UL 20 PADDLE TAIL B #503H

KEEPER GYRO SURVEY

PAGE 1 OF 15

CUSTOMER
PROJECT
FIELD

COP
UL 20 Paddle Tail B #503H
Phantom (Wolfcamp)

SDI JOB NO.
SDI DISTRICT
SDI KIT/UNIT

OP.039041
Midland

SITE INFORMATION

Site Name
Lat/Long
Northing
Easting

UL 20 Paddle Tail B
31.740167 N, 103.36005 W
766,924.9 ft
1,059,161.43 ft

Section
Township
Range

MAP INFORMATION

North Reference
Grid Correction
System
Datum
Map Zone

Grid North
1.56 deg
US State Plane 1927
North American Datum 1927 (Clarke 1866)
Texas Central: 4203

WELL INFORMATION

Lat/Long
Northing
Easting
UWI

31.740167 N, 103.36005 W
766,924.9 ft
1,059,161.43 ft
42-304-36079

DEPTH AND ELEVATION REFERENCE

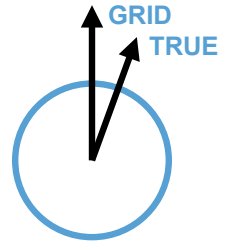
Ground Level
Reference Datum
Reference Height
Reference Elevation

2832 ft above Mean Sea Level
RKB
32 ft above G.L.
2864 ft

VERTICAL SECTION REFERENCE

+N/-S
+E/-W
Proposal Direction
Calculation Method

0 ft
0 ft
162.24°
Minimum Curvature



LOCAL GRAVITY REFERENCE INFORMATION

Local Gravity
True to Grid

998.514 mG [computed]
add 1.56°

WELL NOTES

Keeper Gyro Survey

OPERATORS

RAY FRANCO

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	0.19	46.04	100.00	-0.07	0.12	0.12	0.19	0.17	46.04
125.00	0.17	42.12	125.00	-0.11	0.17	0.17	0.11	0.24	45.46
150.00	0.22	69.21	150.00	-0.13	0.21	0.24	0.42	0.32	48.52
175.00	0.24	69.91	175.00	-0.14	0.25	0.34	0.07	0.42	53.44
200.00	0.27	29.94	200.00	-0.18	0.32	0.41	0.70	0.52	52.52
225.00	0.27	28.35	225.00	-0.26	0.42	0.47	0.04	0.63	48.27
250.00	0.07	45.45	250.00	-0.31	0.48	0.51	0.83	0.70	46.55
275.00	0.21	60.55	275.00	-0.32	0.52	0.56	0.56	0.76	47.34
300.00	0.17	126.89	300.00	-0.30	0.52	0.63	0.83	0.82	50.60
325.00	0.23	75.32	325.00	-0.27	0.51	0.71	0.74	0.87	54.34
350.00	0.28	46.15	350.00	-0.29	0.56	0.80	0.54	0.98	54.91
375.00	0.17	17.97	375.00	-0.35	0.64	0.86	0.61	1.07	53.25
400.00	0.06	256.98	400.00	-0.38	0.67	0.86	0.80	1.09	51.89
425.00	0.08	92.29	425.00	-0.37	0.67	0.86	0.52	1.09	52.17
450.00	0.10	326.03	450.00	-0.39	0.69	0.87	0.62	1.10	51.62
475.00	0.13	265.22	475.00	-0.42	0.70	0.83	0.47	1.08	49.69
500.00	0.27	224.87	500.00	-0.39	0.66	0.76	0.75	1.00	49.05
525.00	0.39	261.45	525.00	-0.38	0.60	0.63	0.94	0.87	46.36
550.00	0.29	255.63	550.00	-0.40	0.58	0.49	0.40	0.75	40.28
575.00	0.25	263.60	575.00	-0.41	0.55	0.37	0.24	0.67	33.88
600.00	0.46	249.23	600.00	-0.42	0.51	0.22	0.93	0.56	23.56
625.00	0.52	247.84	625.00	-0.40	0.43	0.02	0.22	0.43	3.08
650.00	0.65	235.52	649.99	-0.36	0.31	-0.20	0.72	0.37	327.38
675.00	0.79	234.50	674.99	-0.26	0.13	-0.46	0.58	0.47	285.84
700.00	0.66	229.42	699.99	-0.15	-0.07	-0.71	0.58	0.71	264.72
725.00	0.61	230.57	724.99	-0.05	-0.24	-0.92	0.21	0.95	255.12
750.00	0.51	226.21	749.99	0.05	-0.41	-1.10	0.44	1.18	249.79
775.00	0.45	241.34	774.99	0.12	-0.53	-1.27	0.56	1.37	247.34
800.00	0.70	234.53	799.99	0.18	-0.67	-1.48	1.05	1.62	245.78
825.00	0.53	229.74	824.98	0.27	-0.83	-1.69	0.70	1.88	243.89
850.00	0.48	236.45	849.98	0.35	-0.96	-1.87	0.33	2.10	242.75

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
875.00	0.61	246.36	874.98	0.39	-1.07	-2.08	0.64	2.34	242.67
900.00	0.55	222.34	899.98	0.46	-1.21	-2.28	0.99	2.58	241.94
925.00	0.52	233.33	924.98	0.56	-1.37	-2.45	0.42	2.81	240.78
950.00	0.72	226.18	949.98	0.66	-1.55	-2.65	0.85	3.07	239.76
975.00	0.54	223.64	974.98	0.79	-1.74	-2.85	0.72	3.34	238.57
1000.00	0.57	220.52	999.97	0.91	-1.92	-3.01	0.17	3.57	237.46
1025.00	0.48	218.20	1024.97	1.04	-2.10	-3.16	0.36	3.79	236.38
1050.00	0.54	218.76	1049.97	1.16	-2.27	-3.30	0.21	4.01	235.40
1075.00	0.52	254.79	1074.97	1.22	-2.40	-3.48	1.32	4.23	235.46
1100.00	0.67	229.79	1099.97	1.27	-2.52	-3.70	1.19	4.48	235.76
1125.00	0.51	215.96	1124.97	1.39	-2.71	-3.88	0.86	4.73	235.12
1150.00	0.49	236.15	1149.97	1.49	-2.85	-4.03	0.70	4.94	234.72
1175.00	0.67	224.76	1174.97	1.58	-3.02	-4.23	0.88	5.19	234.47
1200.00	0.62	216.20	1199.97	1.73	-3.23	-4.41	0.44	5.47	233.76
1225.00	0.65	219.38	1224.96	1.89	-3.45	-4.58	0.18	5.73	233.00
1250.00	0.68	212.43	1249.96	2.06	-3.68	-4.75	0.34	6.01	232.19
1275.00	0.74	207.83	1274.96	2.27	-3.95	-4.90	0.33	6.30	231.14
1300.00	0.60	203.27	1299.96	2.48	-4.21	-5.03	0.57	6.56	230.04
1325.00	0.59	214.89	1324.96	2.66	-4.44	-5.16	0.49	6.80	229.26
1350.00	0.89	214.95	1349.96	2.85	-4.70	-5.34	1.20	7.12	228.62
1375.00	0.75	206.00	1374.95	3.09	-5.01	-5.52	0.74	7.46	227.78
1400.00	0.48	199.41	1399.95	3.29	-5.26	-5.63	1.11	7.70	226.95
1425.00	0.62	206.85	1424.95	3.47	-5.48	-5.73	0.63	7.93	226.26
1450.00	0.76	220.82	1449.95	3.66	-5.73	-5.90	0.86	8.22	225.84
1475.00	0.78	205.56	1474.95	3.87	-6.01	-6.08	0.82	8.54	225.34
1500.00	0.78	196.84	1499.94	4.13	-6.32	-6.20	0.47	8.85	224.45
1525.00	0.70	200.99	1524.94	4.39	-6.63	-6.30	0.37	9.15	223.57
1550.00	0.76	206.35	1549.94	4.63	-6.92	-6.43	0.37	9.45	222.92
1575.00	0.83	217.50	1574.94	4.85	-7.21	-6.62	0.67	9.79	222.54
1600.00	0.88	208.73	1599.93	5.08	-7.52	-6.82	0.56	10.15	222.19
1625.00	0.81	210.84	1624.93	5.33	-7.84	-7.00	0.32	10.51	221.76
1650.00	0.80	200.11	1649.93	5.59	-8.16	-7.15	0.60	10.85	221.24

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
1675.00	0.87	195.51	1674.93	5.88	-8.50	-7.26	0.40	11.18	220.50
1700.00	0.71	199.43	1699.92	6.17	-8.83	-7.37	0.69	11.50	219.82
1725.00	0.62	195.67	1724.92	6.40	-9.11	-7.45	0.41	11.77	219.29
1750.00	0.68	198.71	1749.92	6.63	-9.38	-7.54	0.29	12.03	218.79
1775.00	0.71	194.71	1774.92	6.88	-9.67	-7.62	0.23	12.31	218.26
1800.00	0.81	194.79	1799.92	7.16	-9.99	-7.71	0.39	12.62	217.66
1825.00	0.77	186.26	1824.91	7.46	-10.33	-7.77	0.49	12.92	216.97
1850.00	0.70	209.98	1849.91	7.72	-10.62	-7.87	1.24	13.22	216.51
1875.00	0.84	191.48	1874.91	7.98	-10.94	-7.98	1.14	13.54	216.11
1900.00	0.63	199.05	1899.91	8.25	-11.25	-8.06	0.94	13.84	215.63
1925.00	0.81	197.27	1924.91	8.51	-11.54	-8.16	0.73	14.13	215.24
1950.00	0.75	196.20	1949.90	8.79	-11.87	-8.25	0.25	14.46	214.82
1975.00	0.75	189.08	1974.90	9.07	-12.19	-8.33	0.37	14.76	214.34
2000.00	0.69	186.46	1999.90	9.35	-12.50	-8.37	0.29	15.04	213.80
2025.00	0.44	200.37	2024.90	9.56	-12.74	-8.42	1.12	15.27	213.46
2050.00	0.27	326.60	2049.90	9.58	-12.78	-8.49	2.55	15.34	213.58
2075.00	0.83	9.26	2074.90	9.37	-12.55	-8.49	2.65	15.15	214.06
2100.00	1.50	357.37	2099.89	8.89	-12.05	-8.47	2.83	14.73	215.12
2125.00	2.69	358.01	2124.87	8.01	-11.13	-8.51	4.76	14.01	217.39
2150.00	4.72	356.17	2149.82	6.45	-9.52	-8.60	8.12	12.83	222.08
2175.00	5.20	353.84	2174.73	4.34	-7.37	-8.79	2.11	11.47	230.02
2200.00	5.69	355.94	2199.61	2.02	-5.01	-9.00	2.11	10.30	240.91
2225.00	5.62	356.16	2224.49	-0.37	-2.55	-9.17	0.28	9.51	254.47
2250.00	5.66	355.32	2249.37	-2.76	-0.10	-9.35	0.36	9.35	269.41
2275.00	5.69	357.18	2274.25	-5.16	2.37	-9.51	0.75	9.80	284.00
2300.00	5.84	356.69	2299.12	-7.59	4.88	-9.65	0.60	10.81	296.83
2325.00	5.89	356.65	2323.99	-10.06	7.43	-9.79	0.22	12.29	307.18
2350.00	5.87	355.42	2348.86	-12.55	9.98	-9.97	0.51	14.11	315.04
2375.00	6.03	356.23	2373.73	-15.07	12.57	-10.16	0.71	16.16	321.05
2400.00	6.85	358.64	2398.57	-17.78	15.37	-10.28	3.46	18.49	326.22
2425.00	8.50	3.78	2423.34	-20.93	18.71	-10.20	7.13	21.31	331.41

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
2450.00	9.33	6.40	2448.04	-24.49	22.56	-9.85	3.69	24.62	336.42
2475.00	9.69	8.47	2472.70	-28.23	26.66	-9.31	2.00	28.24	340.74
2500.00	9.73	8.77	2497.34	-32.01	30.83	-8.68	0.25	32.03	344.27
2525.00	9.77	9.14	2521.98	-35.79	35.01	-8.02	0.31	35.92	347.09
2550.00	9.88	10.15	2546.61	-39.58	39.22	-7.31	0.80	39.89	349.44
2575.00	9.82	9.77	2571.24	-43.36	43.43	-6.57	0.35	43.92	351.40
2600.00	9.87	10.38	2595.87	-47.14	47.64	-5.82	0.47	47.99	353.03
2625.00	9.83	10.25	2620.51	-50.92	51.84	-5.05	0.19	52.09	354.43
2650.00	9.92	10.37	2645.14	-54.70	56.06	-4.29	0.35	56.23	355.63
2675.00	10.08	10.94	2669.76	-58.51	60.33	-3.48	0.75	60.43	356.69
2700.00	11.00	14.88	2694.33	-62.44	64.78	-2.46	4.67	64.83	357.83
2725.00	11.89	18.29	2718.84	-66.53	69.53	-1.04	4.48	69.54	359.15
2750.00	12.29	17.98	2743.28	-70.77	74.50	0.59	1.61	74.51	0.46
2775.00	12.35	18.05	2767.71	-75.10	79.58	2.24	0.27	79.61	1.61
2800.00	12.37	18.02	2792.13	-79.44	84.66	3.90	0.07	84.75	2.64
2825.00	12.40	18.18	2816.55	-83.79	89.76	5.56	0.20	89.93	3.55
2850.00	12.36	18.14	2840.97	-88.13	94.85	7.24	0.18	95.13	4.36
2875.00	12.22	18.98	2865.39	-92.41	99.90	8.93	0.91	100.30	5.11
2900.00	12.30	18.91	2889.82	-96.67	104.92	10.65	0.31	105.46	5.80
2925.00	12.32	18.91	2914.25	-100.94	109.96	12.38	0.08	110.65	6.42
2950.00	12.28	19.12	2938.67	-105.21	114.99	14.11	0.23	115.86	7.00
2975.00	12.03	19.88	2963.11	-109.40	119.96	15.87	1.20	121.00	7.54
3000.00	12.14	19.76	2987.56	-113.55	124.88	17.64	0.47	126.12	8.04
3025.00	12.00	19.81	3012.01	-117.69	129.80	19.41	0.57	131.25	8.51
3050.00	11.50	20.91	3036.48	-121.70	134.57	21.18	2.19	136.23	8.95
3075.00	10.77	21.10	3061.01	-125.46	139.08	22.91	2.94	140.96	9.36
3100.00	10.33	22.44	3085.59	-128.99	143.33	24.61	2.00	145.43	9.74
3125.00	10.18	22.63	3110.19	-132.39	147.44	26.32	0.61	149.77	10.12
3150.00	10.21	23.09	3134.79	-135.75	151.52	28.04	0.34	154.09	10.48
3175.00	10.28	23.41	3159.40	-139.10	155.61	29.79	0.37	158.43	10.84
3200.00	10.25	22.83	3184.00	-142.47	159.70	31.54	0.44	162.79	11.17
3225.00	10.29	22.67	3208.60	-145.86	163.81	33.26	0.22	167.16	11.48

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
3250.00	10.26	23.09	3233.19	-149.25	167.92	35.00	0.33	171.53	11.77
3275.00	10.04	24.01	3257.80	-152.56	171.96	36.76	1.10	175.85	12.07
3300.00	9.98	24.37	3282.42	-155.79	175.93	38.54	0.34	180.10	12.36
3325.00	9.80	25.01	3307.05	-158.96	179.83	40.33	0.86	184.30	12.64
3350.00	9.73	24.37	3331.69	-162.08	183.68	42.10	0.50	188.44	12.91
3375.00	9.35	22.77	3356.34	-165.20	187.48	43.76	1.86	192.52	13.14
3400.00	9.04	21.13	3381.02	-168.27	191.18	45.26	1.63	196.47	13.32
3425.00	8.70	17.19	3405.72	-171.35	194.82	46.52	2.79	200.30	13.43
3450.00	8.55	13.43	3430.44	-174.49	198.44	47.51	2.33	204.05	13.47
3475.00	8.44	14.58	3455.17	-177.63	202.02	48.41	0.80	207.74	13.47
3500.00	8.30	14.38	3479.90	-180.71	205.55	49.32	0.57	211.38	13.49
3525.00	8.19	14.32	3504.64	-183.74	209.02	50.21	0.45	214.97	13.51
3550.00	8.18	14.04	3529.39	-186.76	212.47	51.08	0.18	218.52	13.52
3575.00	8.04	13.67	3554.14	-189.77	215.89	51.92	0.58	222.05	13.52
3600.00	7.96	14.03	3578.89	-192.73	219.27	52.76	0.38	225.53	13.53
3625.00	7.98	14.49	3603.65	-195.67	222.63	53.61	0.27	229.00	13.54
3650.00	7.54	14.37	3628.42	-198.53	225.90	54.45	1.78	232.37	13.55
3675.00	7.36	13.40	3653.21	-201.29	229.05	55.23	0.88	235.61	13.56
3700.00	7.04	12.80	3678.01	-203.97	232.10	55.94	1.32	238.75	13.55
3725.00	7.07	11.16	3702.83	-206.64	235.10	56.58	0.81	241.81	13.53
3750.00	6.96	12.49	3727.64	-209.29	238.09	57.20	0.78	244.87	13.51
3775.00	6.99	12.66	3752.45	-211.92	241.05	57.86	0.15	247.90	13.50
3800.00	6.95	12.89	3777.27	-214.53	244.01	58.53	0.20	250.94	13.49
3825.00	6.96	13.37	3802.08	-217.13	246.96	59.22	0.23	253.96	13.48
3850.00	7.18	12.76	3826.89	-219.77	249.96	59.92	0.96	257.04	13.48
3875.00	7.32	13.19	3851.69	-222.48	253.03	60.63	0.57	260.19	13.47
3900.00	7.24	14.24	3876.49	-225.18	256.11	61.38	0.62	263.36	13.48
3925.00	7.51	16.55	3901.29	-227.87	259.20	62.23	1.60	266.57	13.50
3950.00	7.55	16.71	3926.07	-230.57	262.34	63.17	0.20	269.84	13.54
3975.00	7.74	20.35	3950.85	-233.25	265.49	64.22	2.07	273.15	13.60
4000.00	7.76	20.74	3975.62	-235.89	268.65	65.41	0.23	276.50	13.68
4025.00	7.91	21.93	4000.39	-238.54	271.82	66.65	0.88	279.87	13.78

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
4050.00	8.57	23.26	4025.13	-241.27	275.13	68.03	2.75	283.42	13.89
4075.00	9.08	22.20	4049.83	-244.19	278.67	69.51	2.13	287.21	14.01
4100.00	9.21	21.84	4074.51	-247.24	282.35	71.00	0.57	291.14	14.11
4125.00	9.05	20.42	4099.20	-250.33	286.05	72.43	1.10	295.08	14.21
4150.00	8.78	18.36	4123.90	-253.41	289.70	73.71	1.67	298.93	14.28
4175.00	8.68	16.53	4148.61	-256.51	293.32	74.85	1.18	302.72	14.32
4200.00	8.67	17.26	4173.32	-259.61	296.93	75.95	0.45	306.49	14.35
4225.00	8.62	17.72	4198.04	-262.68	300.52	77.08	0.34	310.24	14.39
4250.00	8.70	17.70	4222.75	-265.75	304.10	78.22	0.31	314.00	14.42
4275.00	8.59	17.73	4247.47	-268.81	307.68	79.36	0.43	317.75	14.46
4300.00	8.65	17.82	4272.18	-271.86	311.25	80.51	0.25	321.50	14.50
4325.00	9.03	19.97	4296.89	-274.94	314.89	81.76	2.01	325.33	14.55
4350.00	9.15	20.56	4321.57	-278.05	318.59	83.12	0.60	329.26	14.62
4375.00	9.11	20.98	4346.26	-281.16	322.30	84.53	0.31	333.20	14.70
4400.00	9.26	19.98	4370.94	-284.29	326.04	85.93	0.87	337.17	14.76
4425.00	8.88	21.82	4395.62	-287.37	329.72	87.33	1.89	341.09	14.83
4450.00	8.62	22.37	4420.33	-290.29	333.25	88.76	1.11	344.86	14.91
4475.00	7.99	21.88	4445.07	-293.06	336.59	90.12	2.51	348.45	14.99
4500.00	7.88	20.11	4469.83	-295.75	339.81	91.36	1.07	351.88	15.05
4525.00	7.88	16.36	4494.59	-298.52	343.07	92.43	2.06	355.30	15.08
4550.00	8.52	13.24	4519.34	-301.53	346.51	93.34	3.11	358.87	15.08
4575.00	8.69	12.91	4544.06	-304.74	350.16	94.18	0.73	362.60	15.05
4600.00	9.07	11.95	4568.76	-308.08	353.93	95.01	1.61	366.46	15.03
4625.00	9.54	10.68	4593.43	-311.61	357.89	95.81	2.06	370.49	14.99
4650.00	11.03	7.12	4618.03	-315.60	362.30	96.49	6.48	374.93	14.91
4675.00	11.82	6.30	4642.53	-320.11	367.22	97.06	3.24	379.83	14.81
4700.00	13.41	3.55	4666.93	-325.15	372.66	97.52	6.80	385.21	14.67
4725.00	14.31	2.82	4691.20	-330.74	378.64	97.86	3.64	391.08	14.49
4750.00	14.42	1.92	4715.42	-336.57	384.83	98.11	1.00	397.14	14.30
4775.00	14.41	1.06	4739.63	-342.44	391.06	98.27	0.86	403.21	14.11
4800.00	14.37	0.17	4763.85	-348.34	397.27	98.34	0.89	409.26	13.90

