Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO. 30-025-35957

5. Indicate Type of Lease STATE X FEE ☐

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name: State LPG Storage Well

1. Type of Well: Oil Well ☐ Gas Well ☐ Other X: LPG Storage

8. Well Number 4

2. Name of Operator: Western Refining Company, LP

9. OGRID Number 248440

3. Address of Operator: PO Box 1345 Jal, New Mexico 88252

10. Pool name or Wildcat: Langlie Mattix

4. Well Location
Unit Letter M : 1000 feet from the South line and 1230 feet from the West line
Section 32 Township 23S Range 37E NMPM Lea County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3301 ft.

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK X	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Marathon successfully completed Workover and MIT activities at Jal Cavern #4 in Q4 2022. Please see the attached reports for additional details.

Spud Date: | Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [signature] TITLE Project Engineer III DATE 2023.02.17

Type or print name Sam Flessner E-mail address: sjflessner@mplx.com PHONE: 419.348.4269

For State Use Only

APPROVED BY: [signature] TITLE Environmental Engineer DATE 3/3/2023

Conditions of Approval (if any):

STATE LPG STORAGE NO. 4

LEA COUNTY, NM

MARATHON PETROLEUM COMPANY, LLC

MECHANICAL INTEGRITY TEST REPORT

API NO. 30-025-35957
PROJECT NO. 192025AT

NOVEMBER 19 - 22, 2022

WSP USA
SUITE 200
16200 PARK ROW
HOUSTON, TX 77084

TEL.: +1 281 589-5900
FAX: +1 281 759-5164
WSP.COM

SIGNATURES

PREPARED BY

Gabriel Holmes 1/23/23

Gabriel Holmes,
Test Engineer

REVIEWED BY

Nils Skaug

Nils Skaug,
Sr. Vice President
Texas District Business Line Leader, Energy

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B. WELL TEST INFORMATION

C. FIELD NOTES

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F. TEST DATA

G. TEST EQUIPMENT CALIBRATION AND CERTIFICATION

H. WIRELINE LOGS

1 INTRODUCTION

Marathon Petroleum Company, LLC contracted WSP USA, Inc. (WSP) to conduct a Mechanical Integrity Test (MIT) on State LPG Storage No. 4, located at their Jal Station facility in Lea County, NM. WSP prepared an MIT procedure, submitted it to the Marathon Petroleum Company, LLC for approval, and conducted a nitrogen-brine interface test on State LPG Storage No. 4.

The following personnel participated in the MIT.

Table 1 Test Participants

Name	Company
Sam Flessner	Marathon Petroleum Company, LLC
Gabriel Holmes	WSP
Adrian Villareal	WSP
Wireline Services	Sonic Surveys
Nitrogen Services	CUDD

The purpose of an MIT is to test the mechanical integrity of an underground storage cavern system for its suitability to store hydrocarbons. The test procedure consisted of the following basic steps: Pressuring the cavern system with brine to a given test pressure; injecting nitrogen into the well until the nitrogen-brine interface was below the cemented production casing shoe; recording the nitrogen and brine wellhead pressures, well temperature, and nitrogen-brine interface level throughout the test period.

This report presents a description of the daily activities, a summary of the MIT data, and a conclusion of the test results. Detailed information pertaining to the tested system and data obtained during the MIT are presented in Appendices A through H.

2 DAILY ACTIVITY

November 19, 2022

The wireline unit, nitrogen-pumping unit, and pressure recording equipment were rigged up to the wellhead. The Base Temperature and Density logs were completed. The make, model and serial number of the pressure recorder and flow turbine used in this test are given in Table 2.

Table 2 Test Equipment

Device	Make / Model	Serial Number
Pressure Recorder	CalScan / Hawk 9000	62684
Flow Turbine	Hoffer Flowmeter	143951

The nitrogen-brine interface and the pressure data were monitored and recorded during the nitrogen injection period. Nitrogen was injected into the annulus until the nitrogen-brine interface was slightly above the casing shoe. The injection was stopped, and the well was shut-in for a "pipe test". This test period is used to check for surface leaks or possible casing problems prior to completing the nitrogen injection. The interface was logged, and pressures were noted at the beginning and end of the test period. There was no evidence of leaks in the casing and wellhead. The pipe test results are summarized in Table 3.

Table 3 Pipe Test Summary

Parameter	Test Start	Test End	Change
Date	November 19, 2022	November 19, 2022	-
Time (hours)	13:22	14:22	1.0
Wellhead Tubing Pressure (psig)	214.9	213.7	-1.2
Wellhead Annulus Pressure (psig)	1,014.6	1,013.7	-0.9
Nitrogen-Brine Interface Depth (ft)	1,632.00	1,632.00	0.0

Nitrogen injection resumed and the interface was monitored as it moved down-hole past the casing shoe. Brine was bled off from the tubing while nitrogen was injected.

November 20, 2022

Resumed nitrogen injection and the interface was monitored as it moved down-hole to the desired depth. An increase in the tubing pressure indicated that nitrogen was migrating into the tubing. Brine was bled off from the tubing while nitrogen was injected.

The borehole volume versus depth is calculated from the metered volume of nitrogen injected, combined with the corresponding interface location, wellhead pressure, and nitrogen temperature. A correction factor is applied to the metered nitrogen volume, as needed. The results are shown in Table 4.

Table 4 Borehole Calculations

Interface Depth	N_2 Volume	Annular Pressure	Incremental Volume	Unit Volume	Diameter
(ft)	(SCF)	(psig)	(bbls)	(bbls/ft)	(ft)
1,659.00	18,150	1,024.1	45.6	0.03	0.5
1,661.50	47,121	1,150.0	60.1	24.0	13.1
1,662.50	62,468	1,187.2	30.2	30.2	14.7
1,663.00	79,462	1,205.4	34.4	68.8	22.2
1,663.50	84,635	1,205.4	11.1	22.2	12.6
1,663.75	93,590	1,205.4	19.2	76.8	23.4
1,664.25	102,903	1,205.7	19.9	39.8	16.9
1,664.75	111,931	1,205.9	19.3	38.6	16.6
1,665.50	121,356	1,206.4	20.1	26.8	13.8
1,666.00	130,856	1,206.6	20.3	40.6	17.0
1,666.50	139,873	1,207.5	19.1	38.2	16.5
1,667.00	149,090	1,208.1	19.5	39.1	16.7
1,668.25	168,065	1,209.4	40.2	32.1	15.2
1,669.25	186,288	1,210.4	38.6	38.6	16.6
1,670.50	205,171	1,211.5	39.9	31.9	15.1
1,671.75	223,381	1,212.8	38.3	30.6	14.8
1,672.50	242,687	1,214.0	40.6	54.2	19.7
1,675.00	264,930	1,193.3	56.8	22.7	12.7
1,679.00	287,535	1,205.9	42.6	10.6	8.7
1,682.50	297,486	1,209.2	19.6	5.6	6.3

A summary of the post-injection measurements is given in Table 5.

Table 5 Post Injection Summary

Parameter	Value
Casing Shoe Depth (ft)	1,659.00
Total Volume of Nitrogen Injected (SCF)*	316,515.9
Depth of Interface After Injection (ft)	1,682.50
Tubing Pressure After Injection (psig)	401.9
Annulus Pressure After Injection (psig)	1,209.2

*Uncorrected N2 Volume

November 21, 2022

The test period began after the down-hole temperature and interface logs were run. The nitrogen and brine pressures were recorded. The well was shut-in for the test duration.

November 22, 2022

The down-hole temperature and interface logs were run again, ending the test period. A summary of the test period is given in Table 6.

Table 6 Test Summary

Parameter	Test Start	Test End	Change
Date (month/day/year)	November 21, 2022	November 22, 2022	-
Time (hours)	12:03	14:09	26.1
Wellhead Tubing Pressure (psig)	952.2	1,203.0	250.8
Wellhead Annulus Pressure (psig)	1,205.1	1,201.6	-3.5
Tubing Nitrogen-Brine Interface Depth (ft)	1,147.50	1,674.50	527.00
Cavern Nitrogen-Brine Interface Depth (ft)	1,680.00	1,679.50	-0.50
Average Temperature in N_2 Column (°F)	73.6	73.7	0.1
Average N_2 Compressibility Factor	1.00	1.00	0.00
Volume of N_2 in Cavern (SCF)	296,039	293,202	-2,837
Volume of N_2 in the Tubing (SCF)	2,538	4,640	2,102
Pressure Gradient at Casing Shoe (psi/ft)	0.77	0.77	0.00

3 TEST RESULTS

The change of nitrogen volume (at downhole conditions) during the test period was calculated using well geometry, measured temperature, pressure, and interface location. Due to nitrogen migrating into the tubing the change in nitrogen volume was calculated using tubing geometry described in Appendix B, measured temperature, pressure and interface location. The total change of nitrogen volume in the tubing was added to the total change of the nitrogen volume in the cavern to calculate the net nitrogen volume change. The net nitrogen volume change was linearly extrapolated to determine an annual calculated leak rate (CLR). A minimum detectable leak rate (MDLR) was calculated as described in Appendix A.

The CLR and MDLR values are expressed in barrels of nitrogen per year at the average temperature and pressure in the nitrogen column. When the CLR is less than the MDLR, no leak has been detected by the test. If the CLR is greater than the MDLR, further investigation is required, as the CLR cannot be explained by the limitations of the test method and equipment. Summaries of the mass balance and MDLR are given in Tables 7 and 8, respectively.

Table 7 CLR Summary

CLR Parameter	Value
Average Pressure in N_2 Column (psig)	1242.2
Average Wellbore Temperature in N_2 Column (°F)	73.7
Average N_2 Compressibility Factor	1.00
Change of N_2 (cubic ft/Test Period)	-8.84
Change of N_2 Volume (bbls/Test Period)	-1.57
CLR (bbls/yr)	528

Table 8 MDLR Summary

MDLR Parameter	Value
Interface Tool Resolution (ft)	0.25
Test Duration (hours)	26.1
Unit Volume at Nitrogen-Brine Interface (bbls/ft)	8.1
MDLR (± bbls/yr)	682

4 CONCLUSIONS

A successful MIT has been completed. The evaluation of the test results includes a comparison of the CLR to the MDLR along with an assessment of the nitrogen temperature stabilization, well pressure trends and interface movements. Drill pipe was used as tubing because it had to be drilled through non salt units to reach the bottom of the cavern. Drill pipe connections are not gas tight, and some nitrogen migrated into the tubing. This was expected and does not affect the MIT results or the integrity of the cavern system. The test was considered successful because:

- Magnitude of the CLR was less than the MDLR
- Measured borehole temperature changes were small
- Measured annulus pressures were stable
- The interface moved uphole 0.5 feet due to nitrogen migration into the tubing.

Based on these criteria and the guidelines set forth by the State of New Mexico Oil Conservation Division, it is the opinion of WSP that the storage system demonstrated the mechanical integrity required for hydrocarbon storage at the time of the test.

APPENDIX

A. TEST METHOD AND DOCUMENTS

MECHANICAL INTEGRITY TEST PROGRAM USING NITROGEN/BRINE INTERFACE METHOD

NITROGEN-BRINE INTERFACE METHOD

	MECHANICAL INTEGRITY TEST PROGRAM USING NITROGEN/BRINE INTERFACE METHOD	Project Number 192025AT
	Marathon Petroleum Company, LLC **State LPG Storage No. 4** **API NO. 30-025-35957** **LEA COUNTY, NEW MEXICO**	As of Date 10/18/2022
		Page 1 of 3

1.0 INTRODUCTION

The purpose of the Mechanical Integrity Test (MIT) program is to test the mechanical integrity of the underground storage cavern to determine the suitability for storage of hydrocarbons. In summary, the test program consists of the following basic steps: injecting nitrogen into the well so that the nitrogen/brine interface is below the cemented production casing shoe; **releasing brine during nitrogen injection to avoid over-pressuring the cavern;** recording the nitrogen and brine wellhead pressures and nitrogen/brine interface level throughout a given test period

2.0 PREPARATION

2.1 Provide skillets, blind flanges and/or double valves to isolate the well during the test. Test flanges with 2" connections may be required for product and brine wellhead valves. Threads will be inspected to ensure that the pressure-monitoring and nitrogen injection equipment can be installed and operated safely.

2.2 Install pressure-monitoring equipment on well connections to allow continuous monitoring of nitrogen and brine wellhead pressures. Rig up restraint system to anchor pressure-monitoring equipment to the wellhead.

NOTE: Digital pressure recorders and a deadweight tester (digital or standard) utilized for the mechanical integrity test shall be calibrated in accordance with manufacturer specifications and traceable to National Bureau of Standard.

2.3 Provide a top connection on the wellhead (2" I.D. minimum) to permit installing a wireline lubricator for well logging.

2.4 Provide a connection (2" minimum) to permit injecting nitrogen into the product annulus.

2.5 Provide a connection (2" minimum) to permit releasing brine from well

2.6 Monitor brine wellhead pressures until it stabilizes at an acceptable test pressure. Pressure decline rates should be less than 10 psi/day before starting the test.

3.0 NITROGEN INJECTION

3.1 Rig up wireline logging unit and install a lubricator on wellhead. Run base density (Gamma-Gamma Ray) and temperature log. Temperature log should be completed from surface to approximately 100 feet below proposed interface depth. The base density log should be completed from 100 feet below the proposed interface location to 200 feet above the cemented casing shoe.

3.2 Rig up nitrogen pumping unit to inject into the product annulus and position the density tool at a depth of approximately 500'. Start injecting nitrogen at a slow rate. Control the nitrogen injection temperature as close as possible to the average wellbore temperature measured by the base temperature log. Monitor and record nitrogen and brine pressures and flow conditions during injection. **Make sure that the casing shoe pressure gradient of 0.77 psi/ft is not exceeded at any time.** The attached Well Data Sheet lists the appropriate wellhead test pressures. Monitor the differential nitrogen-brine pressure to ensure the brine string is not subjected to collapse pressure condition.

3.3 Find the nitrogen/brine interface with the density tool as it passes the 500' depth then track the interface movement down the well by moving the tool down in 250' to 500' increments. Continue tracking the interface until it reaches approximately 40'-50' above the casing shoe. Record nitrogen and brine wellhead pressures and flow conditions at each point.

3.4 Log the interface depth and determine the nitrogen volume injected. Monitor nitrogen and brine wellhead pressures and interface movement for a minimum of 60 minutes to check for casing and wellhead leaks. Check all wellhead fittings and flanges and testing equipment fittings with liquid soap or equivalent to insure there are no wellhead leaks.

3.5 If no apparent casing or wellhead leaks are indicated, lower density tool to the casing shoe, **bleed off brine pressure** and resume nitrogen injection. **Keep well open to the brine system to avoid over-pressuring the cavern during nitrogen injection.** Continue to meter nitrogen and monitor wellhead pressures.

3.6 Track the nitrogen interface as it passes the casing shoe to the planned interface depth. **Close the brine valve at the appropriate time to get the cavern to test pressure when the interface is placed at the desired depth. Pay close attention to brine and nitrogen pressures to avoid over-pressuring the cavern.** Record nitrogen and brine pressure and flow conditions at regular depth intervals. Stop nitrogen injection. Run a density log to verify the position of the nitrogen/brine interface relative to the production casing shoe. Determine total volume of nitrogen injected and estimate the borehole volume from casing shoe to interface.

See attached Well Data Sheet for planned interface depth and estimated volumes.

3.7 After nitrogen injection, shut the well in to allow the nitrogen temperature to stabilize at the well temperature. Remove the logging tool from the well and close the logging valve.

3.8 During the temperature stabilization period, record nitrogen and brine wellhead pressures. Check all wellhead fitting and flanges with liquid soap or equivalent to insure there are no nitrogen leaks.

3.9 Determine the duration of the test using the appropriate test data and calculations. The test period will be a minimum of 24 hours.

4.0 TEST INITIALIZATION

4.1 Rig up wireline logging unit and install lubricator on wellhead. Run initial density and temperature logs. Temperature log should be completed from surface to approximately 100 feet below interface depth. The base density log should be completed from 100 feet below the interface location to 200 feet above the cemented casing shoe.

4.2 Record nitrogen and brine wellhead pressures.

5.0 TEST FINALIZATION

5.1 After the planned test duration, run the final density and temperature logs. Temperature log should be completed from surface to approximately 100 feet below proposed interface depth. The base density log should be completed from 100 feet below the proposed interface location to 200 feet above the cemented casing shoe.

5.2 Record nitrogen and brine wellhead pressures.

5.3 If results indicate the test period must be extended, repeat steps 5.1 and 5.2 as required.

5.4 After the test, bleed off the nitrogen pressure. After the piping is reconnected to the wellhead, bleed off the brine pressure to the pond. Do not allow the cavern pressure change to exceed 2.5 psi per minute.

6.0 REPORT ON TEST RESULTS

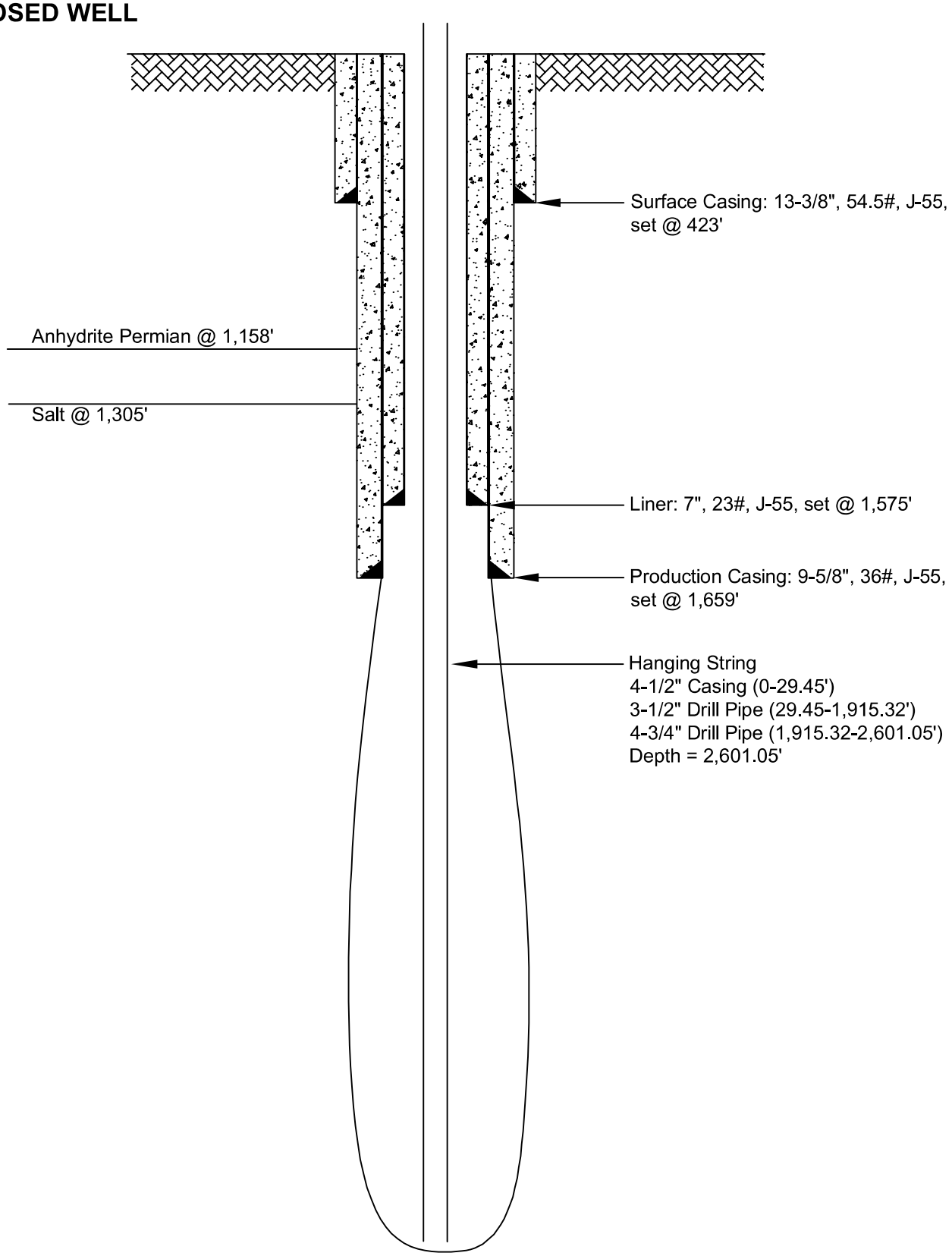
6.1 Prepare a written report presenting test programs, results and conclusions, along with a chronology of test activity, wireline logs, wellhead pressure records, and supporting calculations.

7.0 ATTACHMENTS

- Well Data Sheet
- Well Schematic
- Sonar Cross-Section

WELL DATA SHEET		18-October-2022	
1.0 WELL DESCRIPTION	Project No.	192025AT	
1.1 Name/Permit Number		State LPG Storage No. 4	
1.2 Operator		Marathon Petroleum Company, LLC	
1.3 Location	Field	Jal Station Field	
	County	Lea	
	State	NM	
	API No.	30-025-35957	
1.4 Cemented Production Casing	Size O.D.	9 5/8	inches
	Size I.D.	8.921	inches
	Depth	1,659.0	feet
	Weight	36.00	lbs/ft
	Grade	J-55	
1.5 Liner	Size O.D.	7	inches
	Size I.D.	6.37	inches
	Depth	1,575.0	feet
	Weight	23.00	lbs/ft
	Grade	J-55	
1.6 Hanging Casing String	Size	3 1/2	inches
	Depth	2,592.0	feet
	Weight		lbs/ft
	Grade		
1.7 Total Depth		2,613.0	feet
2.0 TEST PRESSURES			
2.1 Casing Shoe Depth		1659.0	feet
2.2 Test Gradient		0.77	psi/ft
2.3 Brine Specific Gravity		1.2	
2.4 Nitrogen Temperature		76	deg F
2.5 Nitrogen Interface Depth		1682.0	feet
2.6 Casing Shoe Pressure		1277.4	psig
2.7 Surface Brine Pressure		403.8	psig
2.8 Surface Nitrogen Pressure		1207.0	psig
3.0 VOLUME ESTIMATE			
3.1 Total Volume to Casing Shoe		45.6	bbls
3.2 Volume from Casing Shoe to Interface		480.3	bbls
3.3 Total Displacement to Interface		525.9	bbls
3.4 Nitrogen Volume to Casing Shoe		21,190	SCF
3.5 Nitrogen Volume below Casing Shoe		229,506	SCF
3.6 Total Nitrogen Volume Required		250,696	SCF
4.0 COMPRESSIBILITY RESPONSE			
4.1 Cavern Volume		136,626	bbls
4.2 Cavern Compressibility		0.41	bbls/psi
4.3 Cavern Pressure Increase Caused By N_2 Injection		1,270	psi
4.4 Cavern Pressure Prior to N_2 Injection (Brine Only)		0	psig
4.5 Estimated Volume of Brine Needed to Prepressure Cavern		0	bbls

PROPOSED WELL



WSP USA Inc.
16200 Park Row, Ste. 200
Houston, TX 77084
TEL: (281) 589-5900

MARATHON
JAL, LEA COUNTY, NEW MEXICO

STATE LPG STORAGE WELL NO. 4 WELL SCHEMATIC

Job No. 192025AT

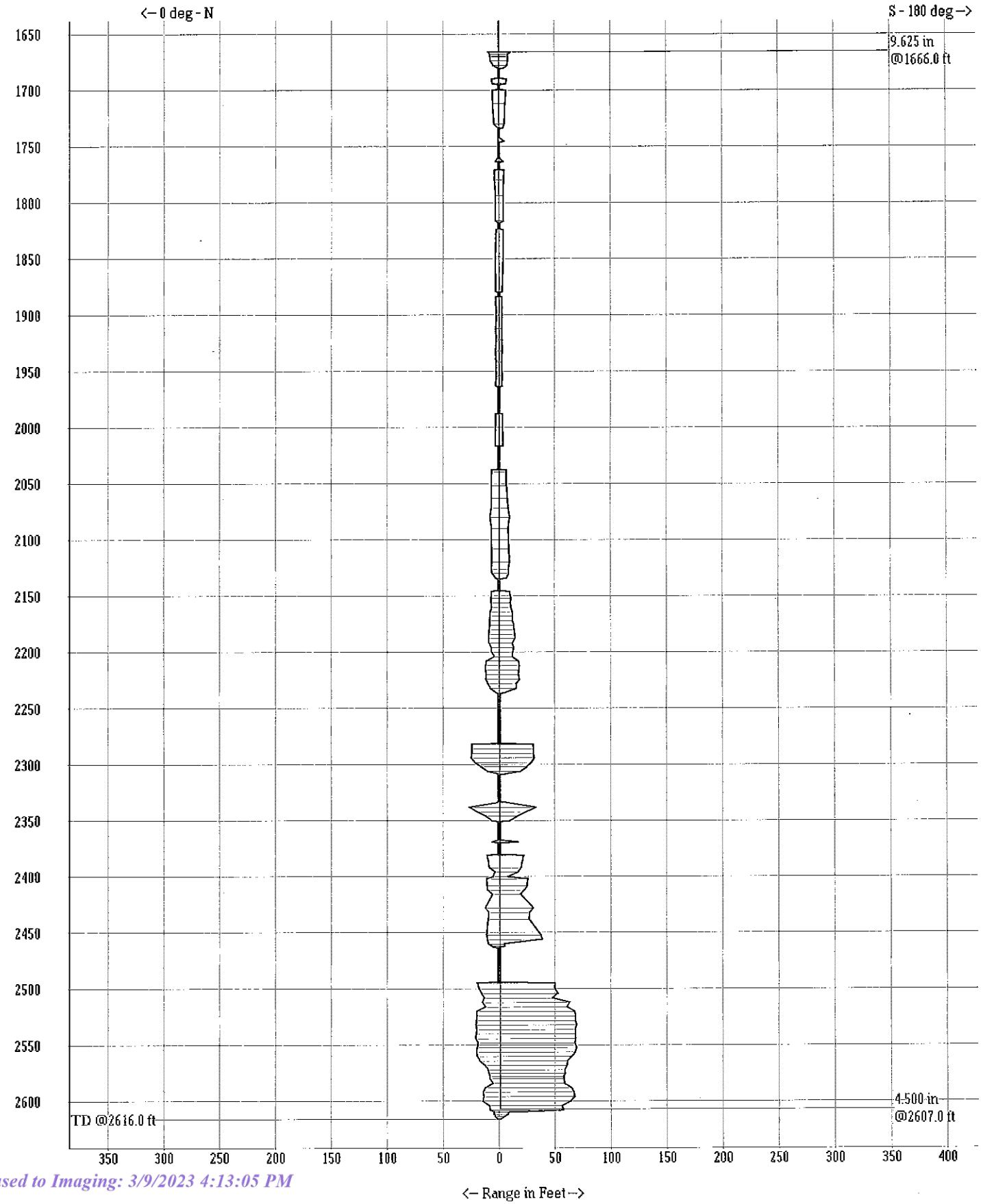
Drawn: WDD	Checked: AV	Approved: AP	Date: 09/22/2022	Scale: NONE	Figure No. 1

WESTERN REFINING
JAL, NM

SONARWIRE, INC

Vertical Cross Section

STATE LPG WELL NO. 4
Fri, Aug 31, 2007



	Nitrogen-Brine Interface MIT Method	Job Number NA
		Date 07/13/2017
		Page 1 of 3

The purpose of this mechanical integrity test was to determine if the cavern system (i.e. cemented casing and cavern) had mechanical integrity and is therefore suitable for hydrocarbon storage. The detailed nitrogen-brine interface test procedure for this well is described herein:

The procedure began with an initial injection of nitrogen into the well to check for wellhead and casing leaks. After the wellhead and casing were found to be free of leaks, nitrogen was again injected into the well until the predetermined test pressure and nitrogen interface depth was achieved. The nitrogen interface depth can be affected by well and cavern temperature changes, cavern leaching, and salt creep. In order to distinguish between these effects and a loss of nitrogen mass caused by leaks, the pressure and temperature changes (as they affect nitrogen volume) were considered.

The nitrogen and brine pressure and the interface depth were monitored during the test period. Evaluation of the test results involved calculating the volume of nitrogen (at standard conditions) to the nitrogen-brine interface at the start and end of the test. The difference between calculated volumes over the test period duration were then be linearly extrapolated to yield an annual calculated leak rate (CLR). The cavern system is determined to have integrity if the CLR is within the range (positive or negative) of the minimum detectable leak rate (MDLR).