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
4825.00	14.45	0.07	4788.06	-354.26	403.49	98.35	0.31	415.30	13.70
4850.00	14.39	0.18	4812.27	-360.19	409.72	98.37	0.24	421.36	13.50
4875.00	14.54	4.17	4836.48	-366.05	415.95	98.60	4.03	427.48	13.34
4900.00	14.72	10.21	4860.67	-371.77	422.21	99.40	6.14	433.75	13.25
4925.00	15.16	14.59	4884.83	-377.33	428.50	100.78	4.84	440.19	13.24
4950.00	15.14	14.59	4908.96	-382.85	434.82	102.43	0.08	446.72	13.25
4975.00	14.73	15.70	4933.11	-388.26	441.04	104.11	1.99	453.16	13.28
5000.00	14.34	15.89	4957.31	-393.49	447.07	105.82	1.58	459.42	13.32
5025.00	13.76	15.86	4981.57	-398.54	452.91	107.48	2.30	465.49	13.35
5050.00	13.30	16.05	5005.87	-403.41	458.53	109.08	1.85	471.33	13.38
5075.00	12.77	16.19	5030.23	-408.09	463.95	110.65	2.12	476.96	13.41
5100.00	12.46	16.43	5054.62	-412.61	469.19	112.18	1.28	482.42	13.45
5125.00	12.10	16.44	5079.05	-417.01	474.29	113.69	1.41	487.73	13.48
5150.00	11.45	16.65	5103.53	-421.23	479.18	115.14	2.64	492.82	13.51
5175.00	11.23	15.72	5128.04	-425.30	483.90	116.51	1.14	497.73	13.54
5200.00	10.58	16.74	5152.59	-429.22	488.44	117.83	2.69	502.45	13.56
5225.00	10.27	16.69	5177.17	-432.95	492.78	119.13	1.23	506.97	13.59
5250.00	9.78	16.06	5201.79	-436.56	496.95	120.36	2.01	511.32	13.61
5275.00	9.80	16.28	5226.43	-440.08	501.04	121.54	0.16	515.57	13.64
5300.00	9.74	15.92	5251.07	-443.61	505.11	122.72	0.35	519.81	13.66
5325.00	9.77	15.65	5275.70	-447.14	509.19	123.87	0.22	524.04	13.67
5350.00	9.76	16.05	5300.34	-450.67	513.27	125.03	0.28	528.28	13.69
5375.00	9.70	15.86	5324.98	-454.18	517.33	126.19	0.26	532.50	13.71
5400.00	9.74	14.38	5349.62	-457.73	521.40	127.29	1.01	536.72	13.72
5425.00	9.82	15.85	5374.26	-461.29	525.50	128.40	1.05	540.96	13.73
5450.00	9.73	15.33	5398.90	-464.84	529.59	129.54	0.50	545.21	13.74
5475.00	9.78	15.75	5423.54	-468.38	533.67	130.67	0.35	549.44	13.76
5500.00	9.60	18.27	5448.18	-471.84	537.70	131.90	1.84	553.64	13.78
5525.00	9.25	23.71	5472.84	-475.03	541.52	133.37	3.82	557.70	13.84
5550.00	9.15	24.50	5497.52	-478.01	545.17	135.00	0.65	561.64	13.91
5575.00	9.25	25.16	5522.20	-480.95	548.80	136.68	0.57	565.56	13.98
5600.00	9.31	24.54	5546.87	-483.92	552.45	138.37	0.46	569.52	14.06

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
5625.00	9.32	23.77	5571.54	-486.93	556.14	140.03	0.50	573.50	14.13
5650.00	9.21	24.23	5596.22	-489.93	559.82	141.66	0.51	577.47	14.20
5675.00	9.03	22.84	5620.90	-492.91	563.45	143.24	1.15	581.38	14.26
5700.00	7.95	21.77	5645.63	-495.73	566.87	144.65	4.34	585.03	14.31
5725.00	7.02	21.00	5670.41	-498.25	569.90	145.83	3.77	588.26	14.35
5750.00	6.42	21.73	5695.24	-500.52	572.62	146.90	2.39	591.16	14.39
5775.00	6.08	21.07	5720.09	-502.63	575.16	147.89	1.42	593.87	14.42
5800.00	5.51	19.54	5744.96	-504.62	577.52	148.77	2.35	596.38	14.45
5825.00	5.12	19.21	5769.86	-506.47	579.71	149.54	1.58	598.68	14.46
5850.00	4.95	22.28	5794.76	-508.18	581.76	150.31	1.27	600.86	14.49
5875.00	4.80	20.76	5819.67	-509.83	583.73	151.09	0.78	602.97	14.51
5900.00	4.78	20.91	5844.58	-511.46	585.68	151.84	0.10	605.05	14.53
5925.00	4.68	22.84	5869.50	-513.05	587.60	152.60	0.75	607.09	14.56
5950.00	4.38	25.53	5894.42	-514.52	589.40	153.41	1.47	609.04	14.59
5975.00	3.80	34.84	5919.35	-515.71	590.94	154.30	3.52	610.76	14.63
6000.00	3.66	37.04	5944.30	-516.68	592.26	155.25	0.80	612.27	14.69
6025.00	3.38	40.81	5969.25	-517.52	593.46	156.22	1.48	613.67	14.75
6050.00	3.03	41.72	5994.22	-518.24	594.51	157.14	1.41	614.92	14.81
6075.00	2.35	45.96	6019.19	-518.80	595.35	157.94	2.83	615.95	14.86
6100.00	1.40	75.15	6044.17	-519.02	595.79	158.61	5.27	616.54	14.91
6125.00	1.52	83.73	6069.17	-518.93	595.90	159.23	0.99	616.81	14.96
6150.00	1.53	100.99	6094.16	-518.71	595.88	159.89	1.83	616.95	15.02
6175.00	1.83	111.01	6119.15	-518.30	595.67	160.59	1.67	616.94	15.09
6200.00	1.89	112.57	6144.13	-517.78	595.37	161.34	0.31	616.84	15.16
6225.00	1.75	109.14	6169.12	-517.28	595.08	162.08	0.73	616.76	15.24
6250.00	1.84	108.98	6194.11	-516.82	594.83	162.82	0.37	616.71	15.31
6275.00	1.79	108.73	6219.10	-516.34	594.57	163.57	0.21	616.66	15.38
6300.00	1.91	109.74	6244.08	-515.86	594.31	164.33	0.50	616.61	15.46
6325.00	1.89	110.82	6269.07	-515.35	594.02	165.11	0.16	616.54	15.53
6350.00	1.78	108.10	6294.06	-514.87	593.75	165.86	0.56	616.48	15.61
6375.00	1.71	107.01	6319.05	-514.43	593.52	166.58	0.31	616.46	15.68
6400.00	1.77	106.05	6344.03	-514.00	593.31	167.31	0.28	616.45	15.75

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
6425.00	1.72	103.81	6369.02	-513.59	593.11	168.05	0.34	616.46	15.82
6450.00	1.66	106.02	6394.01	-513.19	592.92	168.76	0.35	616.47	15.89
6475.00	1.70	105.81	6419.00	-512.78	592.72	169.46	0.17	616.47	15.96
6500.00	1.75	106.52	6443.99	-512.36	592.51	170.19	0.22	616.47	16.03
6525.00	1.59	107.38	6468.98	-511.95	592.30	170.88	0.67	616.46	16.09
6550.00	1.59	103.53	6493.97	-511.57	592.12	171.55	0.43	616.47	16.16
6575.00	1.58	107.74	6518.96	-511.19	591.93	172.21	0.47	616.47	16.22
6600.00	1.53	106.96	6543.95	-510.80	591.73	172.86	0.20	616.46	16.28
6625.00	1.56	103.99	6568.94	-510.43	591.55	173.51	0.33	616.47	16.35
6650.00	1.62	103.17	6593.93	-510.07	591.39	174.19	0.29	616.50	16.41
6675.00	1.55	103.97	6618.92	-509.71	591.22	174.86	0.33	616.54	16.48
6700.00	1.50	106.67	6643.91	-509.35	591.05	175.50	0.34	616.55	16.54
6725.00	1.44	106.54	6668.91	-508.99	590.86	176.11	0.24	616.55	16.60
6750.00	1.55	107.85	6693.90	-508.61	590.67	176.74	0.44	616.55	16.66
6775.00	1.53	108.17	6718.89	-508.22	590.46	177.38	0.06	616.53	16.72
6800.00	1.44	109.51	6743.88	-507.83	590.25	177.99	0.39	616.51	16.78
6825.00	1.28	108.71	6768.87	-507.47	590.06	178.55	0.66	616.48	16.84
6850.00	1.45	104.52	6793.87	-507.14	589.89	179.12	0.77	616.49	16.89
6875.00	1.36	101.87	6818.86	-506.83	589.75	179.72	0.44	616.53	16.95
6900.00	1.27	101.53	6843.85	-506.54	589.63	180.28	0.34	616.58	17.00
6925.00	1.39	101.71	6868.84	-506.26	589.52	180.85	0.45	616.63	17.05
6950.00	1.51	106.16	6893.84	-505.93	589.36	181.46	0.67	616.67	17.11
6975.00	1.06	107.85	6918.83	-505.61	589.20	181.99	1.81	616.67	17.16
7000.00	1.05	110.15	6943.83	-505.33	589.05	182.43	0.17	616.65	17.21
7025.00	1.07	111.11	6968.82	-505.05	588.89	182.86	0.11	616.63	17.25
7050.00	0.85	112.16	6993.82	-504.78	588.73	183.25	0.91	616.60	17.29
7075.00	0.92	104.70	7018.82	-504.55	588.61	183.62	0.54	616.59	17.33
7100.00	0.95	103.90	7043.81	-504.34	588.51	184.01	0.16	616.61	17.36
7125.00	0.77	103.48	7068.81	-504.14	588.42	184.38	0.73	616.63	17.40
7150.00	0.74	106.08	7093.81	-503.96	588.34	184.70	0.18	616.65	17.43
7175.00	0.70	108.86	7118.81	-503.78	588.25	185.00	0.23	616.65	17.46

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
7200.00	0.61	113.93	7143.80	-503.60	588.14	185.26	0.40	616.63	17.48
7225.00	0.62	122.29	7168.80	-503.41	588.02	185.50	0.36	616.58	17.51
7250.00	0.59	119.54	7193.80	-503.21	587.88	185.72	0.16	616.52	17.53
7275.00	0.48	118.50	7218.80	-503.04	587.77	185.93	0.45	616.47	17.55
7300.00	0.41	127.10	7243.80	-502.90	587.67	186.09	0.38	616.42	17.57
7325.00	0.48	132.18	7268.80	-502.73	587.54	186.24	0.31	616.35	17.59
7350.00	0.53	138.94	7293.80	-502.54	587.38	186.39	0.32	616.25	17.61
7375.00	0.43	124.86	7318.80	-502.35	587.24	186.54	0.62	616.16	17.62
7400.00	0.35	125.12	7343.80	-502.22	587.15	186.68	0.30	616.11	17.64
7425.00	0.29	142.02	7368.80	-502.10	587.05	186.79	0.45	616.05	17.65
7450.00	0.31	166.50	7393.79	-501.97	586.93	186.84	0.52	615.96	17.66
7475.00	0.39	169.52	7418.79	-501.82	586.79	186.87	0.31	615.82	17.67
7500.00	0.28	201.46	7443.79	-501.69	586.65	186.87	0.84	615.69	17.67
7525.00	0.23	191.79	7468.79	-501.60	586.54	186.83	0.24	615.58	17.67
7550.00	0.32	198.52	7493.79	-501.50	586.43	186.80	0.36	615.46	17.67
7575.00	0.52	225.19	7518.79	-501.39	586.28	186.70	1.11	615.29	17.66
7600.00	0.54	224.44	7543.79	-501.28	586.12	186.54	0.07	615.08	17.65
7625.00	0.45	237.81	7568.79	-501.20	585.98	186.37	0.57	614.90	17.64
7650.00	0.47	249.78	7593.79	-501.18	585.89	186.19	0.39	614.77	17.63
7675.00	0.56	262.46	7618.79	-501.19	585.84	185.97	0.59	614.65	17.61
7700.00	0.67	251.06	7643.79	-501.21	585.78	185.71	0.65	614.51	17.59
7725.00	0.65	249.44	7668.79	-501.20	585.68	185.44	0.11	614.34	17.57
7750.00	0.60	248.69	7693.78	-501.19	585.58	185.19	0.20	614.17	17.55
7775.00	0.58	263.38	7718.78	-501.20	585.52	184.94	0.61	614.03	17.53
7800.00	0.67	260.92	7743.78	-501.25	585.48	184.67	0.37	613.91	17.51
7825.00	0.69	254.21	7768.78	-501.28	585.42	184.38	0.33	613.77	17.48
7850.00	0.56	255.91	7793.78	-501.29	585.35	184.11	0.54	613.62	17.46
7875.00	0.42	252.63	7818.78	-501.30	585.29	183.91	0.55	613.50	17.44
7900.00	0.50	269.27	7843.78	-501.33	585.26	183.71	0.61	613.42	17.43
7925.00	0.51	273.85	7868.78	-501.40	585.27	183.49	0.17	613.36	17.41
7950.00	0.53	279.45	7893.77	-501.50	585.29	183.27	0.22	613.31	17.39
7975.00	0.61	287.32	7918.77	-501.63	585.35	183.02	0.45	613.30	17.36

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
8000.00	0.70	292.02	7943.77	-501.80	585.45	182.75	0.42	613.31	17.34
8025.00	0.74	288.58	7968.77	-502.00	585.56	182.46	0.24	613.33	17.31
8050.00	0.75	286.08	7993.77	-502.18	585.66	182.15	0.14	613.33	17.28
8075.00	0.76	286.51	8018.77	-502.37	585.75	181.83	0.05	613.32	17.25
8100.00	0.77	289.50	8043.76	-502.56	585.85	181.51	0.16	613.33	17.21
8125.00	0.82	290.43	8068.76	-502.78	585.97	181.19	0.21	613.34	17.18
8150.00	0.82	293.25	8093.76	-503.00	586.10	180.85	0.16	613.37	17.15
8175.00	0.80	293.62	8118.76	-503.24	586.24	180.53	0.09	613.41	17.12
8200.00	0.86	289.98	8143.75	-503.47	586.38	180.19	0.30	613.44	17.08
8225.00	0.84	287.95	8168.75	-503.69	586.50	179.84	0.14	613.45	17.05
8250.00	0.82	286.92	8193.75	-503.90	586.61	179.50	0.10	613.45	17.01
8275.00	0.92	288.19	8218.74	-504.12	586.72	179.14	0.43	613.46	16.98
8300.00	0.80	286.88	8243.74	-504.33	586.83	178.78	0.48	613.46	16.94
8325.00	0.77	286.29	8268.74	-504.53	586.93	178.45	0.15	613.46	16.91
8350.00	0.76	285.71	8293.74	-504.71	587.02	178.13	0.05	613.46	16.88
8375.00	0.81	283.22	8318.74	-504.90	587.11	177.80	0.24	613.44	16.85
8400.00	0.79	283.25	8343.73	-505.08	587.19	177.46	0.08	613.42	16.82
8425.00	0.81	286.14	8368.73	-505.26	587.28	177.12	0.19	613.41	16.78
8450.00	0.81	288.57	8393.73	-505.47	587.38	176.78	0.14	613.41	16.75
8475.00	0.83	283.53	8418.73	-505.66	587.48	176.44	0.31	613.41	16.72
8500.00	0.89	279.08	8443.72	-505.85	587.56	176.07	0.36	613.37	16.68
8525.00	0.83	272.61	8468.72	-506.00	587.59	175.70	0.46	613.30	16.65
8550.00	0.87	273.81	8493.72	-506.13	587.61	175.33	0.17	613.21	16.61
8575.00	0.83	273.07	8518.71	-506.26	587.64	174.96	0.17	613.13	16.58
8600.00	0.90	272.39	8543.71	-506.40	587.65	174.58	0.31	613.04	16.55
8625.00	0.91	271.19	8568.71	-506.53	587.67	174.19	0.08	612.94	16.51
8650.00	0.95	271.26	8593.70	-506.66	587.68	173.78	0.17	612.83	16.47
8675.00	1.02	272.18	8618.70	-506.80	587.69	173.35	0.26	612.72	16.43
8700.00	1.11	269.28	8643.70	-506.95	587.69	172.89	0.41	612.60	16.39
8725.00	1.18	265.27	8668.69	-507.08	587.67	172.39	0.43	612.43	16.35
8750.00	1.19	268.98	8693.69	-507.21	587.64	171.87	0.31	612.26	16.30
8775.00	1.17	270.18	8718.68	-507.37	587.64	171.36	0.13	612.12	16.26

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
8800.00	1.17	272.00	8743.68	-507.53	587.65	170.85	0.15	611.98	16.21
8825.00	1.12	267.95	8768.67	-507.68	587.65	170.35	0.38	611.84	16.17
8850.00	1.09	264.40	8793.67	-507.80	587.62	169.87	0.31	611.68	16.12
8875.00	1.11	266.29	8818.66	-507.91	587.58	169.39	0.16	611.51	16.08
8900.00	1.14	264.93	8843.66	-508.02	587.54	168.90	0.16	611.34	16.04
8925.00	1.17	262.46	8868.65	-508.12	587.49	168.40	0.24	611.15	15.99
8950.00	1.19	263.48	8893.65	-508.22	587.42	167.89	0.11	610.95	15.95
8975.00	1.16	263.86	8918.64	-508.32	587.37	167.38	0.09	610.75	15.91
9000.00	1.15	262.54	8943.64	-508.41	587.31	166.88	0.13	610.56	15.86
9025.00	1.37	265.44	8968.63	-508.53	587.25	166.34	0.94	610.35	15.81
9050.00	1.39	270.46	8993.62	-508.69	587.23	165.73	0.49	610.17	15.76
9075.00	1.45	269.91	9018.62	-508.88	587.23	165.11	0.24	610.00	15.70
9100.00	1.50	270.14	9043.61	-509.08	587.23	164.47	0.20	609.83	15.65
9125.00	1.41	269.01	9068.60	-509.27	587.23	163.83	0.37	609.65	15.59
9150.00	1.60	267.57	9093.59	-509.45	587.21	163.18	0.74	609.46	15.53
9175.00	1.66	269.06	9118.58	-509.65	587.19	162.47	0.31	609.25	15.47
9200.00	1.72	268.05	9143.57	-509.85	587.17	161.73	0.25	609.03	15.40
9225.00	1.71	269.92	9168.56	-510.07	587.16	160.98	0.23	608.82	15.33
9250.00	1.73	267.44	9193.55	-510.28	587.14	160.23	0.31	608.61	15.26
9275.00	1.63	269.94	9218.54	-510.49	587.12	159.50	0.50	608.40	15.20
9300.00	1.92	266.23	9243.52	-510.70	587.09	158.73	1.26	608.17	15.13
9325.00	1.92	261.00	9268.51	-510.86	587.00	157.90	0.70	607.86	15.06
9350.00	1.86	246.97	9293.50	-510.89	586.78	157.11	1.87	607.44	14.99
9375.00	2.07	235.52	9318.48	-510.72	586.36	156.36	1.77	606.85	14.93
9400.00	2.27	231.86	9343.46	-510.42	585.80	155.60	0.98	606.11	14.88
9425.00	2.37	232.47	9368.44	-510.07	585.18	154.80	0.40	605.31	14.82
9450.00	2.51	232.60	9393.42	-509.71	584.53	153.96	0.59	604.47	14.76
9475.00	2.51	233.26	9418.40	-509.35	583.87	153.08	0.12	603.61	14.69
9500.00	2.57	233.83	9443.37	-509.00	583.21	152.19	0.27	602.75	14.63
9525.00	2.66	230.85	9468.35	-508.61	582.52	151.29	0.66	601.84	14.56
9550.00	2.72	230.12	9493.32	-508.17	581.77	150.39	0.26	600.89	14.49

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	DLS	CLOSURE DIST	CLOSURE DIR
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft	deg
9575.00	2.80	229.44	9518.29	-507.71	580.99	149.47	0.34	599.91	14.43
9600.00	2.91	229.08	9543.26	-507.23	580.18	148.52	0.47	598.89	14.36
9625.00	2.83	230.06	9568.23	-506.74	579.37	147.57	0.39	597.87	14.29
9650.00	2.86	230.31	9593.20	-506.28	578.57	146.62	0.12	596.86	14.22
9675.00	2.90	228.61	9618.16	-505.79	577.76	145.66	0.39	595.84	14.15
9700.00	2.66	224.48	9643.14	-505.27	576.93	144.78	1.27	594.82	14.09
9725.00	2.16	205.43	9668.11	-504.65	576.09	144.17	3.74	593.85	14.05
9750.00	2.18	179.87	9693.10	-503.86	575.18	143.97	3.85	592.93	14.05
9775.00	2.23	174.84	9718.08	-502.93	574.22	144.02	0.79	592.01	14.08
9800.00	2.46	178.74	9743.06	-501.94	573.20	144.07	1.15	591.03	14.11
9825.00	2.51	179.66	9768.03	-500.90	572.12	144.09	0.24	589.98	14.14
9850.00	2.40	178.57	9793.01	-499.88	571.05	144.10	0.47	588.95	14.16
9875.00	2.43	177.32	9817.99	-498.86	570.00	144.14	0.23	587.94	14.19
9900.00	2.32	178.21	9842.97	-497.87	568.96	144.18	0.46	586.95	14.22
9925.00	2.27	179.43	9867.95	-496.91	567.96	144.20	0.27	585.98	14.25
9950.00	2.07	177.63	9892.93	-496.00	567.01	144.23	0.85	585.07	14.27
9975.00	1.72	174.01	9917.92	-495.20	566.19	144.28	1.48	584.29	14.30
10000.00	1.66	175.69	9942.90	-494.48	565.46	144.35	0.32	583.59	14.32
10025.00	1.61	171.11	9967.89	-493.78	564.75	144.43	0.56	582.93	14.35
10050.00	1.54	166.26	9992.88	-493.10	564.08	144.57	0.60	582.31	14.37
10075.00	1.41	172.99	10017.88	-492.46	563.45	144.68	0.87	581.73	14.40
10100.00	1.38	175.13	10042.87	-491.87	562.84	144.75	0.23	581.16	14.42
10125.00	1.42	171.18	10067.86	-491.27	562.24	144.82	0.42	580.59	14.44
10150.00	1.30	168.09	10092.85	-490.68	561.65	144.93	0.58	580.05	14.47
10175.00	1.13	170.45	10117.85	-490.15	561.13	145.02	0.71	579.57	14.49
10200.00	0.83	169.16	10142.85	-489.73	560.71	145.10	1.19	579.18	14.51
10225.00	0.39	164.32	10167.84	-489.47	560.45	145.16	1.77	578.95	14.52
10250.00	0.09	190.81	10192.84	-489.37	560.35	145.18	1.26	578.85	14.52
10275.00	0.26	301.90	10217.84	-489.39	560.36	145.12	1.20	578.85	14.52
10300.00	0.72	313.54	10242.84	-489.57	560.50	144.96	1.87	578.94	14.50
10325.00	1.13	317.18	10267.84	-489.93	560.79	144.68	1.64	579.15	14.47
10350.00	1.47	313.88	10292.83	-490.44	561.19	144.28	1.42	579.44	14.42

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	CLOSURE DIST ft	CLOSURE DIR deg
10375.00	1.74	315.40	10317.82	-491.06	561.69	143.79	1.07	579.80	14.36
10400.00	2.11	317.66	10342.81	-491.81	562.30	143.21	1.53	580.25	14.29
10425.00	2.13	317.45	10367.79	-492.65	562.98	142.59	0.07	580.75	14.21
10450.00	2.07	317.43	10392.77	-493.49	563.65	141.97	0.22	581.26	14.14
10475.00	2.01	317.77	10417.76	-494.29	564.31	141.37	0.25	581.75	14.06
10500.00	1.75	325.69	10442.75	-495.06	564.95	140.86	1.46	582.24	14.00
10525.00	1.60	339.83	10467.74	-495.77	565.59	140.52	1.76	582.79	13.95
10550.00	1.62	343.34	10492.73	-496.47	566.26	140.30	0.40	583.38	13.92
10575.00	1.79	339.22	10517.71	-497.22	566.96	140.06	0.86	584.00	13.88
10600.00	1.91	339.45	10542.70	-498.03	567.72	139.78	0.48	584.67	13.83
10625.00	1.83	339.04	10567.69	-498.84	568.48	139.49	0.35	585.34	13.79
10650.00	1.59	338.17	10592.68	-499.58	569.17	139.21	0.96	585.95	13.74
10675.00	1.22	324.64	10617.67	-500.18	569.71	138.93	1.96	586.41	13.70
10700.00	1.82	328.99	10642.66	-500.82	570.27	138.57	2.44	586.87	13.66
10725.00	2.00	325.17	10667.65	-501.63	570.97	138.12	0.88	587.44	13.60
10750.00	1.98	329.35	10692.63	-502.47	571.70	137.65	0.59	588.04	13.54
10775.00	1.85	332.72	10717.62	-503.29	572.43	137.24	0.68	588.65	13.48
10800.00	1.83	329.90	10742.60	-504.07	573.13	136.86	0.38	589.25	13.43
10825.00	1.93	328.67	10767.59	-504.87	573.84	136.44	0.45	589.84	13.37
10850.00	1.87	334.45	10792.58	-505.69	574.57	136.05	0.81	590.45	13.32
10874.00	1.38	330.72	10816.57	-506.36	575.17	135.73	2.07	590.97	13.28

OPERATOR: PDEH LLC

WELL LOCATION

LEASE NAME & WELL NO.:

UL 20 PADDLE TAIL B #503H

PSA ACREAGE:

1,922.10 ACRES (CALLED)

NEAREST TOWN IN COUNTY:

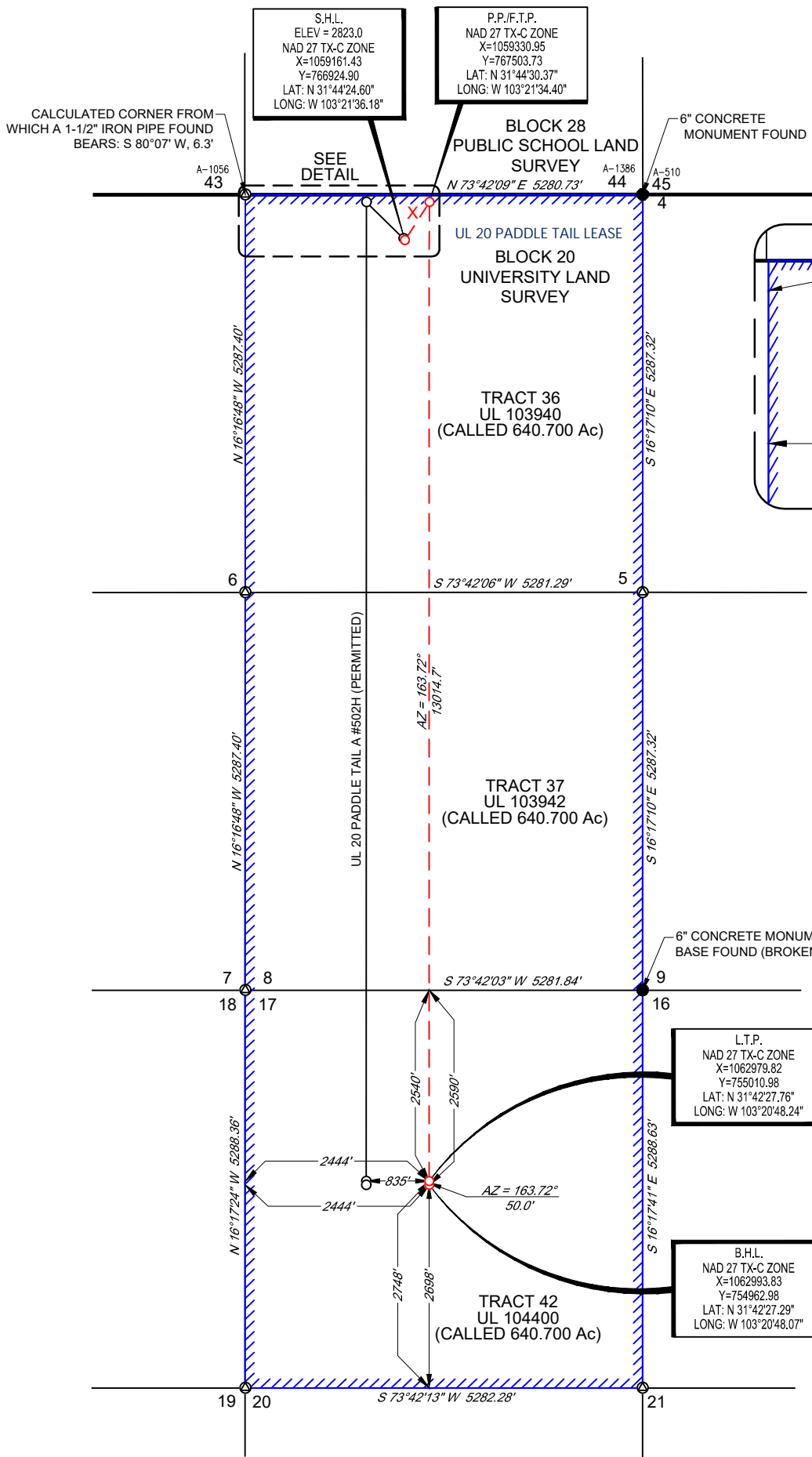
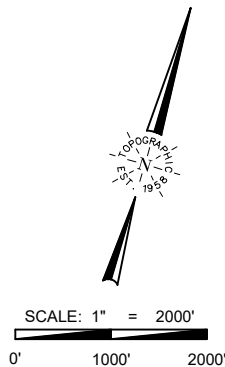
±14.2 MILES NORTHEAST OF MENTONE, TEXAS

DESCRIPTION:

S.H.L./P.P./F.T.P.: SECTION 5, BLOCK 20, UNIVERSITY LAND SURVEY

L.T.P/B.H.L.: SECTION 17, BLOCK 20, UNIVERSITY LAND SURVEY

LOVING COUNTY, TEXAS



BH10816.57TVD 575.17N 135.73E
10874MD -506.36FT@13.28AZ

PRODUCTIVE LATERAL

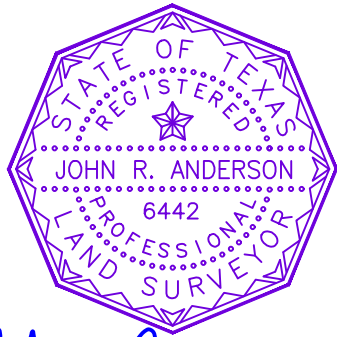
LENGTH (F.T.P. TO L.T.P.)	
1	5,187'
2	5,287'
3	2,540'
TOTAL	13,014'

TIES TABLE

POINT	PSA	SURVEY/SECTION
S.H.L.	608' FNWL	608' FNWL & 2119' FSWL
	2119' FSWL	
P.P. / F.T.P.	100' FNWL	100' FNWL & 2444' FSWL
	2444' FSWL	
L.T.P.	2444' FSWL	2540' FNWL & 2444' FSWL
	2748' FSEL	
B.H.L.	2444' FSWL	2590' FNWL & 2444' FSWL
	2698' FSEL	

LEGEND:

- PSA Boundary
- Block/Township Line
- Section Line
- Proposed Well Path
- Existing/Permitted Well Path
- Monument Found
- Calculated Corner
- Well Point



John R. Anderson 7/26/2022
John R. Anderson, R.P.L.S. No. 6442

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

UL-20-5-P2 UL 20 PADDLE TAIL B #503H	REVISION:	
	INT	DATE
DATE: 07/20/2022		
FILE: LO_UL-20-5-P2_PADDLE_TAIL_B_#503H		
DRAWN BY: A.C.L.		
SHEET: 1 OF 1		


NOTES:

- ORIGINAL DOCUMENT SIZE: 11" X 17"
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- L.T.P. = LAST TAKE POINT
- B.H.L. = BOTTOM HOLE LOCATION




Field Technician

OPERATOR: PDEH LLC

WELL LOCATION

LEASE NAME & WELL NO.:

UL 20 PADDLE TAIL B #503H

PSA ACREAGE:

1,922.10 ACRES (CALLED)

NEAREST TOWN IN COUNTY:

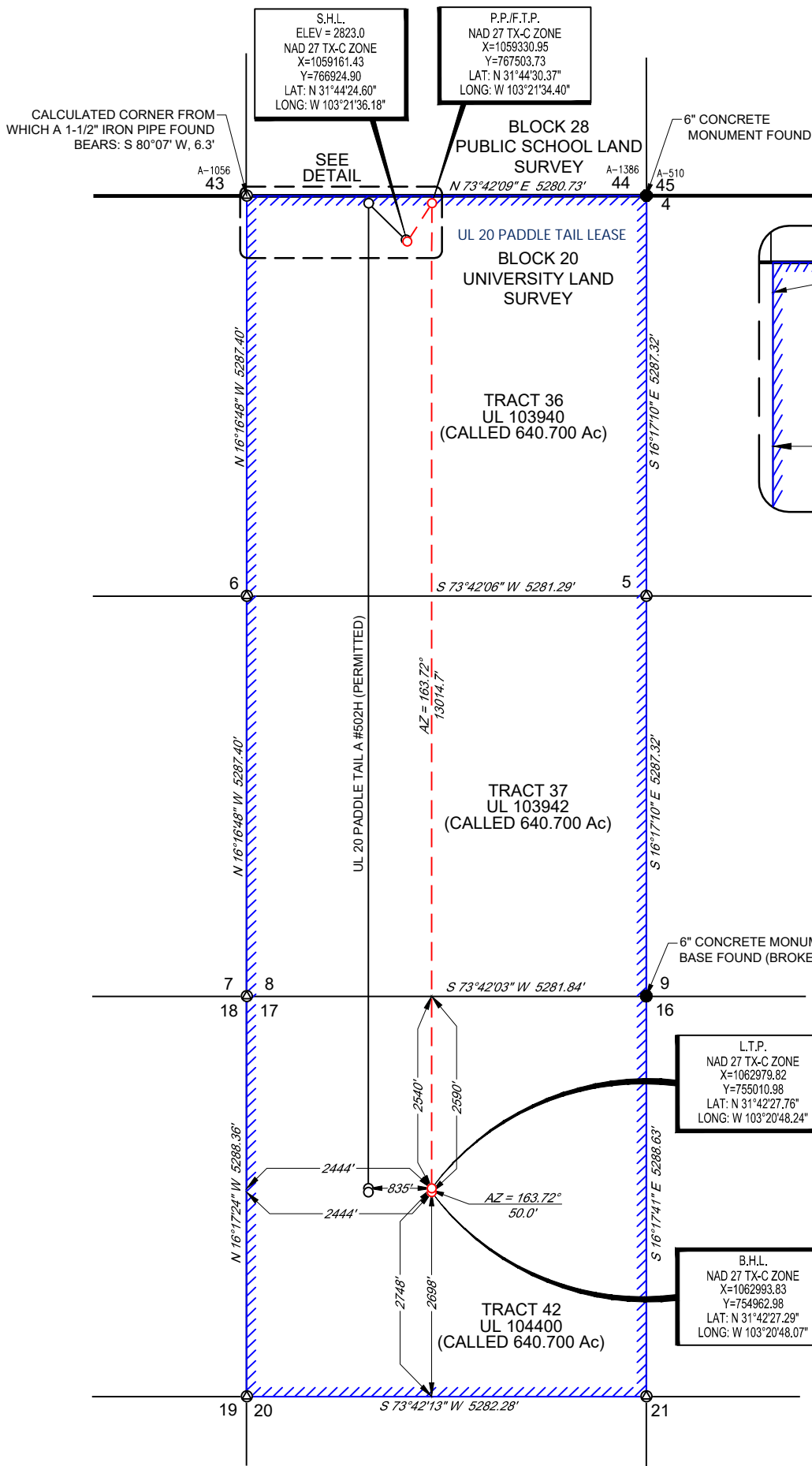
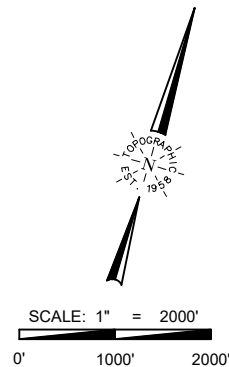
±14.2 MILES NORTHEAST OF MENTONE, TEXAS

DESCRIPTION:

S.H.L./P.P./F.T.P.: SECTION 5, BLOCK 20, UNIVERSITY LAND SURVEY

L.T.P./B.H.L.: SECTION 17, BLOCK 20, UNIVERSITY LAND SURVEY

LOVING COUNTY, TEXAS



PRODUCTIVE LATERAL

LENGTH (F.T.P. TO L.T.P.)	
1	5,187'
2	5,287'
3	2,540'
TOTAL	13,014'

TIES TABLE

POINT	PSA	SURVEY/SECTION
S.H.L.	608' FNWL	608' FNWL & 2119' FSWL
	2119' FSWL	
P.P. / F.T.P.	100' FNWL	100' FNWL & 2444' FSWL
	2444' FSWL	
L.T.P.	2444' FSWL	2540' FNWL & 2444' FSWL
	2748' FSEL	
B.H.L.	2444' FSWL	2590' FNWL & 2444' FSWL
	2698' FSEL	

LEGEND:

	PSA Boundary
	Block/Township Line
	Section Line
	Proposed Well Path
	Existing/Permitted Well Path
	Monument Found
	Calculated Corner
	Well Point