MDLR

The MDLR is the smallest volume of gas loss that can theoretically be measured considering the accuracy of the interface log and the configuration of the well. The actual accuracy achievable in the field may be slightly less than the MDLR, but is of the same order of magnitude, and therefore the MDLR gives a good indication of the test sensitivity. The MDLR can be calculated using the following relationship:

$$\mathrm{MDLR} = \frac{V * r * 365}{T}$$

Where:

MDLR = Minimum Detectable Leak Rate (bbls/year)
V = Unit Volume of Borehole (bbls/ft)
r = Resolution of Interface Detection (ft)
T = Duration of Test (days)

The resolution of the interface detection tool is determined from the logging tool and the depth scale used to record the interface log. The MDLR is a calculated theoretical value, which indicates the sensitivity and accuracy of the test. The actual accuracy in the field may be slightly less than the theoretical value because of variations in the actual borehole geometry, accuracy of test equipment, and changes in cavern pressure related to cavern stabilization.

Gas Volume Calculations

In addition to measured quantities, knowledge of the cemented well casing, tubular sizes (if present), and the uncased borehole volume between the casing shoe to the interface, will allow for the nitrogen volume to be estimated. The following equation, which relates a gas pressure, volume, and temperature, is used to calculate the volume of nitrogen (at standard temperature and pressure conditions) in the system at the start and at the end of the test:

$$V_{N_2} = N_{SCF} * \sum_{i}^{N} \frac{(P_{WB})_i * 144 * (V_{WB})_i}{(Z_{AVE})_i * R * (T_{AVE})_i}$$
$$i = 1,2, \ldots N$$

Where:

V_{N_2} = volume of nitrogen measured in the system over a specific depth interval "i" (SCF_{N2})
$(P_{WB})_i$ = average calculated wellbore pressure over a specific depth interval "i" (psia)
$(V_{WB})_i$ = volume of wellbore of a specific depth interval "i" (ft3); NOTE: measured nitrogen volumes or cavern sonar surveys
$(Z_{AVE})_i$ = gas compressibility factor at a specific depth interval "i" (dimensionless)
R = nitrogen specific gas constant $\left[55.16 \frac{ft*lb_f}{lb_m*°R}\right]$
$(T_{AVE})_i$ = average wellbore temperature over a specific depth interval "i" (°R)
N_{SCF} = gas conversion for mass to volume at standard pressure and temperature conditions (13.8 SCFN2 = 1 lbmN2)
i = term number of the finite series
N = total number of terms in the finite series (i.e. depth interval)

The following equation is used to determine pressure at depth interval "i":

$$P_i = P_{i-1}\left[1 + \frac{L}{R * Z_i * T_i}\right]$$
$$i = 1,2, \ldots N$$

Where:

P_i = calculated pressure at a specific term, depth "i" (psia)
P_1 = measured wellhead pressure (psia)
L = depth Interval (ft)
Z_i = gas Compressibility Factor at a specific depth interval "i" (dimensionless)
R = specific Gas Constant $\left[55.16 \left(\frac{ft*lb_f}{lb_m*°R}\right)\right]$
T_i = measure wellbore temperature at a specific depth interval "i" (°R)

The volume calculation is then performed over specific intervals throughout the nitrogen column, from the surface to the interface. The total nitrogen volume is determined by summing the specific volume for each regular interval

The results of the volume and mass calculations (both "pre-test" and "post-test") are presented in the Appendices. The difference between the initial and final volume calculation determines the volume change at standard conditions.

It is important to note that the metered volume of nitrogen during injection may not be equal to the calculated volume of nitrogen during the test. The accuracy of the metered nitrogen is based on the accuracy of the turbine and temperature measurement made during nitrogen injection. The measured nitrogen volume used in the borehole calculations is corrected to the known volume in the production casing annulus, if needed. The calculated test volumes are based on downhole temperature logs, surface pressure recorders, calculated downhole pressures, and borehole dimensions determined by nitrogen strapping calculations or sonar volumes. All measurements are subject to the accuracy of the instrumentation being used and the well conditions at the time of the measurements.

At average wellbore conditions (at the conclusion of the test), the nitrogen volume change can be stated as:

$$\Delta V_{TEST} = \frac{Z_{AVE} * R * T_{AVE} * \Delta V_{STP}}{(P_{WB})_{AVE} * 144 * N_{SCF}}$$

Where:

ΔV_{TEST} = nitrogen volume changes over the test period based on wellbore conditions (ft^3)
$(P_{WB})_{AVE}$ = average wellbore pressure over the test period (psia)
ΔV_{STP} = nitrogen volume change (SCF_{N2}), based on standard conditions
Z_{AVE} = average Gas Compressibility Factor over the test period
R = specific Gas Constant $\left[55.16 \left(\frac{ft*lb_f}{lb_m*°R}\right)\right]$
T_{AVE} = average wellbore temperature over the test period (°R)
N_{SCF} = gas Conversion (13.8 SCF_{N2} = 1 lb_{N2})

CLR

The equation below is used to calculate the annual CLR from the volume change in nitrogen for the specified test period:

$$V_{CLR} = \frac{\Delta V_{TEST} * 24\left(\frac{hour}{day}\right) * 365\left(\frac{day}{year}\right)}{T_L}$$

Where:

V_{CLR} = CLR (bbls/year)
ΔV_{TEST} = nitrogen volume change during the test period (bbls)
T_L = test Duration (hours)

A positive CLR indicates a calculated loss of nitrogen from the wellbore during the test period. A negative CLR indicates a calculated increase in nitrogen volume during the test period.

APPENDIX

B. WELL TEST INFORMATION

WELL DATA SHEET

TUBING TALLY SHEET

WELL SCHEMATIC

WELL DATA SHEET		21-November-2022	
1.0 WELL DESCRIPTION	Project No.	192025AT	
1.1 Name/Permit Number		State LPG Storage No. 4	
1.2 Operator		Marathon Petroleum Company, LLC	
1.3 Location	Field	Jal Station Field	
	County	Lea	
	State	NM	
	API No.	30-025-35957	
1.4 Cemented Production Casing	Size O.D.	9 5/8	inches
	Size I.D.	8.921	inches
	Depth	1,659.00	feet
	Weight	36.00	lbs/ft
	Grade	J-55	
1.5 Liner	Size O.D.	7	inches
	Size I.D.	6.37	inches
	Depth	1,575.00	feet
	Weight	23.00	lbs/ft
	Grade	J-55	
1.6 Hanging Casing String	Size	3 1/2	inches
	Depth	2,596.00	feet
	Weight		lbs/ft
	Grade		
1.7 Total Depth		2,605.00	feet
2.0 TEST PRESSURES			
2.1 Casing Shoe Depth		1,659.00	feet
2.2 Test Gradient		0.77	psi/ft
2.3 Brine Specific Gravity		1.2	
2.4 Nitrogen Temperature		74	deg F
2.5 Nitrogen Interface Depth		1,680.00	feet
2.6 Casing Shoe Pressure		1,275.8	psig
2.7 Surface Brine Pressure		403.1	psig
2.8 Surface Nitrogen Pressure		1,205.1	psig
3.0 VOLUME ESTIMATE			
3.1 Total Volume to Casing Shoe		45.6	bbls
3.2 Volume from Casing Shoe to Interface		589.7	bbls
3.3 Total Displacement to Interface		635.3	bbls
3.4 Nitrogen Volume to Casing Shoe		21,267	SCF
3.5 Nitrogen Volume below Casing Shoe		282,865	SCF
3.6 Total Nitrogen Volume Required		304,132	SCF
4.0 COMPRESSIBILITY RESPONSE			
4.1 Cavern Volume		141,137	bbls
4.2 Cavern Compressibility		0.43	bbls/psi
4.3 Cavern Pressure Increase Caused By N_2 Injection		1,485	psi
4.4 Cavern Pressure Prior to N_2 Injection (Brine Only)		0	psig
4.5 Estimated Volume of Brine Needed to Prepressure Cavern		0	bbls

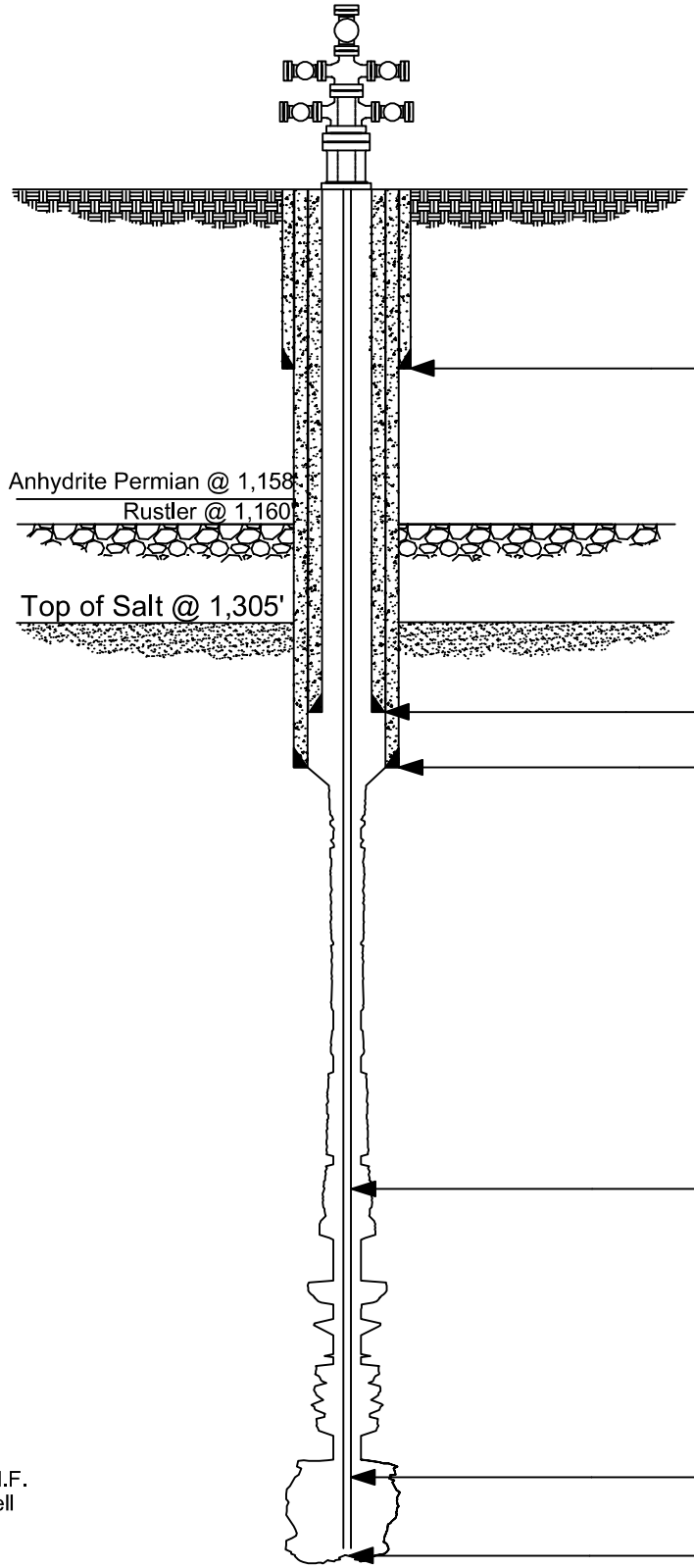
Marathon Petroleum Corporation

Company:	Marathon	**Block Weight:**		10,000			
Date:	Monday, October 31, 2022	**Mud Weight(ppg):**		8.4			
Well#	JAL #4	**9-5/8" csg shoe**		1659ft			
Rig#	Standard Energy Rig #53	**Buoyancy Factor (BF)**		0.872	BF using density steel 65.5ppg		
Company Man:	Ray Musselwhite	**Make-up Torque**		11,700 ft/lbs	for 4-3/4" Drill Collar (2.25in ID)		
WSP Engineer:	Adrian A. Villarreal	**Make-up Torque**		11,700 ft/lbs	for 3-1/2" Drill Pipe 15.5#		**& 3-1/2" DP 13.3# (10 jts)**
Assy. Type	Drill Pipe / Drill Collar / 6-1/8" bit with bit sub	**Tensile**		221Klbs / 80%			

Seq. No	Joint Name	LENGTH	Accumulativ	DEPTH (ft)	Capacity	ACCUM. WT. (LBS)	COMMENTS
				2607.00		End of Bit	
Assy. Type # 1	TriCone Bit: 6-1/8 inche	0.40	0.40	2606.60	0.00	10,016	*Bit Cut Off*
	Bit Sub	2.60	3.00	2604.00	0.01	10,122	
1	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.00	34.00	2573.00	0.17	11,387	1" Weep Hole 4ft above bottom Pin
2	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	29.87	63.87	2543.13	0.31	12,606	
3	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.67	94.54	2512.46	0.46	13,857	DC Min I.D 2.25in
4	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.98	125.52	2481.48	0.62	15,121	
5	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.36	155.88	2451.12	0.76	16,360	
6	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.56	186.44	2420.56	0.91	17,606	
7	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.45	216.89	2390.11	1.06	18,849	
8	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.03	247.92	2359.08	1.21	20,115	
9	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.92	278.84	2328.16	1.37	21,376	
10	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.40	309.24	2297.76	1.52	22,616	
11	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.10	340.34	2266.66	1.67	23,885	
12	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.08	371.42	2235.58	1.82	25,153	
13	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.01	402.43	2204.57	1.97	26,418	
14	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	29.60	432.03	2174.97	2.12	27,626	
15	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.12	463.15	2143.85	2.27	28,896	
16	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.73	493.88	2113.12	2.42	30,149	
17	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.18	524.06	2082.94	2.57	31,381	
18	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.13	554.19	2052.81	2.72	32,610	
19	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	29.61	583.80	2023.20	2.86	33,818	
20	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.71	614.51	1992.49	3.01	35,071	
21	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.43	644.94	1962.06	3.16	36,312	
22	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.13	676.07	1930.93	3.31	37,582	
23	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.21	706.28	1900.72	3.46	38,815	
24	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.18	736.46	1870.54	3.61	40,046	
25	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	29.81	766.27	1840.73	3.75	41,262	
26	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.68	797.95	1809.05	3.94	41,690	
27	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.76	829.71	1777.29	4.12	42,120	
28	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.05	860.76	1746.24	4.30	42,539	
29	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.13	891.89	1715.11	4.48	42,960	
30	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.00	922.89	1684.11	4.66	43,379	
31	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.16	954.05	1652.95	4.84	43,800	
32	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.13	985.18	1621.82	5.02	44,220	
33	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.00	1016.18	1590.82	5.20	44,639	
34	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.06	1047.24	1559.76	5.38	45,059	
35	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.07	1078.31	1528.69	5.56	45,479	
36	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	30.96	1109.27	1497.73	5.74	45,897	
37	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.70	1140.97	1466.03	5.93	46,325	
38	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.25	1172.22	1434.78	6.11	46,748	
39	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.72	1203.94	1403.06	6.29	47,176	
40	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	30.15	1234.09	1372.91	6.47	47,584	
41	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.20	1265.29	1341.71	6.65	48,005	
42	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.76	1297.05	1309.95	6.83	48,434	
43	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.76	1328.81	1278.19	7.02	48,864	
44	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.68	1360.49	1246.51	7.20	49,292	
45	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.78	1392.27	1214.73	7.39	49,721	
46	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.02	1423.29	1183.71	7.57	50,140	
47	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.97	1455.26	1151.74	7.75	50,572	
48	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.71	1486.97	1120.03	7.93	51,001	
49	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	30.95	1517.92	1089.08	8.11	51,419	
50	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	30.95	1548.87	1058.13	8.29	51,837	
51	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.10	1579.97	1027.03	8.47	52,257	
52	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.25	1611.22	995.78	8.66	52,680	
53	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.22	1642.44	964.56	8.84	53,101	
54	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.03	1673.47	933.53	9.02	53,521	
55	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.75	1705.22	901.78	9.20	53,950	
56	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.80	1737.02	869.98	9.39	54,379	
57	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.15	1768.17	838.83	9.57	54,800	
58	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.04	1799.21	807.79	9.75	55,220	
59	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.73	1830.94	776.06	9.93	55,648	
60	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.76	1862.70	744.30	10.11	56,078	
61	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.23	1893.93	713.07	10.30	56,500	
62	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	30.88	1924.81	682.19	10.47	56,917	
63	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.72	1956.53	650.47	10.66	57,345	
64	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.03	1987.56	619.44	10.84	57,765	
65	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.70	2019.26	587.74	11.02	58,193	
66	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.66	2050.92	556.08	11.21	58,621	
67	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.80	2082.72	524.28	11.39	59,051	

68	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.82	2114.54	492.46	11.57	59,481	
69	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.00	2145.54	461.46	11.75	59,899	
70	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	30.98	2176.52	430.48	11.93	60,318	
71	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	30.97	2207.49	399.51	12.11	60,736	
72	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.92	2239.41	367.59	12.30	61,168	
73	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.24	2270.65	336.35	12.48	61,590	
74	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.20	2301.85	305.15	12.66	62,011	
75	3-1/2" 13.3# Drill Pipe IF connection GR: S-135, I.D. 2.563in	30.78	2332.63	274.37	12.84	62,427	**D.P. 13.3# Min. ID: 2.563in**
76	3-1/2" 13.3# Drill Pipe IF connection GR: S-135, I.D. 2.563in	31.51	2364.14	242.86	13.02	62,853	
77	3-1/2" 13.3# Drill Pipe IF connection GR: S-135, I.D. 2.563in	31.70	2395.84	211.16	13.21	63,282	
78	3-1/2" 13.3# Drill Pipe IF connection GR: S-135, I.D. 2.563in	31.58	2427.42	179.58	13.39	63,708	
79	3-1/2" 13.3# Drill Pipe IF connection GR: S-135, I.D. 2.563in	31.53	2458.95	148.05	13.57	64,134	
80	3-1/2" 13.3# Drill Pipe IF connection GR: S-135, I.D. 2.563in	31.52	2490.47	116.53	13.76	64,560	
81	3-1/2" 13.3# Drill Pipe IF connection GR: S-135, I.D. 2.563in	31.55	2522.02	84.98	13.94	64,986	
82	3-1/2" 13.3# Drill Pipe IF connection GR: S-135, I.D. 2.563in	31.51	2553.53	53.47	14.12	65,412	
83	3-1/2" 13.3# Drill Pipe IF connection GR: S-135, I.D. 2.563in	31.50	2585.03	21.97	14.30	65,838	
84	3-1/2" 13.3# Drill Pipe IF connection GR: S-135, I.D. 2.563in	22.97	2608.00	-1.00	14.44	66,148	
85		-3.00	2605.00	2.00	14.42	66,114	**Less the Bit**
86		-2.00	2603.00	4.00	14.41	66,092	**Correlation from RKB**
87			2603.00	4.00	14.41	66,092	**Depth from Ground Level**
88			2603.00	4.00	14.41	66,092	
89			2603.00	4.00	14.41	66,092	**Landed on Nov. 9, 2022**
90			2603.00	4.00	14.41	66,092	**API thread compound was applied to each connection**

API NO. 30-025-35957



Notes:
1. All depths measured from B.H.F.
2. Reference Client and WSP well records

WSP USA Inc.
16200 Park Row Ste. 200
Houston TX 77084
TEL: (281) 589-5900

Marathon Petroleum Company, LLC
Lea County, New Mexico

State LPG Storage Well No. 004 WELLBORE SCHEMATIC

JOB. NO.					
192025AT					
DESIGN: GCH	DRAWN: GCH	CHECKED: GCH	DATE: 01/17/2023	SCALE: NONE	DRAWING NO. 192025AT-004-REV0

APPENDIX

C. FIELD NOTES

OPERATOR: Marathon Petroleum Company, LLC **REPORT BY:** Gabriel Holmes
WELL NAME: State LPG Storage No. 4 **TEST FLUID:** Nitrogen
FIELD: Jal Station Field **PROJECT NO.:** 192025AT

Date	Time	Interface	Wellhead Pressure (psig)		Injection		Comments
m/d/y	h:m:s	Depth (ft)	Annulus	Tubing	Rate (SCFM)	Total (SCF)	
11/19/22							Recorder SN: 62684; Turbine SN: 143951
	07:15:00						Arrive on-site, safety, permit
	08:15:00						R/U Wireline and Nitrogen Truck
	10:38:00						Start Temp Base Log
	11:21:39						Start Density Base Log
	12:20:36	0.00	144.1	109.3	82.2	22.2	Start Nitrogen Injection
	12:21:39	250.00	249.0	122.1	584.0	562.6	Interface
	12:28:02	750.00	540.8	156.0	606.0	4,315.5	Interface
	12:32:56	1,000.00	680.0	172.5	610.3	7,272.4	Interface
	12:38:52	1,250.00	813.6	188.0	602.4	10,876.9	Interface
	12:45:52	1,500.00	945.9	202.9	586.5	15,145.4	Interface
	12:51:42		1,016.3	216.6	0.0	18,657.1	Stop Nitrogen Injection
	13:22:07	1,632.00	1,014.6	214.9	0.0	18,658.7	Start Casing Test
	14:22:00	1,632.00	1,013.7	213.7	0.0	18,658.7	End Casing Test
	14:53:36		1,014.1	213.1	258.0	18,674.4	Resume Nitrogen Injection
	14:54:45	1,659.00	1,024.1	215.8	595.6	19,311.4	Interface (Casing Shoe)
	15:18:18	1,661.50	1,150.0	337.0	1,329.0	50,135.3	Interface
	15:30:38	1,662.50	1,187.2	350.6	1,334.5	66,463.6	Interface
	15:45:43	1,663.00	1,205.4	314.0	993.2	84,544.5	Inteface
	15:51:15	1,663.50	1,205.4	316.1	990.7	90,048.6	Interface
	16:00:52	1,663.75	1,205.4	315.9	995.3	99,576.8	Interface
	16:10:48	1,664.25	1,205.7	316.6	995.7	109,485.3	Interface
	16:20:31	1,664.75	1,205.9	316.7	983.0	119,090.5	Interface
	16:30:43	1,665.50	1,206.4	316.9	980.3	129,118.8	Interface
	16:40:59	1,666.00	1,206.6	317.0	985.4	139,226.3	Interface
	16:50:40	1,666.50	1,207.5	317.6	993.3	148,820.3	Interface
	17:00:34	1,667.00	1,208.1	318.1	989.6	158,626.5	Interface
	17:20:55	1,668.25	1,209.4	319.2	989.7	178,816.0	Interface
	17:40:37	1,669.25	1,210.4	319.5	987.4	198,204.9	Interface
	18:00:59	1,670.50	1,211.5	320.2	1,000.7	218,294.8	Interface
	18:20:30	1,671.75	1,212.8	320.8	992.1	237,670.4	Interface
	18:41:18	1,672.50	1,214.0	321.5	985.0	258,211.5	Interface
	18:50:44	1,675.25	1,212.9	405.4	0.0	263,129.8	Post Injection
	19:00:00		1,212.6	406.3	0.0	263,175.2	Rig down wireline unit
	19:45:00		1,211.5	413.5	0.0	263,175.2	Leave
11/20/22							
	08:00:00		1,207.5	624.3	0.0	263,256.4	Arrive on-site, safety, permit
	08:30:00		1,207.4	627.5	0.0	263,256.4	Rig up
	09:51:18		1,213.5	415.0	746.8	263,323.9	Start nitrogen Injection
	09:55:09		1,219.6	383.9	0.0	266,971.7	Stop Nitrogen Injection
	10:04:09		1,198.6	323.4	66.6	266,975.0	Resume Nitrogen Injection
	10:21:45	1,675.00	1,193.3	280.4	1,307.6	281,876.6	Interface
	10:40:19	1,679.00	1,205.9	289.1	1,293.2	305,927.5	Interface
	10:47:50	1,683.00	1,210.8	290.6	1,266.3	315,596.0	Interface
	10:48:36		1,209.8	291.9	0.0	316,489.6	Finish Nitrogen Injection
	11:10:00	1,682.50	1,209.2	401.9	0.0	316,515.9	Post Injection Log
	11:36:00		1,209.0	421.8	0.0	316,515.9	TD 2605', EOT 2596'
	15:20:00						R/D Wireline and Nitrogen Truck
11/21/22							
	07:15:00		1,205.9	918.7			R/U Wireline
	08:47:00		1,205.8	367.5			Start Temperature Log
	11:54:59		1,205.1	949.4			Start Density Log
	12:03:00	1,680.00	1,205.1	952.2			Initialization
	12:30:00	1,147.50	1,205.0	963.4			Crossed the Interface in the Tubing
	13:45:00		1,204.8	978.6			R/D Wireline
11/22/22							
	07:15:00		1,201.0	1,188.5			R/U Wireline
	10:15:00		1,201.5	1,192.6			Start Temperature Log
	14:00:00		1,201.7	1,202.8			Start Density Log
	14:09:00	1,679.50	1,201.6	1,203.0			Finalization
	14:09:00	1,674.50					Tubing Interface
	15:00:00						R/D Wireline, Move off well