John R. Anderson 7/26/2022
John R. Anderson, R.P.L.S. No. 6442



1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

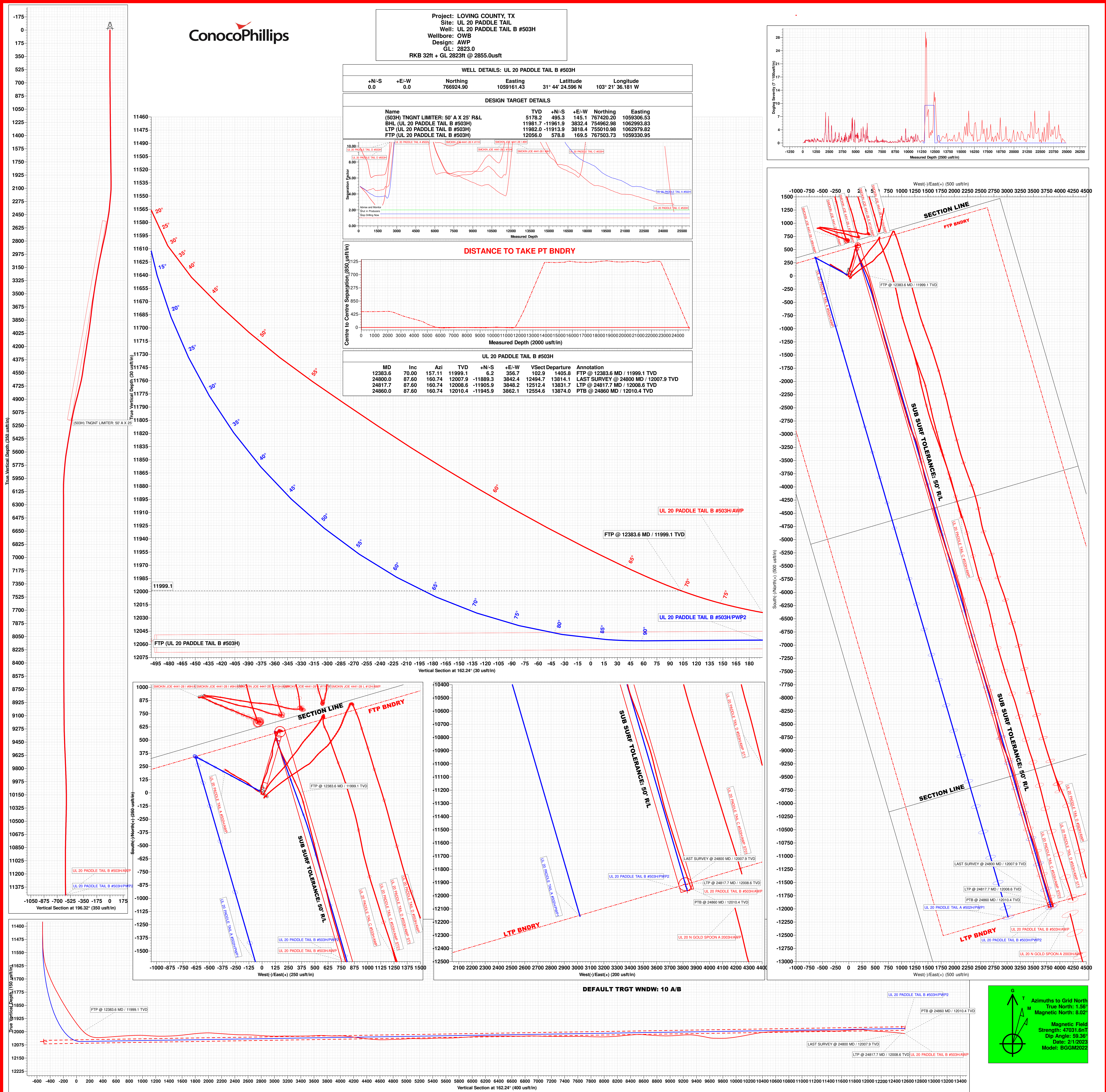
UL-20-5-P2 UL 20 PADDLE TAIL B #503H	REVISION:	
	INT	DATE
DATE: 07/20/2022		
FILE: LO_UL-20-5-P2_PADDLE_TAIL_B_#503H		
DRAWN BY: A.C.L.		
SHEET: 1 OF 1		

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Directional Survey Report

Company: **ConocoPhillips Company**
 Well: **UL 20 Paddle Tail B #503H**
 County: **Loving**
 State: **Texas**
 Field: **Phantom (Wolfcamp)**
 API: **42301360790000**
 Rig: **Nabors X04**
 Service Co: **Gordon Technologies LLC**
 Job #: **GT230047**
 Survey Calc: **Minimum Curvature**

Well Surface Location
 Latitude: **31.740166**
 Longitude: **-103.360050**
 Reference: **NAD 1927**
 Y (Northing): **766924.90**
 X (Easting): **1059161.43**
 Field Engr: **Onyeka Nwachukwu**
Reuben Oster

Report Date: **Apr 20 2023**
 Time: **10:04**
 Mag Reference: **Grid North**
 Mag Correction: **8.05**
 Vert Sect. Azi: **162.24**
 Perm Datum: **Mean Sea Level**
 Depth Ref: **Rotary Table**
 RKB Height: **32.0**
 GL Elev: **2823**

Survey	MD	Inc	Azimuth	TVD	VS	Rectangular Offsets		Course Length	DLS	Temp	Closure		Source
						NS	EW				Distance	Azimuth	
Tie In	0	0	0	0	0	0	0	0	0	0	0	0	
1	100.00	0.19	46.04	100.00	-0.07	0.12	0.12	100.00	0.19	0.00	0.17	46.04	3rd Party MSA Extra Survey
2	125.00	0.17	42.12	125.00	-0.11	0.17	0.17	25.00	0.09	0.00	0.24	45.45	3rd Party MSA Extra Survey
3	150.00	0.22	69.21	150.00	-0.13	0.22	0.24	25.00	0.41	0.00	0.33	48.47	3rd Party MSA Extra Survey
4	175.00	0.24	69.91	175.00	-0.14	0.25	0.34	25.00	0.08	0.00	0.42	53.40	3rd Party MSA Extra Survey
5	200.00	0.27	29.94	200.00	-0.18	0.32	0.42	25.00	0.71	0.00	0.53	52.46	3rd Party MSA Extra Survey
6	225.00	0.27	28.35	225.00	-0.26	0.42	0.47	25.00	0.03	0.00	0.64	48.25	3rd Party MSA Extra Survey
7	250.00	0.07	45.45	250.00	-0.31	0.49	0.51	25.00	0.82	0.00	0.71	46.56	3rd Party MSA Extra Survey
8	275.00	0.21	60.55	275.00	-0.32	0.52	0.56	25.00	0.57	0.00	0.77	47.37	3rd Party MSA Extra Survey
9	300.00	0.17	126.89	300.00	-0.30	0.52	0.63	25.00	0.84	0.00	0.82	50.66	3rd Party MSA Extra Survey
10	325.00	0.23	75.32	325.00	-0.27	0.51	0.71	25.00	0.73	0.00	0.87	54.39	3rd Party MSA Extra Survey
11	350.00	0.28	46.15	350.00	-0.29	0.56	0.80	25.00	0.55	0.00	0.98	54.92	3rd Party MSA Extra Survey
12	375.00	0.17	17.97	375.00	-0.35	0.64	0.86	25.00	0.61	0.00	1.07	53.24	3rd Party MSA Extra Survey
13	400.00	0.06	256.98	400.00	-0.38	0.67	0.86	25.00	0.83	0.00	1.09	51.83	3rd Party MSA Extra Survey
14	425.00	0.08	92.29	425.00	-0.38	0.67	0.86	25.00	0.56	0.00	1.09	52.14	3rd Party MSA Extra Survey
15	450.00	0.10	326.03	450.00	-0.39	0.69	0.87	25.00	0.64	0.00	1.11	51.59	3rd Party MSA Extra Survey
16	475.00	0.13	265.22	475.00	-0.42	0.70	0.83	25.00	0.48	0.00	1.09	49.62	3rd Party MSA Extra Survey
17	500.00	0.27	224.87	500.00	-0.40	0.66	0.76	25.00	0.76	0.00	1.00	48.95	3rd Party MSA Extra Survey
18	525.00	0.39	261.45	525.00	-0.38	0.61	0.63	25.00	0.95	0.00	0.88	46.23	3rd Party MSA Extra Survey
19	550.00	0.29	255.63	550.00	-0.40	0.58	0.49	25.00	0.42	0.00	0.75	40.14	3rd Party MSA Extra Survey
20	575.00	0.25	263.60	575.00	-0.42	0.56	0.37	25.00	0.22	0.00	0.67	33.75	3rd Party MSA Extra Survey
21	600.00	0.46	249.23	600.00	-0.42	0.51	0.22	25.00	0.91	0.00	0.56	23.47	3rd Party MSA Extra Survey
22	625.00	0.52	247.84	625.00	-0.41	0.44	0.02	25.00	0.24	0.00	0.44	3.17	3rd Party MSA Extra Survey
23	650.00	0.65	235.52	649.99	-0.36	0.31	-0.20	25.00	0.72	0.00	0.37	327.62	3rd Party MSA Extra Survey
24	675.00	0.79	234.50	674.99	-0.26	0.13	-0.46	25.00	0.56	0.00	0.47	286.14	3rd Party MSA Extra Survey
25	700.00	0.66	229.42	699.99	-0.16	-0.06	-0.70	25.00	0.58	0.00	0.71	264.97	3rd Party MSA Extra Survey
26	725.00	0.61	230.57	724.99	-0.05	-0.24	-0.92	25.00	0.21	0.00	0.95	255.32	3rd Party MSA Extra Survey
27	750.00	0.51	226.21	749.99	0.05	-0.40	-1.10	25.00	0.43	0.00	1.17	249.94	3rd Party MSA Extra Survey
28	775.00	0.45	241.34	774.99	0.11	-0.53	-1.27	25.00	0.56	0.00	1.37	247.45	3rd Party MSA Extra Survey
29	800.00	0.70	234.53	799.99	0.18	-0.66	-1.48	25.00	1.03	0.00	1.62	245.87	3rd Party MSA Extra Survey
30	825.00	0.53	229.74	824.98	0.27	-0.82	-1.69	25.00	0.71	0.00	1.88	243.98	3rd Party MSA Extra Survey
31	850.00	0.48	236.45	849.98	0.34	-0.96	-1.87	25.00	0.31	0.00	2.10	242.83	3rd Party MSA Extra Survey
32	875.00	0.61	246.36	874.98	0.39	-1.07	-2.07	25.00	0.64	0.00	2.33	242.74	3rd Party MSA Extra Survey
33	900.00	0.55	222.34	899.98	0.46	-1.21	-2.28	25.00	0.99	0.00	2.58	242.00	3rd Party MSA Extra Survey
34	925.00	0.52	233.33	924.98	0.56	-1.37	-2.45	25.00	0.43	0.00	2.80	240.82	3rd Party MSA Extra Survey
35	950.00	0.72	226.18	949.98	0.66	-1.54	-2.65	25.00	0.86	0.00	3.07	239.81	3rd Party MSA Extra Survey
36	975.00	0.54	223.64	974.98	0.79	-1.74	-2.85	25.00	0.73	0.00	3.34	238.61	3rd Party MSA Extra Survey
37	1000.00	0.57	220.52	999.98	0.91	-1.92	-3.01	25.00	0.17	0.00	3.57	237.50	3rd Party MSA Extra Survey
38	1025.00	0.48	218.20	1024.97	1.03	-2.09	-3.16	25.00	0.37	0.00	3.79	236.43	3rd Party MSA Extra Survey
39	1050.00	0.54	218.76	1049.97	1.16	-2.27	-3.29	25.00	0.24	0.00	4.00	235.45	3rd Party MSA Extra Survey
40	1075.00	0.52	254.79	1074.97	1.22	-2.39	-3.48	25.00	1.31	0.00	4.22	235.50	3rd Party MSA Extra Survey
41	1100.00	0.67	229.79	1099.97	1.27	-2.51	-3.70	25.00	1.19	0.00	4.47	235.79	3rd Party MSA Extra Survey
42	1125.00	0.51	215.96	1124.97	1.39	-2.70	-3.88	25.00	0.85	0.00	4.72	235.15	3rd Party MSA Extra Survey
43	1150.00	0.49	236.15	1149.97	1.48	-2.85	-4.03	25.00	0.71	0.00	4.93	234.74	3rd Party MSA Extra Survey
44	1175.00	0.67	224.76	1174.97	1.58	-3.01	-4.22	25.00	0.85	0.00	5.19	234.49	3rd Party MSA Extra Survey
45	1200.00	0.62	216.20	1199.97	1.73	-3.22	-4.40	25.00	0.43	0.00	5.46	233.79	3rd Party MSA Extra Survey
46	1225.00	0.65	219.38	1224.96	1.88	-3.44	-4.57	25.00	0.19	0.00	5.72	233.03	3rd Party MSA Extra Survey
47	1250.00	0.68	212.43	1249.96	2.06	-3.68	-4.74	25.00	0.34	0.00	6.00	232.21	3rd Party MSA Extra Survey
48	1275.00	0.74	207.83	1274.96	2.26	-3.95	-4.90	25.00	0.33	0.00	6.29	231.14	3rd Party MSA Extra Survey
49	1300.00	0.60	203.27	1299.96	2.48	-4.21	-5.03	25.00	0.60	0.00	6.56	230.05	3rd Party MSA Extra Survey
50	1325.00	0.59	214.89	1324.96	2.65	-4.43	-5.15	25.00	0.48	0.00	6.80	229.27	3rd Party MSA Extra Survey
51	1350.00	0.89	214.95	1349.96	2.85	-4.70	-5.34	25.00	1.20	0.00	7.11	228.62	3rd Party MSA Extra Survey
52	1375.00	0.75	206.00	1374.95	3.08	-5.01	-5.52	25.00	0.76	0.00	7.45	227.79	3rd Party MSA Extra Survey
53	1400.00	0.48	199.41	1399.95	3.29	-5.25	-5.62	25.00	1.11	0.00	7.70	226.97	3rd Party MSA Extra Survey

54	1425.00	0.62	206.85	1424.95	3.47	-5.47	-5.72	25.00	0.63	0.00	7.92	226.28	3rd Party MSA Extra Survey
55	1450.00	0.76	220.82	1449.95	3.65	-5.72	-5.89	25.00	0.87	0.00	8.21	225.85	3rd Party MSA Extra Survey
56	1475.00	0.78	205.56	1474.95	3.86	-6.00	-6.07	25.00	0.82	0.00	8.53	225.36	3rd Party MSA Extra Survey
57	1500.00	0.78	196.84	1499.94	4.12	-6.31	-6.19	25.00	0.47	0.00	8.84	224.46	3rd Party MSA Extra Survey
58	1525.00	0.70	200.99	1524.94	4.38	-6.62	-6.30	25.00	0.38	0.00	9.14	223.58	3rd Party MSA Extra Survey
59	1550.00	0.76	206.35	1549.94	4.62	-6.91	-6.43	25.00	0.36	0.00	9.44	222.93	3rd Party MSA Extra Survey
60	1575.00	0.83	217.50	1574.94	4.84	-7.20	-6.61	25.00	0.68	0.00	9.78	222.55	3rd Party MSA Extra Survey
61	1600.00	0.88	208.73	1599.93	5.08	-7.51	-6.81	25.00	0.56	0.00	10.14	222.20	3rd Party MSA Extra Survey
62	1625.00	0.81	210.84	1624.93	5.33	-7.83	-7.00	25.00	0.31	0.00	10.50	221.77	3rd Party MSA Extra Survey
63	1650.00	0.80	200.11	1649.93	5.58	-8.15	-7.15	25.00	0.60	0.00	10.84	221.25	3rd Party MSA Extra Survey
64	1675.00	0.87	195.51	1674.93	5.88	-8.50	-7.26	25.00	0.39	0.00	11.17	220.51	3rd Party MSA Extra Survey
65	1700.00	0.71	199.43	1699.92	6.16	-8.82	-7.36	25.00	0.68	0.00	11.49	219.83	3rd Party MSA Extra Survey
66	1725.00	0.62	195.67	1724.92	6.40	-9.10	-7.45	25.00	0.40	0.00	11.76	219.30	3rd Party MSA Extra Survey
67	1750.00	0.68	198.71	1749.92	6.63	-9.37	-7.53	25.00	0.28	0.00	12.02	218.79	3rd Party MSA Extra Survey
68	1775.00	0.71	194.71	1774.92	6.88	-9.66	-7.62	25.00	0.23	0.00	12.30	218.26	3rd Party MSA Extra Survey
69	1800.00	0.81	194.79	1799.92	7.16	-9.98	-7.70	25.00	0.40	0.00	12.61	217.66	3rd Party MSA Extra Survey
70	1825.00	0.77	186.26	1824.91	7.46	-10.32	-7.77	25.00	0.50	0.00	12.92	216.96	3rd Party MSA Extra Survey
71	1850.00	0.70	209.98	1849.91	7.72	-10.62	-7.86	25.00	1.24	0.00	13.21	216.51	3rd Party MSA Extra Survey
72	1875.00	0.84	191.48	1874.91	7.98	-10.93	-7.97	25.00	1.13	0.00	13.53	216.11	3rd Party MSA Extra Survey
73	1900.00	0.63	199.05	1899.91	8.25	-11.24	-8.06	25.00	0.92	0.00	13.83	215.63	3rd Party MSA Extra Survey
74	1925.00	0.81	197.27	1924.91	8.50	-11.54	-8.15	25.00	0.73	0.00	14.13	215.24	3rd Party MSA Extra Survey
75	1950.00	0.75	196.20	1949.90	8.78	-11.87	-8.25	25.00	0.25	0.00	14.45	214.81	3rd Party MSA Extra Survey
76	1975.00	0.75	189.08	1974.90	9.07	-12.18	-8.32	25.00	0.37	0.00	14.76	214.33	3rd Party MSA Extra Survey
77	2000.00	0.69	186.46	1999.90	9.35	-12.50	-8.37	25.00	0.27	0.00	15.04	213.80	3rd Party MSA Extra Survey
78	2025.00	0.44	200.37	2024.90	9.56	-12.74	-8.42	25.00	1.13	0.00	15.26	213.46	3rd Party MSA Extra Survey
79	2050.00	0.27	326.60	2049.90	9.58	-12.78	-8.48	25.00	2.55	0.00	15.34	213.58	3rd Party MSA Extra Survey
80	2075.00	0.83	9.26	2074.90	9.36	-12.55	-8.48	25.00	2.63	0.00	15.15	214.07	3rd Party MSA Extra Survey
81	2100.00	1.50	357.37	2099.89	8.88	-12.04	-8.47	25.00	2.83	0.00	14.72	215.12	3rd Party MSA Extra Survey
82	2125.00	2.69	358.01	2124.87	8.00	-11.13	-8.51	25.00	4.76	0.00	14.01	217.39	3rd Party MSA Extra Survey
83	2150.00	4.72	356.17	2149.82	6.44	-9.52	-8.60	25.00	8.13	0.00	12.82	222.09	3rd Party MSA Extra Survey
84	2175.00	5.20	353.84	2174.73	4.33	-7.36	-8.79	25.00	2.08	0.00	11.46	230.03	3rd Party MSA Extra Survey
85	2200.00	5.69	355.94	2199.61	2.02	-5.00	-8.99	25.00	2.12	0.00	10.29	240.92	3rd Party MSA Extra Survey
86	2225.00	5.62	356.16	2224.49	-0.37	-2.54	-9.16	25.00	0.29	0.00	9.51	254.49	3rd Party MSA Extra Survey
87	2250.00	5.66	355.32	2249.37	-2.76	-0.09	-9.35	25.00	0.37	0.00	9.35	269.43	3rd Party MSA Extra Survey
88	2275.00	5.69	357.18	2274.25	-5.16	2.37	-9.51	25.00	0.75	0.00	9.80	284.01	3rd Party MSA Extra Survey
89	2300.00	5.84	356.69	2299.12	-7.59	4.88	-9.64	25.00	0.63	0.00	10.81	296.84	3rd Party MSA Extra Survey
90	2325.00	5.89	356.65	2323.99	-10.06	7.43	-9.79	25.00	0.20	0.00	12.29	307.19	3rd Party MSA Extra Survey
91	2350.00	5.87	355.42	2348.86	-12.55	9.99	-9.97	25.00	0.51	0.00	14.11	315.05	3rd Party MSA Extra Survey
92	2375.00	6.03	356.23	2373.73	-15.07	12.57	-10.16	25.00	0.72	0.00	16.16	321.06	3rd Party MSA Extra Survey
93	2400.00	6.85	358.64	2398.57	-17.77	15.37	-10.28	25.00	3.45	0.00	18.49	326.23	3rd Party MSA Extra Survey
94	2425.00	8.50	3.78	2423.34	-20.92	18.71	-10.19	25.00	7.14	0.00	21.30	331.41	3rd Party MSA Extra Survey
95	2450.00	9.33	6.40	2448.04	-24.49	22.56	-9.84	25.00	3.70	0.00	24.62	336.43	3rd Party MSA Extra Survey
96	2475.00	9.69	8.47	2472.70	-28.23	26.66	-9.31	25.00	1.99	0.00	28.24	340.75	3rd Party MSA Extra Survey
97	2500.00	9.73	8.77	2497.34	-32.00	30.83	-8.68	25.00	0.26	0.00	32.02	344.28	3rd Party MSA Extra Survey
98	2525.00	9.77	9.14	2521.98	-35.79	35.01	-8.02	25.00	0.30	0.00	35.92	347.10	3rd Party MSA Extra Survey
99	2550.00	9.88	10.15	2546.61	-39.57	39.21	-7.30	25.00	0.82	0.00	39.89	349.45	3rd Party MSA Extra Survey
100	2575.00	9.82	9.77	2571.24	-43.36	43.43	-6.56	25.00	0.35	0.00	43.92	351.41	3rd Party MSA Extra Survey
101	2600.00	9.87	10.38	2595.88	-47.14	47.64	-5.82	25.00	0.46	0.00	47.99	353.04	3rd Party MSA Extra Survey
102	2625.00	9.83	10.25	2620.51	-50.91	51.84	-5.05	25.00	0.18	0.00	52.09	354.44	3rd Party MSA Extra Survey
103	2650.00	9.92	10.37	2645.14	-54.70	56.06	-4.28	25.00	0.37	0.00	56.22	355.63	3rd Party MSA Extra Survey
104	2675.00	10.08	10.94	2669.76	-58.51	60.33	-3.48	25.00	0.75	0.00	60.43	356.70	3rd Party MSA Extra Survey
105	2700.00	11.00	14.88	2694.33	-62.44	64.78	-2.45	25.00	4.67	0.00	64.83	357.83	3rd Party MSA Extra Survey
106	2725.00	11.89	18.29	2718.84	-66.53	69.53	-1.03	25.00	4.47	0.00	69.54	359.15	3rd Party MSA Extra Survey
107	2750.00	12.29	17.98	2743.28	-70.77	74.51	0.60	25.00	1.62	0.00	74.51	0.46	3rd Party MSA Extra Survey
108	2775.00	12.35	18.05	2767.71	-75.10	79.58	2.25	25.00	0.25	0.00	79.61	1.62	3rd Party MSA Extra Survey
109	2800.00	12.37	18.02	2792.13	-79.44	84.67	3.91	25.00	0.08	0.00	84.76	2.64	3rd Party MSA Extra Survey
110	2825.00	12.40	18.18	2816.55	-83.79	89.77	5.57	25.00	0.18	0.00	89.94	3.55	3rd Party MSA Extra Survey
111	2850.00	12.36	18.14	2840.96	-88.13	94.86	7.24	25.00	0.16	0.00	95.13	4.37	3rd Party MSA Extra Survey
112	2875.00	12.22	18.98	2865.39	-92.42	99.90	8.94	25.00	0.91	0.00	100.30	5.11	3rd Party MSA Extra Survey
113	2900.00	12.30	18.91	2889.82	-96.67	104.92	10.66	25.00	0.33	0.00	105.46	5.80	3rd Party MSA Extra Survey
114	2925.00	12.32	18.91	2914.25	-100.95	109.97	12.39	25.00	0.08	0.00	110.66	6.43	3rd Party MSA Extra Survey
115	2950.00	12.28	19.12	2938.67	-105.21	115.00	14.12	25.00	0.24	0.00	115.86	7.00	3rd Party MSA Extra Survey
116	2975.00	12.03	19.88	2963.11	-109.40	119.96	15.88	25.00	1.19	0.00	121.01	7.54	3rd Party MSA Extra Survey
117	3000.00	12.14	19.76	2987.56	-113.55	124.89	17.65	25.00	0.45	0.00	126.13	8.05	3rd Party MSA Extra Survey
118	3025.00	12.00	19.81	3012.01	-117.70	129.81	19.42	25.00	0.56	0.00	131.25	8.51	3rd Party MSA Extra Survey
119	3050.00	11.50	20.91	3036.48	-121.70	134.58	21.19	25.00	2.19	0.00	136.24	8.95	3rd Party MSA Extra Survey
120	3075.00	10.77	21.10	3061.01	-125.47	139.09	22.92	25.00	2.92	0.00	140.96	9.36	3rd Party MSA Extra Survey
121	3100.00	10.33	22.44	3085.59	-129.00	143.34	24.62	25.00	2.02	0.00	145.44	9.75	3rd Party MSA Extra Survey
122	3125.00	10.18	22.63	3110.19	-132.39	147.45	26.33	25.00	0.62	0.00	149.78	10.12	3rd Party MSA Extra Survey
123	3150.00	10.21	23.09	3134.79	-135.75	151.53	28.04	25.00	0.35	0.00	154.10	10.49	3rd Party MSA Extra Survey
124	3175.00	10.28	23.41	3159.40	-139.11	155.61	29.80	25.00	0.36	0.00	158.44	10.84	3rd Party MSA Extra Survey
125	3200.00	10.25	22.83	3184.00	-142.47	159.71	31.55	25.00	0.43	0.00	162.79	11.17	3rd Party MSA Extra Survey
126	3225.00	10.29	22.67	3208.60	-145.86	163.82	33.27	25.00	0.20	0.00	167.16	11.48	3rd Party MSA Extra Survey
127	3250.00	10.26	23.09	3233.19	-149.25	167.93	35.01	25.00	0.32	0.00	171.54	11.78	3rd Party MSA Extra Survey