APPENDIX

D. TEST DATA GRAPHS

INJECTION SURFACE PRESSURES

- GRAPH OF MEASURED WELLHEAD NITROGEN AND BRINE PRESSURES DURING INJECTION

INJECTION SUMMARY

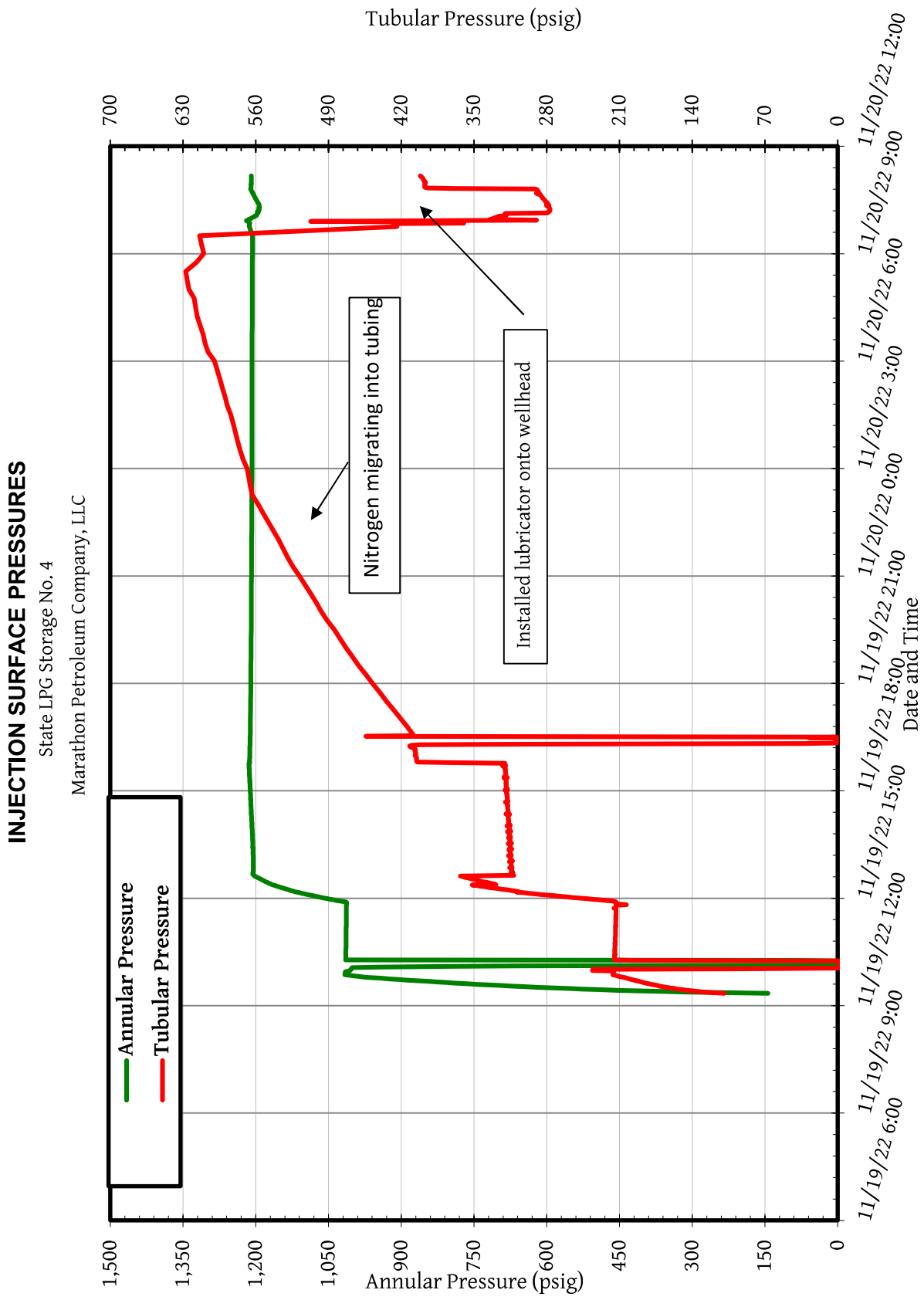
- GRAPH OF NITROGEN INJECTION RATE AND TEMPERATURE DURING INJECTION

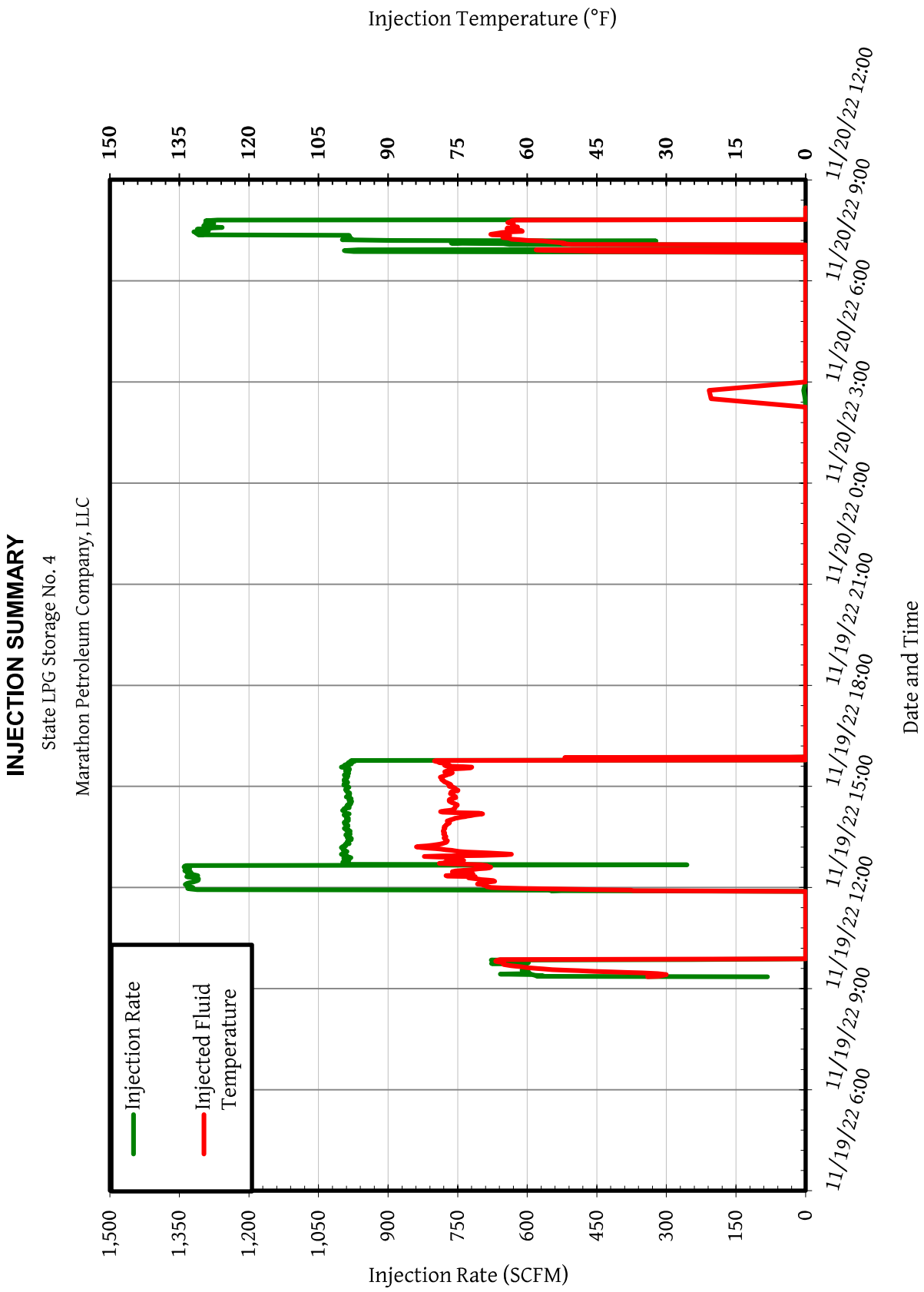
POST INJECTION SURFACE PRESSURES

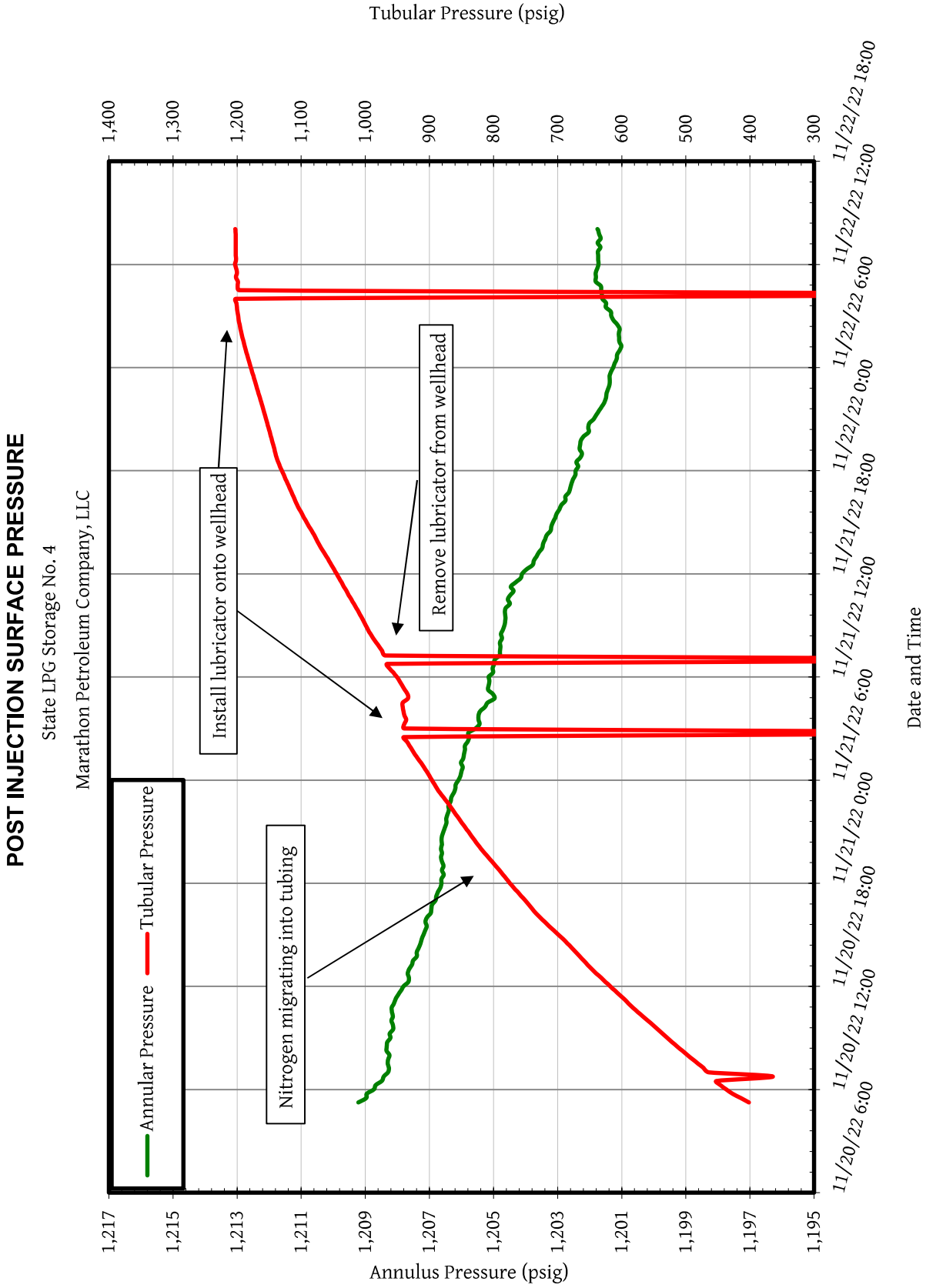
- GRAPH OF MEASURED WELLHEAD NITROGEN AND BRINE PRESSURES AFTER INJECTION

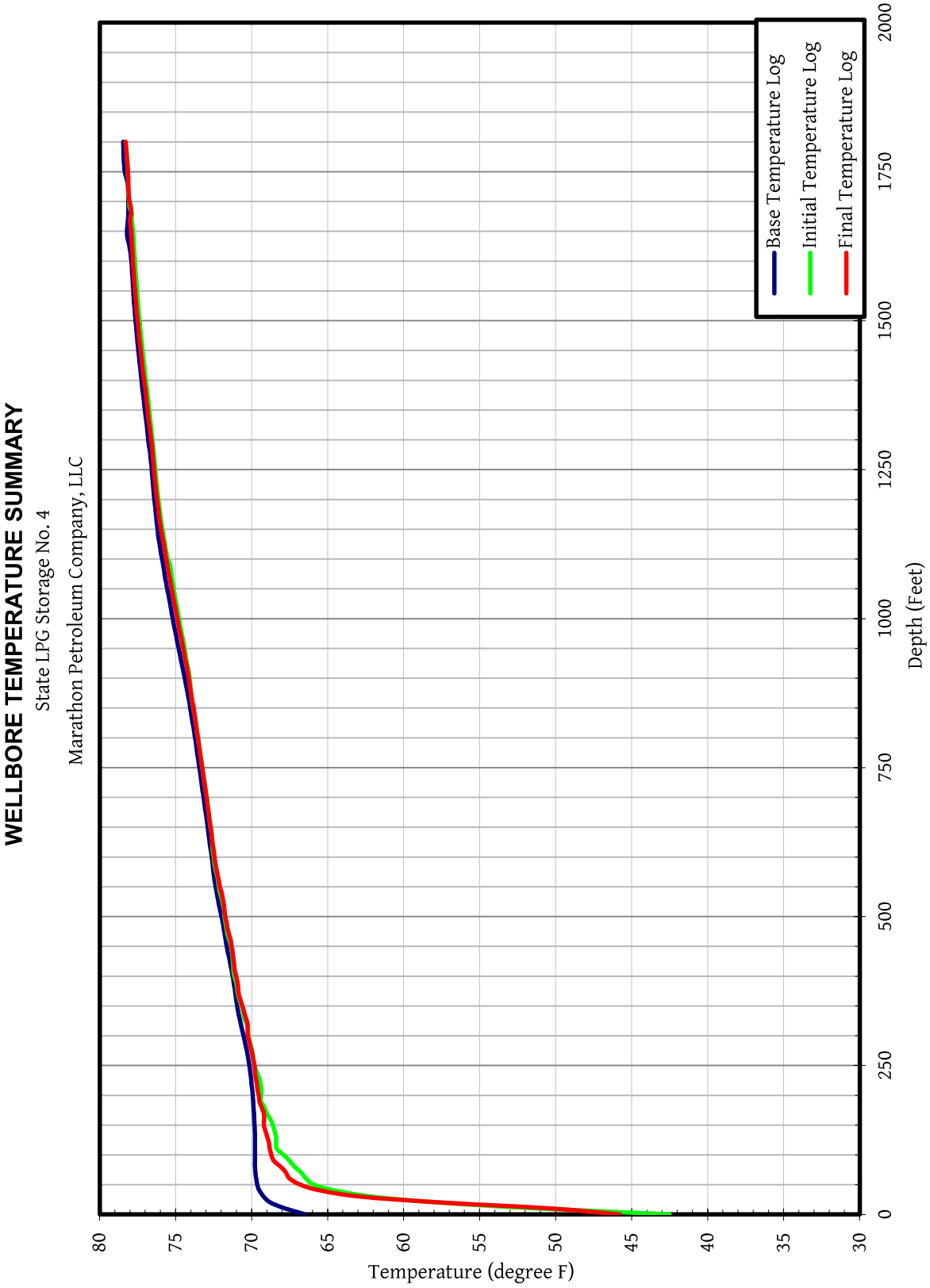
WELLBORE TEMPERATURE SUMMARY

- GRAPH OF WELLBORE TEMPERATURE PROFILES FOR BASE, INITIAL, AND FINAL TEMPERATURE LOGS


INJECTION SURFACE PRESSURES
State LPG Storage No. 4
Marathon Petroleum Company, LLC
Annular Pressure
Tubular Pressure
Nitrogen migrating into tubing
Installed lubricator onto wellhead
Annular Pressure (psig)
Tubular Pressure (psig)
Date and Time
1,500
1,350
1,200
1,050
900
750
600
450
300
150
0
700
630
560
490
420
350
280
210
140
70
0
11/19/22 6:00
11/19/22 9:00
11/19/22 12:00
11/19/22 15:00
11/19/22 18:00
11/19/22 21:00
11/20/22 0:00
11/20/22 3:00
11/20/22 6:00
11/20/22 9:00
11/20/22 12:00


INJECTION SUMMARY
State LPG Storage No. 4
Marathon Petroleum Company, LLC
Injection Rate
Injected Fluid Temperature
Injection Rate (SCFM)
Injection Temperature (°F)
Date and Time
1,500
1,350
1,200
1,050
900
750
600
450
300
150
0
150
135
120
105
90
75
60
45
30
15
0
11/19/22 6:00
11/19/22 9:00
11/19/22 12:00
11/19/22 15:00
11/19/22 18:00
11/19/22 21:00
11/20/22 0:00
11/20/22 3:00
11/20/22 6:00
11/20/22 9:00
11/20/22 12:00


POST INJECTION SURFACE PRESSURE
State LPG Storage No. 4
Marathon Petroleum Company, LLC
Annular Pressure
Tubular Pressure
Install lubricator onto wellhead
Remove lubricator from wellhead
Nitrogen migrating into tubing
Annulus Pressure (psig)
Tubular Pressure (psig)
Date and Time
1,217
1,215
1,213
1,211
1,209
1,207
1,205
1,203
1,201
1,199
1,197
1,195
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
11/20/22 6:00
11/20/22 12:00
11/20/22 18:00
11/21/22 0:00
11/21/22 6:00
11/21/22 12:00
11/21/22 18:00
11/22/22 0:00
11/22/22 6:00
11/22/22 12:00
11/22/22 18:00


WELLBORE TEMPERATURE SUMMARY
State LPG Storage No. 4
Marathon Petroleum Company, LLC
Base Temperature Log
Initial Temperature Log
Final Temperature Log
Temperature (degree F)
80
75
70
65
60
55
50
45
40
35
30
Depth (Feet)
0
250
500
750
1000
1250
1500
1750
2000

APPENDIX

E. NITROGEN MASS BALANCE

INITIAL TUBING MASS BALANCE CALCULATIONS
FINAL TUBING MASS BALANCE CALCULATIONS
INITIAL CAVERN MASS BALANCE CALCULATIONS
FINAL CAVERN MASS BALANCE CALCULATIONS

INITIAL TUBING MASS BALANCE CALCULATIONS

Well Name:	State LPG Storage No. 4	INITIAL	11/21/22 12:03 PM	
Operator:	Marathon Petroleum Company, LLC	952.2		
Project No.:	192025AT	psig		

Depth (ft)	Pressure (psia)	Temperature (°F)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
0.00	966.9	42.5	1.0	0.04				
10.00	967.3	51.1	1.0	0.04	1.8	1.8	24.4	24.4
20.00	967.6	57.8	1.0	0.04	1.8	3.6	24.0	48.3
30.00	967.9	62.1	1.0	0.04	1.7	5.3	23.7	72.0
40.00	968.3	64.5	1.0	0.04	1.7	7.1	23.5	95.6
50.00	968.6	65.9	1.0	0.04	1.7	8.8	23.5	119.0
60.00	969.0	66.4	1.0	0.04	1.7	10.5	23.4	142.4
70.00	969.3	66.7	1.0	0.04	1.7	12.2	23.4	165.8
80.00	969.6	67.2	1.0	0.04	1.7	14.0	23.4	189.2
90.00	970.0	67.5	1.0	0.04	1.7	15.7	23.4	212.6
100.00	970.3	67.9	1.0	0.04	1.7	17.4	23.4	236.0
110.00	970.6	68.4	1.0	0.04	1.7	19.2	23.4	259.3
120.00	971.0	68.4	1.0	0.04	1.7	20.9	23.4	282.7
130.00	971.3	68.4	1.0	0.04	1.7	22.6	23.4	306.0
140.00	971.6	68.5	1.0	0.04	1.7	24.3	23.4	329.4
150.00	972.0	68.6	1.0	0.04	1.7	26.1	23.4	352.8
160.00	972.3	68.8	1.0	0.04	1.7	27.8	23.4	376.1
170.00	972.6	69.0	1.0	0.04	1.7	29.5	23.4	399.5
180.00	973.0	69.2	1.0	0.04	1.7	31.2	23.4	422.9
190.00	973.3	69.4	1.0	0.04	1.7	33.0	23.4	446.2
200.00	973.6	69.4	1.0	0.04	1.7	34.7	23.4	469.6
210.00	974.0	69.4	1.0	0.04	1.7	36.4	23.4	493.0
220.00	974.3	69.4	1.0	0.04	1.7	38.1	23.4	516.3
230.00	974.6	69.5	1.0	0.04	1.7	39.9	23.4	539.7
240.00	975.0	69.7	1.0	0.04	1.7	41.6	23.4	563.1
250.00	975.3	69.8	1.0	0.04	1.7	43.3	23.4	586.5
260.00	975.6	69.9	1.0	0.04	1.7	45.0	23.4	609.9
270.00	976.0	69.9	1.0	0.04	1.7	46.8	23.4	633.3
280.00	976.3	70.0	1.0	0.03	1.6	48.4	21.5	654.8
290.00	976.6	70.1	1.0	0.03	1.6	49.9	21.5	676.3
300.00	977.0	70.2	1.0	0.03	1.6	51.5	21.5	697.9
310.00	977.3	70.2	1.0	0.03	1.6	53.1	21.5	719.4
320.00	977.6	70.3	1.0	0.03	1.6	54.7	21.5	740.9
330.00	978.0	70.5	1.0	0.03	1.6	56.3	21.5	762.5
340.00	978.3	70.6	1.0	0.03	1.6	57.9	21.5	784.0
350.00	978.7	70.7	1.0	0.03	1.6	59.5	21.5	805.5
360.00	979.0	70.8	1.0	0.03	1.6	61.1	21.5	827.1
370.00	979.3	70.9	1.0	0.03	1.6	62.7	21.5	848.6
380.00	979.7	71.0	1.0	0.03	1.6	64.3	21.6	870.2
390.00	980.0	71.0	1.0	0.03	1.6	65.9	21.6	891.7
400.00	980.3	71.1	1.0	0.03	1.6	67.4	21.6	913.3
410.00	980.7	71.2	1.0	0.03	1.6	69.0	21.6	934.9
420.00	981.0	71.2	1.0	0.03	1.6	70.6	21.6	956.4
430.00	981.3	71.3	1.0	0.03	1.6	72.2	21.6	978.0
440.00	981.7	71.3	1.0	0.03	1.6	73.8	21.6	999.6
450.00	982.0	71.4	1.0	0.03	1.6	75.4	21.6	1,021.2
460.00	982.3	71.5	1.0	0.03	1.6	77.0	21.6	1,042.8
470.00	982.7	71.6	1.0	0.03	1.6	78.6	21.6	1,064.4
480.00	983.0	71.7	1.0	0.03	1.6	80.2	21.6	1,086.0
490.00	983.4	71.7	1.0	0.03	1.6	81.8	21.6	1,107.6
500.00	983.7	71.8	1.0	0.03	1.6	83.4	21.6	1,129.2
510.00	984.0	71.8	1.0	0.03	1.6	85.0	21.6	1,150.8
520.00	984.4	71.9	1.0	0.03	1.6	86.6	21.6	1,172.4
530.00	984.7	72.0	1.0	0.03	1.6	88.2	21.6	1,194.0
540.00	985.0	72.1	1.0	0.03	1.6	89.8	21.6	1,215.6
550.00	985.4	72.2	1.0	0.03	1.6	91.4	21.6	1,237.2
560.00	985.7	72.2	1.0	0.03	1.6	93.0	21.6	1,258.9
570.00	986.0	72.3	1.0	0.03	1.6	94.6	21.6	1,280.5
580.00	986.4	72.4	1.0	0.03	1.6	96.2	21.6	1,302.1
590.00	986.7	72.5	1.0	0.03	1.6	97.8	21.6	1,323.8

INITIAL TUBING MASS BALANCE CALCULATIONS

Well Name:	State LPG Storage No. 4	INITIAL	11/21/22 12:03 PM		
Operator:	Marathon Petroleum Company, LLC	952.2			
Project No.:	192025AT	psig			

Depth (ft)	Pressure (psia)	Temperature (°F)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
600.00	987.1	72.5	1.0	0.03	1.6	99.4	21.6	1,345.4
610.00	987.4	72.6	1.0	0.03	1.6	101.0	21.6	1,367.1
620.00	987.7	72.6	1.0	0.03	1.6	102.6	21.7	1,388.7
630.00	988.1	72.6	1.0	0.03	1.6	104.2	21.7	1,410.4
640.00	988.4	72.7	1.0	0.03	1.6	105.8	21.7	1,432.0
650.00	988.7	72.7	1.0	0.03	1.6	107.4	21.7	1,453.7
660.00	989.1	72.8	1.0	0.03	1.6	109.0	21.7	1,475.4
670.00	989.4	72.8	1.0	0.03	1.6	110.6	21.7	1,497.1
680.00	989.8	72.9	1.0	0.03	1.6	112.2	21.7	1,518.7
690.00	990.1	72.9	1.0	0.03	1.6	113.8	21.7	1,540.4
700.00	990.4	73.0	1.0	0.03	1.6	115.4	21.7	1,562.1
710.00	990.8	73.0	1.0	0.03	1.6	117.0	21.7	1,583.8
720.00	991.1	73.1	1.0	0.03	1.6	118.6	21.7	1,605.5
730.00	991.4	73.1	1.0	0.03	1.6	120.2	21.7	1,627.2
740.00	991.8	73.2	1.0	0.03	1.6	121.8	21.7	1,649.0
750.00	992.1	73.3	1.0	0.03	1.6	123.4	21.7	1,670.7
760.00	992.5	73.3	1.0	0.03	1.6	125.0	21.7	1,692.4
770.00	992.8	73.4	1.0	0.03	1.6	126.6	21.7	1,714.1
780.00	993.1	73.4	1.0	0.03	1.6	128.2	21.7	1,735.9
790.00	993.5	73.5	1.0	0.03	1.6	129.8	21.7	1,757.6
800.00	993.8	73.5	1.0	0.03	1.6	131.4	21.7	1,779.4
810.00	994.1	73.6	1.0	0.03	1.6	133.0	21.7	1,801.1
820.00	994.5	73.7	1.0	0.03	1.6	134.6	21.8	1,822.9
830.00	994.8	73.7	1.0	0.03	1.6	136.2	21.8	1,844.6
840.00	995.2	73.8	1.0	0.03	1.6	137.8	21.8	1,866.4
850.00	995.5	73.8	1.0	0.03	1.6	139.4	21.8	1,888.1
860.00	995.8	73.9	1.0	0.03	1.6	141.0	21.8	1,909.9
870.00	996.2	74.0	1.0	0.03	1.6	142.6	21.8	1,931.7
880.00	996.5	74.0	1.0	0.03	1.6	144.3	21.8	1,953.5
890.00	996.9	74.0	1.0	0.03	1.6	145.9	21.8	1,975.2
900.00	997.2	74.1	1.0	0.03	1.6	147.5	21.8	1,997.0
910.00	997.5	74.1	1.0	0.03	1.6	149.1	21.8	2,018.8
920.00	997.9	74.2	1.0	0.03	1.6	150.7	21.8	2,040.6
930.00	998.2	74.3	1.0	0.03	1.6	152.3	21.8	2,062.4
940.00	998.6	74.4	1.0	0.03	1.6	153.9	21.8	2,084.3
950.00	998.9	74.4	1.0	0.03	1.6	155.5	21.8	2,106.1
960.00	999.2	74.5	1.0	0.03	1.6	157.1	21.8	2,127.9
970.00	999.6	74.6	1.0	0.03	1.6	158.7	21.8	2,149.7
980.00	999.9	74.6	1.0	0.03	1.6	160.4	21.8	2,171.5
990.00	1,000.2	74.7	1.0	0.03	1.6	162.0	21.8	2,193.4
1,000.00	1,000.6	74.8	1.0	0.03	1.6	163.6	21.8	2,215.2
1,010.00	1,000.9	74.9	1.0	0.03	1.6	165.2	21.8	2,237.0
1,020.00	1,001.3	74.9	1.0	0.03	1.6	166.8	21.8	2,258.9
1,030.00	1,001.6	75.0	1.0	0.03	1.6	168.4	21.8	2,280.7
1,040.00	1,001.9	75.1	1.0	0.03	1.6	170.0	21.8	2,302.6
1,050.00	1,002.3	75.1	1.0	0.03	1.6	171.7	21.9	2,324.4
1,060.00	1,002.6	75.2	1.0	0.03	1.6	173.3	21.9	2,346.3
1,070.00	1,003.0	75.3	1.0	0.03	1.6	174.9	21.9	2,368.1
1,080.00	1,003.3	75.3	1.0	0.03	1.6	176.5	21.9	2,390.0
1,090.00	1,003.6	75.4	1.0	0.03	1.6	178.1	21.9	2,411.9
1,100.00	1,004.0	75.5	1.0	0.03	1.6	179.7	21.9	2,433.8
1,110.00	1,004.3	75.6	1.0	0.03	1.6	181.3	21.9	2,455.6
1,120.00	1,004.7	75.7	1.0	0.03	1.6	183.0	21.9	2,477.5
1,130.00	1,005.0	75.7	1.0	0.03	1.6	184.6	21.9	2,499.4
1,140.00	1,005.4	75.8	1.0	0.03	1.6	186.2	21.9	2,521.3
1,147.50	1,005.6	75.8	1.0	0.03	9.3	187.4	125.8	2,537.7
Averages:	**Pressure 986.2**	**Temperature 71.4**	**Zave 1.00**	**Unit Vol. 0.0**			**Total Volume (SCF)**	**2,537.7**

FINAL TUBING MASS BALANCE CALCULATIONS

Well Name:	State LPG Storage No. 4	FINAL	11/22/22 2:09 PM
Operator:	Marathon Petroleum Company, LLC	1203.0 psig	
Project No.:	192025AT		

Depth (ft)	Pressure (psia)	Temperature (°F)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
0.00	1,217.7	45.8	1.0	0.04				
10.00	1,218.1	50.3	1.0	0.04	2.3	2.3	30.5	30.5
20.00	1,218.6	57.6	1.0	0.04	2.2	4.5	30.2	60.7
30.00	1,219.0	62.9	1.0	0.04	2.2	6.7	29.8	90.4
40.00	1,219.4	65.5	1.0	0.04	2.2	8.9	29.5	120.0
50.00	1,219.8	66.8	1.0	0.04	2.2	11.0	29.4	149.4
60.00	1,220.3	67.5	1.0	0.04	2.2	13.2	29.3	178.7
70.00	1,220.7	67.8	1.0	0.04	2.2	15.4	29.3	208.0
80.00	1,221.1	68.1	1.0	0.04	2.2	17.5	29.3	237.3
90.00	1,221.5	68.5	1.0	0.04	2.2	19.7	29.3	266.6
100.00	1,221.9	68.7	1.0	0.04	2.2	21.9	29.3	295.9
110.00	1,222.4	68.8	1.0	0.04	2.2	24.0	29.3	325.2
120.00	1,222.8	68.9	1.0	0.04	2.2	26.2	29.3	354.5
130.00	1,223.2	69.0	1.0	0.04	2.2	28.3	29.3	383.8
140.00	1,223.6	69.1	1.0	0.04	2.2	30.5	29.3	413.1
150.00	1,224.0	69.2	1.0	0.04	2.2	32.7	29.3	442.4
160.00	1,224.5	69.2	1.0	0.04	2.2	34.8	29.3	471.8
170.00	1,224.9	69.2	1.0	0.04	2.2	37.0	29.3	501.1
180.00	1,225.3	69.4	1.0	0.04	2.2	39.2	29.3	530.4
190.00	1,225.7	69.5	1.0	0.04	2.2	41.3	29.3	559.7
200.00	1,226.1	69.5	1.0	0.04	2.2	43.5	29.3	589.1
210.00	1,226.6	69.6	1.0	0.04	2.2	45.7	29.3	618.4
220.00	1,227.0	69.7	1.0	0.04	2.2	47.8	29.3	647.8
230.00	1,227.4	69.7	1.0	0.04	2.2	50.0	29.4	677.1
240.00	1,227.8	69.8	1.0	0.04	2.2	52.2	29.4	706.5
250.00	1,228.2	69.8	1.0	0.04	2.2	54.3	29.4	735.8
260.00	1,228.7	69.9	1.0	0.04	2.2	56.5	29.4	765.2
270.00	1,229.1	70.0	1.0	0.04	2.2	58.7	29.4	794.6
280.00	1,229.5	70.1	1.0	0.03	2.0	60.7	27.0	821.6
290.00	1,229.9	70.2	1.0	0.03	2.0	62.7	27.0	848.6
300.00	1,230.3	70.3	1.0	0.03	2.0	64.7	27.0	875.7
310.00	1,230.8	70.3	1.0	0.03	2.0	66.7	27.0	902.7
320.00	1,231.2	70.3	1.0	0.03	2.0	68.7	27.0	929.8
330.00	1,231.6	70.4	1.0	0.03	2.0	70.7	27.1	956.8
340.00	1,232.0	70.5	1.0	0.03	2.0	72.7	27.1	983.9
350.00	1,232.4	70.6	1.0	0.03	2.0	74.7	27.1	1,010.9
360.00	1,232.9	70.7	1.0	0.03	2.0	76.7	27.1	1,038.0
370.00	1,233.3	70.9	1.0	0.03	2.0	78.7	27.1	1,065.0
380.00	1,233.7	70.9	1.0	0.03	2.0	80.6	27.1	1,092.1
390.00	1,234.1	70.9	1.0	0.03	2.0	82.6	27.1	1,119.2
400.00	1,234.5	71.0	1.0	0.03	2.0	84.6	27.1	1,146.3
410.00	1,235.0	71.1	1.0	0.03	2.0	86.6	27.1	1,173.3
420.00	1,235.4	71.2	1.0	0.03	2.0	88.6	27.1	1,200.4
430.00	1,235.8	71.2	1.0	0.03	2.0	90.6	27.1	1,227.5
440.00	1,236.2	71.3	1.0	0.03	2.0	92.7	27.1	1,254.6
450.00	1,236.7	71.3	1.0	0.03	2.0	94.7	27.1	1,281.7
460.00	1,237.1	71.4	1.0	0.03	2.0	96.7	27.1	1,308.8
470.00	1,237.5	71.5	1.0	0.03	2.0	98.7	27.1	1,336.0
480.00	1,237.9	71.6	1.0	0.03	2.0	100.7	27.1	1,363.1
490.00	1,238.3	71.7	1.0	0.03	2.0	102.7	27.1	1,390.2
500.00	1,238.8	71.7	1.0	0.03	2.0	104.7	27.1	1,417.3
510.00	1,239.2	71.8	1.0	0.03	2.0	106.7	27.1	1,444.5
520.00	1,239.6	71.8	1.0	0.03	2.0	108.7	27.1	1,471.6
530.00	1,240.0	71.9	1.0	0.03	2.0	110.7	27.1	1,498.7
540.00	1,240.5	72.0	1.0	0.03	2.0	112.7	27.1	1,525.9
550.00	1,240.9	72.1	1.0	0.03	2.0	114.7	27.2	1,553.0
560.00	1,241.3	72.2	1.0	0.03	2.0	116.7	27.2	1,580.2
570.00	1,241.7	72.2	1.0	0.03	2.0	118.7	27.2	1,607.4
580.00	1,242.1	72.3	1.0	0.03	2.0	120.7	27.2	1,634.5
590.00	1,242.6	72.4	1.0	0.03	2.0	122.7	27.2	1,661.7

FINAL TUBING MASS BALANCE CALCULATIONS

Well Name:	State LPG Storage No. 4	FINAL 1203.0 psig	11/22/22 2:09 PM
Operator:	Marathon Petroleum Company, LLC		
Project No.:	192025AT		

Depth (ft)	Pressure (psia)	Temperature (°F)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
600.00	1,243.0	72.5	1.0	0.03	2.0	124.7	27.2	1,688.9
610.00	1,243.4	72.5	1.0	0.03	2.0	126.7	27.2	1,716.1
620.00	1,243.8	72.6	1.0	0.03	2.0	128.7	27.2	1,743.3
630.00	1,244.3	72.6	1.0	0.03	2.0	130.7	27.2	1,770.4
640.00	1,244.7	72.6	1.0	0.03	2.0	132.8	27.2	1,797.7
650.00	1,245.1	72.7	1.0	0.03	2.0	134.8	27.2	1,824.9
660.00	1,245.5	72.8	1.0	0.03	2.0	136.8	27.2	1,852.1
670.00	1,246.0	72.8	1.0	0.03	2.0	138.8	27.2	1,879.3
680.00	1,246.4	72.9	1.0	0.03	2.0	140.8	27.2	1,906.5
690.00	1,246.8	72.9	1.0	0.03	2.0	142.8	27.2	1,933.7
700.00	1,247.2	73.0	1.0	0.03	2.0	144.8	27.2	1,961.0
710.00	1,247.7	73.0	1.0	0.03	2.0	146.8	27.2	1,988.2
720.00	1,248.1	73.1	1.0	0.03	2.0	148.8	27.2	2,015.5
730.00	1,248.5	73.1	1.0	0.03	2.0	150.8	27.3	2,042.7
740.00	1,248.9	73.2	1.0	0.03	2.0	152.9	27.3	2,070.0
750.00	1,249.3	73.3	1.0	0.03	2.0	154.9	27.3	2,097.3
760.00	1,249.8	73.3	1.0	0.03	2.0	156.9	27.3	2,124.5
770.00	1,250.2	73.4	1.0	0.03	2.0	158.9	27.3	2,151.8
780.00	1,250.6	73.4	1.0	0.03	2.0	160.9	27.3	2,179.1
790.00	1,251.0	73.5	1.0	0.03	2.0	162.9	27.3	2,206.4
800.00	1,251.5	73.5	1.0	0.03	2.0	165.0	27.3	2,233.7
810.00	1,251.9	73.6	1.0	0.03	2.0	167.0	27.3	2,261.0
820.00	1,252.3	73.6	1.0	0.03	2.0	169.0	27.3	2,288.3
830.00	1,252.7	73.7	1.0	0.03	2.0	171.0	27.3	2,315.6
840.00	1,253.2	73.8	1.0	0.03	2.0	173.0	27.3	2,342.9
850.00	1,253.6	73.8	1.0	0.03	2.0	175.0	27.3	2,370.2
860.00	1,254.0	73.9	1.0	0.03	2.0	177.1	27.3	2,397.6
870.00	1,254.4	74.0	1.0	0.03	2.0	179.1	27.3	2,424.9
880.00	1,254.9	74.0	1.0	0.03	2.0	181.1	27.3	2,452.3
890.00	1,255.3	74.1	1.0	0.03	2.0	183.1	27.3	2,479.6
900.00	1,255.7	74.1	1.0	0.03	2.0	185.1	27.4	2,507.0
910.00	1,256.1	74.2	1.0	0.03	2.0	187.2	27.4	2,534.3
920.00	1,256.6	74.3	1.0	0.03	2.0	189.2	27.4	2,561.7
930.00	1,257.0	74.4	1.0	0.03	2.0	191.2	27.4	2,589.0
940.00	1,257.4	74.4	1.0	0.03	2.0	193.2	27.4	2,616.4
950.00	1,257.9	74.5	1.0	0.03	2.0	195.2	27.4	2,643.8
960.00	1,258.3	74.6	1.0	0.03	2.0	197.3	27.4	2,671.2
970.00	1,258.7	74.7	1.0	0.03	2.0	199.3	27.4	2,698.6
980.00	1,259.1	74.7	1.0	0.03	2.0	201.3	27.4	2,725.9
990.00	1,259.6	74.8	1.0	0.03	2.0	203.3	27.4	2,753.3
1,000.00	1,260.0	74.9	1.0	0.03	2.0	205.3	27.4	2,780.7
1,010.00	1,260.4	75.0	1.0	0.03	2.0	207.4	27.4	2,808.1
1,020.00	1,260.8	75.0	1.0	0.03	2.0	209.4	27.4	2,835.6
1,030.00	1,261.3	75.1	1.0	0.03	2.0	211.4	27.4	2,863.0
1,040.00	1,261.7	75.2	1.0	0.03	2.0	213.4	27.4	2,890.4
1,050.00	1,262.1	75.3	1.0	0.03	2.0	215.5	27.4	2,917.8
1,060.00	1,262.5	75.3	1.0	0.03	2.0	217.5	27.4	2,945.2
1,070.00	1,263.0	75.4	1.0	0.03	2.0	219.5	27.4	2,972.7
1,080.00	1,263.4	75.5	1.0	0.03	2.0	221.5	27.4	3,000.1
1,090.00	1,263.8	75.6	1.0	0.03	1.8	223.4	25.0	3,025.1
1,100.00	1,264.2	75.6	1.0	0.03	2.0	225.4	27.4	3,052.5
1,110.00	1,264.7	75.7	1.0	0.03	2.0	227.4	27.5	3,080.0
1,120.00	1,265.1	75.8	1.0	0.03	2.0	229.5	27.5	3,107.5
1,130.00	1,265.5	75.8	1.0	0.03	2.0	231.5	27.5	3,134.9
1,140.00	1,266.0	75.9	1.0	0.03	2.0	233.5	27.5	3,162.4
1,150.00	1,266.4	76.0	1.0	0.03	2.0	235.6	27.5	3,189.9
1,160.00	1,266.8	76.0	1.0	0.03	2.0	237.6	27.5	3,217.3
1,170.00	1,267.2	76.1	1.0	0.03	2.0	239.6	27.5	3,244.8
1,180.00	1,267.7	76.1	1.0	0.03	2.0	241.7	27.5	3,272.3
1,190.00	1,268.1	76.2	1.0	0.03	2.0	243.7	27.5	3,299.8
1,200.00	1,268.5	76.2	1.0	0.03	2.0	245.7	27.5	3,327.3

FINAL TUBING MASS BALANCE CALCULATIONS

Well Name:	State LPG Storage No. 4	FINAL	11/22/22 2:09 PM
Operator:	Marathon Petroleum Company, LLC	1203.0 psig	
Project No.:	192025AT		

Depth (ft)	Pressure (psia)	Temperature (°F)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
1,210.00	1,269.0	76.3	1.0	0.03	2.0	247.7	27.5	3,354.8
1,220.00	1,269.4	76.3	1.0	0.03	2.0	249.8	27.5	3,382.4
1,230.00	1,269.8	76.4	1.0	0.03	2.0	251.8	27.5	3,409.9
1,240.00	1,270.2	76.4	1.0	0.03	2.0	253.8	27.5	3,437.4
1,250.00	1,270.7	76.4	1.0	0.03	2.0	255.9	27.5	3,464.9
1,260.00	1,271.1	76.5	1.0	0.03	2.0	257.9	27.5	3,492.5
1,270.00	1,271.5	76.5	1.0	0.03	2.0	259.9	27.6	3,520.0
1,280.00	1,272.0	76.5	1.0	0.03	2.0	262.0	27.6	3,547.6
1,290.00	1,272.4	76.6	1.0	0.03	2.0	264.0	27.6	3,575.2
1,300.00	1,272.8	76.6	1.0	0.03	2.0	266.1	27.6	3,602.7
1,310.00	1,273.2	76.7	1.0	0.03	2.0	268.1	27.6	3,630.3
1,320.00	1,273.7	76.7	1.0	0.03	2.0	270.1	27.6	3,657.9
1,330.00	1,274.1	76.8	1.0	0.03	2.0	272.2	27.6	3,685.5
1,340.00	1,274.5	76.8	1.0	0.03	2.0	274.2	27.6	3,713.1
1,350.00	1,275.0	76.9	1.0	0.03	2.0	276.2	27.6	3,740.7
1,360.00	1,275.4	76.9	1.0	0.03	2.0	278.3	27.6	3,768.3
1,370.00	1,275.8	76.9	1.0	0.03	2.0	280.3	27.6	3,795.9
1,380.00	1,276.2	77.0	1.0	0.03	2.0	282.4	27.6	3,823.5
1,390.00	1,276.7	77.0	1.0	0.03	2.0	284.4	27.6	3,851.2
1,400.00	1,277.1	77.1	1.0	0.03	2.0	286.4	27.6	3,878.8
1,410.00	1,277.5	77.1	1.0	0.03	2.0	288.5	27.6	3,906.5
1,420.00	1,278.0	77.2	1.0	0.03	2.0	290.5	27.6	3,934.1
1,430.00	1,278.4	77.2	1.0	0.03	2.0	292.6	27.7	3,961.8
1,440.00	1,278.8	77.3	1.0	0.03	2.0	294.6	27.7	3,989.4
1,450.00	1,279.3	77.3	1.0	0.03	2.0	296.6	27.7	4,017.1
1,460.00	1,279.7	77.4	1.0	0.03	2.0	298.7	27.7	4,044.8
1,470.00	1,280.1	77.4	1.0	0.03	2.0	300.7	27.7	4,072.4
1,480.00	1,280.5	77.4	1.0	0.03	2.0	302.8	27.7	4,100.1
1,490.00	1,281.0	77.5	1.0	0.03	2.0	304.8	27.7	4,127.8
1,500.00	1,281.4	77.5	1.0	0.03	2.0	306.9	27.7	4,155.5
1,510.00	1,281.8	77.5	1.0	0.03	2.0	308.9	27.7	4,183.2
1,520.00	1,282.3	77.6	1.0	0.03	2.0	311.0	27.7	4,211.0
1,530.00	1,282.7	77.6	1.0	0.03	2.0	313.0	27.7	4,238.7
1,540.00	1,283.1	77.6	1.0	0.03	2.0	315.1	27.7	4,266.4
1,550.00	1,283.6	77.7	1.0	0.03	2.0	317.1	27.7	4,294.2
1,560.00	1,284.0	77.7	1.0	0.03	2.0	319.2	27.7	4,321.9
1,570.00	1,284.4	77.7	1.0	0.03	2.0	321.2	27.8	4,349.7
1,580.00	1,284.9	77.8	1.0	0.03	2.1	323.3	27.8	4,377.4
1,590.00	1,285.3	77.8	1.0	0.03	2.1	325.3	27.8	4,405.2
1,600.00	1,285.7	77.8	1.0	0.03	2.1	327.4	27.8	4,433.0
1,610.00	1,286.2	77.8	1.0	0.03	2.1	329.4	27.8	4,460.7
1,620.00	1,286.6	77.9	1.0	0.03	2.1	331.5	27.8	4,488.5
1,630.00	1,287.0	77.9	1.0	0.03	2.1	333.5	27.8	4,516.3
1,640.00	1,287.5	77.9	1.0	0.03	2.1	335.6	27.8	4,544.1
1,650.00	1,287.9	77.9	1.0	0.03	2.1	337.6	27.8	4,572.0
1,660.00	1,288.3	78.0	1.0	0.03	2.1	339.7	27.8	4,599.8
1,670.00	1,288.8	78.0	1.0	0.03	2.1	341.7	27.8	4,627.6
1,674.50	1,289.0	78.0	1.0	0.03	0.9	342.7	12.5	4,640.1
Averages:	**Pressure 1,253.3**	**Temperature 73.3**	**Zave 1.00**				**Total Volume (SCF)**	**4,640.1**

INITIAL CAVERN MASS BALANCE CALCULATIONS

Well Name:	State LPG Storage No. 4	INITIAL	11/21/22 12:03 PM		
Operator:	Marathon Petroleum Company, LLC	1205.1			
Project No.:	192025AT	psig			

Depth (ft)	Pressure (psia)	Temperature (ºF)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
0.00	1,219.8	42.5	1.0	0.15				
10.00	1,220.3	51.1	1.0	0.15	9.8	9.8	132.0	132.0
20.00	1,220.7	57.8	1.0	0.15	9.6	19.3	129.9	261.9
30.00	1,221.1	62.1	1.0	0.15	9.5	28.8	128.4	390.3
40.00	1,221.6	64.5	1.0	0.15	9.4	38.2	127.5	517.8
50.00	1,222.0	65.9	1.0	0.15	9.4	47.6	127.0	644.8
60.00	1,222.4	66.4	1.0	0.15	9.4	57.0	126.8	771.6
70.00	1,222.8	66.7	1.0	0.15	9.4	66.3	126.7	898.3
80.00	1,223.2	67.2	1.0	0.15	9.4	75.7	126.7	1,025.0
90.00	1,223.7	67.5	1.0	0.15	9.3	85.0	126.6	1,151.6
100.00	1,224.1	67.9	1.0	0.15	9.3	94.4	126.5	1,278.1
110.00	1,224.5	68.4	1.0	0.15	9.3	103.7	126.5	1,404.6
120.00	1,224.9	68.4	1.0	0.15	9.3	113.1	126.5	1,531.1
130.00	1,225.3	68.4	1.0	0.15	9.3	122.4	126.5	1,657.6
140.00	1,225.8	68.5	1.0	0.15	9.3	131.7	126.5	1,784.1
150.00	1,226.2	68.6	1.0	0.15	9.3	141.1	126.5	1,910.6
160.00	1,226.6	68.8	1.0	0.15	9.3	150.4	126.5	2,037.2
170.00	1,227.0	69.0	1.0	0.15	9.3	159.8	126.5	2,163.7
180.00	1,227.5	69.2	1.0	0.15	9.3	169.1	126.5	2,290.2
190.00	1,227.9	69.4	1.0	0.15	9.3	178.5	126.5	2,416.7
200.00	1,228.3	69.4	1.0	0.15	9.3	187.8	126.5	2,543.2
210.00	1,228.7	69.4	1.0	0.15	9.3	197.2	126.6	2,669.8
220.00	1,229.1	69.4	1.0	0.15	9.3	206.5	126.6	2,796.4
230.00	1,229.6	69.5	1.0	0.15	9.4	215.9	126.6	2,923.1
240.00	1,230.0	69.7	1.0	0.15	9.4	225.2	126.6	3,049.7
250.00	1,230.4	69.8	1.0	0.15	9.4	234.6	126.6	3,176.3
260.00	1,230.8	69.9	1.0	0.15	9.4	243.9	126.7	3,303.0
270.00	1,231.2	69.9	1.0	0.15	9.4	253.3	126.7	3,429.7
280.00	1,231.7	70.0	1.0	0.15	9.4	262.6	126.7	3,556.4
290.00	1,232.1	70.1	1.0	0.15	9.4	272.0	126.7	3,683.1
300.00	1,232.5	70.2	1.0	0.15	9.4	281.3	126.7	3,809.8
310.00	1,232.9	70.2	1.0	0.15	9.4	290.7	126.8	3,936.6
320.00	1,233.3	70.3	1.0	0.15	9.4	300.1	126.8	4,063.4
330.00	1,233.8	70.5	1.0	0.15	9.4	309.4	126.8	4,190.2
340.00	1,234.2	70.6	1.0	0.15	9.4	318.8	126.8	4,317.0
350.00	1,234.6	70.7	1.0	0.15	9.4	328.2	126.8	4,443.8
360.00	1,235.0	70.8	1.0	0.15	9.4	337.5	126.8	4,570.7
370.00	1,235.5	70.9	1.0	0.15	9.4	346.9	126.9	4,697.5
380.00	1,235.9	71.0	1.0	0.15	9.4	356.3	126.9	4,824.4
390.00	1,236.3	71.0	1.0	0.15	9.4	365.6	126.9	4,951.3
400.00	1,236.7	71.1	1.0	0.15	9.4	375.0	126.9	5,078.2
410.00	1,237.1	71.2	1.0	0.15	9.4	384.4	126.9	5,205.1
420.00	1,237.6	71.2	1.0	0.15	9.4	393.8	127.0	5,332.1
430.00	1,238.0	71.3	1.0	0.15	9.4	403.1	127.0	5,459.1
440.00	1,238.4	71.3	1.0	0.15	9.4	412.5	127.0	5,586.2
450.00	1,238.8	71.4	1.0	0.15	9.4	421.9	127.1	5,713.2
460.00	1,239.3	71.5	1.0	0.15	9.4	431.3	127.1	5,840.3
470.00	1,239.7	71.6	1.0	0.15	9.4	440.7	127.1	5,967.4
480.00	1,240.1	71.7	1.0	0.15	9.4	450.1	127.1	6,094.5
490.00	1,240.5	71.7	1.0	0.15	9.4	459.4	127.1	6,221.7
500.00	1,240.9	71.8	1.0	0.15	9.4	468.8	127.2	6,348.8
510.00	1,241.4	71.8	1.0	0.15	9.4	478.2	127.2	6,476.0
520.00	1,241.8	71.9	1.0	0.15	9.4	487.6	127.2	6,603.2
530.00	1,242.2	72.0	1.0	0.15	9.4	497.0	127.2	6,730.5
540.00	1,242.6	72.1	1.0	0.15	9.4	506.4	127.3	6,857.7
550.00	1,243.1	72.2	1.0	0.15	9.4	515.8	127.3	6,985.0
560.00	1,243.5	72.2	1.0	0.15	9.4	525.2	127.3	7,112.3
570.00	1,243.9	72.3	1.0	0.15	9.4	534.6	127.3	7,239.6
580.00	1,244.3	72.4	1.0	0.15	9.4	544.0	127.3	7,367.0
590.00	1,244.8	72.5	1.0	0.15	9.4	553.4	127.4	7,494.4

INITIAL CAVERN MASS BALANCE CALCULATIONS

Well Name:	State LPG Storage No. 4	INITIAL	11/21/22 12:03 PM		
Operator:	Marathon Petroleum Company, LLC	1205.1			
Project No.:	192025AT	psig			

Depth (ft)	Pressure (psia)	Temperature (ºF)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
600.00	1,245.2	72.5	1.0	0.15	9.4	562.8	127.4	7,621.7
610.00	1,245.6	72.6	1.0	0.15	9.4	572.3	127.4	7,749.2
620.00	1,246.0	72.6	1.0	0.15	9.4	581.7	127.5	7,876.6
630.00	1,246.4	72.6	1.0	0.15	9.4	591.1	127.5	8,004.1
640.00	1,246.9	72.7	1.0	0.15	9.4	600.5	127.5	8,131.6
650.00	1,247.3	72.7	1.0	0.15	9.4	609.9	127.6	8,259.2
660.00	1,247.7	72.8	1.0	0.15	9.4	619.3	127.6	8,386.8
670.00	1,248.1	72.8	1.0	0.15	9.4	628.8	127.6	8,514.4
680.00	1,248.6	72.9	1.0	0.15	9.4	638.2	127.6	8,642.0
690.00	1,249.0	72.9	1.0	0.15	9.4	647.6	127.7	8,769.7
700.00	1,249.4	73.0	1.0	0.15	9.4	657.0	127.7	8,897.4
710.00	1,249.8	73.0	1.0	0.15	9.4	666.5	127.7	9,025.1
720.00	1,250.3	73.1	1.0	0.15	9.4	675.9	127.8	9,152.8
730.00	1,250.7	73.1	1.0	0.15	9.4	685.3	127.8	9,280.6
740.00	1,251.1	73.2	1.0	0.15	9.4	694.8	127.8	9,408.4
750.00	1,251.5	73.3	1.0	0.15	9.4	704.2	127.8	9,536.3
760.00	1,252.0	73.3	1.0	0.15	9.4	713.7	127.9	9,664.1
770.00	1,252.4	73.4	1.0	0.15	9.4	723.1	127.9	9,792.0
780.00	1,252.8	73.4	1.0	0.15	9.4	732.6	127.9	9,919.9
790.00	1,253.2	73.5	1.0	0.15	9.4	742.0	127.9	10,047.9
800.00	1,253.7	73.5	1.0	0.15	9.4	751.5	128.0	10,175.8
810.00	1,254.1	73.6	1.0	0.15	9.5	760.9	128.0	10,303.8
820.00	1,254.5	73.7	1.0	0.15	9.5	770.4	128.0	10,431.8
830.00	1,254.9	73.7	1.0	0.15	9.5	779.8	128.0	10,559.9
840.00	1,255.4	73.8	1.0	0.15	9.5	789.3	128.1	10,688.0
850.00	1,255.8	73.8	1.0	0.15	9.5	798.7	128.1	10,816.1
860.00	1,256.2	73.9	1.0	0.15	9.5	808.2	128.1	10,944.2
870.00	1,256.7	74.0	1.0	0.15	9.5	817.7	128.1	11,072.3
880.00	1,257.1	74.0	1.0	0.15	9.5	827.1	128.2	11,200.5
890.00	1,257.5	74.0	1.0	0.15	9.5	836.6	128.2	11,328.7
900.00	1,257.9	74.1	1.0	0.15	9.5	846.1	128.2	11,457.0
910.00	1,258.4	74.1	1.0	0.15	9.5	855.5	128.3	11,585.2
920.00	1,258.8	74.2	1.0	0.15	9.5	865.0	128.3	11,713.5
930.00	1,259.2	74.3	1.0	0.15	9.5	874.5	128.3	11,841.9
940.00	1,259.6	74.4	1.0	0.15	9.5	884.0	128.3	11,970.2
950.00	1,260.1	74.4	1.0	0.15	9.5	893.4	128.4	12,098.6
960.00	1,260.5	74.5	1.0	0.15	9.5	902.9	128.4	12,227.0
970.00	1,260.9	74.6	1.0	0.15	9.5	912.4	128.4	12,355.4
980.00	1,261.3	74.6	1.0	0.15	9.5	921.9	128.4	12,483.8
990.00	1,261.8	74.7	1.0	0.15	9.5	931.4	128.5	12,612.3
1,000.00	1,262.2	74.8	1.0	0.15	9.5	940.9	128.5	12,740.8
1,010.00	1,262.6	74.9	1.0	0.15	9.5	950.4	128.5	12,869.3
1,020.00	1,263.1	74.9	1.0	0.15	9.5	959.8	128.5	12,997.8
1,030.00	1,263.5	75.0	1.0	0.15	9.5	969.3	128.6	13,126.3
1,040.00	1,263.9	75.1	1.0	0.15	9.5	978.8	128.6	13,254.9
1,050.00	1,264.3	75.1	1.0	0.15	9.5	988.3	128.6	13,383.5
1,060.00	1,264.8	75.2	1.0	0.15	9.5	997.8	128.6	13,512.2
1,070.00	1,265.2	75.3	1.0	0.15	9.5	1,007.3	128.7	13,640.8
1,080.00	1,265.6	75.3	1.0	0.15	9.5	1,016.8	128.7	13,769.5
1,090.00	1,266.0	75.4	1.0	0.15	9.5	1,026.3	128.7	13,898.2
1,100.00	1,266.5	75.5	1.0	0.15	9.5	1,035.8	128.7	14,026.9
1,110.00	1,266.9	75.6	1.0	0.15	9.5	1,045.3	128.7	14,155.6
1,120.00	1,267.3	75.7	1.0	0.15	9.5	1,054.9	128.8	14,284.4
1,130.00	1,267.8	75.7	1.0	0.15	9.5	1,064.4	128.8	14,413.2
1,140.00	1,268.2	75.8	1.0	0.15	9.5	1,073.9	128.8	14,542.0
1,150.00	1,268.6	75.9	1.0	0.15	9.5	1,083.4	128.8	14,670.8
1,160.00	1,269.0	75.9	1.0	0.15	9.5	1,092.9	128.9	14,799.7
1,170.00	1,269.5	76.0	1.0	0.15	9.5	1,102.4	128.9	14,928.5
1,180.00	1,269.9	76.0	1.0	0.15	9.5	1,111.9	128.9	15,057.4
1,190.00	1,270.3	76.1	1.0	0.15	9.5	1,121.5	128.9	15,186.4
1,200.00	1,270.8	76.1	1.0	0.15	9.5	1,131.0	129.0	15,315.3

INITIAL CAVERN MASS BALANCE CALCULATIONS

Well Name:	State LPG Storage No. 4	INITIAL	11/21/22 12:03 PM		
Operator:	Marathon Petroleum Company, LLC	1205.1			
Project No.:	192025AT	psig			