128	3275.00	10.04	24.01	3257.80	-152.56	171.97	36.77	25.00	1.09	0.00	175.85	12.07	3rd Party MSA Extra Survey
129	3300.00	9.98	24.37	3282.42	-155.79	175.93	38.55	25.00	0.35	0.00	180.10	12.36	3rd Party MSA Extra Survey
130	3325.00	9.80	25.01	3307.05	-158.96	179.83	40.34	25.00	0.84	0.00	184.30	12.64	3rd Party MSA Extra Survey
131	3350.00	9.73	24.37	3331.69	-162.08	183.68	42.11	25.00	0.52	0.00	188.45	12.91	3rd Party MSA Extra Survey
132	3375.00	9.35	22.77	3356.34	-165.20	187.48	43.77	25.00	1.85	0.00	192.52	13.14	3rd Party MSA Extra Survey
133	3400.00	9.04	21.13	3381.02	-168.27	191.19	45.26	25.00	1.62	0.00	196.47	13.32	3rd Party MSA Extra Survey
134	3425.00	8.70	17.19	3405.72	-171.35	194.82	46.53	25.00	2.78	0.00	200.30	13.43	3rd Party MSA Extra Survey
135	3450.00	8.55	13.43	3430.44	-174.49	198.44	47.52	25.00	2.33	0.00	204.05	13.47	3rd Party MSA Extra Survey
136	3475.00	8.44	14.58	3455.17	-177.63	202.02	48.41	25.00	0.81	0.00	207.74	13.48	3rd Party MSA Extra Survey
137	3500.00	8.30	14.38	3479.90	-180.70	205.54	49.32	25.00	0.57	0.00	211.38	13.49	3rd Party MSA Extra Survey
138	3525.00	8.19	14.32	3504.64	-183.74	209.02	50.21	25.00	0.44	0.00	214.96	13.51	3rd Party MSA Extra Survey
139	3550.00	8.18	14.04	3529.39	-186.76	212.47	51.08	25.00	0.16	0.00	218.52	13.52	3rd Party MSA Extra Survey
140	3575.00	8.04	13.67	3554.14	-189.76	215.89	51.93	25.00	0.60	0.00	222.05	13.52	3rd Party MSA Extra Survey
141	3600.00	7.96	14.03	3578.89	-192.73	219.27	52.76	25.00	0.38	0.00	225.53	13.53	3rd Party MSA Extra Survey
142	3625.00	7.98	14.49	3603.65	-195.67	222.63	53.62	25.00	0.27	0.00	229.00	13.54	3rd Party MSA Extra Survey
143	3650.00	7.54	14.37	3628.42	-198.52	225.90	54.46	25.00	1.76	0.00	232.37	13.55	3rd Party MSA Extra Survey
144	3675.00	7.36	13.40	3653.21	-201.28	229.05	55.23	25.00	0.88	0.00	235.61	13.56	3rd Party MSA Extra Survey
145	3700.00	7.04	12.80	3678.01	-203.97	232.10	55.95	25.00	1.31	0.00	238.74	13.55	3rd Party MSA Extra Survey
146	3725.00	7.07	11.16	3702.83	-206.64	235.10	56.58	25.00	0.81	0.00	241.81	13.53	3rd Party MSA Extra Survey
147	3750.00	6.96	12.49	3727.64	-209.29	238.09	57.21	25.00	0.78	0.00	244.87	13.51	3rd Party MSA Extra Survey
148	3775.00	6.99	12.66	3752.45	-211.91	241.05	57.87	25.00	0.15	0.00	247.90	13.50	3rd Party MSA Extra Survey
149	3800.00	6.95	12.89	3777.27	-214.53	244.01	58.54	25.00	0.20	0.00	250.93	13.49	3rd Party MSA Extra Survey
150	3825.00	6.96	13.37	3802.08	-217.12	246.96	59.23	25.00	0.24	0.00	253.96	13.49	3rd Party MSA Extra Survey
151	3850.00	7.18	12.76	3826.89	-219.77	249.96	59.92	25.00	0.93	0.00	257.04	13.48	3rd Party MSA Extra Survey
152	3875.00	7.32	13.19	3851.69	-222.48	253.03	60.63	25.00	0.60	0.00	260.19	13.48	3rd Party MSA Extra Survey
153	3900.00	7.24	14.24	3876.49	-225.18	256.11	61.38	25.00	0.62	0.00	263.36	13.48	3rd Party MSA Extra Survey
154	3925.00	7.51	16.55	3901.29	-227.86	259.20	62.24	25.00	1.60	0.00	266.57	13.50	3rd Party MSA Extra Survey
155	3950.00	7.55	16.71	3926.07	-230.57	262.34	63.17	25.00	0.18	0.00	269.84	13.54	3rd Party MSA Extra Survey
156	3975.00	7.74	20.35	3950.85	-233.25	265.49	64.23	25.00	2.08	0.00	273.15	13.60	3rd Party MSA Extra Survey
157	4000.00	7.76	20.74	3975.62	-235.89	268.65	65.41	25.00	0.23	0.00	276.50	13.68	3rd Party MSA Extra Survey
158	4025.00	7.91	21.93	4000.39	-238.54	271.82	66.65	25.00	0.88	0.00	279.88	13.78	3rd Party MSA Extra Survey
159	4050.00	8.57	23.26	4025.13	-241.27	275.13	68.03	25.00	2.75	0.00	283.42	13.89	3rd Party MSA Extra Survey
160	4075.00	9.08	22.20	4049.83	-244.18	278.67	69.51	25.00	2.14	0.00	287.21	14.01	3rd Party MSA Extra Survey
161	4100.00	9.21	21.84	4074.52	-247.24	282.35	71.00	25.00	0.57	0.00	291.14	14.12	3rd Party MSA Extra Survey
162	4125.00	9.05	20.42	4099.20	-250.32	286.05	72.43	25.00	1.11	0.00	295.08	14.21	3rd Party MSA Extra Survey
163	4150.00	8.78	18.36	4123.90	-253.41	289.70	73.72	25.00	1.67	0.00	298.94	14.28	3rd Party MSA Extra Survey
164	4175.00	8.68	16.53	4148.61	-256.51	293.32	74.86	25.00	1.18	0.00	302.73	14.32	3rd Party MSA Extra Survey
165	4200.00	8.67	17.26	4173.32	-259.61	296.93	75.95	25.00	0.44	0.00	306.49	14.35	3rd Party MSA Extra Survey
166	4225.00	8.62	17.72	4198.04	-262.68	300.52	77.08	25.00	0.34	0.00	310.24	14.39	3rd Party MSA Extra Survey
167	4250.00	8.70	17.70	4222.75	-265.75	304.10	78.23	25.00	0.32	0.00	314.00	14.43	3rd Party MSA Extra Survey
168	4275.00	8.59	17.73	4247.47	-268.81	307.68	79.37	25.00	0.44	0.00	317.75	14.46	3rd Party MSA Extra Survey
169	4300.00	8.65	17.82	4272.19	-271.86	311.25	80.51	25.00	0.25	0.00	321.49	14.50	3rd Party MSA Extra Survey
170	4325.00	9.03	19.97	4296.89	-274.94	314.88	81.76	25.00	2.01	0.00	325.32	14.56	3rd Party MSA Extra Survey
171	4350.00	9.15	20.56	4321.57	-278.05	318.59	83.13	25.00	0.61	0.00	329.25	14.62	3rd Party MSA Extra Survey
172	4375.00	9.11	20.98	4346.26	-281.15	322.30	84.53	25.00	0.31	0.00	333.20	14.70	3rd Party MSA Extra Survey
173	4400.00	9.26	19.98	4370.94	-284.29	326.04	85.93	25.00	0.88	0.00	337.17	14.77	3rd Party MSA Extra Survey
174	4425.00	8.88	21.82	4395.62	-287.36	329.72	87.34	25.00	1.91	0.00	341.09	14.84	3rd Party MSA Extra Survey
175	4450.00	8.62	22.37	4420.33	-290.28	333.24	88.77	25.00	1.09	0.00	344.86	14.92	3rd Party MSA Extra Survey
176	4475.00	7.99	21.88	4445.07	-293.05	336.59	90.13	25.00	2.54	0.00	348.44	14.99	3rd Party MSA Extra Survey
177	4500.00	7.88	20.11	4469.83	-295.74	339.81	91.36	25.00	1.07	0.00	351.88	15.05	3rd Party MSA Extra Survey
178	4525.00	7.88	16.36	4494.60	-298.52	343.06	92.43	25.00	2.06	0.00	355.30	15.08	3rd Party MSA Extra Survey
179	4550.00	8.52	13.24	4519.34	-301.52	346.51	93.34	25.00	3.12	0.00	358.86	15.08	3rd Party MSA Extra Survey
180	4575.00	8.69	12.91	4544.06	-304.73	350.15	94.19	25.00	0.71	0.00	362.60	15.06	3rd Party MSA Extra Survey
181	4600.00	9.07	11.95	4568.76	-308.07	353.92	95.02	25.00	1.63	0.00	366.45	15.03	3rd Party MSA Extra Survey
182	4625.00	9.54	10.68	4593.43	-311.60	357.88	95.81	25.00	2.05	0.00	370.49	14.99	3rd Party MSA Extra Survey
183	4650.00	11.03	7.12	4618.03	-315.60	362.29	96.49	25.00	6.48	0.00	374.92	14.91	3rd Party MSA Extra Survey
184	4675.00	11.82	6.30	4642.53	-320.10	367.21	97.07	25.00	3.23	0.00	379.82	14.81	3rd Party MSA Extra Survey
185	4700.00	13.41	3.55	4666.93	-325.14	372.65	97.53	25.00	6.80	0.00	385.20	14.67	3rd Party MSA Extra Survey
186	4725.00	14.31	2.82	4691.20	-330.74	378.63	97.86	25.00	3.67	0.00	391.07	14.49	3rd Party MSA Extra Survey
187	4750.00	14.42	1.92	4715.42	-336.56	384.83	98.12	25.00	1.00	0.00	397.14	14.30	3rd Party MSA Extra Survey
188	4775.00	14.41	1.06	4739.63	-342.43	391.05	98.28	25.00	0.86	0.00	403.21	14.11	3rd Party MSA Extra Survey
189	4800.00	14.37	0.17	4763.85	-348.33	397.26	98.34	25.00	0.90	0.00	409.25	13.90	3rd Party MSA Extra Survey
190	4825.00	14.45	0.07	4788.06	-354.25	403.48	98.36	25.00	0.34	0.00	415.30	13.70	3rd Party MSA Extra Survey
191	4850.00	14.39	0.18	4812.27	-360.18	409.71	98.37	25.00	0.26	0.00	421.35	13.50	3rd Party MSA Extra Survey
192	4875.00	14.54	4.17	4836.48	-366.04	415.94	98.61	25.00	4.03	0.00	427.47	13.34	3rd Party MSA Extra Survey
193	4900.00	14.72	10.21	4860.67	-371.76	422.20	99.40	25.00	6.14	0.00	433.74	13.25	3rd Party MSA Extra Survey
194	4925.00	15.16	14.59	4884.83	-377.33	428.49	100.79	25.00	4.85	0.00	440.18	13.24	3rd Party MSA Extra Survey
195	4950.00	15.14	14.59	4908.96	-382.85	434.81	102.43	25.00	0.08	0.00	446.72	13.26	3rd Party MSA Extra Survey
196	4975.00	14.73	15.70	4933.11	-388.26	441.03	104.12	25.00	2.00	0.00	453.16	13.28	3rd Party MSA Extra Survey
197	5000.00	14.34	15.89	4957.31	-393.48	447.07	105.82	25.00	1.57	0.00	459.42	13.32	3rd Party MSA Extra Survey
198	5025.00	13.76	15.86	4981.57	-398.54	452.91	107.48	25.00	2.32	0.00	465.49	13.35	3rd Party MSA Extra Survey
199	5050.00	13.30	16.05	5005.87	-403.40	458.53	109.09	25.00	1.85	0.00	471.33	13.38	3rd Party MSA Extra Survey
200	5075.00	12.77	16.19	5030.23	-408.08	463.95	110.66	25.00	2.12	0.00	476.96	13.41	3rd Party MSA Extra Survey
201	5100.00	12.46	16.43	5054.62	-412.61	469.19	112.19	25.00	1.26	0.00	482.41	13.45	3rd Party MSA Extra Survey