Depth (ft)	Pressure (psia)	Temperature (°F)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
1,210.00	1,271.2	76.2	1.0	0.15	9.5	1,140.5	129.0	15,444.3
1,220.00	1,271.6	76.2	1.0	0.15	9.5	1,150.0	129.0	15,573.4
1,230.00	1,272.0	76.3	1.0	0.15	9.5	1,159.6	129.1	15,702.4
1,240.00	1,272.5	76.3	1.0	0.15	9.5	1,169.1	129.1	15,831.5
1,250.00	1,272.9	76.3	1.0	0.15	9.5	1,178.6	129.1	15,960.6
1,260.00	1,273.3	76.4	1.0	0.15	9.5	1,188.2	129.2	16,089.8
1,270.00	1,273.8	76.4	1.0	0.15	9.5	1,197.7	129.2	16,219.0
1,280.00	1,274.2	76.5	1.0	0.15	9.5	1,207.3	129.2	16,348.2
1,290.00	1,274.6	76.5	1.0	0.15	9.5	1,216.8	129.3	16,477.5
1,300.00	1,275.1	76.5	1.0	0.15	9.5	1,226.4	129.3	16,606.7
1,310.00	1,275.5	76.6	1.0	0.15	9.5	1,235.9	129.3	16,736.1
1,320.00	1,275.9	76.6	1.0	0.15	9.6	1,245.5	129.3	16,865.4
1,330.00	1,276.3	76.7	1.0	0.15	9.6	1,255.0	129.4	16,994.8
1,340.00	1,276.8	76.7	1.0	0.15	9.6	1,264.6	129.4	17,124.2
1,350.00	1,277.2	76.7	1.0	0.15	9.6	1,274.1	129.4	17,253.6
1,360.00	1,277.6	76.8	1.0	0.15	9.6	1,283.7	129.5	17,383.1
1,370.00	1,278.1	76.8	1.0	0.15	9.6	1,293.3	129.5	17,512.6
1,380.00	1,278.5	76.9	1.0	0.15	9.6	1,302.8	129.5	17,642.2
1,390.00	1,278.9	76.9	1.0	0.15	9.6	1,312.4	129.6	17,771.7
1,400.00	1,279.4	77.0	1.0	0.15	9.6	1,322.0	129.6	17,901.3
1,410.00	1,279.8	77.0	1.0	0.15	9.6	1,331.5	129.6	18,030.9
1,420.00	1,280.2	77.1	1.0	0.15	9.6	1,341.1	129.7	18,160.6
1,430.00	1,280.6	77.1	1.0	0.15	9.6	1,350.7	129.7	18,290.3
1,440.00	1,281.1	77.1	1.0	0.15	9.6	1,360.3	129.7	18,420.0
1,450.00	1,281.5	77.2	1.0	0.15	9.6	1,369.8	129.8	18,549.8
1,460.00	1,281.9	77.2	1.0	0.15	9.6	1,379.4	129.8	18,679.5
1,470.00	1,282.4	77.3	1.0	0.15	9.6	1,389.0	129.8	18,809.4
1,480.00	1,282.8	77.3	1.0	0.15	9.6	1,398.6	129.8	18,939.2
1,490.00	1,283.2	77.3	1.0	0.15	9.6	1,408.2	129.9	19,069.1
1,500.00	1,283.7	77.4	1.0	0.15	9.6	1,417.8	129.9	19,199.0
1,510.00	1,284.1	77.4	1.0	0.15	9.6	1,427.4	129.9	19,328.9
1,520.00	1,284.5	77.5	1.0	0.15	9.6	1,437.0	130.0	19,458.9
1,530.00	1,285.0	77.5	1.0	0.15	9.6	1,446.6	130.0	19,588.9
1,540.00	1,285.4	77.5	1.0	0.15	9.6	1,456.2	130.0	19,719.0
1,550.00	1,285.8	77.5	1.0	0.15	9.6	1,465.8	130.1	19,849.0
1,560.00	1,286.3	77.6	1.0	0.15	9.6	1,475.4	130.1	19,979.1
1,570.00	1,286.7	77.6	1.0	0.15	9.6	1,485.0	130.1	20,109.3
1,580.00	1,287.1	77.6	1.0	0.15	9.6	1,494.6	130.2	20,239.5
1,590.00	1,287.6	77.7	1.0	0.15	9.6	1,504.2	130.2	20,369.7
1,600.00	1,288.0	77.7	1.0	0.15	9.6	1,513.9	130.3	20,500.0
1,610.00	1,288.4	77.7	1.0	0.15	9.6	1,523.5	130.3	20,630.2
1,620.00	1,288.9	77.7	1.0	0.15	9.6	1,533.1	130.3	20,760.6
1,630.00	1,289.3	77.8	1.0	0.15	9.6	1,542.7	130.4	20,890.9
1,640.00	1,289.7	77.8	1.0	0.15	9.6	1,552.4	130.4	21,021.3
1,650.00	1,290.2	77.8	1.0	0.15	9.6	1,562.0	130.4	21,151.8
1,659.00	1,290.6	77.8	1.0	0.15	8.7	1,570.7	117.4	21,269.2
1,661.50	1,290.7	77.9	1.0	135.02	2,109.1	3,679.8	28,561.0	49,830.2
1,662.50	1,290.7	77.9	1.0	169.34	1,058.1	4,737.9	14,328.8	64,158.9
1,663.00	1,290.7	77.9	1.0	386.48	1,207.5	5,945.4	16,351.2	80,510.2
1,663.50	1,290.7	77.9	1.0	124.48	388.9	6,334.4	5,266.7	85,776.9
1,663.75	1,290.8	77.9	1.0	430.99	673.3	7,007.6	9,117.4	94,894.3
1,664.25	1,290.8	77.9	1.0	223.46	698.2	7,705.8	9,454.4	104,348.6
1,664.75	1,290.8	77.9	1.0	216.74	677.2	8,383.0	9,170.2	113,518.8
1,665.50	1,290.8	77.9	1.0	150.34	704.6	9,087.6	9,541.7	123,060.5
1,666.00	1,290.9	77.9	1.0	227.69	711.4	9,799.1	9,633.9	132,694.4
1,666.50	1,290.9	77.9	1.0	214.48	670.2	10,469.2	9,075.0	141,769.4
1,667.00	1,290.9	77.9	1.0	219.52	685.9	11,155.1	9,288.5	151,057.9
1,668.25	1,291.0	77.9	1.0	180.49	1,410.0	12,565.1	19,093.3	170,151.2
1,669.25	1,291.0	77.9	1.0	216.84	1,355.2	13,920.3	18,351.3	188,502.4
1,670.50	1,291.1	77.9	1.0	179.19	1,399.9	15,320.2	18,956.2	207,458.6
1,671.75	1,291.1	77.9	1.0	172.02	1,343.9	16,664.0	18,198.2	225,656.8

INITIAL CAVERN MASS BALANCE CALCULATIONS

Well Name:	State LPG Storage No. 4			INITIAL	11/21/22 12:03 PM			
Operator:	Marathon Petroleum Company, LLC			1205.1				
Project No.:	192025AT			psig				
Depth (ft)	Pressure (psia)	Temperature (ºF)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
1,672.50	1,291.1	77.9	1.0	304.18	1,425.8	18,089.9	19,308.1	244,964.9
1,675.00	1,291.2	77.9	1.0	127.49	1,992.1	20,082.0	26,976.3	271,941.2
1,679.00	1,291.4	77.9	1.0	59.78	1,494.6	21,576.6	20,239.9	292,181.1
1,680.00	1,291.5	77.9	1.0	45.57	284.9	21,861.5	3,858.0	296,039.1
Averages:	**Pressure 1,258.7**	**Temperature 73.6**	**Zave 1.00**	**Unit Vol. 45.6**			**Total Volume (SCF)**	**296,039.1**

FINAL CAVERN MASS BALANCE CALCULATIONS

Well Name:	State LPG Storage No. 4	FINAL	11/22/22 2:09 PM		
Operator:	Marathon Petroleum Company, LLC	1201.6			
Project No.:	192025AT	psig			

Depth (ft)	Pressure (psia)	Temperature (°F)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
0.00	1,216.3	45.8	1.0	0.15				
10.00	1,216.7	50.3	1.0	0.15	9.7	9.7	131.3	131.3
20.00	1,217.2	57.6	1.0	0.15	9.6	19.3	129.7	261.0
30.00	1,217.6	62.9	1.0	0.15	9.4	28.7	127.9	388.9
40.00	1,218.0	65.5	1.0	0.15	9.4	38.1	126.9	515.8
50.00	1,218.4	66.8	1.0	0.15	9.3	47.4	126.4	642.2
60.00	1,218.9	67.5	1.0	0.15	9.3	56.7	126.2	768.4
70.00	1,219.3	67.8	1.0	0.15	9.3	66.1	126.1	894.4
80.00	1,219.7	68.1	1.0	0.15	9.3	75.4	126.0	1,020.5
90.00	1,220.1	68.5	1.0	0.15	9.3	84.7	126.0	1,146.5
100.00	1,220.5	68.7	1.0	0.15	9.3	94.0	125.9	1,272.4
110.00	1,221.0	68.8	1.0	0.15	9.3	103.3	125.9	1,398.4
120.00	1,221.4	68.9	1.0	0.15	9.3	112.6	126.0	1,524.3
130.00	1,221.8	69.0	1.0	0.15	9.3	121.9	126.0	1,650.3
140.00	1,222.2	69.1	1.0	0.15	9.3	131.2	126.0	1,776.3
150.00	1,222.6	69.2	1.0	0.15	9.3	140.5	126.0	1,902.3
160.00	1,223.1	69.2	1.0	0.15	9.3	149.8	126.0	2,028.4
170.00	1,223.5	69.2	1.0	0.15	9.3	159.1	126.1	2,154.5
180.00	1,223.9	69.4	1.0	0.15	9.3	168.4	126.1	2,280.6
190.00	1,224.3	69.5	1.0	0.15	9.3	177.7	126.1	2,406.7
200.00	1,224.7	69.5	1.0	0.15	9.3	187.0	126.1	2,532.8
210.00	1,225.2	69.6	1.0	0.15	9.3	196.4	126.2	2,659.0
220.00	1,225.6	69.7	1.0	0.15	9.3	205.7	126.2	2,785.2
230.00	1,226.0	69.7	1.0	0.15	9.3	215.0	126.2	2,911.4
240.00	1,226.4	69.8	1.0	0.15	9.3	224.3	126.2	3,037.6
250.00	1,226.8	69.8	1.0	0.15	9.3	233.6	126.3	3,163.9
260.00	1,227.2	69.9	1.0	0.15	9.3	243.0	126.3	3,290.1
270.00	1,227.7	70.0	1.0	0.15	9.3	252.3	126.3	3,416.5
280.00	1,228.1	70.1	1.0	0.15	9.3	261.6	126.3	3,542.8
290.00	1,228.5	70.2	1.0	0.15	9.3	271.0	126.4	3,669.1
300.00	1,228.9	70.3	1.0	0.15	9.3	280.3	126.4	3,795.5
310.00	1,229.3	70.3	1.0	0.15	9.3	289.6	126.4	3,921.9
320.00	1,229.8	70.3	1.0	0.15	9.3	299.0	126.4	4,048.3
330.00	1,230.2	70.4	1.0	0.15	9.3	308.3	126.5	4,174.8
340.00	1,230.6	70.5	1.0	0.15	9.3	317.6	126.5	4,301.3
350.00	1,231.0	70.6	1.0	0.15	9.3	327.0	126.5	4,427.8
360.00	1,231.5	70.7	1.0	0.15	9.3	336.3	126.5	4,554.3
370.00	1,231.9	70.9	1.0	0.15	9.3	345.7	126.5	4,680.8
380.00	1,232.3	70.9	1.0	0.15	9.3	355.0	126.5	4,807.3
390.00	1,232.7	70.9	1.0	0.15	9.3	364.3	126.6	4,933.9
400.00	1,233.1	71.0	1.0	0.15	9.3	373.7	126.6	5,060.4
410.00	1,233.6	71.1	1.0	0.15	9.3	383.0	126.6	5,187.0
420.00	1,234.0	71.2	1.0	0.15	9.4	392.4	126.6	5,313.7
430.00	1,234.4	71.2	1.0	0.15	9.4	401.8	126.7	5,440.3
440.00	1,234.8	71.3	1.0	0.15	9.4	411.1	126.7	5,567.0
450.00	1,235.2	71.3	1.0	0.15	9.4	420.5	126.7	5,693.7
460.00	1,235.7	71.4	1.0	0.15	9.4	429.8	126.7	5,820.5
470.00	1,236.1	71.5	1.0	0.15	9.4	439.2	126.8	5,947.2
480.00	1,236.5	71.6	1.0	0.15	9.4	448.5	126.8	6,074.0
490.00	1,236.9	71.7	1.0	0.15	9.4	457.9	126.8	6,200.8
500.00	1,237.3	71.7	1.0	0.15	9.4	467.3	126.8	6,327.6
510.00	1,237.8	71.8	1.0	0.15	9.4	476.6	126.8	6,454.5
520.00	1,238.2	71.8	1.0	0.15	9.4	486.0	126.9	6,581.3
530.00	1,238.6	71.9	1.0	0.15	9.4	495.4	126.9	6,708.2
540.00	1,239.0	72.0	1.0	0.15	9.4	504.8	126.9	6,835.1
550.00	1,239.5	72.1	1.0	0.15	9.4	514.1	126.9	6,962.1
560.00	1,239.9	72.2	1.0	0.15	9.4	523.5	127.0	7,089.0
570.00	1,240.3	72.2	1.0	0.15	9.4	532.9	127.0	7,216.0
580.00	1,240.7	72.3	1.0	0.15	9.4	542.3	127.0	7,343.0
590.00	1,241.1	72.4	1.0	0.15	9.4	551.6	127.0	7,470.0

FINAL CAVERN MASS BALANCE CALCULATIONS								
Well Name:	State LPG Storage No. 4			FINAL	11/22/22 2:09 PM			
Operator:	Marathon Petroleum Company, LLC			1201.6				
Project No.:	192025AT			psig				
Depth (ft)	Pressure (psia)	Temperature (°F)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
600.00	1,241.6	72.5	1.0	0.15	9.4	561.0	127.0	7,597.1
610.00	1,242.0	72.5	1.0	0.15	9.4	570.4	127.1	7,724.1
620.00	1,242.4	72.6	1.0	0.15	9.4	579.8	127.1	7,851.2
630.00	1,242.8	72.6	1.0	0.15	9.4	589.2	127.1	7,978.4
640.00	1,243.3	72.6	1.0	0.15	9.4	598.6	127.2	8,105.5
650.00	1,243.7	72.7	1.0	0.15	9.4	608.0	127.2	8,232.7
660.00	1,244.1	72.8	1.0	0.15	9.4	617.4	127.2	8,359.9
670.00	1,244.5	72.8	1.0	0.15	9.4	626.8	127.2	8,487.2
680.00	1,245.0	72.9	1.0	0.15	9.4	636.2	127.3	8,614.5
690.00	1,245.4	72.9	1.0	0.15	9.4	645.6	127.3	8,741.8
700.00	1,245.8	73.0	1.0	0.15	9.4	655.0	127.3	8,869.1
710.00	1,246.2	73.0	1.0	0.15	9.4	664.4	127.4	8,996.4
720.00	1,246.6	73.1	1.0	0.15	9.4	673.8	127.4	9,123.8
730.00	1,247.1	73.1	1.0	0.15	9.4	683.2	127.4	9,251.2
740.00	1,247.5	73.2	1.0	0.15	9.4	692.6	127.4	9,378.7
750.00	1,247.9	73.3	1.0	0.15	9.4	702.0	127.5	9,506.2
760.00	1,248.3	73.3	1.0	0.15	9.4	711.4	127.5	9,633.6
770.00	1,248.8	73.4	1.0	0.15	9.4	720.8	127.5	9,761.2
780.00	1,249.2	73.4	1.0	0.15	9.4	730.2	127.5	9,888.7
790.00	1,249.6	73.5	1.0	0.15	9.4	739.7	127.6	10,016.3
800.00	1,250.0	73.5	1.0	0.15	9.4	749.1	127.6	10,143.9
810.00	1,250.5	73.6	1.0	0.15	9.4	758.5	127.6	10,271.5
820.00	1,250.9	73.6	1.0	0.15	9.4	767.9	127.7	10,399.2
830.00	1,251.3	73.7	1.0	0.15	9.4	777.4	127.7	10,526.9
840.00	1,251.7	73.8	1.0	0.15	9.4	786.8	127.7	10,654.6
850.00	1,252.2	73.8	1.0	0.15	9.4	796.2	127.7	10,782.3
860.00	1,252.6	73.9	1.0	0.15	9.4	805.7	127.8	10,910.1
870.00	1,253.0	74.0	1.0	0.15	9.4	815.1	127.8	11,037.9
880.00	1,253.4	74.0	1.0	0.15	9.4	824.5	127.8	11,165.7
890.00	1,253.9	74.1	1.0	0.15	9.4	834.0	127.8	11,293.5
900.00	1,254.3	74.1	1.0	0.15	9.4	843.4	127.9	11,421.4
910.00	1,254.7	74.2	1.0	0.15	9.4	852.9	127.9	11,549.3
920.00	1,255.1	74.3	1.0	0.15	9.4	862.3	127.9	11,677.2
930.00	1,255.6	74.4	1.0	0.15	9.4	871.8	127.9	11,805.1
940.00	1,256.0	74.4	1.0	0.15	9.4	881.2	128.0	11,933.1
950.00	1,256.4	74.5	1.0	0.15	9.5	890.7	128.0	12,061.1
960.00	1,256.8	74.6	1.0	0.15	9.5	900.1	128.0	12,189.1
970.00	1,257.3	74.7	1.0	0.15	9.5	909.6	128.0	12,317.1
980.00	1,257.7	74.7	1.0	0.15	9.5	919.0	128.0	12,445.1
990.00	1,258.1	74.8	1.0	0.15	9.5	928.5	128.1	12,573.2
1,000.00	1,258.5	74.9	1.0	0.15	9.5	937.9	128.1	12,701.3
1,010.00	1,259.0	75.0	1.0	0.15	9.5	947.4	128.1	12,829.4
1,020.00	1,259.4	75.0	1.0	0.15	9.5	956.9	128.1	12,957.5
1,030.00	1,259.8	75.1	1.0	0.15	9.5	966.3	128.2	13,085.7
1,040.00	1,260.2	75.2	1.0	0.15	9.5	975.8	128.2	13,213.9
1,050.00	1,260.7	75.3	1.0	0.15	9.5	985.3	128.2	13,342.1
1,060.00	1,261.1	75.3	1.0	0.15	9.5	994.7	128.2	13,470.3
1,070.00	1,261.5	75.4	1.0	0.15	9.5	1,004.2	128.2	13,598.5
1,080.00	1,261.9	75.5	1.0	0.15	9.5	1,013.7	128.3	13,726.8
1,090.00	1,262.4	75.6	1.0	0.15	9.5	1,023.2	128.3	13,855.1
1,100.00	1,262.8	75.6	1.0	0.15	9.5	1,032.6	128.3	13,983.4
1,110.00	1,263.2	75.7	1.0	0.15	9.5	1,042.1	128.3	14,111.8
1,120.00	1,263.7	75.8	1.0	0.15	9.5	1,051.6	128.4	14,240.1
1,130.00	1,264.1	75.8	1.0	0.15	9.5	1,061.1	128.4	14,368.5
1,140.00	1,264.5	75.9	1.0	0.15	9.5	1,070.6	128.4	14,496.9
1,150.00	1,264.9	76.0	1.0	0.15	9.5	1,080.0	128.4	14,625.4
1,160.00	1,265.4	76.0	1.0	0.15	9.5	1,089.5	128.5	14,753.8
1,170.00	1,265.8	76.1	1.0	0.15	9.5	1,099.0	128.5	14,882.3
1,180.00	1,266.2	76.1	1.0	0.15	9.5	1,108.5	128.5	15,010.8
1,190.00	1,266.6	76.2	1.0	0.15	9.5	1,118.0	128.5	15,139.4
1,200.00	1,267.1	76.2	1.0	0.15	9.5	1,127.5	128.6	15,268.0

FINAL CAVERN MASS BALANCE CALCULATIONS

Well Name:	State LPG Storage No. 4	FINAL	11/22/22 2:09 PM		
Operator:	Marathon Petroleum Company, LLC	1201.6			
Project No.:	192025AT	psig			

Depth (ft)	Pressure (psia)	Temperature (°F)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
1,210.00	1,267.5	76.3	1.0	0.15	9.5	1,137.0	128.6	15,396.6
1,220.00	1,267.9	76.3	1.0	0.15	9.5	1,146.5	128.6	15,525.2
1,230.00	1,268.4	76.4	1.0	0.15	9.5	1,156.0	128.7	15,653.9
1,240.00	1,268.8	76.4	1.0	0.15	9.5	1,165.5	128.7	15,782.6
1,250.00	1,269.2	76.4	1.0	0.15	9.5	1,175.0	128.7	15,911.3
1,260.00	1,269.6	76.5	1.0	0.15	9.5	1,184.5	128.8	16,040.1
1,270.00	1,270.1	76.5	1.0	0.15	9.5	1,194.0	128.8	16,168.9
1,280.00	1,270.5	76.5	1.0	0.15	9.5	1,203.5	128.8	16,297.7
1,290.00	1,270.9	76.6	1.0	0.15	9.5	1,213.0	128.9	16,426.6
1,300.00	1,271.4	76.6	1.0	0.15	9.5	1,222.6	128.9	16,555.5
1,310.00	1,271.8	76.7	1.0	0.15	9.5	1,232.1	128.9	16,684.4
1,320.00	1,272.2	76.7	1.0	0.15	9.5	1,241.6	129.0	16,813.3
1,330.00	1,272.6	76.8	1.0	0.15	9.5	1,251.1	129.0	16,942.3
1,340.00	1,273.1	76.8	1.0	0.15	9.5	1,260.7	129.0	17,071.3
1,350.00	1,273.5	76.9	1.0	0.15	9.5	1,270.2	129.0	17,200.4
1,360.00	1,273.9	76.9	1.0	0.15	9.5	1,279.7	129.1	17,329.5
1,370.00	1,274.4	76.9	1.0	0.15	9.5	1,289.3	129.1	17,458.6
1,380.00	1,274.8	77.0	1.0	0.15	9.5	1,298.8	129.1	17,587.7
1,390.00	1,275.2	77.0	1.0	0.15	9.5	1,308.3	129.2	17,716.9
1,400.00	1,275.6	77.1	1.0	0.15	9.5	1,317.9	129.2	17,846.1
1,410.00	1,276.1	77.1	1.0	0.15	9.5	1,327.4	129.2	17,975.3
1,420.00	1,276.5	77.2	1.0	0.15	9.5	1,337.0	129.3	18,104.6
1,430.00	1,276.9	77.2	1.0	0.15	9.5	1,346.5	129.3	18,233.8
1,440.00	1,277.4	77.3	1.0	0.15	9.5	1,356.1	129.3	18,363.2
1,450.00	1,277.8	77.3	1.0	0.15	9.6	1,365.6	129.3	18,492.5
1,460.00	1,278.2	77.4	1.0	0.15	9.6	1,375.2	129.4	18,621.9
1,470.00	1,278.7	77.4	1.0	0.15	9.6	1,384.7	129.4	18,751.3
1,480.00	1,279.1	77.4	1.0	0.15	9.6	1,394.3	129.4	18,880.7
1,490.00	1,279.5	77.5	1.0	0.15	9.6	1,403.8	129.5	19,010.2
1,500.00	1,279.9	77.5	1.0	0.15	9.6	1,413.4	129.5	19,139.7
1,510.00	1,280.4	77.5	1.0	0.15	9.6	1,423.0	129.5	19,269.3
1,520.00	1,280.8	77.6	1.0	0.15	9.6	1,432.5	129.6	19,398.8
1,530.00	1,281.2	77.6	1.0	0.15	9.6	1,442.1	129.6	19,528.4
1,540.00	1,281.7	77.6	1.0	0.15	9.6	1,451.7	129.6	19,658.1
1,550.00	1,282.1	77.7	1.0	0.15	9.6	1,461.3	129.7	19,787.7
1,560.00	1,282.5	77.7	1.0	0.15	9.6	1,470.8	129.7	19,917.4
1,570.00	1,283.0	77.7	1.0	0.15	9.6	1,480.4	129.7	20,047.2
1,580.00	1,283.4	77.8	1.0	0.15	9.6	1,490.0	129.8	20,177.0
1,590.00	1,283.8	77.8	1.0	0.15	9.6	1,499.6	129.8	20,306.8
1,600.00	1,284.3	77.8	1.0	0.15	9.6	1,509.2	129.8	20,436.6
1,610.00	1,284.7	77.8	1.0	0.15	9.6	1,518.8	129.9	20,566.5
1,620.00	1,285.1	77.9	1.0	0.15	9.6	1,528.4	129.9	20,696.4
1,630.00	1,285.6	77.9	1.0	0.15	9.6	1,538.0	130.0	20,826.4
1,640.00	1,286.0	77.9	1.0	0.15	9.6	1,547.6	130.0	20,956.4
1,650.00	1,286.4	77.9	1.0	0.15	9.6	1,557.2	130.0	21,086.4
1,659.00	1,286.8	77.9	1.0	0.15	8.6	1,565.8	117.1	21,203.5
1,661.50	1,286.9	78.0	1.0	135.02	2,102.6	3,668.4	28,472.7	49,676.2
1,662.50	1,287.0	78.0	1.0	169.34	1,054.9	4,723.3	14,284.3	63,960.5
1,663.00	1,287.0	78.0	1.0	386.48	1,203.7	5,927.0	16,300.5	80,261.0
1,663.50	1,287.0	78.0	1.0	124.48	387.7	6,314.7	5,250.4	85,511.4
1,663.75	1,287.0	78.0	1.0	430.99	671.2	6,985.9	9,089.1	94,600.5
1,664.25	1,287.0	78.0	1.0	223.46	696.0	7,682.0	9,425.1	104,025.6
1,664.75	1,287.1	78.0	1.0	216.74	675.1	8,357.0	9,141.7	113,167.3
1,665.50	1,287.1	78.0	1.0	150.34	702.4	9,059.5	9,512.1	122,679.4
1,666.00	1,287.1	78.0	1.0	227.69	709.2	9,768.7	9,604.0	132,283.4
1,666.50	1,287.1	78.0	1.0	214.48	668.1	10,436.8	9,046.9	141,330.3
1,667.00	1,287.2	78.0	1.0	219.52	683.8	11,120.6	9,259.7	150,590.0
1,668.25	1,287.2	78.0	1.0	180.49	1,405.6	12,526.2	19,034.1	169,624.0
1,669.25	1,287.3	78.0	1.0	216.84	1,351.0	13,877.2	18,294.4	187,918.4
1,670.50	1,287.3	78.0	1.0	179.19	1,395.5	15,272.7	18,897.7	206,816.1
1,671.75	1,287.4	78.0	1.0	172.02	1,339.8	16,612.5	18,142.4	224,958.5

FINAL CAVERN MASS BALANCE CALCULATIONS

Well Name:	State LPG Storage No. 4	FINAL	**11/22/22 2:09 PM**
Operator:	Marathon Petroleum Company, LLC	1201.6	
Project No.:	192025AT	psig	

Depth (ft)	Pressure (psia)	Temperature (°F)	Zave	Unit Volume (ft^3/ft)	Mass (lb)	Cumulative Mass (lb)	Volume (SCF)	Cumulative Volume (SCF)
1,672.50	1,287.4	78.0	1.0	304.18	1,421.5	18,033.9	19,248.8	244,207.3
1,675.00	1,287.5	78.0	1.0	127.49	1,986.0	20,019.9	26,893.5	271,100.8
1,679.00	1,287.7	78.0	1.0	59.78	1,490.1	21,510.0	20,177.8	291,278.5
1,679.50	1,287.7	78.0	1.0	45.57	142.0	21,652.0	1,923.1	293,201.6
Averages:	**Pressure 1,255.1**	**Temperature 73.7**	**Zave 1.00**				**Total Volume (SCF)**	**293,201.6**