202	5125.00	12.10	16.44	5079.05	-417.00	474.29	113.69	25.00	1.44	0.00	487.72	13.48	3rd Party MSA Extra Survey
203	5150.00	11.45	16.65	5103.53	-421.22	479.18	115.15	25.00	2.61	0.00	492.82	13.51	3rd Party MSA Extra Survey
204	5175.00	11.23	15.72	5128.04	-425.30	483.90	116.52	25.00	1.14	0.00	497.73	13.54	3rd Party MSA Extra Survey
205	5200.00	10.58	16.74	5152.59	-429.22	488.44	117.84	25.00	2.71	0.00	502.45	13.56	3rd Party MSA Extra Survey
206	5225.00	10.27	16.69	5177.17	-432.95	492.77	119.14	25.00	1.24	0.00	506.97	13.59	3rd Party MSA Extra Survey
207	5250.00	9.78	16.06	5201.79	-436.55	496.95	120.37	25.00	2.01	0.00	511.32	13.62	3rd Party MSA Extra Survey
208	5275.00	9.80	16.28	5226.43	-440.08	501.03	121.55	25.00	0.17	0.00	515.56	13.64	3rd Party MSA Extra Survey
209	5300.00	9.74	15.92	5251.07	-443.60	505.11	122.73	25.00	0.34	0.00	519.80	13.66	3rd Party MSA Extra Survey
210	5325.00	9.77	15.65	5275.70	-447.13	509.18	123.88	25.00	0.22	0.00	524.04	13.67	3rd Party MSA Extra Survey
211	5350.00	9.76	16.05	5300.34	-450.66	513.26	125.04	25.00	0.27	0.00	528.27	13.69	3rd Party MSA Extra Survey
212	5375.00	9.70	15.86	5324.98	-454.18	517.32	126.20	25.00	0.27	0.00	532.49	13.71	3rd Party MSA Extra Survey
213	5400.00	9.74	14.38	5349.62	-457.72	521.40	127.30	25.00	1.01	0.00	536.71	13.72	3rd Party MSA Extra Survey
214	5425.00	9.82	15.85	5374.26	-461.29	525.50	128.41	25.00	1.05	0.00	540.96	13.73	3rd Party MSA Extra Survey
215	5450.00	9.73	15.33	5398.90	-464.83	529.59	129.55	25.00	0.50	0.00	545.20	13.75	3rd Party MSA Extra Survey
216	5475.00	9.78	15.75	5423.54	-468.37	533.67	130.68	25.00	0.35	0.00	549.44	13.76	3rd Party MSA Extra Survey
217	5500.00	9.60	18.27	5448.18	-471.83	537.69	131.91	25.00	1.84	0.00	553.64	13.78	3rd Party MSA Extra Survey
218	5525.00	9.25	23.71	5472.84	-475.02	541.51	133.37	25.00	3.83	0.00	557.69	13.84	3rd Party MSA Extra Survey
219	5550.00	9.15	24.50	5497.52	-478.00	545.16	135.01	25.00	0.64	0.00	561.63	13.91	3rd Party MSA Extra Survey
220	5575.00	9.25	25.16	5522.20	-480.94	548.79	136.68	25.00	0.58	0.00	565.55	13.99	3rd Party MSA Extra Survey
221	5600.00	9.31	24.54	5546.87	-483.91	552.44	138.38	25.00	0.47	0.00	569.51	14.06	3rd Party MSA Extra Survey
222	5625.00	9.32	23.77	5571.54	-486.92	556.14	140.03	25.00	0.50	0.00	573.50	14.13	3rd Party MSA Extra Survey
223	5650.00	9.21	24.23	5596.22	-489.92	559.81	141.67	25.00	0.53	0.00	577.46	14.20	3rd Party MSA Extra Survey
224	5675.00	9.03	22.84	5620.90	-492.90	563.45	143.25	25.00	1.14	0.00	581.37	14.26	3rd Party MSA Extra Survey
225	5700.00	7.95	21.77	5645.63	-495.72	566.86	144.66	25.00	4.37	0.00	585.03	14.32	3rd Party MSA Extra Survey
226	5725.00	7.02	21.00	5670.41	-498.24	569.89	145.85	25.00	3.74	0.00	588.26	14.35	3rd Party MSA Extra Survey
227	5750.00	6.42	21.73	5695.24	-500.51	572.62	146.91	25.00	2.42	0.00	591.16	14.39	3rd Party MSA Extra Survey
228	5775.00	6.08	21.07	5720.09	-502.62	575.15	147.90	25.00	1.39	0.00	593.86	14.42	3rd Party MSA Extra Survey
229	5800.00	5.51	19.54	5744.96	-504.61	577.52	148.78	25.00	2.36	0.00	596.37	14.45	3rd Party MSA Extra Survey
230	5825.00	5.12	19.21	5769.86	-506.46	579.70	149.55	25.00	1.56	0.00	598.68	14.47	3rd Party MSA Extra Survey
231	5850.00	4.95	22.28	5794.76	-508.17	581.75	150.33	25.00	1.27	0.00	600.86	14.49	3rd Party MSA Extra Survey
232	5875.00	4.80	20.76	5819.67	-509.82	583.73	151.11	25.00	0.79	0.00	602.97	14.51	3rd Party MSA Extra Survey
233	5900.00	4.78	20.91	5844.58	-511.45	585.68	151.85	25.00	0.09	0.00	605.04	14.53	3rd Party MSA Extra Survey
234	5925.00	4.68	22.84	5869.50	-513.04	587.59	152.62	25.00	0.75	0.00	607.09	14.56	3rd Party MSA Extra Survey
235	5950.00	4.38	25.53	5894.42	-514.51	589.39	153.42	25.00	1.47	0.00	609.04	14.59	3rd Party MSA Extra Survey
236	5975.00	3.80	34.84	5919.36	-515.70	590.94	154.31	25.00	3.52	0.00	610.75	14.63	3rd Party MSA Extra Survey
237	6000.00	3.66	37.04	5944.30	-516.67	592.25	155.26	25.00	0.80	0.00	612.27	14.69	3rd Party MSA Extra Survey
238	6025.00	3.38	40.81	5969.26	-517.51	593.45	156.22	25.00	1.45	0.00	613.67	14.75	3rd Party MSA Extra Survey
239	6050.00	3.03	41.72	5994.22	-518.23	594.50	157.14	25.00	1.41	0.00	614.92	14.81	3rd Party MSA Extra Survey
240	6075.00	2.35	45.96	6019.19	-518.79	595.35	157.95	25.00	2.83	0.00	615.94	14.86	3rd Party MSA Extra Survey
241	6100.00	1.40	75.15	6044.18	-519.01	595.78	158.62	25.00	5.27	0.00	616.54	14.91	3rd Party MSA Extra Survey
242	6125.00	1.52	83.73	6069.17	-518.92	595.90	159.24	25.00	1.00	0.00	616.81	14.96	3rd Party MSA Extra Survey
243	6150.00	1.53	100.99	6094.16	-518.70	595.87	159.90	25.00	1.83	0.00	616.95	15.02	3rd Party MSA Extra Survey
244	6175.00	1.83	111.01	6119.15	-518.29	595.66	160.60	25.00	1.68	0.00	616.93	15.09	3rd Party MSA Extra Survey
245	6200.00	1.89	112.57	6144.13	-517.77	595.36	161.35	25.00	0.31	0.00	616.84	15.16	3rd Party MSA Extra Survey
246	6225.00	1.75	109.14	6169.12	-517.27	595.08	162.09	25.00	0.71	0.00	616.76	15.24	3rd Party MSA Extra Survey
247	6250.00	1.84	108.98	6194.11	-516.81	594.82	162.83	25.00	0.36	0.00	616.71	15.31	3rd Party MSA Extra Survey
248	6275.00	1.79	108.73	6219.10	-516.33	594.57	163.58	25.00	0.20	0.00	616.66	15.38	3rd Party MSA Extra Survey
249	6300.00	1.91	109.74	6244.08	-515.85	594.30	164.34	25.00	0.50	0.00	616.60	15.46	3rd Party MSA Extra Survey
250	6325.00	1.89	110.82	6269.07	-515.34	594.01	165.12	25.00	0.16	0.00	616.54	15.53	3rd Party MSA Extra Survey
251	6350.00	1.78	108.10	6294.06	-514.85	593.75	165.88	25.00	0.56	0.00	616.48	15.61	3rd Party MSA Extra Survey
252	6375.00	1.71	107.01	6319.05	-514.41	593.52	166.60	25.00	0.31	0.00	616.46	15.68	3rd Party MSA Extra Survey
253	6400.00	1.77	106.05	6344.03	-513.98	593.30	167.33	25.00	0.27	0.00	616.44	15.75	3rd Party MSA Extra Survey
254	6425.00	1.72	103.81	6369.02	-513.57	593.10	168.07	25.00	0.34	0.00	616.46	15.82	3rd Party MSA Extra Survey
255	6450.00	1.66	106.02	6394.01	-513.17	592.91	168.78	25.00	0.35	0.00	616.47	15.89	3rd Party MSA Extra Survey
256	6475.00	1.70	105.81	6419.00	-512.77	592.71	169.48	25.00	0.16	0.00	616.47	15.96	3rd Party MSA Extra Survey
257	6500.00	1.75	106.52	6443.99	-512.35	592.50	170.21	25.00	0.22	0.00	616.47	16.03	3rd Party MSA Extra Survey
258	6525.00	1.59	107.38	6468.98	-511.93	592.29	170.90	25.00	0.65	0.00	616.46	16.10	3rd Party MSA Extra Survey
259	6550.00	1.59	103.53	6493.97	-511.55	592.11	171.57	25.00	0.43	0.00	616.46	16.16	3rd Party MSA Extra Survey
260	6575.00	1.58	107.74	6518.96	-511.17	591.92	172.24	25.00	0.47	0.00	616.47	16.22	3rd Party MSA Extra Survey
261	6600.00	1.53	106.96	6543.95	-510.78	591.72	172.88	25.00	0.22	0.00	616.46	16.29	3rd Party MSA Extra Survey
262	6625.00	1.56	103.99	6568.94	-510.41	591.54	173.53	25.00	0.34	0.00	616.47	16.35	3rd Party MSA Extra Survey
263	6650.00	1.62	103.17	6593.93	-510.05	591.38	174.21	25.00	0.26	0.00	616.50	16.41	3rd Party MSA Extra Survey
264	6675.00	1.55	103.97	6618.92	-509.69	591.21	174.88	25.00	0.29	0.00	616.54	16.48	3rd Party MSA Extra Survey
265	6700.00	1.50	106.67	6643.91	-509.33	591.04	175.52	25.00	0.35	0.00	616.55	16.54	3rd Party MSA Extra Survey
266	6725.00	1.44	106.54	6668.91	-508.97	590.85	176.14	25.00	0.24	0.00	616.55	16.60	3rd Party MSA Extra Survey
267	6750.00	1.55	107.85	6693.90	-508.60	590.66	176.76	25.00	0.46	0.00	616.54	16.66	3rd Party MSA Extra Survey
268	6775.00	1.53	108.17	6718.89	-508.20	590.45	177.40	25.00	0.09	0.00	616.53	16.72	3rd Party MSA Extra Survey
269	6800.00	1.44	109.51	6743.88	-507.82	590.25	178.01	25.00	0.39	0.00	616.50	16.78	3rd Party MSA Extra Survey
270	6825.00	1.28	108.71	6768.87	-507.46	590.05	178.57	25.00	0.64	0.00	616.48	16.84	3rd Party MSA Extra Survey
271	6850.00	1.45	104.52	6793.87	-507.13	589.88	179.14	25.00	0.79	0.00	616.48	16.89	3rd Party MSA Extra Survey
272	6875.00	1.36	101.87	6818.86	-506.81	589.74	179.74	25.00	0.44	0.00	616.52	16.95	3rd Party MSA Extra Survey
273	6900.00	1.27	101.53	6843.85	-506.53	589.62	180.30	25.00	0.36	0.00	616.58	17.00	3rd Party MSA Extra Survey
274	6925.00	1.39	101.71	6868.84	-506.24	589.51	180.87	25.00	0.48	0.00	616.63	17.06	3rd Party MSA Extra Survey
275	6950.00	1.51	106.16	6893.84	-505.91	589.35	181.48	25.00	0.66	0.00	616.66	17.12	3rd Party MSA Extra Survey

276	6975.00	1.06	107.85	6918.83	-505.59	589.19	182.02	25.00	1.81	0.00	616.67	17.17	3rd Party MSA Extra Survey
277	7000.00	1.05	110.15	6943.83	-505.32	589.04	182.45	25.00	0.17	0.00	616.65	17.21	3rd Party MSA Extra Survey
278	7025.00	1.07	111.11	6968.82	-505.03	588.88	182.89	25.00	0.11	0.00	616.63	17.25	3rd Party MSA Extra Survey
279	7050.00	0.85	112.16	6993.82	-504.76	588.73	183.28	25.00	0.88	0.00	616.59	17.29	3rd Party MSA Extra Survey
280	7075.00	0.92	104.70	7018.82	-504.54	588.60	183.64	25.00	0.54	0.00	616.59	17.33	3rd Party MSA Extra Survey
281	7100.00	0.95	103.90	7043.81	-504.32	588.50	184.04	25.00	0.13	0.00	616.61	17.37	3rd Party MSA Extra Survey
282	7125.00	0.77	103.48	7068.81	-504.12	588.41	184.40	25.00	0.72	0.00	616.63	17.40	3rd Party MSA Extra Survey
283	7150.00	0.74	106.08	7093.81	-503.95	588.33	184.72	25.00	0.18	0.00	616.65	17.43	3rd Party MSA Extra Survey
284	7175.00	0.70	108.86	7118.81	-503.77	588.24	185.02	25.00	0.21	0.00	616.65	17.46	3rd Party MSA Extra Survey
285	7200.00	0.61	113.93	7143.80	-503.59	588.13	185.29	25.00	0.43	0.00	616.63	17.49	3rd Party MSA Extra Survey
286	7225.00	0.62	122.29	7168.80	-503.39	588.01	185.52	25.00	0.36	0.00	616.58	17.51	3rd Party MSA Extra Survey
287	7250.00	0.59	119.54	7193.80	-503.20	587.87	185.75	25.00	0.17	0.00	616.52	17.53	3rd Party MSA Extra Survey
288	7275.00	0.48	118.50	7218.80	-503.03	587.76	185.95	25.00	0.44	0.00	616.47	17.56	3rd Party MSA Extra Survey
289	7300.00	0.41	127.10	7243.80	-502.88	587.65	186.12	25.00	0.39	0.00	616.42	17.57	3rd Party MSA Extra Survey
290	7325.00	0.48	132.18	7268.80	-502.71	587.53	186.26	25.00	0.32	0.00	616.35	17.59	3rd Party MSA Extra Survey
291	7350.00	0.53	138.94	7293.80	-502.52	587.37	186.42	25.00	0.31	0.00	616.25	17.61	3rd Party MSA Extra Survey
292	7375.00	0.43	124.86	7318.80	-502.34	587.23	186.57	25.00	0.62	0.00	616.16	17.63	3rd Party MSA Extra Survey
293	7400.00	0.35	125.12	7343.80	-502.20	587.13	186.71	25.00	0.32	0.00	616.11	17.64	3rd Party MSA Extra Survey
294	7425.00	0.29	142.02	7368.80	-502.08	587.04	186.81	25.00	0.44	0.00	616.05	17.65	3rd Party MSA Extra Survey
295	7450.00	0.31	166.50	7393.80	-501.95	586.92	186.87	25.00	0.51	0.00	615.95	17.66	3rd Party MSA Extra Survey
296	7475.00	0.39	169.52	7418.79	-501.80	586.78	186.90	25.00	0.33	0.00	615.82	17.67	3rd Party MSA Extra Survey
297	7500.00	0.28	201.46	7443.79	-501.67	586.63	186.89	25.00	0.85	0.00	615.69	17.67	3rd Party MSA Extra Survey
298	7525.00	0.23	191.79	7468.79	-501.58	586.53	186.86	25.00	0.26	0.00	615.57	17.67	3rd Party MSA Extra Survey
299	7550.00	0.32	198.52	7493.79	-501.48	586.41	186.83	25.00	0.38	0.00	615.46	17.67	3rd Party MSA Extra Survey
300	7575.00	0.52	225.19	7518.79	-501.37	586.27	186.72	25.00	1.10	0.00	615.28	17.67	3rd Party MSA Extra Survey
301	7600.00	0.54	224.44	7543.79	-501.26	586.10	186.56	25.00	0.08	0.00	615.08	17.66	3rd Party MSA Extra Survey
302	7625.00	0.45	237.81	7568.79	-501.19	585.97	186.40	25.00	0.58	0.00	614.90	17.65	3rd Party MSA Extra Survey
303	7650.00	0.47	249.78	7593.79	-501.16	585.88	186.22	25.00	0.39	0.00	614.76	17.63	3rd Party MSA Extra Survey
304	7675.00	0.56	262.46	7618.79	-501.17	585.83	186.00	25.00	0.58	0.00	614.65	17.61	3rd Party MSA Extra Survey
305	7700.00	0.67	251.06	7643.79	-501.19	585.76	185.74	25.00	0.66	0.00	614.51	17.59	3rd Party MSA Extra Survey
306	7725.00	0.65	249.44	7668.79	-501.18	585.67	185.47	25.00	0.11	0.00	614.33	17.57	3rd Party MSA Extra Survey
307	7750.00	0.60	248.69	7693.78	-501.17	585.57	185.21	25.00	0.20	0.00	614.16	17.55	3rd Party MSA Extra Survey
308	7775.00	0.58	263.38	7718.78	-501.18	585.51	184.97	25.00	0.61	0.00	614.03	17.53	3rd Party MSA Extra Survey
309	7800.00	0.67	260.92	7743.78	-501.23	585.47	184.70	25.00	0.38	0.00	613.91	17.51	3rd Party MSA Extra Survey
310	7825.00	0.69	254.21	7768.78	-501.26	585.41	184.41	25.00	0.33	0.00	613.76	17.48	3rd Party MSA Extra Survey
311	7850.00	0.56	255.91	7793.78	-501.27	585.34	184.14	25.00	0.53	0.00	613.62	17.46	3rd Party MSA Extra Survey
312	7875.00	0.42	252.63	7818.78	-501.28	585.28	183.94	25.00	0.57	0.00	613.50	17.45	3rd Party MSA Extra Survey
313	7900.00	0.50	269.27	7843.78	-501.31	585.25	183.74	25.00	0.62	0.00	613.41	17.43	3rd Party MSA Extra Survey
314	7925.00	0.51	273.85	7868.78	-501.38	585.26	183.52	25.00	0.17	0.00	613.35	17.41	3rd Party MSA Extra Survey
315	7950.00	0.53	279.45	7893.77	-501.48	585.28	183.30	25.00	0.22	0.00	613.31	17.39	3rd Party MSA Extra Survey
316	7975.00	0.61	287.32	7918.77	-501.61	585.34	183.05	25.00	0.45	0.00	613.30	17.37	3rd Party MSA Extra Survey
317	8000.00	0.70	292.02	7943.77	-501.78	585.44	182.79	25.00	0.42	0.00	613.31	17.34	3rd Party MSA Extra Survey
318	8025.00	0.74	288.58	7968.77	-501.97	585.55	182.49	25.00	0.24	0.00	613.32	17.31	3rd Party MSA Extra Survey
319	8050.00	0.75	286.08	7993.77	-502.16	585.64	182.18	25.00	0.14	0.00	613.32	17.28	3rd Party MSA Extra Survey
320	8075.00	0.76	286.51	8018.77	-502.35	585.74	181.86	25.00	0.05	0.00	613.32	17.25	3rd Party MSA Extra Survey
321	8100.00	0.77	289.50	8043.76	-502.54	585.84	181.55	25.00	0.16	0.00	613.32	17.22	3rd Party MSA Extra Survey
322	8125.00	0.82	290.43	8068.76	-502.75	585.96	181.22	25.00	0.21	0.00	613.34	17.19	3rd Party MSA Extra Survey
323	8150.00	0.82	293.25	8093.76	-502.98	586.09	180.89	25.00	0.16	0.00	613.37	17.15	3rd Party MSA Extra Survey
324	8175.00	0.80	293.62	8118.76	-503.21	586.23	180.57	25.00	0.08	0.00	613.41	17.12	3rd Party MSA Extra Survey
325	8200.00	0.86	289.98	8143.75	-503.44	586.36	180.23	25.00	0.32	0.00	613.44	17.09	3rd Party MSA Extra Survey
326	8225.00	0.84	287.95	8168.75	-503.67	586.49	179.88	25.00	0.14	0.00	613.45	17.05	3rd Party MSA Extra Survey
327	8250.00	0.82	286.92	8193.75	-503.88	586.59	179.53	25.00	0.10	0.00	613.45	17.02	3rd Party MSA Extra Survey
328	8275.00	0.92	288.19	8218.75	-504.09	586.71	179.17	25.00	0.41	0.00	613.46	16.98	3rd Party MSA Extra Survey
329	8300.00	0.80	286.88	8243.74	-504.31	586.82	178.81	25.00	0.49	0.00	613.46	16.95	3rd Party MSA Extra Survey
330	8325.00	0.77	286.29	8268.74	-504.51	586.92	178.49	25.00	0.12	0.00	613.46	16.91	3rd Party MSA Extra Survey
331	8350.00	0.76	285.71	8293.74	-504.69	587.01	178.16	25.00	0.05	0.00	613.45	16.88	3rd Party MSA Extra Survey
332	8375.00	0.81	283.22	8318.74	-504.87	587.10	177.83	25.00	0.24	0.00	613.44	16.85	3rd Party MSA Extra Survey
333	8400.00	0.79	283.25	8343.73	-505.05	587.18	177.49	25.00	0.08	0.00	613.42	16.82	3rd Party MSA Extra Survey
334	8425.00	0.81	286.14	8368.73	-505.24	587.27	177.16	25.00	0.18	0.00	613.40	16.79	3rd Party MSA Extra Survey
335	8450.00	0.81	288.57	8393.73	-505.44	587.37	176.82	25.00	0.14	0.00	613.41	16.75	3rd Party MSA Extra Survey
336	8475.00	0.83	283.53	8418.73	-505.64	587.47	176.47	25.00	0.30	0.00	613.40	16.72	3rd Party MSA Extra Survey
337	8500.00	0.89	279.08	8443.72	-505.82	587.54	176.11	25.00	0.36	0.00	613.37	16.69	3rd Party MSA Extra Survey
338	8525.00	0.83	272.61	8468.72	-505.97	587.58	175.73	25.00	0.46	0.00	613.30	16.65	3rd Party MSA Extra Survey
339	8550.00	0.87	273.81	8493.72	-506.11	587.60	175.36	25.00	0.18	0.00	613.21	16.62	3rd Party MSA Extra Survey
340	8575.00	0.83	273.07	8518.71	-506.24	587.62	174.99	25.00	0.17	0.00	613.13	16.58	3rd Party MSA Extra Survey
341	8600.00	0.90	272.39	8543.71	-506.37	587.64	174.62	25.00	0.28	0.00	613.04	16.55	3rd Party MSA Extra Survey
342	8625.00	0.91	271.19	8568.71	-506.51	587.65	174.22	25.00	0.09	0.00	612.94	16.51	3rd Party MSA Extra Survey
343	8650.00	0.95	271.26	8593.71	-506.64	587.66	173.82	25.00	0.16	0.00	612.83	16.48	3rd Party MSA Extra Survey
344	8675.00	1.02	272.18	8618.70	-506.78	587.68	173.39	25.00	0.29	0.00	612.72	16.44	3rd Party MSA Extra Survey
345	8700.00	1.11	269.28	8643.70	-506.93	587.68	172.92	25.00	0.42	0.00	612.59	16.40	3rd Party MSA Extra Survey
346	8725.00	1.18	265.27	8668.69	-507.06	587.66	172.42	25.00	0.43	0.00	612.43	16.35	3rd Party MSA Extra Survey
347	8750.00	1.19	268.98	8693.69	-507.19	587.63	171.91	25.00	0.31	0.00	612.26	16.31	3rd Party MSA Extra Survey
348	8775.00	1.17	270.18	8718.68	-507.34	587.63	171.39	25.00	0.13	0.00	612.11	16.26	3rd Party MSA Extra Survey
349	8800.00	1.17	272.00	8743.68	-507.51	587.64	170.88	25.00	0.15	0.00	611.98	16.21	3rd Party MSA Extra Survey