APPENDIX

F. TEST DATA

MIT INJECTION DATA

POST INJECTION MIT DATA

WELLBORE TEMPERATURE DATA

MIT INJECTION DATA						
Well Name: State LPG Storage No. 4					Project No.: 192025AT	
Operator: Marathon Petroleum Company, LLC					WSP Rep. Gabriel Holmes	
Well Location: Lea / NM					Start Injection: 11/19/22 12:20	
Wireline Company: Sonic Surveys					End Injection: 11/20/22 11:10	
Nitrogen Supplier/Pumper: CUDD					Data Interval (min.): varies	
Date & Time	Annular Pressure psig	Tubular Pressure psig	Ambient Temperature °F	Injected Fluid Temperature °F	Injection Rate SCFM	Injection Volume SCF
11/19/22 12:20	144.1	109.3	38.8	34.1	82.2	22.2
11/19/22 12:21	245.0	121.5	38.8	31.8	579.3	533.4
11/19/22 12:22	312.3	129.5	38.8	31.3	565.8	1,112.8
11/19/22 12:23	366.4	135.5	38.9	30.8	583.4	1,694.9
11/19/22 12:24	412.9	140.2	38.9	30.1	589.6	2,279.0
11/19/22 12:25	455.7	145.3	38.9	31.0	658.1	2,883.6
11/19/22 12:26	492.5	149.8	38.8	32.0	593.9	3,471.4
11/19/22 12:27	527.5	155.1	38.8	35.2	604.2	4,073.5
11/19/22 12:28	559.6	157.4	38.8	39.0	598.0	4,676.7
11/19/22 12:29	589.5	161.7	38.7	42.0	597.8	5,278.7
11/19/22 12:30	618.6	165.0	38.7	45.6	598.5	5,881.8
11/19/22 12:31	646.6	168.7	38.7	49.0	603.0	6,486.4
11/19/22 12:32	672.2	171.6	38.7	52.0	611.6	7,091.2
11/19/22 12:33	697.7	174.0	38.8	54.6	603.2	7,695.9
11/19/22 12:34	721.4	176.6	38.8	56.5	599.9	8,300.7
11/19/22 12:35	744.5	179.4	38.9	58.0	606.9	8,906.4
11/19/22 12:36	767.0	182.5	38.9	59.3	603.3	9,512.3
11/19/22 12:37	788.3	184.9	38.9	60.4	606.0	10,118.2
11/19/22 12:38	808.4	187.4	39.0	61.4	607.2	10,725.2
11/19/22 12:39	828.0	189.2	39.0	62.5	609.4	11,332.8
11/19/22 12:40	848.6	191.4	39.1	63.5	614.2	11,940.9
11/19/22 12:41	868.4	193.7	39.1	64.5	602.4	12,549.4
11/19/22 12:42	887.4	195.8	39.2	65.1	616.7	13,160.2
11/19/22 12:43	905.7	198.6	39.2	65.1	613.0	13,771.1
11/19/22 12:44	924.5	200.7	39.3	65.1	677.5	14,380.9
11/19/22 12:45	940.9	202.8	39.4	65.1	598.0	14,993.4
11/19/22 12:46	958.5	204.5	39.5	65.4	625.5	15,604.7
11/19/22 12:47	975.3	206.3	39.6	66.4	659.7	16,219.6
11/19/22 12:48	986.3	210.5	39.8	66.8	643.8	16,829.8
11/19/22 12:49	996.6	211.8	39.9	66.7	653.2	17,445.2
11/19/22 12:50	1,006.8	214.2	40.0	66.3	678.1	18,062.2
11/19/22 12:51	1,016.3	216.6	40.2	65.9	246.6	18,656.2
11/19/22 12:52	1,016.1	216.4	40.3	0.0	0.0	18,657.1
11/19/22 12:53	1,015.9	216.6	40.5	0.0	0.0	18,657.1
11/19/22 12:54	1,015.8	216.1	40.5	0.0	0.0	18,657.1
11/19/22 12:55	1,015.7	216.0	40.5	0.0	0.0	18,657.1
11/19/22 12:56	1,015.6	215.9	40.5	0.0	0.0	18,657.1
11/19/22 12:57	1,008.9	216.1	40.3	0.0	0.0	18,657.1
11/19/22 12:58	1,006.1	236.0	40.2	0.0	0.0	18,657.1
11/19/22 12:59	1,004.7	235.9	40.1	0.0	0.0	18,657.1
11/19/22 13:00	1,003.6	235.8	40.0	0.0	0.0	18,657.1
11/19/22 13:01	1,002.9	89.9	39.8	0.0	0.0	18,657.1
11/19/22 13:02	1,002.2	-1.3	39.7	0.0	0.0	18,657.1
11/19/22 13:03	1,001.3	-1.3	39.6	0.0	0.0	18,657.1
11/19/22 13:04	944.4	-1.3	39.6	0.0	0.0	18,657.1
11/19/22 13:05	794.8	-1.2	39.6	0.0	0.0	18,657.1
11/19/22 13:06	652.8	-1.2	39.7	0.0	0.0	18,657.1
11/19/22 13:07	-2.3	-1.2	39.8	0.0	0.0	18,657.1
11/19/22 13:08	-2.4	-1.3	39.9	0.0	0.0	18,657.1
11/19/22 13:09	-2.4	-1.3	40.1	0.0	0.0	18,657.1
11/19/22 13:10	-2.3	-1.3	40.3	0.0	0.0	18,657.1
11/19/22 13:11	-2.3	-1.3	40.4	0.0	0.0	18,657.1
11/19/22 13:12	-2.3	-1.3	40.5	0.0	0.0	18,657.1
11/19/22 13:13	-2.3	-1.3	40.7	0.0	0.0	18,657.1
11/19/22 13:14	1.0	-1.3	40.9	0.0	0.0	18,657.1
11/19/22 13:15	73.4	198.0	41.2	0.0	0.0	18,657.1
11/19/22 13:16	1,014.8	214.9	41.5	0.0	0.0	18,658.3
11/19/22 13:17	1,014.8	214.9	41.6	0.0	0.0	18,658.7

MIT INJECTION DATA						
Well Name: State LPG Storage No. 4					Project No.: 192025AT	
Operator: Marathon Petroleum Company, LLC					WSP Rep. Gabriel Holmes	
Well Location: Lea / NM					Start Injection: 11/19/22 12:20	
Wireline Company: Sonic Surveys					End Injection: 11/20/22 11:10	
Nitrogen Supplier/Pumper: CUDD					Data Interval (min.): varies	
Date & Time	Annular Pressure psig	Tubular Pressure psig	Ambient Temperature °F	Injected Fluid Temperature °F	Injection Rate SCFM	Injection Volume SCF
11/19/22 13:18	1,014.7	215.0	41.7	0.0	0.0	18,658.7
11/19/22 13:19	1,014.6	214.9	41.7	0.0	0.0	18,658.7
11/19/22 13:20	1,014.6	214.9	41.7	0.0	0.0	18,658.7
11/19/22 13:21	1,014.6	214.9	41.6	0.0	0.0	18,658.7
11/19/22 13:22	1,014.6	214.9	41.5	0.0	0.0	18,658.7
11/19/22 13:23	1,014.5	214.8	41.4	0.0	0.0	18,658.7
11/19/22 13:24	1,014.5	214.8	41.3	0.0	0.0	18,658.7
11/19/22 13:25	1,014.5	214.1	41.2	0.0	0.0	18,658.7
11/19/22 13:26	1,014.5	214.1	41.2	0.0	0.0	18,658.7
11/19/22 13:27	1,014.5	214.7	41.2	0.0	0.0	18,658.7
11/19/22 13:28	1,014.5	214.6	41.3	0.0	0.0	18,658.7
11/19/22 13:29	1,014.4	214.6	41.4	0.0	0.0	18,658.7
11/19/22 13:30	1,014.4	214.6	41.5	0.0	0.0	18,658.7
11/19/22 13:31	1,014.4	214.6	41.5	0.0	0.0	18,658.7
11/19/22 13:32	1,014.3	214.5	41.5	0.0	0.0	18,658.7
11/19/22 13:33	1,014.3	214.5	41.5	0.0	0.0	18,658.7
11/19/22 13:34	1,014.3	214.5	41.5	0.0	0.0	18,658.7
11/19/22 13:35	1,014.3	214.5	41.5	0.0	0.0	18,658.7
11/19/22 13:36	1,014.2	214.5	41.5	0.0	0.0	18,658.7
11/19/22 13:37	1,014.2	214.5	41.4	0.0	0.0	18,658.7
11/19/22 13:38	1,014.2	214.5	41.4	0.0	0.0	18,658.7
11/19/22 13:39	1,014.2	214.4	41.4	0.0	0.0	18,658.7
11/19/22 13:40	1,014.2	214.3	41.3	0.0	0.0	18,658.7
11/19/22 13:41	1,014.1	214.3	41.3	0.0	0.0	18,658.7
11/19/22 13:42	1,014.1	214.2	41.2	0.0	0.0	18,658.7
11/19/22 13:43	1,014.1	214.1	41.2	0.0	0.0	18,658.7
11/19/22 13:44	1,014.1	214.5	41.2	0.0	0.0	18,658.7
11/19/22 13:45	1,014.1	214.2	41.3	0.0	0.0	18,658.7
11/19/22 13:46	1,014.1	214.2	41.3	0.0	0.0	18,658.7
11/19/22 13:47	1,014.1	214.2	41.3	0.0	0.0	18,658.7
11/19/22 13:48	1,014.1	214.2	41.4	0.0	0.0	18,658.7
11/19/22 13:49	1,014.0	214.2	41.5	0.0	0.0	18,658.7
11/19/22 13:50	1,014.0	214.2	41.7	0.0	0.0	18,658.7
11/19/22 13:51	1,014.0	214.2	41.8	0.0	0.0	18,658.7
11/19/22 13:52	1,014.0	214.2	42.0	0.0	0.0	18,658.7
11/19/22 13:53	1,014.0	214.2	42.1	0.0	0.0	18,658.7
11/19/22 13:54	1,014.0	214.1	42.2	0.0	0.0	18,658.7
11/19/22 13:55	1,014.0	214.1	42.3	0.0	0.0	18,658.7
11/19/22 13:56	1,014.0	214.0	42.4	0.0	0.0	18,658.7
11/19/22 13:57	1,013.9	213.9	42.5	0.0	0.0	18,658.7
11/19/22 13:58	1,013.9	213.8	42.6	0.0	0.0	18,658.7
11/19/22 13:59	1,013.9	213.8	42.6	0.0	0.0	18,658.7
11/19/22 14:00	1,013.9	213.8	42.6	0.0	0.0	18,658.7
11/19/22 14:01	1,013.9	214.0	42.6	0.0	0.0	18,658.7
11/19/22 14:02	1,013.9	213.9	42.7	0.0	0.0	18,658.7
11/19/22 14:03	1,013.9	213.9	42.6	0.0	0.0	18,658.7
11/19/22 14:04	1,013.8	213.9	42.6	0.0	0.0	18,658.7
11/19/22 14:05	1,013.8	213.9	42.5	0.0	0.0	18,658.7
11/19/22 14:06	1,013.8	213.9	42.4	0.0	0.0	18,658.7
11/19/22 14:07	1,013.8	213.9	42.4	0.0	0.0	18,658.7
11/19/22 14:08	1,013.8	213.9	42.3	0.0	0.0	18,658.7
11/19/22 14:09	1,013.8	213.8	42.2	0.0	0.0	18,658.7
11/19/22 14:10	1,013.8	213.8	42.2	0.0	0.0	18,658.7
11/19/22 14:11	1,013.8	213.8	42.2	0.0	0.0	18,658.7
11/19/22 14:12	1,013.7	213.7	42.1	0.0	0.0	18,658.7
11/19/22 14:13	1,013.7	213.8	42.1	0.0	0.0	18,658.7
11/19/22 14:14	1,013.7	213.8	42.1	0.0	0.0	18,658.7
11/19/22 14:15	1,013.7	213.8	42.1	0.0	0.0	18,658.7

MIT INJECTION DATA						
Well Name: State LPG Storage No. 4					Project No.: 192025AT	
Operator: Marathon Petroleum Company, LLC					WSP Rep. Gabriel Holmes	
Well Location: Lea / NM					Start Injection: 11/19/22 12:20	
Wireline Company: Sonic Surveys					End Injection: 11/20/22 11:10	
Nitrogen Supplier/Pumper: CUDD					Data Interval (min.): varies	
Date & Time	Annular Pressure psig	Tubular Pressure psig	Ambient Temperature °F	Injected Fluid Temperature °F	Injection Rate SCFM	Injection Volume SCF
11/19/22 14:16	1,013.7	213.8	42.1	0.0	0.0	18,658.7
11/19/22 14:17	1,013.7	213.7	42.1	0.0	0.0	18,658.7
11/19/22 14:18	1,013.7	213.7	42.1	0.0	0.0	18,658.7
11/19/22 14:19	1,013.7	213.8	42.1	0.0	0.0	18,658.7
11/19/22 14:20	1,013.7	213.8	42.2	0.0	0.0	18,658.7
11/19/22 14:21	1,013.7	213.8	42.2	0.0	0.0	18,658.7
11/19/22 14:22	1,013.7	213.7	42.3	0.0	0.0	18,658.7
11/19/22 14:23	1,013.6	213.7	42.3	0.0	0.0	18,658.7
11/19/22 14:24	1,013.6	213.7	42.4	0.0	0.0	18,658.7
11/19/22 14:25	1,013.6	213.7	42.5	0.0	0.0	18,660.0
11/19/22 14:26	1,013.6	213.5	42.5	0.0	0.0	18,660.0
11/19/22 14:27	1,013.6	213.5	42.6	0.0	0.0	18,660.0
11/19/22 14:28	1,013.6	213.6	42.7	0.0	0.0	18,660.0
11/19/22 14:29	1,013.6	213.6	42.8	0.0	0.0	18,660.0
11/19/22 14:30	1,013.6	213.6	42.9	0.0	0.0	18,660.0
11/19/22 14:31	1,013.6	213.5	42.9	0.0	0.0	18,660.0
11/19/22 14:32	1,013.5	213.5	42.9	0.0	0.0	18,660.0
11/19/22 14:33	1,013.5	213.5	42.9	0.0	0.0	18,660.0
11/19/22 14:34	1,013.5	213.5	42.9	0.0	0.0	18,660.0
11/19/22 14:35	1,013.5	213.5	42.9	0.0	0.0	18,660.0
11/19/22 14:36	1,013.5	213.5	42.9	0.0	0.0	18,660.0
11/19/22 14:37	1,013.5	213.5	42.9	0.0	0.0	18,660.0
11/19/22 14:38	1,013.5	213.5	43.0	0.0	0.0	18,660.0
11/19/22 14:39	1,013.5	213.5	43.0	0.0	0.0	18,660.0
11/19/22 14:40	1,013.5	213.5	43.1	0.0	0.0	18,660.0
11/19/22 14:41	1,013.5	213.4	43.1	0.0	0.0	18,660.0
11/19/22 14:42	1,013.5	213.4	43.1	0.0	0.0	18,660.0
11/19/22 14:43	1,013.5	215.5	43.2	0.0	0.0	18,660.0
11/19/22 14:44	1,013.4	213.4	43.2	0.0	0.0	18,660.0
11/19/22 14:45	1,013.4	213.4	43.2	0.0	0.0	18,660.0
11/19/22 14:46	1,013.4	213.4	43.3	0.0	0.0	18,660.0
11/19/22 14:47	1,013.4	213.3	43.3	0.0	0.0	18,660.0
11/19/22 14:48	1,013.4	213.3	43.4	0.0	0.0	18,660.0
11/19/22 14:49	1,013.2	203.5	43.4	0.0	0.0	18,660.0
11/19/22 14:50	1,013.2	213.5	43.4	0.0	0.0	18,660.0
11/19/22 14:51	1,013.2	213.1	43.3	0.0	0.0	18,660.0
11/19/22 14:52	1,013.2	213.1	43.2	0.0	0.0	18,660.0
11/19/22 14:53	1,013.1	213.1	43.1	0.0	0.0	18,661.5
11/19/22 14:54	1,016.7	214.0	43.0	37.2	550.0	18,876.0
11/19/22 14:55	1,026.0	216.5	42.8	37.7	523.6	19,454.6
11/19/22 14:56	1,033.8	222.2	42.7	45.3	1,311.8	20,611.7
11/19/22 14:57	1,040.1	228.8	42.5	53.8	1,326.5	21,929.9
11/19/22 14:58	1,046.4	235.6	42.4	60.8	1,332.4	23,259.5
11/19/22 14:59	1,052.6	242.0	42.3	65.5	1,323.4	24,588.4
11/19/22 15:00	1,058.8	248.6	42.1	67.8	1,321.5	25,913.0
11/19/22 15:01	1,064.7	254.9	42.0	68.7	1,328.7	27,244.3
11/19/22 15:02	1,070.6	261.2	41.9	68.7	1,333.2	28,578.2
11/19/22 15:03	1,076.6	267.4	41.8	68.8	1,332.1	29,911.5
11/19/22 15:04	1,082.4	273.3	41.7	69.4	1,331.7	31,243.2
11/19/22 15:05	1,088.0	279.4	41.6	69.7	1,337.6	32,574.6
11/19/22 15:06	1,093.8	285.4	41.5	70.8	1,335.8	33,909.4
11/19/22 15:07	1,099.3	291.3	41.4	70.6	1,334.6	35,244.6
11/19/22 15:08	1,104.8	297.1	41.4	69.8	1,329.3	36,575.0
11/19/22 15:09	1,110.1	302.8	41.3	68.9	1,324.3	37,901.5
11/19/22 15:10	1,115.4	308.8	41.3	67.9	1,319.0	39,224.1
11/19/22 15:11	1,120.3	307.3	41.3	67.0	1,315.9	40,543.2
11/19/22 15:12	1,124.6	311.6	41.3	67.4	1,311.2	41,860.5
11/19/22 15:13	1,128.7	314.5	41.3	68.5	1,309.7	43,177.3

MIT INJECTION DATA						
Well Name: State LPG Storage No. 4					Project No.: 192025AT	
Operator: Marathon Petroleum Company, LLC					WSP Rep. Gabriel Holmes	
Well Location: Lea / NM					Start Injection: 11/19/22 12:20	
Wireline Company: Sonic Surveys					End Injection: 11/20/22 11:10	
Nitrogen Supplier/Pumper: CUDD					Data Interval (min.): varies	
Date & Time	Annular Pressure psig	Tubular Pressure psig	Ambient Temperature °F	Injected Fluid Temperature °F	Injection Rate SCFM	Injection Volume SCF
11/19/22 15:14	1,132.8	319.2	41.3	69.9	1,310.2	44,491.8
11/19/22 15:15	1,136.9	323.7	41.2	70.9	1,309.0	45,804.9
11/19/22 15:16	1,140.8	327.8	41.2	71.8	1,310.8	47,116.1
11/19/22 15:17	1,144.9	332.0	41.2	72.7	1,315.7	48,427.3
11/19/22 15:18	1,148.8	336.1	41.3	71.7	1,322.9	49,738.8
11/19/22 15:19	1,152.8	339.3	41.3	71.3	1,334.5	51,064.6
11/19/22 15:20	1,156.7	343.8	41.3	77.2	1,318.7	52,389.4
11/19/22 15:21	1,160.5	347.9	41.3	77.5	1,310.5	53,703.9
11/19/22 15:22	1,164.3	351.9	41.4	74.4	1,317.8	55,026.6
11/19/22 15:23	1,167.8	329.2	41.4	72.4	1,321.5	56,350.7
11/19/22 15:24	1,170.4	331.9	41.4	71.7	1,329.4	57,675.3
11/19/22 15:25	1,173.0	334.6	41.4	73.5	1,333.1	59,001.4
11/19/22 15:26	1,175.6	337.1	41.4	75.0	1,328.5	60,329.8
11/19/22 15:27	1,178.1	340.3	41.4	75.9	1,325.7	61,659.4
11/19/22 15:28	1,180.6	342.6	41.5	76.2	1,330.5	62,992.5
11/19/22 15:29	1,183.3	345.0	41.5	75.5	1,338.4	64,328.2
11/19/22 15:30	1,185.8	347.3	41.6	74.2	1,339.0	65,663.1
11/19/22 15:31	1,188.2	348.0	41.7	72.9	1,336.6	66,997.3
11/19/22 15:32	1,190.7	351.8	41.8	71.7	1,333.8	68,330.5
11/19/22 15:33	1,193.0	354.3	41.9	70.5	1,327.9	69,663.2
11/19/22 15:34	1,195.3	356.5	42.0	68.9	1,332.3	70,996.9
11/19/22 15:35	1,197.8	358.9	42.1	68.2	1,336.9	72,330.9
11/19/22 15:36	1,200.2	360.9	42.2	67.9	1,340.4	73,665.6
11/19/22 15:37	1,202.6	363.3	42.3	68.5	1,335.1	75,001.1
11/19/22 15:38	1,203.9	311.8	42.3	68.8	1,338.7	76,338.5
11/19/22 15:39	1,205.0	313.2	42.4	68.8	1,333.8	77,676.1
11/19/22 15:40	1,206.2	314.1	42.4	69.9	255.7	78,937.0
11/19/22 15:41	1,206.2	313.9	42.4	73.1	995.8	79,882.9
11/19/22 15:42	1,205.8	314.7	42.4	76.6	990.7	80,877.9
11/19/22 15:43	1,205.6	312.8	42.4	79.0	994.5	81,869.9
11/19/22 15:44	1,205.6	314.0	42.3	77.3	995.1	82,860.1
11/19/22 15:45	1,205.5	314.2	42.3	77.2	998.1	83,850.9
11/19/22 15:46	1,205.6	314.0	42.3	77.6	988.4	84,840.8
11/19/22 15:47	1,205.5	313.8	42.3	75.4	987.2	85,830.0
11/19/22 15:48	1,205.5	313.9	42.2	73.7	984.7	86,820.5
11/19/22 15:49	1,205.5	313.9	42.2	74.2	992.6	87,813.4
11/19/22 15:50	1,205.2	314.0	42.2	75.1	993.6	88,807.0
11/19/22 15:51	1,205.1	315.9	42.2	75.5	995.7	89,800.8
11/19/22 15:52	1,205.1	313.4	42.2	75.0	993.7	90,792.7
11/19/22 15:53	1,205.3	314.3	42.3	74.3	980.3	91,786.3
11/19/22 15:54	1,205.3	314.4	42.3	79.6	995.7	92,779.5
11/19/22 15:55	1,205.1	314.3	42.3	82.2	993.0	93,772.8
11/19/22 15:56	1,205.2	314.3	42.3	78.8	988.6	94,765.2
11/19/22 15:57	1,205.1	314.4	42.3	69.7	993.2	95,756.2
11/19/22 15:58	1,205.2	314.4	42.4	64.6	995.6	96,746.8
11/19/22 15:59	1,205.2	314.5	42.4	63.4	1,001.3	97,738.6
11/19/22 16:00	1,205.2	314.4	42.4	65.2	994.1	98,731.8
11/19/22 16:01	1,205.2	316.1	42.4	68.1	996.8	99,726.0
11/19/22 16:02	1,205.3	313.0	42.4	70.5	994.7	100,719.9
11/19/22 16:03	1,205.3	314.1	42.5	73.1	991.9	101,714.5
11/19/22 16:04	1,205.5	314.4	42.5	74.6	988.9	102,709.5
11/19/22 16:05	1,205.5	314.9	42.6	75.7	995.4	103,705.6
11/19/22 16:06	1,205.5	314.6	42.6	76.3	994.2	104,701.4
11/19/22 16:07	1,205.3	314.8	42.7	77.6	997.3	105,697.7
11/19/22 16:08	1,205.4	314.9	42.7	78.7	994.9	106,693.9
11/19/22 16:09	1,205.3	314.8	42.7	79.8	995.4	107,690.3
11/19/22 16:10	1,205.3	315.1	42.7	81.4	998.0	108,687.2
11/19/22 16:11	1,205.5	316.9	42.7	82.8	1,001.0	109,684.9

MIT INJECTION DATA						
Well Name: State LPG Storage No. 4					Project No.: 192025AT	
Operator: Marathon Petroleum Company, LLC					WSP Rep. Gabriel Holmes	
Well Location: Lea / NM					Start Injection: 11/19/22 12:20	
Wireline Company: Sonic Surveys					End Injection: 11/20/22 11:10	
Nitrogen Supplier/Pumper: CUDD					Data Interval (min.): varies	
Date & Time	Annular Pressure psig	Tubular Pressure psig	Ambient Temperature °F	Injected Fluid Temperature °F	Injection Rate SCFM	Injection Volume SCF
11/19/22 16:12	1,205.8	314.1	42.7	83.9	998.8	110,682.8
11/19/22 16:13	1,205.8	315.1	42.8	83.2	997.4	111,678.5
11/19/22 16:14	1,205.9	315.1	42.8	81.7	991.9	112,671.5
11/19/22 16:15	1,206.0	315.3	42.8	80.3	991.8	113,663.0
11/19/22 16:16	1,205.9	315.2	42.9	79.6	993.4	114,653.0
11/19/22 16:17	1,205.9	315.2	42.9	78.9	991.9	115,641.0
11/19/22 16:18	1,205.9	315.2	42.9	78.4	984.0	116,627.4
11/19/22 16:19	1,205.9	315.3	42.9	77.9	987.9	117,613.1
11/19/22 16:20	1,205.8	315.3	42.8	77.5	988.8	118,598.2
11/19/22 16:21	1,205.9	316.5	42.8	77.4	989.1	119,582.7
11/19/22 16:22	1,205.9	313.6	42.8	77.4	986.2	120,566.3
11/19/22 16:23	1,206.0	315.3	42.8	77.2	986.6	121,549.0
11/19/22 16:24	1,206.1	315.5	42.8	77.5	986.1	122,531.6
11/19/22 16:25	1,206.1	315.2	42.8	77.6	979.9	123,513.7
11/19/22 16:26	1,206.2	315.1	42.8	77.7	979.8	124,496.0
11/19/22 16:27	1,206.3	315.1	42.7	77.8	979.5	125,478.9
11/19/22 16:28	1,206.3	315.2	42.7	78.0	982.2	126,462.4
11/19/22 16:29	1,206.3	315.4	42.7	77.8	988.6	127,446.2
11/19/22 16:30	1,206.3	315.4	42.6	77.6	983.1	128,430.1
11/19/22 16:31	1,206.3	317.3	42.6	77.6	983.0	129,414.5
11/19/22 16:32	1,206.2	313.9	42.5	77.8	985.5	130,398.6
11/19/22 16:33	1,206.3	315.4	42.5	77.9	991.4	131,383.1
11/19/22 16:34	1,206.4	315.3	42.4	78.0	991.2	132,368.2
11/19/22 16:35	1,206.4	315.7	42.3	78.1	982.1	133,353.6
11/19/22 16:36	1,206.6	315.6	42.3	78.0	988.4	134,339.9
11/19/22 16:37	1,206.7	315.7	42.2	77.8	985.9	135,326.3
11/19/22 16:38	1,206.7	315.7	42.2	78.1	985.4	136,313.5
11/19/22 16:39	1,206.7	315.6	42.1	78.0	982.6	137,300.9
11/19/22 16:40	1,206.7	315.6	42.0	78.1	982.2	138,288.1
11/19/22 16:41	1,206.7	317.0	42.0	78.0	988.4	139,275.8
11/19/22 16:42	1,206.7	314.8	41.9	78.0	985.4	140,263.7
11/19/22 16:43	1,206.8	315.7	41.8	78.0	991.6	141,252.2
11/19/22 16:44	1,206.9	315.7	41.7	78.0	988.7	142,240.9
11/19/22 16:45	1,206.9	315.8	41.6	77.8	995.0	143,230.0
11/19/22 16:46	1,207.0	315.9	41.5	77.9	991.9	144,219.0
11/19/22 16:47	1,207.0	316.0	41.4	77.9	988.9	145,207.8
11/19/22 16:48	1,207.2	316.0	41.4	77.9	989.1	146,196.9
11/19/22 16:49	1,207.4	315.9	41.3	77.7	986.7	147,186.8
11/19/22 16:50	1,207.4	316.6	41.3	77.7	989.7	148,176.7
11/19/22 16:51	1,207.5	317.9	41.2	77.4	987.4	149,167.0
11/19/22 16:52	1,207.5	314.7	41.2	77.4	990.3	150,157.3
11/19/22 16:53	1,207.5	316.2	41.1	77.2	993.8	151,147.3
11/19/22 16:54	1,207.5	316.1	41.0	76.9	994.5	152,138.1
11/19/22 16:55	1,207.6	316.0	41.0	77.0	991.4	153,128.5
11/19/22 16:56	1,207.7	315.9	40.9	76.8	994.9	154,118.9
11/19/22 16:57	1,207.7	315.9	40.9	77.1	991.2	155,109.2
11/19/22 16:58	1,207.9	316.0	40.9	77.3	991.0	156,099.9
11/19/22 16:59	1,208.0	316.4	40.8	77.0	985.7	157,090.7
11/19/22 17:00	1,208.2	316.3	40.8	76.7	986.4	158,081.4
11/19/22 17:01	1,208.2	318.4	40.8	76.3	990.2	159,072.4
11/19/22 17:02	1,208.2	315.1	40.7	75.8	988.4	160,062.8
11/19/22 17:03	1,208.1	316.3	40.7	75.6	985.7	161,053.3
11/19/22 17:04	1,208.1	316.3	40.6	75.0	990.0	162,044.3
11/19/22 17:05	1,208.2	316.5	40.6	74.2	988.8	163,035.0
11/19/22 17:06	1,208.2	316.8	40.6	73.3	990.8	164,026.0
11/19/22 17:07	1,208.4	316.9	40.5	73.0	988.6	165,016.6
11/19/22 17:08	1,208.5	316.9	40.5	72.1	993.6	166,007.3
11/19/22 17:09	1,208.7	316.6	40.5	71.4	995.4	166,998.0

MIT INJECTION DATA						
Well Name: State LPG Storage No. 4					Project No.: 192025AT	
Operator: Marathon Petroleum Company, LLC					WSP Rep. Gabriel Holmes	
Well Location: Lea / NM					Start Injection: 11/19/22 12:20	
Wireline Company: Sonic Surveys					End Injection: 11/20/22 11:10	
Nitrogen Supplier/Pumper: CUDD					Data Interval (min.): varies	
Date & Time	Annular Pressure psig	Tubular Pressure psig	Ambient Temperature °F	Injected Fluid Temperature °F	Injection Rate SCFM	Injection Volume SCF
11/19/22 17:10	1,208.7	316.7	40.5	70.5	991.4	167,988.7
11/19/22 17:11	1,208.8	317.0	40.5	69.7	984.1	168,979.4
11/19/22 17:12	1,209.0	316.8	40.4	70.5	991.6	169,971.7
11/19/22 17:13	1,209.1	317.0	40.4	75.5	992.8	170,965.2
11/19/22 17:14	1,209.0	317.3	40.4	78.3	992.6	171,959.4
11/19/22 17:15	1,209.0	317.2	40.4	78.7	994.7	172,953.7
11/19/22 17:16	1,209.0	317.2	40.4	77.9	993.5	173,946.8
11/19/22 17:17	1,209.0	317.2	40.4	76.9	998.7	174,940.1
11/19/22 17:18	1,209.1	317.4	40.4	76.2	994.3	175,933.1
11/19/22 17:19	1,209.2	317.3	40.4	75.9	992.0	176,927.0
11/19/22 17:20	1,209.4	315.9	40.4	75.7	995.6	177,921.0
11/19/22 17:21	1,209.5	319.3	40.5	75.7	992.6	178,915.1
11/19/22 17:22	1,209.7	316.5	40.5	75.6	984.0	179,906.5
11/19/22 17:23	1,209.7	317.1	40.5	75.5	984.1	180,896.0
11/19/22 17:24	1,209.6	317.4	40.5	75.5	990.1	181,884.7
11/19/22 17:25	1,209.7	317.5	40.4	75.4	987.5	182,871.1
11/19/22 17:26	1,209.5	317.5	40.4	75.1	988.0	183,856.2
11/19/22 17:27	1,209.7	317.3	40.4	75.1	988.0	184,840.1
11/19/22 17:28	1,209.8	317.5	40.4	75.5	981.4	185,823.8
11/19/22 17:29	1,209.9	317.6	40.4	75.6	981.1	186,807.3
11/19/22 17:30	1,210.0	317.7	40.3	76.0	983.5	187,790.0
11/19/22 17:31	1,210.0	317.6	40.3	76.3	979.7	188,771.5
11/19/22 17:32	1,210.1	317.7	40.3	76.5	982.4	189,752.9
11/19/22 17:33	1,210.1	317.8	40.3	76.8	978.7	190,734.6
11/19/22 17:34	1,210.2	317.6	40.3	76.8	981.7	191,716.2
11/19/22 17:35	1,210.3	317.9	40.3	76.8	984.8	192,699.0
11/19/22 17:36	1,210.2	317.8	40.2	76.9	984.7	193,681.5
11/19/22 17:37	1,210.3	317.9	40.2	76.6	982.2	194,664.7
11/19/22 17:38	1,210.4	317.9	40.2	76.2	980.2	195,647.5
11/19/22 17:39	1,210.2	317.9	40.1	75.8	984.0	196,630.9
11/19/22 17:40	1,210.2	318.1	40.1	75.4	984.8	197,614.4
11/19/22 17:41	1,210.4	319.9	40.1	75.7	990.3	198,598.3
11/19/22 17:42	1,210.3	317.4	40.1	75.5	987.7	199,582.4
11/19/22 17:43	1,210.4	318.1	40.0	75.9	983.8	200,567.0
11/19/22 17:44	1,210.6	317.9	40.0	76.0	987.0	201,551.8
11/19/22 17:45	1,210.7	317.8	39.9	76.1	986.8	202,537.1
11/19/22 17:46	1,210.7	318.1	39.9	76.3	983.2	203,522.8
11/19/22 17:47	1,211.0	317.9	39.9	76.6	982.9	204,509.1
11/19/22 17:48	1,210.9	318.1	39.9	76.5	983.1	205,495.9
11/19/22 17:49	1,210.8	318.0	39.9	76.4	986.1	206,483.1
11/19/22 17:50	1,211.0	318.0	39.9	76.4	986.2	207,469.9
11/19/22 17:51	1,210.8	318.4	39.9	76.0	990.0	208,457.1
11/19/22 17:52	1,210.8	318.3	39.9	75.0	989.2	209,444.7
11/19/22 17:53	1,210.9	318.5	39.9	75.0	989.4	210,433.0
11/19/22 17:54	1,211.1	318.5	39.9	75.2	991.9	211,421.4
11/19/22 17:55	1,211.1	318.6	39.9	75.5	991.5	212,410.0
11/19/22 17:56	1,211.3	318.4	40.0	75.6	988.3	213,398.7
11/19/22 17:57	1,211.5	318.7	40.0	75.6	988.4	214,387.9
11/19/22 17:58	1,211.5	318.8	40.0	76.0	984.7	215,376.9
11/19/22 17:59	1,211.5	319.1	40.0	76.4	986.7	216,366.1
11/19/22 18:00	1,211.6	318.5	40.0	76.9	988.8	217,355.1
11/19/22 18:01	1,211.6	320.4	40.0	76.9	988.8	218,344.2
11/19/22 18:02	1,211.4	317.7	40.0	76.4	995.6	219,334.7
11/19/22 18:03	1,211.7	318.7	40.0	77.0	994.6	220,324.9
11/19/22 18:04	1,211.8	318.6	40.0	76.6	995.4	221,315.1
11/19/22 18:05	1,212.0	318.5	40.0	77.2	991.4	222,305.6
11/19/22 18:06	1,211.9	319.0	40.0	77.3	991.2	223,296.0
11/19/22 18:07	1,211.9	319.2	40.0	77.6	987.5	224,286.9

MIT INJECTION DATA						
Well Name: State LPG Storage No. 4					Project No.: 192025AT	
Operator: Marathon Petroleum Company, LLC					WSP Rep. Gabriel Holmes	
Well Location: Lea / NM					Start Injection: 11/19/22 12:20	
Wireline Company: Sonic Surveys					End Injection: 11/20/22 11:10	
Nitrogen Supplier/Pumper: CUDD					Data Interval (min.): varies	
Date & Time	Annular Pressure psig	Tubular Pressure psig	Ambient Temperature °F	Injected Fluid Temperature °F	Injection Rate SCFM	Injection Volume SCF
11/19/22 18:08	1,212.1	319.1	40.1	77.9	990.1	225,278.1
11/19/22 18:09	1,212.0	319.1	40.1	77.9	989.9	226,269.3
11/19/22 18:10	1,212.1	319.1	40.1	78.1	995.5	227,260.8
11/19/22 18:11	1,212.1	319.0	40.1	78.3	992.2	228,251.9
11/19/22 18:12	1,212.2	319.4	40.0	78.5	994.7	229,243.3
11/19/22 18:13	1,212.3	319.0	40.0	78.5	991.9	230,234.6
11/19/22 18:14	1,212.4	319.1	40.0	78.4	992.2	231,226.7
11/19/22 18:15	1,212.7	319.2	40.0	78.5	989.2	232,219.0
11/19/22 18:16	1,212.8	319.2	40.0	78.8	988.6	233,211.0
11/19/22 18:17	1,212.7	319.2	40.0	78.5	992.2	234,204.1
11/19/22 18:18	1,212.7	319.5	40.0	78.2	986.8	235,195.0
11/19/22 18:19	1,212.6	319.3	40.0	77.9	993.4	236,185.3
11/19/22 18:20	1,212.7	319.3	40.0	77.4	994.6	237,175.8
11/19/22 18:21	1,212.9	321.1	40.1	77.2	989.2	238,164.6
11/19/22 18:22	1,213.1	318.1	40.1	76.7	990.2	239,151.1
11/19/22 18:23	1,213.2	321.4	40.1	76.4	985.1	240,138.9
11/19/22 18:24	1,213.2	319.5	40.0	76.2	985.5	241,127.6
11/19/22 18:25	1,213.0	319.5	40.0	77.2	989.2	242,116.2
11/19/22 18:26	1,213.3	319.5	40.0	77.8	991.1	243,102.5
11/19/22 18:27	1,213.0	319.5	40.0	77.3	991.9	244,091.1
11/19/22 18:28	1,213.1	319.4	40.0	77.0	986.7	245,078.5
11/19/22 18:29	1,213.3	319.6	39.9	76.8	984.2	246,066.0
11/19/22 18:30	1,213.4	319.7	39.9	76.6	987.9	247,053.2
11/19/22 18:31	1,213.5	319.7	39.9	75.9	983.4	248,039.4
11/19/22 18:32	1,213.6	319.9	39.8	73.6	985.3	249,026.4
11/19/22 18:33	1,213.7	319.9	39.8	72.2	991.4	250,016.8
11/19/22 18:34	1,213.5	319.9	39.7	72.0	1,001.0	251,011.3
11/19/22 18:35	1,213.6	320.0	39.7	73.8	997.0	252,003.3
11/19/22 18:36	1,213.8	319.8	39.7	77.4	989.3	252,995.0
11/19/22 18:37	1,213.9	320.2	39.6	77.8	985.5	253,976.5
11/19/22 18:38	1,213.7	320.1	39.6	76.9	993.5	254,963.6
11/19/22 18:39	1,213.8	320.1	39.5	77.9	985.2	255,950.3
11/19/22 18:40	1,214.2	321.1	39.5	77.9	979.6	256,934.6
11/19/22 18:41	1,214.1	322.2	39.5	77.9	982.7	257,917.0
11/19/22 18:42	1,214.1	319.6	39.4	79.0	986.2	258,900.1
11/19/22 18:43	1,214.0	322.7	39.4	78.7	983.8	259,882.4
11/19/22 18:44	1,214.2	320.5	39.4	79.7	972.9	260,865.1
11/19/22 18:45	1,214.3	320.3	39.3	80.0	981.2	261,846.8
11/19/22 18:46	1,214.1	320.3	39.3	79.6	978.9	262,827.6
11/19/22 18:47	1,212.6	376.6	39.3	0.0	0.0	263,129.8
11/19/22 18:48	1,212.9	404.6	39.3	0.0	0.0	263,129.8
11/19/22 18:49	1,212.9	405.3	39.3	0.0	0.0	263,129.8
11/19/22 18:50	1,212.9	405.4	39.3	0.0	0.0	263,129.8
11/19/22 18:51	1,212.9	405.4	39.3	51.9	45.4	263,175.2
11/19/22 18:52	1,212.8	405.4	39.3	0.0	0.0	263,175.2
11/19/22 18:53	1,212.8	405.4	39.2	0.0	0.0	263,175.2
11/19/22 18:54	1,212.8	405.3	39.2	0.0	0.0	263,175.2
11/19/22 18:55	1,212.7	405.3	39.2	0.0	0.0	263,175.2
11/19/22 18:56	1,212.7	405.4	39.2	0.0	0.0	263,175.2
11/19/22 18:57	1,212.7	406.0	39.2	0.0	0.0	263,175.2
11/19/22 18:58	1,212.7	406.4	39.1	0.0	0.0	263,175.2
11/19/22 18:59	1,212.6	406.7	39.1	0.0	0.0	263,175.2
11/19/22 19:00	1,212.6	406.3	39.1	0.0	0.0	263,175.2
11/19/22 19:01	1,212.6	406.0	39.1	0.0	0.0	263,175.2
11/19/22 19:02	1,212.6	406.0	39.0	0.0	0.0	263,175.2
11/19/22 19:03	1,212.5	406.2	39.0	0.0	0.0	263,175.2
11/19/22 19:04	1,212.5	406.2	39.0	0.0	0.0	263,175.2
11/19/22 19:05	1,212.5	406.5	39.0	0.0	0.0	263,175.2

MIT INJECTION DATA						
Well Name: State LPG Storage No. 4					Project No.: 192025AT	
Operator: Marathon Petroleum Company, LLC					WSP Rep. Gabriel Holmes	
Well Location: Lea / NM					Start Injection: 11/19/22 12:20	
Wireline Company: Sonic Surveys					End Injection: 11/20/22 11:10	
Nitrogen Supplier/Pumper: CUDD					Data Interval (min.): varies	
Date & Time	Annular Pressure psig	Tubular Pressure psig	Ambient Temperature °F	Injected Fluid Temperature °F	Injection Rate SCFM	Injection Volume SCF
11/19/22 19:06	1,212.5	406.8	39.0	0.0	0.0	263,175.2
11/19/22 19:07	1,212.5	406.9	39.0	0.0	0.0	263,175.2
11/19/22 19:08	1,212.5	406.9	39.0	0.0	0.0	263,175.2
11/19/22 19:09	1,212.5	406.6	38.9	0.0	0.0	263,175.2
11/19/22 19:10	1,212.4	407.2	38.9	0.0	0.0	263,175.2
11/19/22 19:11	1,212.4	407.2	38.9	0.0	0.0	263,175.2
11/19/22 19:12	1,212.4	407.7	38.9	0.0	0.0	263,175.2
11/19/22 19:13	1,212.3	410.9	38.9	0.0	0.0	263,175.2
11/19/22 19:14	1,212.3	411.8	38.8	0.0	0.0	263,175.2
11/19/22 19:15	1,212.2	412.0	38.8	0.0	0.0	263,175.2
11/19/22 19:16	1,212.2	409.8	38.8	0.0	0.0	263,175.2
11/19/22 19:17	1,212.2	401.8	38.7	0.0	0.0	263,175.2
11/19/22 19:18	1,212.1	320.0	38.7	0.0	0.0	263,175.2
11/19/22 19:19	1,212.2	32.7	38.6	0.0	0.0	263,175.2
11/19/22 19:20	1,212.1	1.3	38.6	0.0	0.0	263,175.2
11/19/22 19:21	1,212.1	1.2	38.5	0.0	0.0	263,175.2
11/19/22 19:22	1,212.1	1.2	38.5	0.0	0.0	263,175.2
11/19/22 19:23	1,212.1	1.2	38.4	0.0	0.0	263,175.2
11/19/22 19:24	1,212.0	1.2	38.4	0.0	0.0	263,175.2
11/19/22 19:25	1,212.0	1.2	38.3	0.0	0.0	263,175.2
11/19/22 19:26	1,212.0	1.2	38.3	0.0	0.0	263,175.2
11/19/22 19:27	1,212.0	1.2	38.2	0.0	0.0	263,175.2
11/19/22 19:28	1,212.0	1.2	38.2	0.0	0.0	263,175.2
11/19/22 19:29	1,211.9	28.3	38.1	0.0	0.0	263,175.2
11/19/22 19:30	1,211.9	1.3	38.0	0.0	0.0	263,175.2
11/19/22 19:31	1,211.8	454.2	38.0	0.0	0.0	263,175.2
11/19/22 19:32	1,211.7	413.3	38.0	0.0	0.0	263,175.2
11/19/22 19:33	1,211.7	408.8	37.9	0.0	0.0	263,175.2
11/19/22 19:34	1,211.7	408.7	37.9	0.0	0.0	263,175.2
11/19/22 19:35	1,211.7	409.1	37.8	0.0	0.0	263,175.2
11/19/22 19:36	1,211.6	409.5	37.7	0.0	0.0	263,175.2
11/19/22 19:37	1,211.6	410.0	37.7	0.0	0.0	263,175.2
11/19/22 19:38	1,211.5	410.5	37.6	0.0	0.0	263,175.2
11/19/22 19:39	1,211.6	410.9	37.5	0.0	0.0	263,175.2
11/19/22 19:40	1,211.5	411.4	37.4	0.0	0.0	263,175.2
11/19/22 19:41	1,211.6	411.8	37.3	0.0	0.0	263,175.2
11/19/22 19:42	1,211.5	412.2	37.2	0.0	0.0	263,175.2
11/19/22 19:43	1,211.5	412.7	37.1	0.0	0.0	263,175.2
11/19/22 19:44	1,211.5	413.1	37.1	0.0	0.0	263,175.2
11/19/22 19:45	1,211.5	413.5	37.0	0.0	0.0	263,175.2
11/19/22 20:00	1,211.2	420.3	36.2	0.0	0.0	263,175.2
11/19/22 20:15	1,211.1	427.4	35.2	0.0	0.0	263,175.2
11/19/22 20:30	1,210.8	434.4	34.0	0.0	0.0	263,175.2
11/19/22 20:45	1,210.7	440.9	33.0	0.0	0.0	263,175.2
11/19/22 21:00	1,210.5	447.9	32.1	0.0	0.0	263,175.2
11/19/22 21:15	1,210.4	454.5	31.4	0.0	0.0	263,175.2
11/19/22 21:30	1,210.2	461.3	30.8	0.0	0.0	263,175.2
11/19/22 21:45	1,210.1	467.3	30.4	0.0	0.0	263,175.2
11/19/22 22:00	1,209.9	473.4	29.8	0.0	0.0	263,175.2
11/19/22 22:15	1,209.8	479.2	28.3	0.0	0.0	263,175.2
11/19/22 22:30	1,209.6	484.7	27.4	0.0	0.0	263,175.2
11/19/22 22:45	1,209.5	491.3	26.8	0.0	0.0	263,175.2
11/19/22 23:00	1,209.4	497.0	26.4	0.0	0.0	263,175.2
11/19/22 23:15	1,209.3	501.9	26.0	0.0	0.0	263,175.2
11/19/22 23:30	1,209.2	507.2	25.7	0.0	0.0	263,175.2
11/19/22 23:45	1,209.2	512.7	25.8	0.0	0.0	263,175.2
11/20/22 0:00	1,209.1	518.3	26.0	0.0	0.0	263,175.2
11/20/22 0:15	1,209.0	524.0	25.4	0.0	0.0	263,175.2

MIT INJECTION DATA						
Well Name: State LPG Storage No. 4					Project No.: 192025AT	
Operator: Marathon Petroleum Company, LLC					WSP Rep. Gabriel Holmes	
Well Location: Lea / NM					Start Injection: 11/19/22 12:20	
Wireline Company: Sonic Surveys					End Injection: 11/20/22 11:10	
Nitrogen Supplier/Pumper: CUDD					Data Interval (min.): varies	
Date & Time	Annular Pressure psig	Tubular Pressure psig	Ambient Temperature °F	Injected Fluid Temperature °F	Injection Rate SCFM	Injection Volume SCF
11/20/22 0:30	1,208.9	529.1	25.0	0.0	0.0	263,175.2
11/20/22 0:45	1,208.8	533.8	24.6	0.0	0.0	263,175.2
11/20/22 1:00	1,208.7	537.9	23.8	0.0	0.0	263,175.2
11/20/22 1:15	1,208.6	542.9	22.8	0.0	0.0	263,175.2
11/20/22 1:30	1,208.5	548.0	22.4	0.0	0.0	263,175.2
11/20/22 1:45	1,208.4	552.9	22.1	0.0	0.0	263,175.2
11/20/22 2:00	1,208.3	558.0	22.0	0.0	0.0	263,175.2
11/20/22 2:15	1,208.3	563.3	21.6	0.0	0.0	263,175.2
11/20/22 2:30	1,208.2	565.3	21.3	0.0	0.0	263,175.2
11/20/22 2:45	1,208.1	566.8	21.2	0.0	0.0	263,175.2
11/20/22 3:00	1,208.0	568.5	21.0	0.0	0.0	263,175.2
11/20/22 3:15	1,208.1	572.2	21.3	0.0	0.0	263,175.2
11/20/22 3:30	1,208.0	575.2	21.7	0.0	0.0	263,175.2
11/20/22 3:45	1,208.0	577.5	22.4	0.0	0.0	263,175.2
11/20/22 4:00	1,207.9	579.6	23.6	0.0	0.0	263,175.2
11/20/22 4:15	1,207.9	581.8	24.9	0.0	0.0	263,175.2
11/20/22 4:30	1,208.0	584.2	25.8	0.0	0.0	263,175.2
11/20/22 4:45	1,207.9	587.5	26.8	0.0	0.0	263,175.2
11/20/22 5:00	1,207.9	589.8	27.5	0.0	0.0	263,175.2
11/20/22 5:15	1,207.9	592.2	28.2	0.0	0.0	263,175.2
11/20/22 5:30	1,207.9	594.6	28.7	20.4	1.4	263,195.8
11/20/22 5:45	1,207.8	597.2	29.2	20.8	4.6	263,252.4
11/20/22 6:00	1,207.8	599.9	29.7	0.0	0.0	263,256.4
11/20/22 6:15	1,207.8	606.0	30.1	0.0	0.0	263,256.4
11/20/22 6:30	1,207.7	608.8	30.5	0.0	0.0	263,256.4
11/20/22 6:45	1,207.7	610.8	30.6	0.0	0.0	263,256.4
11/20/22 7:00	1,207.6	613.6	30.6	0.0	0.0	263,256.4
11/20/22 7:15	1,207.5	616.5	30.6	0.0	0.0	263,256.4
11/20/22 7:30	1,207.5	618.0	30.8	0.0	0.0	263,256.4
11/20/22 7:45	1,207.5	619.4	31.2	0.0	0.0	263,256.4
11/20/22 8:00	1,207.5	624.3	31.6	0.0	0.0	263,256.4
11/20/22 8:15	1,207.4	626.1	32.1	0.0	0.0	263,256.4
11/20/22 8:30	1,207.4	627.5	33.0	0.0	0.0	263,256.4
11/20/22 8:45	1,207.2	617.3	33.4	0.0	0.0	263,256.4
11/20/22 9:00	1,207.1	610.2	34.3	0.0	0.0	263,256.4
11/20/22 9:15	1,207.0	612.3	35.4	0.0	0.0	263,256.4
11/20/22 9:30	1,207.0	614.2	37.1	0.0	0.0	263,256.4
11/20/22 9:45	1,213.5	424.3	38.9	0.0	0.0	263,275.7
11/20/22 9:46	1,213.5	424.9	39.0	0.0	0.0	263,275.7
11/20/22 9:47	1,213.5	425.6	39.2	0.0	0.0	263,275.7
11/20/22 9:48	1,213.4	426.3	39.4	0.0	0.0	263,275.7
11/20/22 9:49	1,213.5	426.9	39.5	0.0	0.0	263,275.7
11/20/22 9:50	1,213.4	427.5	39.6	0.0	0.0	263,278.8
11/20/22 9:51	1,212.6	359.8	39.7	0.0	0.0	263,286.4
11/20/22 9:52	1,213.6	402.9	39.8	45.2	974.3	263,988.2
11/20/22 9:53	1,215.6	403.5	39.9	48.8	986.8	264,974.9
11/20/22 9:54	1,216.8	507.2	39.9	53.9	994.8	265,967.2
11/20/22 9:55	1,219.5	386.6	40.0	58.1	965.2	266,945.0
11/20/22 9:56	1,217.0	289.9	40.0	0.0	0.0	266,971.7
11/20/22 9:57	1,214.7	334.9	40.0	0.0	0.0	266,971.7
11/20/22 9:58	1,212.4	332.4	40.0	0.0	0.0	266,971.7
11/20/22 9:59	1,210.0	331.9	40.0	0.0	0.0	266,971.7
11/20/22 10:00	1,207.8	329.8	40.0	0.0	0.0	266,971.7
11/20/22 10:01	1,205.5	327.9	40.0	0.0	0.0	266,971.7
11/20/22 10:02	1,203.3	327.0	40.0	0.0	0.0	266,971.7
11/20/22 10:03	1,201.0	321.7	39.9	0.0	0.0	266,971.7
11/20/22 10:04	1,198.8	319.2	39.9	0.0	0.0	266,971.7
11/20/22 10:05	1,198.0	320.6	39.9	50.5	638.4	267,472.1

MIT INJECTION DATA						
Well Name: State LPG Storage No. 4					Project No.: 192025AT	
Operator: Marathon Petroleum Company, LLC					WSP Rep. Gabriel Holmes	
Well Location: Lea / NM					Start Injection: 11/19/22 12:20	
Wireline Company: Sonic Surveys					End Injection: 11/20/22 11:10	
Nitrogen Supplier/Pumper: CUDD					Data Interval (min.): varies	
Date & Time	Annular Pressure psig	Tubular Pressure psig	Ambient Temperature °F	Injected Fluid Temperature °F	Injection Rate SCFM	Injection Volume SCF
11/20/22 10:06	1,197.7	320.3	39.9	52.3	651.2	268,107.3
11/20/22 10:07	1,196.8	320.1	39.9	52.1	763.6	268,752.9
11/20/22 10:08	1,195.7	280.5	39.9	52.8	739.8	269,393.5
11/20/22 10:09	1,195.4	278.7	39.9	54.5	708.7	270,033.4
11/20/22 10:10	1,197.4	278.0	39.9	55.6	664.6	270,671.2
11/20/22 10:11	1,195.1	277.4	39.9	56.7	322.7	271,298.7
11/20/22 10:12	1,193.7	277.0	39.9	59.8	892.4	272,207.9
11/20/22 10:13	1,193.4	276.9	39.9	61.6	998.8	273,117.9
11/20/22 10:14	1,193.4	277.1	39.9	63.4	985.6	274,104.3
11/20/22 10:15	1,193.3	277.1	39.9	63.6	978.9	275,091.6
11/20/22 10:16	1,193.4	277.4	39.9	64.2	983.9	276,077.2
11/20/22 10:17	1,193.1	277.7	39.9	65.3	987.3	277,061.4
11/20/22 10:18	1,193.4	278.0	39.9	64.8	982.6	278,045.3
11/20/22 10:19	1,193.2	278.8	39.9	64.2	983.8	279,029.7
11/20/22 10:20	1,192.9	280.1	39.9	64.0	983.9	280,015.1
11/20/22 10:21	1,193.0	277.9	39.8	63.8	984.5	280,999.8
11/20/22 10:22	1,193.4	280.4	39.8	67.6	1,309.6	282,204.2
11/20/22 10:23	1,193.9	279.1	39.9	67.9	1,297.1	283,510.8
11/20/22 10:24	1,194.8	279.1	39.9	66.9	1,313.2	284,818.8
11/20/22 10:25	1,195.5	279.7	39.9	66.1	1,307.0	286,121.2
11/20/22 10:26	1,196.3	280.1	40.0	65.6	1,313.8	287,430.5
11/20/22 10:27	1,197.0	281.0	40.0	63.7	1,318.9	288,744.3
11/20/22 10:28	1,197.8	281.5	40.1	61.1	1,312.2	290,054.7
11/20/22 10:29	1,198.6	282.1	40.1	61.2	1,288.0	291,363.3
11/20/22 10:30	1,199.2	282.5	40.2	61.5	1,294.0	292,650.7
11/20/22 10:31	1,199.9	283.1	40.3	62.9	1,293.5	293,945.1
11/20/22 10:32	1,200.6	283.5	40.4	64.3	1,311.6	295,247.8
11/20/22 10:33	1,201.2	284.0	40.5	64.4	1,287.5	296,555.4
11/20/22 10:34	1,201.9	284.5	40.5	64.3	1,279.4	297,835.2
11/20/22 10:35	1,202.5	284.8	40.6	62.3	1,258.0	299,107.2
11/20/22 10:36	1,203.1	285.1	40.7	62.1	1,283.8	300,392.2
11/20/22 10:37	1,203.8	285.6	40.8	63.3	1,278.1	301,677.1
11/20/22 10:38	1,204.4	286.0	40.9	63.0	1,297.8	302,967.7
11/20/22 10:39	1,204.9	286.4	41.0	63.2	1,291.7	304,252.7
11/20/22 10:40	1,205.7	289.0	41.1	63.1	1,292.7	305,540.8
11/20/22 10:41	1,206.2	290.0	41.2	63.0	1,284.5	306,828.9
11/20/22 10:42	1,207.0	287.4	41.3	63.0	1,275.9	308,119.6
11/20/22 10:43	1,207.5	288.1	41.5	63.3	1,294.3	309,405.9
11/20/22 10:44	1,208.2	288.6	41.7	64.2	1,292.1	310,701.2
11/20/22 10:45	1,208.8	288.9	41.8	63.5	1,288.9	311,992.8
11/20/22 10:46	1,209.5	288.9	42.0	63.3	1,283.9	313,284.7
11/20/22 10:47	1,210.1	289.2	42.1	63.4	1,293.6	314,574.0
11/20/22 10:48	1,210.9	291.5	42.3	62.7	1,268.4	315,849.3
11/20/22 10:49	1,210.6	369.4	42.4	0.0	0.0	316,489.6
11/20/22 10:50	1,210.0	394.5	42.6	0.0	0.0	316,489.6
11/20/22 10:51	1,210.0	397.6	42.7	0.0	0.0	316,489.6
11/20/22 10:52	1,209.9	397.5	42.9	0.0	0.0	316,489.6
11/20/22 10:53	1,209.9	397.5	43.0	0.0	0.0	316,489.6
11/20/22 10:54	1,209.8	397.5	43.1	0.0	0.0	316,489.6
11/20/22 10:55	1,209.8	397.5	43.3	0.0	0.0	316,489.6
11/20/22 10:56	1,209.7	397.5	43.5	0.0	0.0	316,489.6
11/20/22 10:57	1,209.7	397.6	43.6	0.0	0.0	316,515.8
11/20/22 10:58	1,209.7	397.0	43.8	0.0	0.0	316,515.9
11/20/22 10:59	1,209.6	397.1	44.0	0.0	0.0	316,515.9
11/20/22 11:00	1,209.6	397.0	44.2	0.0	0.0	316,515.9
11/20/22 11:01	1,209.5	397.7	44.4	0.0	0.0	316,515.9
11/20/22 11:02	1,209.5	398.2	44.6	0.0	0.0	316,515.9
11/20/22 11:03	1,209.4	398.4	44.7	0.0	0.0	316,515.9

MIT INJECTION DATA						
Well Name: State LPG Storage No. 4					Project No.: 192025AT	
Operator: Marathon Petroleum Company, LLC					WSP Rep. Gabriel Holmes	
Well Location: Lea / NM					Start Injection: 11/19/22 12:20	
Wireline Company: Sonic Surveys					End Injection: 11/20/22 11:10	
Nitrogen Supplier/Pumper: CUDD					Data Interval (min.): varies	
Date & Time	**Annular Pressure** psig	**Tubular Pressure** psig	**Ambient Temperature** °F	**Injected Fluid Temperature** °F	**Injection Rate** SCFM	**Injection Volume** SCF
11/20/22 11:04	1,209.4	398.7	44.9	0.0	0.0	316,515.9
11/20/22 11:05	1,209.4	399.1	45.1	0.0	0.0	316,515.9
11/20/22 11:06	1,209.3	399.3	45.3	0.0	0.0	316,515.9
11/20/22 11:07	1,209.3	399.7	45.5	0.0	0.0	316,515.9
11/20/22 11:08	1,209.3	400.4	45.6	0.0	0.0	316,515.9
11/20/22 11:09	1,209.2	401.1	45.7	0.0	0.0	316,515.9
11/20/22 11:10	1,209.2	401.9	45.8	0.0	0.0	316,515.9