350	8825.00	1.12	267.95	8768.67	-507.66	587.64	170.38	25.00	0.38	0.00	611.84	16.17	3rd Party MSA Extra Survey
351	8850.00	1.09	264.40	8793.67	-507.78	587.61	169.90	25.00	0.30	0.00	611.68	16.13	3rd Party MSA Extra Survey
352	8875.00	1.11	266.29	8818.66	-507.89	587.57	169.42	25.00	0.17	0.00	611.51	16.08	3rd Party MSA Extra Survey
353	8900.00	1.14	264.93	8843.66	-508.00	587.53	168.93	25.00	0.16	0.00	611.33	16.04	3rd Party MSA Extra Survey
354	8925.00	1.17	262.46	8868.65	-508.10	587.47	168.43	25.00	0.23	0.00	611.14	16.00	3rd Party MSA Extra Survey
355	8950.00	1.19	263.48	8893.65	-508.19	587.41	167.92	25.00	0.12	0.00	610.94	15.95	3rd Party MSA Extra Survey
356	8975.00	1.16	263.86	8918.64	-508.30	587.35	167.41	25.00	0.12	0.00	610.75	15.91	3rd Party MSA Extra Survey
357	9000.00	1.15	262.54	8943.64	-508.39	587.29	166.91	25.00	0.11	0.00	610.55	15.87	3rd Party MSA Extra Survey
358	9025.00	1.37	265.44	8968.63	-508.51	587.24	166.37	25.00	0.92	0.00	610.35	15.82	3rd Party MSA Extra Survey
359	9050.00	1.39	270.46	8993.62	-508.67	587.22	165.77	25.00	0.49	0.00	610.17	15.76	3rd Party MSA Extra Survey
360	9075.00	1.45	269.91	9018.62	-508.86	587.22	165.15	25.00	0.25	0.00	610.00	15.71	3rd Party MSA Extra Survey
361	9100.00	1.50	270.14	9043.61	-509.06	587.22	164.50	25.00	0.20	0.00	609.83	15.65	3rd Party MSA Extra Survey
362	9125.00	1.41	269.01	9068.60	-509.24	587.21	163.87	25.00	0.38	0.00	609.65	15.59	3rd Party MSA Extra Survey
363	9150.00	1.60	267.57	9093.59	-509.43	587.19	163.21	25.00	0.77	0.00	609.45	15.53	3rd Party MSA Extra Survey
364	9175.00	1.66	269.06	9118.58	-509.62	587.17	162.50	25.00	0.29	0.00	609.25	15.47	3rd Party MSA Extra Survey
365	9200.00	1.72	268.05	9143.57	-509.83	587.16	161.76	25.00	0.27	0.00	609.03	15.40	3rd Party MSA Extra Survey
366	9225.00	1.71	269.92	9168.56	-510.05	587.14	161.02	25.00	0.23	0.00	608.82	15.34	3rd Party MSA Extra Survey
367	9250.00	1.73	267.44	9193.55	-510.26	587.12	160.27	25.00	0.31	0.00	608.61	15.27	3rd Party MSA Extra Survey
368	9275.00	1.63	269.94	9218.54	-510.46	587.11	159.53	25.00	0.50	0.00	608.40	15.20	3rd Party MSA Extra Survey
369	9300.00	1.92	266.23	9243.52	-510.67	587.08	158.76	25.00	1.25	0.00	608.17	15.13	3rd Party MSA Extra Survey
370	9325.00	1.92	261.00	9268.51	-510.84	586.99	157.93	25.00	0.70	0.00	607.86	15.06	3rd Party MSA Extra Survey
371	9350.00	1.86	246.97	9293.50	-510.87	586.76	157.14	25.00	1.86	0.00	607.44	14.99	3rd Party MSA Extra Survey
372	9375.00	2.07	235.52	9318.48	-510.70	586.35	156.40	25.00	1.78	0.00	606.85	14.93	3rd Party MSA Extra Survey
373	9400.00	2.27	231.86	9343.46	-510.40	585.79	155.63	25.00	0.97	0.00	606.11	14.88	3rd Party MSA Extra Survey
374	9425.00	2.37	232.47	9368.44	-510.05	585.17	154.83	25.00	0.41	0.00	605.30	14.82	3rd Party MSA Extra Survey
375	9450.00	2.51	232.60	9393.42	-509.69	584.52	153.99	25.00	0.56	0.00	604.46	14.76	3rd Party MSA Extra Survey
376	9475.00	2.51	233.26	9418.40	-509.33	583.86	153.12	25.00	0.12	0.00	603.60	14.69	3rd Party MSA Extra Survey
377	9500.00	2.57	233.83	9443.37	-508.97	583.20	152.22	25.00	0.26	0.00	602.74	14.63	3rd Party MSA Extra Survey
378	9525.00	2.66	230.85	9468.35	-508.58	582.50	151.32	25.00	0.65	0.00	601.84	14.56	3rd Party MSA Extra Survey
379	9550.00	2.72	230.12	9493.32	-508.15	581.76	150.42	25.00	0.28	0.00	600.89	14.50	3rd Party MSA Extra Survey
380	9575.00	2.80	229.44	9518.29	-507.69	580.98	149.50	25.00	0.35	0.00	599.91	14.43	3rd Party MSA Extra Survey
381	9600.00	2.91	229.08	9543.26	-507.20	580.17	148.56	25.00	0.45	0.00	598.88	14.36	3rd Party MSA Extra Survey
382	9625.00	2.83	230.06	9568.23	-506.72	579.35	147.60	25.00	0.38	0.00	597.86	14.29	3rd Party MSA Extra Survey
383	9650.00	2.86	230.31	9593.20	-506.25	578.56	146.65	25.00	0.13	0.00	596.86	14.22	3rd Party MSA Extra Survey
384	9675.00	2.90	228.61	9618.17	-505.77	577.74	145.69	25.00	0.38	0.00	595.83	14.15	3rd Party MSA Extra Survey
385	9700.00	2.66	224.48	9643.14	-505.24	576.91	144.81	25.00	1.25	0.00	594.81	14.09	3rd Party MSA Extra Survey
386	9725.00	2.16	205.43	9668.11	-504.63	576.07	144.21	25.00	3.75	0.00	593.85	14.05	3rd Party MSA Extra Survey
387	9750.00	2.18	179.87	9693.10	-503.83	575.17	144.00	25.00	3.84	0.00	592.92	14.06	3rd Party MSA Extra Survey
388	9775.00	2.23	174.84	9718.08	-502.91	574.21	144.05	25.00	0.80	0.00	592.00	14.08	3rd Party MSA Extra Survey
389	9800.00	2.46	178.74	9743.06	-501.92	573.19	144.10	25.00	1.12	0.00	591.03	14.11	3rd Party MSA Extra Survey
390	9825.00	2.51	179.66	9768.03	-500.88	572.11	144.12	25.00	0.26	0.00	589.98	14.14	3rd Party MSA Extra Survey
391	9850.00	2.40	178.57	9793.01	-499.86	571.04	144.14	25.00	0.48	0.00	588.95	14.17	3rd Party MSA Extra Survey
392	9875.00	2.43	177.32	9817.99	-498.84	569.98	144.17	25.00	0.24	0.00	587.93	14.19	3rd Party MSA Extra Survey
393	9900.00	2.32	178.21	9842.97	-497.84	568.95	144.21	25.00	0.46	0.00	586.94	14.22	3rd Party MSA Extra Survey
394	9925.00	2.27	179.43	9867.95	-496.88	567.95	144.23	25.00	0.28	0.00	585.98	14.25	3rd Party MSA Extra Survey
395	9950.00	2.07	177.63	9892.93	-495.98	567.00	144.26	25.00	0.85	0.00	585.06	14.27	3rd Party MSA Extra Survey
396	9975.00	1.72	174.01	9917.92	-495.17	566.18	144.32	25.00	1.48	0.00	584.28	14.30	3rd Party MSA Extra Survey
397	10000.00	1.66	175.69	9942.90	-494.45	565.44	144.38	25.00	0.31	0.00	583.58	14.32	3rd Party MSA Extra Survey
398	10025.00	1.61	171.11	9967.89	-493.75	564.73	144.46	25.00	0.56	0.00	582.92	14.35	3rd Party MSA Extra Survey
399	10050.00	1.54	166.26	9992.88	-493.07	564.06	144.60	25.00	0.60	0.00	582.30	14.38	3rd Party MSA Extra Survey
400	10075.00	1.41	172.99	10017.88	-492.44	563.43	144.72	25.00	0.87	0.00	581.72	14.40	3rd Party MSA Extra Survey
401	10100.00	1.38	175.13	10042.87	-491.84	562.82	144.78	25.00	0.24	0.00	581.15	14.43	3rd Party MSA Extra Survey
402	10125.00	1.42	171.18	10067.86	-491.24	562.22	144.85	25.00	0.42	0.00	580.58	14.45	3rd Party MSA Extra Survey
403	10150.00	1.30	168.09	10092.85	-490.65	561.63	144.96	25.00	0.56	0.00	580.04	14.47	3rd Party MSA Extra Survey
404	10175.00	1.13	170.45	10117.85	-490.13	561.11	145.06	25.00	0.71	0.00	579.56	14.49	3rd Party MSA Extra Survey
405	10200.00	0.83	169.16	10142.85	-489.70	560.69	145.13	25.00	1.20	0.00	579.17	14.51	3rd Party MSA Extra Survey
406	10225.00	0.39	164.32	10167.84	-489.44	560.43	145.19	25.00	1.77	0.00	578.93	14.52	3rd Party MSA Extra Survey
407	10250.00	0.09	190.81	10192.84	-489.34	560.33	145.21	25.00	1.25	0.00	578.84	14.53	3rd Party MSA Extra Survey
408	10275.00	0.26	301.90	10217.84	-489.36	560.34	145.16	25.00	1.22	0.00	578.84	14.52	3rd Party MSA Extra Survey
409	10300.00	0.72	313.54	10242.84	-489.54	560.48	144.99	25.00	1.87	0.00	578.93	14.50	3rd Party MSA Extra Survey
410	10325.00	1.13	317.18	10267.84	-489.90	560.77	144.71	25.00	1.66	0.00	579.14	14.47	3rd Party MSA Extra Survey
411	10350.00	1.47	313.88	10292.83	-490.41	561.17	144.31	25.00	1.39	0.00	579.43	14.42	3rd Party MSA Extra Survey
412	10375.00	1.74	315.40	10317.82	-491.03	561.67	143.82	25.00	1.09	0.00	579.79	14.36	3rd Party MSA Extra Survey
413	10400.00	2.11	317.66	10342.81	-491.79	562.28	143.24	25.00	1.51	0.00	580.23	14.29	3rd Party MSA Extra Survey
414	10425.00	2.13	317.45	10367.79	-492.63	562.96	142.62	25.00	0.09	0.00	580.74	14.22	3rd Party MSA Extra Survey
415	10450.00	2.07	317.43	10392.78	-493.46	563.63	142.00	25.00	0.24	0.00	581.24	14.14	3rd Party MSA Extra Survey
416	10475.00	2.01	317.77	10417.76	-494.27	564.29	141.40	25.00	0.24	0.00	581.74	14.07	3rd Party MSA Extra Survey
417	10500.00	1.75	325.69	10442.75	-495.03	564.93	140.89	25.00	1.47	0.00	582.23	14.00	3rd Party MSA Extra Survey
418	10525.00	1.60	339.83	10467.74	-495.75	565.57	140.55	25.00	1.75	0.00	582.78	13.96	3rd Party MSA Extra Survey
419	10550.00	1.62	343.34	10492.73	-496.45	566.24	140.33	25.00	0.40	0.00	583.37	13.92	3rd Party MSA Extra Survey
420	10575.00	1.79	339.22	10517.71	-497.19	566.94	140.09	25.00	0.84	0.00	583.99	13.88	3rd Party MSA Extra Survey
421	10600.00	1.91	339.45	10542.70	-498.00	567.70	139.80	25.00	0.48	0.00	584.66	13.83	3rd Party MSA Extra Survey
422	10625.00	1.83	339.04	10567.69	-498.81	568.46	139.52	25.00	0.32	0.00	585.33	13.79	3rd Party MSA Extra Survey
423	10650.00	1.59	338.17	10592.68	-499.56	569.16	139.24	25.00	0.97	0.00	585.94	13.75	3rd Party MSA Extra Survey

424	10675.00	1.22	324.64	10617.67	-500.16	569.69	138.96	25.00	1.98	0.00	586.40	13.71	3rd Party MSA Extra Survey
425	10700.00	1.82	328.99	10642.66	-500.80	570.25	138.60	25.00	2.44	0.00	586.85	13.66	3rd Party MSA Extra Survey
426	10725.00	2.00	325.17	10667.65	-501.60	570.95	138.15	25.00	0.88	0.00	587.43	13.60	3rd Party MSA Extra Survey
427	10750.00	1.98	329.35	10692.63	-502.44	571.68	137.68	25.00	0.59	0.00	588.03	13.54	3rd Party MSA Extra Survey
428	10775.00	1.85	332.72	10717.62	-503.26	572.41	137.27	25.00	0.69	0.00	588.64	13.49	3rd Party MSA Extra Survey
429	10800.00	1.83	329.90	10742.60	-504.05	573.11	136.89	25.00	0.37	0.00	589.24	13.43	3rd Party MSA Extra Survey
430	10825.00	1.93	328.67	10767.59	-504.84	573.82	136.47	25.00	0.43	0.00	589.82	13.38	3rd Party MSA Extra Survey
431	10850.00	1.87	334.45	10792.58	-505.66	574.55	136.08	25.00	0.80	0.00	590.44	13.32	3rd Party MSA Extra Survey
432	10874.00	1.38	330.72	10816.57	-506.33	575.15	135.76	24.00	2.09	0.00	590.96	13.28	3rd Party MSA Extra Survey
433	10950.00	1.20	296.98	10892.55	-507.79	576.31	134.61	76.00	1.01	0.00	591.82	13.15	3rd Party MSA Extra Survey
434	11041.00	1.63	286.29	10983.52	-509.19	577.11	132.51	91.00	0.56	0.00	592.13	12.93	3rd Party MSA Extra Survey
435	11132.00	1.61	291.36	11074.49	-510.72	577.94	130.08	91.00	0.16	0.00	592.40	12.68	3rd Party MSA Extra Survey
436	11223.00	2.09	287.46	11165.44	-512.48	578.90	127.30	91.00	0.55	0.00	592.73	12.40	3rd Party MSA Extra Survey
437	11314.00	1.55	276.92	11256.39	-513.96	579.55	124.49	91.00	0.70	0.00	592.77	12.12	3rd Party MSA Extra Survey
438	11372.00	1.35	267.90	11314.37	-514.47	579.62	123.03	58.00	0.52	0.00	592.53	11.98	3rd Party MSA Extra Survey
439	11489.00	0.90	258.14	11431.35	-514.93	579.38	120.76	117.00	0.42	141.80	591.83	11.77	MWD Run 3
440	11579.00	6.03	173.09	11521.18	-510.36	574.54	120.64	90.00	6.69	140.00	587.07	11.86	MWD Run 3
441	11624.00	19.24	167.29	11564.99	-500.61	564.92	122.56	45.00	29.46	145.40	578.06	12.24	MWD Run 3
442	11670.00	30.90	168.82	11606.59	-481.26	545.87	126.54	46.00	25.38	145.40	560.34	13.05	MWD Run 3
443	11715.00	43.22	165.29	11642.43	-454.29	519.53	132.71	45.00	27.77	152.60	536.21	14.33	MWD Run 3
444	11760.00	46.16	163.81	11674.42	-422.67	489.03	141.15	45.00	6.95	154.40	508.99	16.10	MWD Run 3
445	11806.00	49.28	161.12	11705.37	-388.64	456.59	151.42	46.00	8.04	156.20	481.05	18.35	MWD Run 3
446	11851.00	52.35	158.36	11733.80	-353.81	423.88	163.52	45.00	8.32	156.20	454.33	21.09	MWD Run 3
447	11897.00	55.40	154.93	11760.92	-316.84	389.80	178.26	46.00	8.94	161.60	428.62	24.58	MWD Run 3
448	11942.00	55.98	154.44	11786.28	-280.00	356.20	194.16	45.00	1.57	161.60	405.68	28.59	MWD Run 3
449	11988.00	56.55	154.16	11811.83	-242.11	321.73	210.75	46.00	1.36	161.60	384.61	33.23	MWD Run 3
450	12033.00	57.64	154.31	11836.27	-204.70	287.70	227.17	45.00	2.44	163.40	366.57	38.29	MWD Run 3
451	12078.00	58.87	154.82	11859.95	-166.77	253.14	243.60	45.00	2.88	163.40	351.32	43.90	MWD Run 3
452	12123.00	59.69	155.26	11882.93	-128.39	218.07	259.93	45.00	2.02	165.20	339.29	50.00	MWD Run 3
453	12169.00	60.63	155.76	11905.82	-88.76	181.76	276.46	46.00	2.24	167.00	330.86	56.68	MWD Run 3
454	12214.00	62.09	155.31	11927.39	-49.54	145.81	292.82	45.00	3.38	167.00	327.12	63.53	MWD Run 3
455	12260.00	63.30	155.22	11948.49	-8.97	108.69	309.92	46.00	2.63	168.80	328.43	70.67	MWD Run 3
456	12305.00	64.55	154.93	11968.27	31.13	72.03	326.96	45.00	2.84	167.00	334.80	77.58	MWD Run 3
457	12351.00	66.91	155.58	11987.18	72.75	33.95	344.51	46.00	5.29	167.00	346.17	84.37	MWD Run 3
458	12396.00	71.18	157.68	12003.27	114.56	-4.62	361.16	45.00	10.44	170.60	361.19	90.73	MWD Run 3
459	12441.00	76.26	161.22	12015.88	157.69	-45.05	376.30	45.00	13.58	168.80	378.99	96.83	MWD Run 3
460	12487.00	80.49	164.05	12025.15	202.73	-88.04	389.73	46.00	11.01	168.80	399.55	102.73	MWD Run 3
461	12532.00	85.25	166.76	12030.73	247.29	-131.24	400.97	45.00	12.12	170.60	421.90	108.12	MWD Run 3
462	12623.00	90.86	164.74	12033.83	338.03	-219.35	423.35	91.00	6.55	158.00	476.80	117.39	MWD Run 4
463	12714.00	91.42	165.20	12032.03	428.91	-307.22	446.95	91.00	0.80	165.20	542.35	124.50	MWD Run 4
464	12805.00	91.75	165.74	12029.51	519.73	-395.27	469.77	91.00	0.70	168.80	613.94	130.08	MWD Run 4
465	12896.00	91.72	165.80	12026.75	610.51	-483.44	492.13	91.00	0.07	170.60	689.86	134.49	MWD Run 4
466	12987.00	91.25	165.54	12024.39	701.32	-571.58	514.65	91.00	0.60	174.20	769.13	138.00	MWD Run 4
467	13077.00	90.99	166.05	12022.63	791.13	-658.81	536.72	90.00	0.64	176.00	849.77	140.83	MWD Run 4
468	13168.00	91.11	164.79	12020.96	881.97	-746.86	559.62	91.00	1.39	179.60	933.26	143.16	MWD Run 4
469	13259.00	89.45	164.78	12020.52	972.88	-834.67	583.50	91.00	1.82	177.80	1018.41	145.04	MWD Run 4
470	13349.00	88.58	165.95	12022.06	1062.73	-921.73	606.25	90.00	1.62	183.20	1103.23	146.67	MWD Run 4
471	13440.00	88.84	167.04	12024.11	1153.45	-1010.19	627.49	91.00	1.23	185.00	1189.22	148.15	MWD Run 4
472	13530.00	89.23	165.82	12025.62	1243.20	-1097.67	648.61	90.00	1.42	183.20	1274.98	149.42	MWD Run 4
473	13621.00	90.69	163.99	12025.69	1334.09	-1185.52	672.30	91.00	2.57	183.20	1362.88	150.44	MWD Run 4
474	13711.00	90.77	163.66	12024.55	1424.05	-1271.95	697.37	90.00	0.38	186.80	1450.58	151.27	MWD Run 4
475	13802.00	91.50	163.82	12022.74	1515.00	-1359.29	722.85	91.00	0.82	188.60	1539.54	152.00	MWD Run 4
476	13892.00	92.42	164.04	12019.66	1604.91	-1445.72	747.75	90.00	1.06	190.40	1627.65	152.65	MWD Run 4
477	13983.00	92.90	164.15	12015.43	1695.76	-1533.15	772.66	91.00	0.54	190.40	1716.84	153.25	MWD Run 4
478	14074.00	92.06	163.87	12011.49	1786.63	-1620.54	797.70	91.00	0.98	186.80	1806.23	153.79	MWD Run 4
479	14164.00	91.72	163.58	12008.52	1876.55	-1706.89	822.90	90.00	0.50	192.20	1894.90	154.26	MWD Run 4
480	14255.00	90.41	163.65	12006.83	1967.51	-1794.18	848.57	91.00	1.45	188.60	1984.73	154.69	MWD Run 4
481	14346.00	88.50	164.06	12007.70	2058.47	-1881.58	873.87	91.00	2.14	185.00	2074.61	155.09	MWD Run 4
482	14437.00	88.61	164.54	12009.99	2149.38	-1969.16	898.49	91.00	0.54	186.80	2164.45	155.47	MWD Run 4
483	14528.00	88.39	164.93	12012.37	2240.26	-2056.91	922.44	91.00	0.49	190.40	2254.28	155.85	MWD Run 4
484	14618.00	88.58	165.39	12014.75	2330.11	-2143.88	945.49	90.00	0.56	190.40	2343.11	156.20	MWD Run 4
485	14709.00	88.78	164.27	12016.84	2420.99	-2231.68	969.30	91.00	1.25	188.60	2433.10	156.52	MWD Run 4
486	14800.00	90.21	162.07	12017.64	2511.97	-2318.77	995.65	91.00	2.88	192.20	2523.50	156.76	MWD Run 4
487	14890.00	89.48	162.61	12017.89	2601.97	-2404.53	1022.95	90.00	1.01	190.40	2613.08	156.95	MWD Run 4
488	14981.00	88.61	162.92	12019.40	2692.95	-2491.43	1049.90	91.00	1.01	195.80	2703.62	157.15	MWD Run 4
489	15072.00	88.56	163.18	12021.65	2783.91	-2578.46	1076.42	91.00	0.29	197.60	2794.12	157.34	MWD Run 4
490	15163.00	88.72	163.23	12023.81	2874.88	-2665.55	1102.70	91.00	0.19	197.60	2884.63	157.53	MWD Run 4
491	15254.00	89.57	164.99	12025.16	2965.81	-2753.06	1127.62	91.00	2.15	199.40	2975.04	157.73	MWD Run 4
492	15345.00	89.93	160.99	12025.56	3056.79	-2840.06	1154.23	91.00	4.42	194.00	3065.65	157.88	MWD Run 4
493	15436.00	90.88	159.41	12024.92	3147.72	-2925.67	1185.06	91.00	2.03	197.60	3156.57	157.95	MWD Run 4
494	15527.00	89.26	154.75	12024.81	3238.32	-3009.46	1220.49	91.00	5.42	197.60	3247.53	157.92	MWD Run 4
495	15617.00	90.49	155.77	12025.01	3327.66	-3091.20	1258.15	90.00	1.78	194.00	3337.43	157.85	MWD Run 4
496	15709.00	89.93	163.60	12024.67	3419.49	-3177.41	1290.06	92.00	8.53	195.80	3429.31	157.90	MWD Run 4
497	15799.00	90.35	166.14	12024.45	3509.39	-3264.28	1313.55	90.00	2.85	199.40	3518.66	158.08	MWD Run 4

498	15890.00	91.53	168.22	12022.96	3600.03	-3353.00	1333.74	91.00	2.63	197.60	3608.52	158.31	MWD Run 4
499	15981.00	90.18	167.28	12021.60	3690.60	-3441.91	1353.04	91.00	1.80	197.60	3698.31	158.54	MWD Run 4
500	16071.00	88.64	165.96	12022.53	3780.33	-3529.46	1373.86	90.00	2.26	199.40	3787.43	158.73	MWD Run 4
501	16162.00	89.03	165.75	12024.37	3871.13	-3617.68	1396.10	91.00	0.49	203.00	3877.72	158.90	MWD Run 4
502	16253.00	91.42	169.69	12024.02	3961.68	-3706.58	1415.44	91.00	5.06	199.40	3967.64	159.10	MWD Run 4
503	16344.00	88.36	165.78	12024.19	4052.24	-3795.47	1434.77	91.00	5.46	199.40	4057.61	159.29	MWD Run 4
504	16435.00	87.01	163.18	12027.87	4143.08	-3883.07	1459.09	91.00	3.21	203.00	4148.16	159.41	MWD Run 4
505	16526.00	87.18	163.47	12032.48	4233.95	-3970.14	1485.17	91.00	0.36	203.00	4238.83	159.49	MWD Run 4
506	16616.00	87.57	164.12	12036.59	4323.82	-4056.47	1510.26	90.00	0.84	204.80	4328.49	159.58	MWD Run 4
507	16707.00	87.57	164.76	12040.44	4414.67	-4144.05	1534.65	91.00	0.71	206.60	4419.09	159.68	MWD Run 4
508	16798.00	88.30	164.42	12043.71	4505.54	-4231.72	1558.82	91.00	0.88	199.40	4509.70	159.78	MWD Run 4
509	16889.00	88.92	162.23	12045.92	4596.49	-4318.87	1584.92	91.00	2.50	204.80	4600.50	159.85	MWD Run 4
510	16980.00	91.36	167.22	12045.70	4687.37	-4406.62	1608.89	91.00	6.10	203.00	4691.14	159.94	MWD Run 4
511	17071.00	90.29	165.34	12044.38	4778.13	-4495.01	1630.46	91.00	2.37	197.60	4781.58	160.06	MWD Run 4
512	17161.00	90.77	162.01	12043.55	4868.08	-4581.36	1655.75	90.00	3.74	203.00	4871.39	160.13	MWD Run 4
513	17251.00	91.36	163.51	12041.87	4958.06	-4667.30	1682.42	90.00	1.79	203.00	4961.27	160.18	MWD Run 4
514	17342.00	91.39	163.72	12039.69	5049.01	-4754.58	1708.08	91.00	0.23	204.80	5052.09	160.24	MWD Run 4
515	17433.00	89.17	160.82	12039.24	5139.99	-4841.24	1735.79	91.00	4.01	204.80	5143.01	160.28	MWD Run 4
516	17523.00	89.96	161.06	12039.93	5229.96	-4926.30	1765.18	90.00	0.91	208.40	5233.01	160.29	MWD Run 4
517	17613.00	90.80	161.90	12039.33	5319.95	-5011.64	1793.78	90.00	1.32	206.60	5322.98	160.31	MWD Run 4
518	17704.00	91.92	163.37	12037.17	5410.92	-5098.46	1820.93	91.00	2.03	203.00	5413.88	160.35	MWD Run 4
519	17794.00	89.48	159.61	12036.07	5500.88	-5183.78	1849.49	90.00	4.98	206.60	5503.83	160.36	MWD Run 4
520	17884.00	89.90	159.65	12036.56	5590.79	-5268.15	1880.83	90.00	0.47	206.60	5593.82	160.35	MWD Run 4
521	17975.00	90.80	160.83	12036.00	5681.73	-5353.78	1911.59	91.00	1.63	208.40	5684.82	160.35	MWD Run 4
522	18066.00	90.99	160.65	12034.58	5772.69	-5439.68	1941.60	91.00	0.29	208.40	5775.81	160.36	MWD Run 4
523	18156.00	92.14	160.99	12032.11	5862.62	-5524.65	1971.16	90.00	1.33	206.60	5865.77	160.36	MWD Run 4
524	18247.00	91.08	162.34	12029.55	5953.58	-5610.99	1999.77	91.00	1.89	201.20	5956.70	160.38	MWD Run 4
525	18337.00	91.08	162.76	12027.86	6043.56	-5696.84	2026.75	90.00	0.46	203.00	6046.63	160.42	MWD Run 4
526	18428.00	90.83	160.28	12026.34	6134.53	-5783.13	2055.59	91.00	2.74	199.40	6137.59	160.43	MWD Run 4
527	18519.00	89.62	161.52	12025.99	6225.51	-5869.11	2085.37	91.00	1.90	201.20	6228.58	160.44	MWD Run 4
528	18609.00	90.07	162.19	12026.23	6315.50	-5954.63	2113.40	90.00	0.90	199.40	6318.55	160.46	MWD Run 4
529	18700.00	90.69	168.28	12025.63	6406.33	-6042.59	2136.57	91.00	6.73	201.20	6409.20	160.53	MWD Run 4
530	18790.00	89.99	166.79	12025.10	6495.94	-6130.46	2156.00	90.00	1.83	203.00	6498.53	160.62	MWD Run 4
531	18881.00	89.90	166.43	12025.19	6586.68	-6218.98	2177.08	91.00	0.41	204.80	6589.04	160.71	MWD Run 4
532	18971.00	89.90	166.96	12025.34	6676.41	-6306.57	2197.79	90.00	0.60	204.80	6678.56	160.79	MWD Run 4
533	19062.00	90.43	167.67	12025.08	6767.05	-6395.35	2217.77	91.00	0.97	204.80	6768.97	160.87	MWD Run 4
534	19152.00	90.97	168.39	12023.97	6856.58	-6483.38	2236.43	90.00	0.99	201.20	6858.27	160.97	MWD Run 4
535	19243.00	88.92	164.90	12024.06	6947.29	-6571.90	2257.44	91.00	4.45	203.00	6948.81	161.04	MWD Run 4
536	19333.00	89.26	164.26	12025.49	7037.21	-6658.65	2281.37	90.00	0.80	206.60	7038.63	161.09	MWD Run 4
537	19424.00	89.99	164.74	12026.10	7128.13	-6746.34	2305.69	91.00	0.96	208.40	7129.47	161.13	MWD Run 4
538	19515.00	89.76	164.59	12026.30	7219.05	-6834.10	2329.75	91.00	0.30	206.60	7220.30	161.18	MWD Run 4
539	19605.00	89.76	163.56	12026.67	7309.00	-6920.64	2354.45	90.00	1.15	208.40	7310.18	161.21	MWD Run 4
540	19696.00	89.87	163.61	12026.96	7399.98	-7007.93	2380.17	91.00	0.14	210.20	7401.10	161.24	MWD Run 4
541	19787.00	90.10	163.15	12026.98	7490.96	-7095.13	2406.20	91.00	0.57	210.20	7492.04	161.27	MWD Run 4
542	19877.00	90.27	164.92	12026.70	7580.91	-7181.65	2430.96	90.00	1.98	208.40	7581.93	161.30	MWD Run 4
543	19968.00	89.48	161.88	12026.90	7671.88	-7268.85	2456.96	91.00	3.45	206.60	7672.86	161.32	MWD Run 4
544	20058.00	89.26	161.30	12027.89	7761.87	-7354.24	2485.38	90.00	0.68	206.60	7762.86	161.33	MWD Run 4
545	20149.00	89.54	161.01	12028.84	7852.85	-7440.36	2514.77	91.00	0.45	206.60	7853.85	161.33	MWD Run 4
546	20239.00	89.73	161.83	12029.42	7942.84	-7525.66	2543.45	90.00	0.93	203.00	7943.85	161.33	MWD Run 4
547	20329.00	90.86	164.28	12028.95	8032.82	-7611.75	2569.68	90.00	3.00	208.40	8033.80	161.35	MWD Run 4
548	20420.00	90.97	162.26	12027.51	8123.79	-7698.88	2595.86	91.00	2.22	212.00	8124.73	161.37	MWD Run 4
549	20510.00	91.89	161.82	12025.26	8213.76	-7784.47	2623.60	90.00	1.14	212.00	8214.69	161.37	MWD Run 4
550	20601.00	92.37	161.25	12021.88	8304.69	-7870.72	2652.40	91.00	0.82	206.60	8305.63	161.38	MWD Run 4
551	20692.00	91.70	163.99	12018.65	8395.62	-7957.50	2679.57	91.00	3.10	201.20	8396.54	161.39	MWD Run 4
552	20783.00	90.91	166.43	12016.57	8486.47	-8045.46	2702.80	91.00	2.82	206.60	8487.31	161.43	MWD Run 4
553	20874.00	88.92	166.03	12016.71	8577.24	-8133.83	2724.46	91.00	2.23	206.60	8577.99	161.48	MWD Run 4
554	20964.00	88.33	165.90	12018.86	8667.02	-8221.12	2746.28	90.00	0.67	204.80	8667.69	161.53	MWD Run 4
555	21055.00	88.87	166.68	12021.09	8757.77	-8309.50	2767.84	91.00	1.04	206.60	8758.35	161.58	MWD Run 4
556	21145.00	89.12	166.74	12022.67	8847.48	-8397.08	2788.53	90.00	0.29	210.20	8847.98	161.63	MWD Run 4
557	21235.00	89.57	167.31	12023.70	8937.16	-8484.77	2808.74	90.00	0.81	210.20	8937.58	161.68	MWD Run 4
558	21326.00	91.19	168.62	12023.10	9027.70	-8573.77	2827.71	91.00	2.29	206.60	9028.03	161.75	MWD Run 4
559	21417.00	91.22	166.65	12021.19	9118.27	-8662.63	2847.19	91.00	2.16	203.00	9118.53	161.81	MWD Run 4
560	21515.00	91.89	165.48	12018.53	9216.02	-8757.71	2870.78	98.00	1.38	190.40	9216.23	161.85	MWD Run 6
561	21605.00	89.06	161.26	12017.78	9305.97	-8843.91	2896.53	90.00	5.65	197.60	9306.16	161.87	MWD Run 6
562	21696.00	86.85	157.95	12021.03	9396.79	-8929.14	2928.22	91.00	4.37	203.00	9397.02	161.84	MWD Run 6
563	21786.00	86.17	157.00	12026.51	9486.31	-9012.12	2962.62	90.00	1.29	204.80	9486.59	161.80	MWD Run 6
564	21876.00	85.22	156.55	12033.26	9575.65	-9094.59	2998.01	90.00	1.17	201.20	9575.99	161.76	MWD Run 6
565	21967.00	89.87	162.76	12037.16	9666.41	-9179.77	3029.59	91.00	8.53	203.00	9666.78	161.74	MWD Run 6
566	22057.00	89.34	160.38	12037.77	9756.39	-9265.15	3058.04	90.00	2.71	206.60	9756.77	161.73	MWD Run 6
567	22148.00	91.41	159.51	12037.17	9847.31	-9350.62	3089.24	91.00	2.47	206.60	9847.72	161.72	MWD Run 6
568	22238.00	92.70	161.62	12033.94	9937.21	-9435.44	3119.16	90.00	2.74	206.60	9937.64	161.71	MWD Run 6
569	22329.00	93.66	165.13	12028.89	10028.03	-9522.48	3145.16	91.00	3.99	208.40	10028.44	161.72	MWD Run 6
570	22420.00	93.91	165.30	12022.88	10118.71	-9610.27	3168.34	91.00	0.34	210.20	10119.08	161.75	MWD Run 6
571	22511.00	94.22	166.05	12016.43	10209.32	-9698.22	3190.80	91.00	0.89	212.00	10209.64	161.79	MWD Run 6

572	22601.00	94.28	166.11	12009.76	10298.87	-9785.34	3212.40	90.00	0.10	212.00	10299.14	161.83	MWD Run 6
573	22692.00	91.78	165.22	12004.96	10389.57	-9873.37	3234.89	91.00	2.91	208.40	10389.80	161.86	MWD Run 6
574	22782.00	92.09	165.43	12001.92	10479.39	-9960.39	3257.68	90.00	0.42	210.20	10479.59	161.89	MWD Run 6
575	22873.00	90.29	162.04	12000.03	10570.33	-10047.71	3283.15	91.00	4.22	212.00	10570.51	161.90	MWD Run 6
576	22964.00	90.04	162.13	11999.76	10661.32	-10134.30	3311.14	91.00	0.29	210.20	10661.50	161.91	MWD Run 6
577	23055.00	89.79	163.17	11999.89	10752.32	-10221.16	3338.28	91.00	1.18	212.00	10752.50	161.91	MWD Run 6
578	23145.00	91.47	167.71	11998.90	10842.15	-10308.24	3360.90	90.00	5.38	210.20	10842.29	161.94	MWD Run 6
579	23236.00	90.99	168.20	11996.95	10932.67	-10397.21	3379.88	91.00	0.75	213.80	10932.78	161.99	MWD Run 6
580	23327.00	90.01	160.51	11996.15	11023.54	-10484.77	3404.41	91.00	8.53	213.80	11023.63	162.01	MWD Run 6
581	23417.00	89.62	158.55	11996.43	11113.43	-10569.08	3435.88	90.00	2.21	213.80	11113.54	161.99	MWD Run 6
582	23508.00	90.99	159.27	11995.94	11204.28	-10653.98	3468.62	91.00	1.70	215.60	11204.40	161.97	MWD Run 6
583	23599.00	90.15	162.42	11995.03	11295.23	-10739.93	3498.47	91.00	3.57	210.20	11295.37	161.96	MWD Run 6
584	23689.00	89.54	160.55	11995.27	11385.22	-10825.26	3527.06	90.00	2.19	213.80	11385.36	161.95	MWD Run 6
585	23780.00	89.20	163.69	11996.27	11476.20	-10911.85	3554.99	91.00	3.47	212.00	11476.34	161.95	MWD Run 6
586	23871.00	91.72	166.79	11995.54	11567.06	-10999.83	3578.17	91.00	4.40	213.80	11567.17	161.98	MWD Run 6
587	23961.00	91.39	165.75	11993.10	11656.80	-11087.22	3599.52	90.00	1.22	215.60	11656.89	162.01	MWD Run 6
588	24051.00	92.26	166.27	11990.24	11746.56	-11174.51	3621.27	90.00	1.13	217.40	11746.63	162.04	MWD Run 6
589	24142.00	90.69	166.92	11987.90	11837.26	-11263.00	3642.36	91.00	1.87	213.80	11837.31	162.08	MWD Run 6
590	24232.00	88.05	163.43	11988.89	11927.12	-11349.97	3665.38	90.00	4.86	213.80	11927.15	162.10	MWD Run 6
591	24323.00	86.68	162.20	11993.08	12018.01	-11436.82	3692.24	91.00	2.03	217.40	12018.04	162.11	MWD Run 6
592	24413.00	88.72	162.44	11996.69	12107.93	-11522.49	3719.55	90.00	2.29	213.80	12107.97	162.11	MWD Run 6
593	24504.00	88.78	162.39	11998.67	12198.91	-11609.22	3747.03	91.00	0.08	215.60	12198.94	162.11	MWD Run 6
594	24595.00	88.30	161.42	12000.98	12289.88	-11695.69	3775.29	91.00	1.19	217.40	12289.91	162.11	MWD Run 6
595	24686.00	88.28	160.72	12003.69	12380.82	-11781.73	3804.80	91.00	0.77	217.40	12380.86	162.10	MWD Run 6
596	24800.00	87.60	160.74	12007.79	12494.71	-11889.27	3842.40	114.00	0.59	215.60	12494.75	162.09	MWD Run 6
597	24860.00	87.60	160.74	12010.30	12554.63	-11945.86	3862.18	60.00	0.01	0.00	12554.68	162.08	Projection to Bit



MWD SURVEY CERTIFICATION
Gordon Technologies, LLC

State Of Texas

County Of Loving

I, Loren Fulton certify that; I am employed by Gordon Technologies, LLC.;
that I did on the day(s) of March 28, 2023 through April 17, 2023 conduct
or supervise the taking of a MWD survey from a depth of 10,950 feet to a depth of
24,800 feet; that the data is true, correct, complete and within the limitations of the
tool set forth by Gordon Technologies, LLC.; that I am authorized and qualified to make this report;
that this survey was conducted at the request of ConocoPhillips Company for the
UL 20 Paddle Tail B #503H Well, A.P.I. No. 42301360790000 in
Phantom (Wolfcamp) Field and that I have reviewed this report and find that
it conforms to the principles and procedures set forth by Gordon Technologies, LLC.

A handwritten signature in black ink, appearing to read "Loren Fulton", written over a horizontal line.

Signature

MWD Coordinator

Title