POST INJECTION MIT DATA

Well Name:	State LPG Storage No. 4	Project No.:	192025AT
Operator:	Marathon Petroleum Company, LLC	WSP Rep.:	Gabriel Holmes
Well Location:	Lea / NM	Data Start:	11/20/22 11:10
Wireline Company:	Sonic Surveys	Data End:	11/22/22 14:09
		Data Interval (min.):	15

Date & Time	Annular Pressure psig	Tubular Pressure psig	Differential Pressure (Annular - Tubular) psig	Ambient Temperature °F
11/20/22 11:10	1,209.2	401.9	807.4	45.8
11/20/22 11:15	1,209.2	401.9	807.4	45.8
11/20/22 11:30	1,209.0	414.7	794.3	46.0
11/20/22 11:45	1,209.0	427.3	781.6	46.4
11/20/22 12:00	1,208.7	437.1	771.6	46.1
11/20/22 12:15	1,208.7	445.9	762.7	45.7
11/20/22 12:30	1,208.5	452.3	756.2	46.1
11/20/22 12:45	1,208.4	364.6	843.9	45.7
11/20/22 13:00	1,208.3	464.1	744.2	44.9
11/20/22 13:15	1,208.3	472.6	735.7	47.4
11/20/22 13:30	1,208.3	481.0	727.3	47.8
11/20/22 13:45	1,208.3	489.4	718.9	49.2
11/20/22 14:00	1,208.2	497.6	710.6	50.9
11/20/22 14:15	1,208.3	505.9	702.5	50.9
11/20/22 14:30	1,208.3	513.7	694.6	50.6
11/20/22 14:45	1,208.3	521.5	686.8	51.1
11/20/22 15:00	1,208.2	529.1	679.2	50.2
11/20/22 15:15	1,208.2	536.5	671.7	48.1
11/20/22 15:30	1,208.1	544.1	664.1	47.0
11/20/22 15:45	1,208.1	551.4	656.7	50.1
11/20/22 16:00	1,208.2	559.4	648.8	52.2
11/20/22 16:15	1,208.1	567.3	640.9	53.1
11/20/22 16:30	1,208.2	574.9	633.3	52.6
11/20/22 16:45	1,208.2	582.5	625.7	52.0
11/20/22 17:00	1,208.1	589.4	618.7	50.8
11/20/22 17:15	1,208.1	596.3	611.8	47.0
11/20/22 17:30	1,208.0	603.6	604.4	42.8
11/20/22 17:45	1,207.9	610.9	597.0	40.6
11/20/22 18:00	1,207.8	618.1	589.7	39.1
11/20/22 18:15	1,207.7	625.3	582.4	38.2
11/20/22 18:30	1,207.6	632.5	575.1	37.9
11/20/22 18:45	1,207.7	639.9	567.8	38.0
11/20/22 19:00	1,207.6	646.9	560.7	38.2
11/20/22 19:15	1,207.6	653.3	554.2	37.8
11/20/22 19:30	1,207.5	659.6	547.9	37.0
11/20/22 19:45	1,207.4	665.9	541.5	36.1
11/20/22 20:00	1,207.4	672.1	535.3	35.2
11/20/22 20:15	1,207.3	678.5	528.9	34.3
11/20/22 20:30	1,207.3	684.9	522.4	33.5
11/20/22 20:45	1,207.2	691.7	515.5	32.9
11/20/22 21:00	1,207.2	698.9	508.3	32.4
11/20/22 21:15	1,207.1	706.2	500.9	31.9
11/20/22 21:30	1,207.1	713.4	493.7	31.5
11/20/22 21:45	1,207.1	720.4	486.7	31.4
11/20/22 22:00	1,207.1	727.5	479.6	31.4
11/20/22 22:15	1,207.0	734.0	472.9	31.1
11/20/22 22:30	1,206.9	739.6	467.3	30.8
11/20/22 22:45	1,206.9	745.2	461.7	30.5
11/20/22 23:00	1,206.8	750.9	455.9	30.1
11/20/22 23:15	1,206.8	756.9	449.9	29.6
11/20/22 23:30	1,206.7	763.0	443.8	28.9
11/20/22 23:45	1,206.7	769.0	437.7	28.6
11/21/22 0:00	1,206.6	774.6	432.0	28.3
11/21/22 0:15	1,206.6	779.9	426.7	28.2
11/21/22 0:30	1,206.6	785.4	421.1	28.1
11/21/22 0:45	1,206.6	791.0	415.6	28.0
11/21/22 1:00	1,206.6	796.7	409.9	28.8
11/21/22 1:15	1,206.6	802.5	404.1	29.9
11/21/22 1:30	1,206.6	808.3	398.4	31.4
11/21/22 1:45	1,206.6	814.0	392.6	32.4
11/21/22 2:00	1,206.6	819.6	387.0	33.0

POST INJECTION MIT DATA

Well Name:	State LPG Storage No. 4	Project No.:	192025AT
Operator:	Marathon Petroleum Company, LLC	WSP Rep.:	Gabriel Holmes
Well Location:	Lea / NM	Data Start:	11/20/22 11:10
Wireline Company:	Sonic Surveys	Data End:	11/22/22 14:09
		Data Interval (min.):	15

Date & Time	Annular Pressure psig	Tubular Pressure psig	Differential Pressure (Annular - Tubular) psig	Ambient Temperature °F
11/21/22 2:15	1,206.6	824.8	381.8	33.6
11/21/22 2:30	1,206.6	829.8	376.8	33.9
11/21/22 2:45	1,206.6	834.7	371.9	34.0
11/21/22 3:00	1,206.6	839.5	367.0	34.0
11/21/22 3:15	1,206.5	844.5	362.1	34.0
11/21/22 3:30	1,206.5	849.3	357.2	34.0
11/21/22 3:45	1,206.5	854.0	352.4	34.1
11/21/22 4:00	1,206.4	858.9	347.5	34.1
11/21/22 4:15	1,206.4	863.7	342.7	34.2
11/21/22 4:30	1,206.4	868.3	338.1	34.3
11/21/22 4:45	1,206.3	873.1	333.2	34.4
11/21/22 5:00	1,206.3	878.3	328.0	34.4
11/21/22 5:15	1,206.2	883.7	322.5	34.4
11/21/22 5:30	1,206.2	888.3	317.9	34.3
11/21/22 5:45	1,206.2	892.3	313.9	34.3
11/21/22 6:00	1,206.1	896.3	309.8	34.1
11/21/22 6:15	1,206.0	900.4	305.7	33.9
11/21/22 6:30	1,206.0	904.4	301.6	33.7
11/21/22 6:45	1,206.0	908.8	297.2	33.7
11/21/22 7:00	1,206.0	913.2	292.8	33.7
11/21/22 7:15	1,205.9	918.4	287.6	33.7
11/21/22 7:30	1,205.9	922.9	283.0	33.9
11/21/22 7:45	1,205.9	927.0	278.9	33.9
11/21/22 8:00	1,205.9	931.2	274.7	34.2
11/21/22 8:15	1,205.8	935.5	270.3	34.3
11/21/22 8:30	1,205.8	939.7	266.0	34.4
11/21/22 8:45	1,205.8	1.2	1,204.6	34.8
11/21/22 9:00	1,205.6	939.5	266.0	34.9
11/21/22 9:15	1,205.4	939.3	266.1	36.4
11/21/22 9:30	1,205.5	936.6	268.9	36.9
11/21/22 9:45	1,205.5	939.1	266.4	37.6
11/21/22 10:00	1,205.4	940.7	264.7	39.0
11/21/22 10:15	1,205.3	941.9	263.4	39.9
11/21/22 10:30	1,205.2	941.6	263.6	41.5
11/21/22 10:45	1,205.0	933.7	271.3	43.7
11/21/22 11:00	1,205.0	934.3	270.7	47.2
11/21/22 11:15	1,205.2	938.7	266.5	52.7
11/21/22 11:30	1,205.2	942.6	262.5	53.7
11/21/22 11:45	1,205.1	946.6	258.5	53.6
11/21/22 12:00	1,205.2	950.9	254.2	54.0
11/21/22 12:03	1,205.1	952.2	252.9	54.0
11/21/22 12:15	1,205.0	956.5	248.6	52.8
11/21/22 12:30	1,205.0	962.5	242.5	52.5
11/21/22 12:45	1,205.0	966.0	239.0	53.0
11/21/22 13:00	1,205.0	1.2	1,203.7	53.8
11/21/22 13:15	1,204.8	968.9	235.9	53.6
11/21/22 13:30	1,204.8	973.6	231.2	56.4
11/21/22 13:45	1,204.8	978.3	226.5	60.8
11/21/22 14:00	1,204.8	983.1	221.7	62.7
11/21/22 14:15	1,204.7	987.9	216.9	64.2
11/21/22 14:30	1,204.8	992.2	212.6	65.5
11/21/22 14:45	1,204.7	996.0	208.7	67.8
11/21/22 15:00	1,204.7	999.5	205.1	68.4
11/21/22 15:15	1,204.6	1,003.0	201.6	70.3
11/21/22 15:30	1,204.6	1,006.6	198.0	70.9
11/21/22 15:45	1,204.7	1,010.3	194.3	71.0
11/21/22 16:00	1,204.6	1,014.0	190.6	71.0
11/21/22 16:15	1,204.5	1,018.0	186.5	71.2
11/21/22 16:30	1,204.6	1,022.0	182.6	68.9
11/21/22 16:45	1,204.5	1,025.9	178.6	66.4

POST INJECTION MIT DATA

Well Name:	State LPG Storage No. 4	Project No.:	192025AT
Operator:	Marathon Petroleum Company, LLC	WSP Rep.:	Gabriel Holmes
Well Location:	Lea / NM	Data Start:	11/20/22 11:10
Wireline Company:	Sonic Surveys	Data End:	11/22/22 14:09
		Data Interval (min.):	15

Date & Time	Annular Pressure psig	Tubular Pressure psig	Differential Pressure (Annular - Tubular) psig	Ambient Temperature °F
11/21/22 17:00	1,204.4	1,029.7	174.7	65.4
11/21/22 17:15	1,204.5	1,033.6	170.9	61.9
11/21/22 17:30	1,204.3	1,037.4	166.9	56.3
11/21/22 17:45	1,204.2	1,041.2	163.0	54.1
11/21/22 18:00	1,204.1	1,045.0	159.1	51.0
11/21/22 18:15	1,204.0	1,048.9	155.1	48.8
11/21/22 18:30	1,203.8	1,052.8	151.0	47.1
11/21/22 18:45	1,203.7	1,056.7	147.1	45.7
11/21/22 19:00	1,203.7	1,060.7	143.0	44.6
11/21/22 19:15	1,203.6	1,064.9	138.7	43.7
11/21/22 19:30	1,203.5	1,069.1	134.4	42.9
11/21/22 19:45	1,203.5	1,073.0	130.4	42.2
11/21/22 20:00	1,203.4	1,076.4	127.0	41.5
11/21/22 20:15	1,203.3	1,080.0	123.4	41.3
11/21/22 20:30	1,203.2	1,084.0	119.3	40.3
11/21/22 20:45	1,203.2	1,087.8	115.4	40.1
11/21/22 21:00	1,203.2	1,091.9	111.3	40.1
11/21/22 21:15	1,203.1	1,095.5	107.5	39.5
11/21/22 21:30	1,203.0	1,099.2	103.9	38.9
11/21/22 21:45	1,202.9	1,102.9	100.1	38.4
11/21/22 22:00	1,202.9	1,106.7	96.2	37.4
11/21/22 22:15	1,202.8	1,109.5	93.2	36.6
11/21/22 22:30	1,202.8	1,112.4	90.3	35.9
11/21/22 22:45	1,202.6	1,115.4	87.3	35.2
11/21/22 23:00	1,202.6	1,118.4	84.3	34.7
11/21/22 23:15	1,202.6	1,121.4	81.2	34.3
11/21/22 23:30	1,202.5	1,124.4	78.1	33.8
11/21/22 23:45	1,202.5	1,127.4	75.1	33.6
11/22/22 0:00	1,202.4	1,130.4	72.1	33.5
11/22/22 0:15	1,202.4	1,133.4	69.0	33.3
11/22/22 0:30	1,202.4	1,136.0	66.4	33.4
11/22/22 0:45	1,202.3	1,138.6	63.7	33.3
11/22/22 1:00	1,202.2	1,140.3	61.9	32.9
11/22/22 1:15	1,202.3	1,142.0	60.3	33.1
11/22/22 1:30	1,202.3	1,143.8	58.5	33.6
11/22/22 1:45	1,202.3	1,145.7	56.6	33.8
11/22/22 2:00	1,202.2	1,147.6	54.6	33.3
11/22/22 2:15	1,202.0	1,149.4	52.7	32.1
11/22/22 2:30	1,202.1	1,151.2	50.9	31.4
11/22/22 2:45	1,202.0	1,153.1	48.9	30.5
11/22/22 3:00	1,201.9	1,155.0	46.9	28.9
11/22/22 3:15	1,201.8	1,156.9	44.9	27.5
11/22/22 3:30	1,201.7	1,158.8	42.9	26.8
11/22/22 3:45	1,201.6	1,160.8	40.8	25.7
11/22/22 4:00	1,201.5	1,162.7	38.8	25.3
11/22/22 4:15	1,201.5	1,164.8	36.7	24.9
11/22/22 4:30	1,201.5	1,166.8	34.7	24.8
11/22/22 4:45	1,201.4	1,168.8	32.7	24.7
11/22/22 5:00	1,201.4	1,170.8	30.6	24.5
11/22/22 5:15	1,201.4	1,172.7	28.6	24.5
11/22/22 5:30	1,201.4	1,174.7	26.7	24.6
11/22/22 5:45	1,201.3	1,176.7	24.6	24.7
11/22/22 6:00	1,201.3	1,178.8	22.5	24.6
11/22/22 6:15	1,201.2	1,180.8	20.4	24.2
11/22/22 6:30	1,201.2	1,182.7	18.4	23.9
11/22/22 6:45	1,201.1	1,184.6	16.5	23.9
11/22/22 7:00	1,201.1	1,186.6	14.5	23.6
11/22/22 7:15	1,201.0	1,188.4	12.6	23.3
11/22/22 7:30	1,201.1	1,190.1	10.9	23.5

POST INJECTION MIT DATA

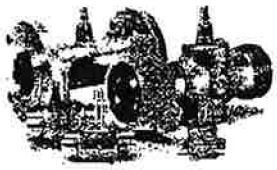
Well Name:	State LPG Storage No. 4	Project No.:	192025AT
Operator:	Marathon Petroleum Company, LLC	WSP Rep.:	Gabriel Holmes
Well Location:	Lea / NM	Data Start:	11/20/22 11:10
Wireline Company:	Sonic Surveys	Data End:	11/22/22 14:09
		Data Interval (min.):	15

Date & Time	Annular Pressure psig	Tubular Pressure psig	Differential Pressure (Annular - Tubular) psig	Ambient Temperature °F
11/22/22 7:45	1,201.1	1,191.8	9.3	24.2
11/22/22 8:00	1,201.1	1,193.5	7.6	25.2
11/22/22 8:15	1,201.1	1,194.9	6.1	26.8
11/22/22 8:30	1,201.1	1,196.3	4.8	29.0
11/22/22 8:45	1,201.3	1,197.5	3.7	31.9
11/22/22 9:00	1,201.3	1,198.6	2.7	34.7
11/22/22 9:15	1,201.3	1,199.6	1.7	37.3
11/22/22 9:30	1,201.5	1,200.5	1.0	39.5
11/22/22 9:45	1,201.5	1,201.1	0.4	41.7
11/22/22 10:00	1,201.6	1,201.8	-0.2	43.6
11/22/22 10:15	1,201.6	1.0	1,200.6	50.1
11/22/22 10:30	1,201.6	1,196.8	4.8	55.5
11/22/22 10:45	1,201.7	1,199.2	2.5	59.2
11/22/22 11:00	1,201.8	1,199.0	2.9	60.2
11/22/22 11:15	1,201.8	1,202.0	-0.2	61.4
11/22/22 11:30	1,201.8	1,200.3	1.5	60.3
11/22/22 11:45	1,201.8	1,201.4	0.4	59.5
11/22/22 12:00	1,201.7	1,203.3	-1.6	60.4
11/22/22 12:15	1,201.7	1,201.7	0.0	60.1
11/22/22 12:30	1,201.7	1,202.2	-0.5	59.4
11/22/22 12:45	1,201.7	1,202.3	-0.5	60.4
11/22/22 13:00	1,201.7	1,202.3	-0.6	60.1
11/22/22 13:15	1,201.8	1,202.3	-0.6	60.8
11/22/22 13:30	1,201.7	1,202.4	-0.7	63.3
11/22/22 13:45	1,201.7	1,202.5	-0.8	65.8
11/22/22 14:00	1,201.7	1,202.8	-1.1	67.2
11/22/22 14:09	1,201.6	1,203.0	-1.4	67.7

APPENDIX

G. TEST EQUIPMENT CALIBRATION AND CERTIFICATION

HOFFER FLOW CONTROLS, INC.
Perfecting Measurement™
107 Kitty Hawk Lane • P.O. Box 2145 • Elizabeth City, North Carolina 27906-2145
1-800-628-4584 • (252) 331-1997 • FAX (252) 331-2886
www.hofferflow.com • Email: info@hofferflow.com



Flowmeter Calibration Report

Model:	HO2X2-15-CB-1IS40X-NPT-X		
Customer:	CALSCAN USA		
Account:	10401	Date: 3/2/2012	Stand 4
Cust. PO:	LNQ-020712-055	Fluid: WATER	
Job Number:	65295	Test range (gpm):	14.996 to 225.120
Meter S/N:	143951	Linearity (%):	+/- 0.47
Coil:	IS40-01-100G 10MV	K' Average (pulses/gal)	72.164

Calculated gas k-factor is 539.823 pulses/ACF

	Frequency Hz	Flowrate GPM	Roshko # Hz/cSt 70F	Strouhal # pul/gal 70F	Fluid Temp Deg. F	Kin. Visc. cSt
1	18.121	14.996	15.703	72.505	62.246	1.154
2	18.123	14.997	15.742	72.505	62.409	1.151
3	24.377	20.259	21.004	72.196	61.860	1.161
4	30.628	25.347	26.240	72.488	61.482	1.167
5	60.800	50.403	51.851	72.363	61.172	1.172
6	90.480	75.164	76.904	72.212	60.945	1.176
7	120.696	100.514	102.311	72.033	60.764	1.180
8	150.753	125.688	127.422	71.951	60.570	1.183
9	179.395	149.799	151.200	71.840	60.378	1.186
10	210.731	176.033	177.176	71.827	60.204	1.189
11	269.477	225.119	226.214	71.823	60.099	1.191
12	269.480	225.120	226.214	71.823	60.098	1.191

We certify that all test equipment used in calibrations are traceable to NIST, and that our quality assurance system is certified to ISO 9001-2008.

Operator: MRR Final Approval:

Cal-scan Services Ltd.
4188-93 Street
Edmonton, Alberta, Canada
T6E 5P5
Phone: (780) 944-1377 Fax: (780) 944 - 1406

Calibration Certificate

Model :	Hawk 9000	**Range :**	3,500.00 psi
Serial Number :	62684	**Last Cal. Date :**	19-May-2022

Specifications

Calibration Pressure Range:		0.00	3,500.00 psi
Calibration Temperature Range:		-20.00	80.00 ° C
Pressure:	Accuracy	±	0.8400 psi (0.024 %FS)
	Resolution	±	0.0105 psi (0.0003 %FS)
Temperature:	Accuracy	±	0.040 ° C (0.04 %FS)
	Resolution	±	0.001 ° C (0.001 %FS)

Calibration Summary

Pressure: Accuracy (maximum error)	0.52 psi
Temperature: Accuracy (maximum error)	0.11 ° C

Traceability Statement

All working standards are traceable to national or internationally recognized standards.

Calibrated with Cal-Scan DWG # 5

Calibrated by:

Ryan Kryzanowski

APPENDIX

H. WIRELINE LOGS

TEMPERATURE LOGS

DENSITY LOGS

SONIC SURVEYS
CAVERN EXPERIENCE YOU CAN DEPEND ON

TEMPERATURE SURVEY

MECHANICAL INTEGRITY TEST

COMPANY: MARATHON PETROLEUM CO, LLC
WELL: STATE LPG STORAGE WELL #4
FIELD: JAL STATION
COUNTY: LEA NM

File No.	Location	Other Services
		MIT

Permanent Datum:	B.H.F	Elevation:	Depth Scale
Log meas. from:	0'	above Perm. Datum	1:240
Drill. meas. from:	UNKNOWN		

Date	11-19-22	11-21-22	11-22-22
Run No.	1	5	6
Log Type	BASE TEMPERATURE	START TEMPERATURE	FINISH TEMPERATURE
Max Temperature	78.2° F	78.3° F	78.3° F
First Reading	0'	0'	0'
Last Reading	1800'	1850'	1850'
Type Fluid in Hole	BRINE / NITROGEN	NITROGEN	NITROGEN
Opr. Rig Time	MAST	MAST	MAST
Equip. No / Location	150 / T-15	150 / T-15	150 / T-15
Recorded by	CHAPMAN	CHAPMAN	CHAPMAN
Witnessed by	MR. HOLMES	MR. HOLMES	MR. HOLMES

Csg. / Tbg. - Dimensions				Borehole - Dimensions			
Size	Weight	from	to	Run.No.	Bit Size	from	to
9 5/8"	CASING	0'	1659'				
7"	LINER	0'	1575'				
3 1/2"	TUBING	0'	2596'				

Fold Here

In making interpretations of logs, Contractors employees will give the Customer the benefit of their best judgement, but since all interpretations are opinions, based on inferences from electrical or other measurements, Contractor cannot, and does not guarantee the accuracy or the correctness of any interpretation.

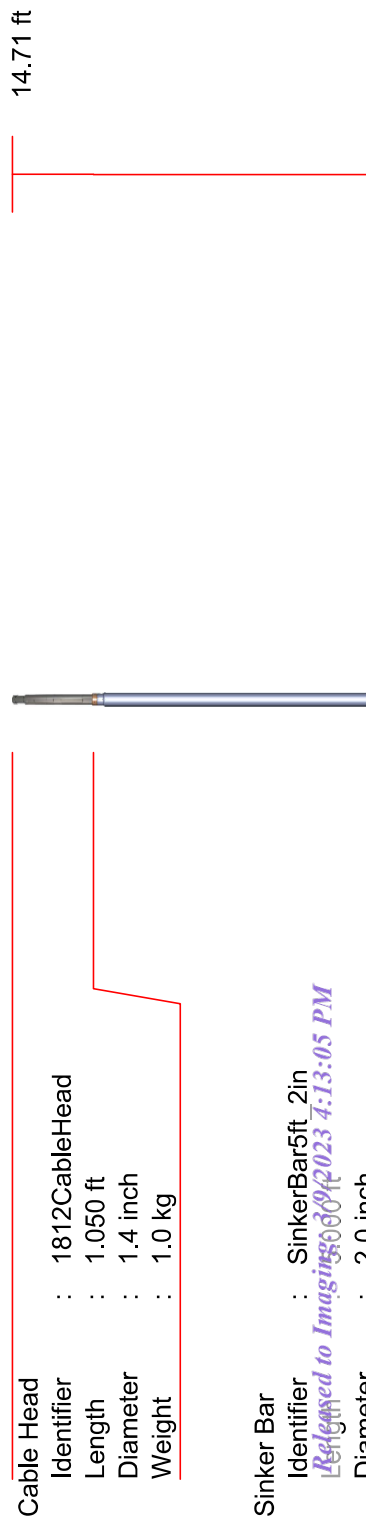
ANTARES GeoBase Software - Copyright (c) 1997 - 2013 ANTARES Datensysteme GmbH

REMARKS

FOUND 9 5/8" CASING @ 1665' CORRETED TO 1659'
LOGS RAN DURING A MECHANICAL INTEGRITY TEST
TEMPERATURE SCALE: 1 DEGREE PER CHART DIVISION
4 1/16" 3M FLANGE

EQUIPMENT DATA

Run	Trip	Instrument	Serial No.	Series No.	Distance to Reference
1-3	3	ANTARES	009A	1466	0.0



Received by OCD: 2/17/2023 3:21:38 PM
Released to Imaging: 3/9/2023 4:13:05 PM

Diameter : 2.0 inch
Weight : 23.0 kg



MCW 7.51 ft

GR BHT MCW
Identifier : 1466
Asset Number : 009
Length : 8.661 ft
Diameter : 1.8 inch
Weight : 15.0 kg
Measure Point : 0.509 ft : BHT
Measure Point : 1.460 ft : Gamma
Measure Point : 7.513 ft : MCW

Gamma 1.46 ft

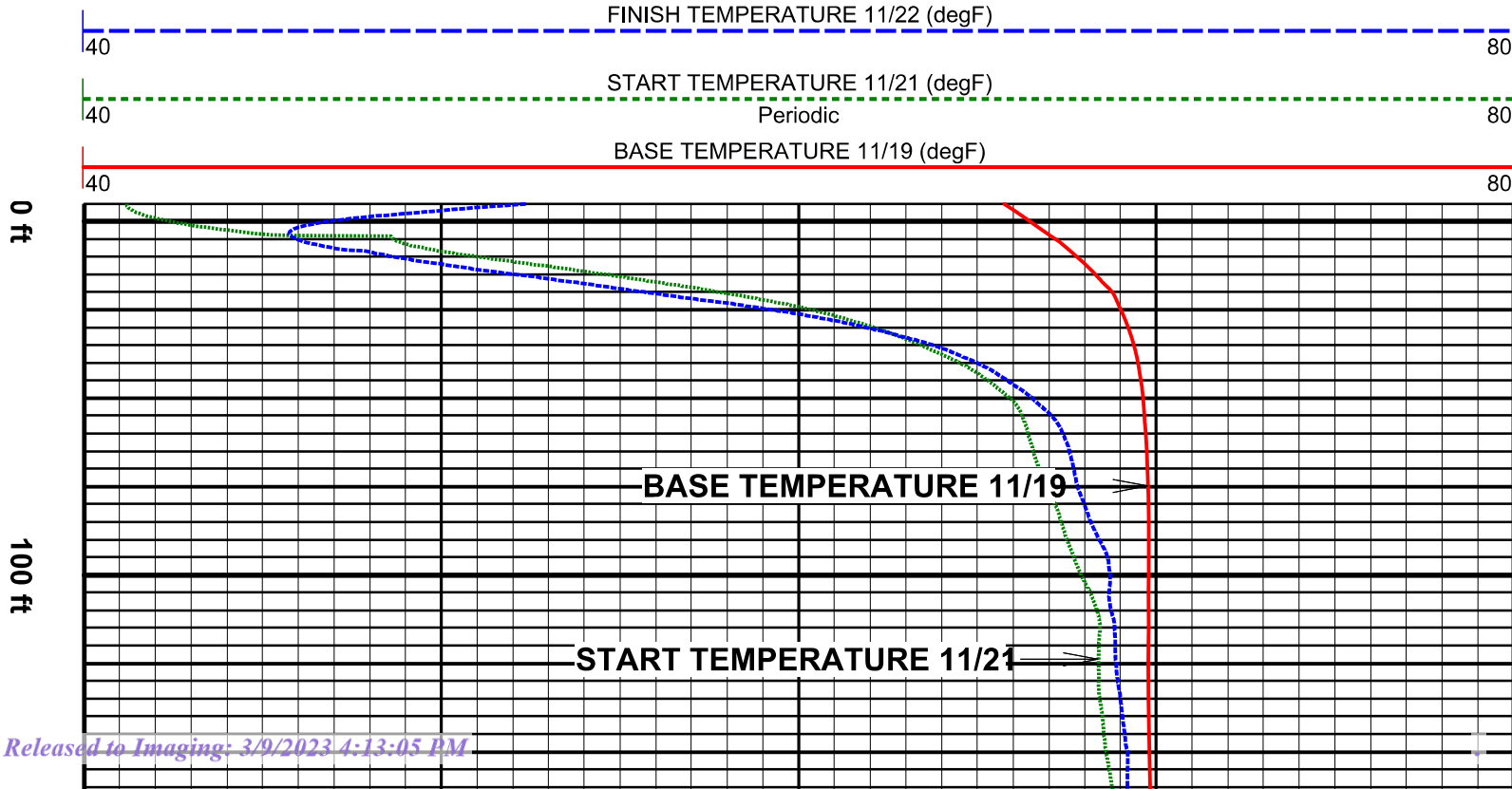
BHT 0.51 ft

0.00 ft

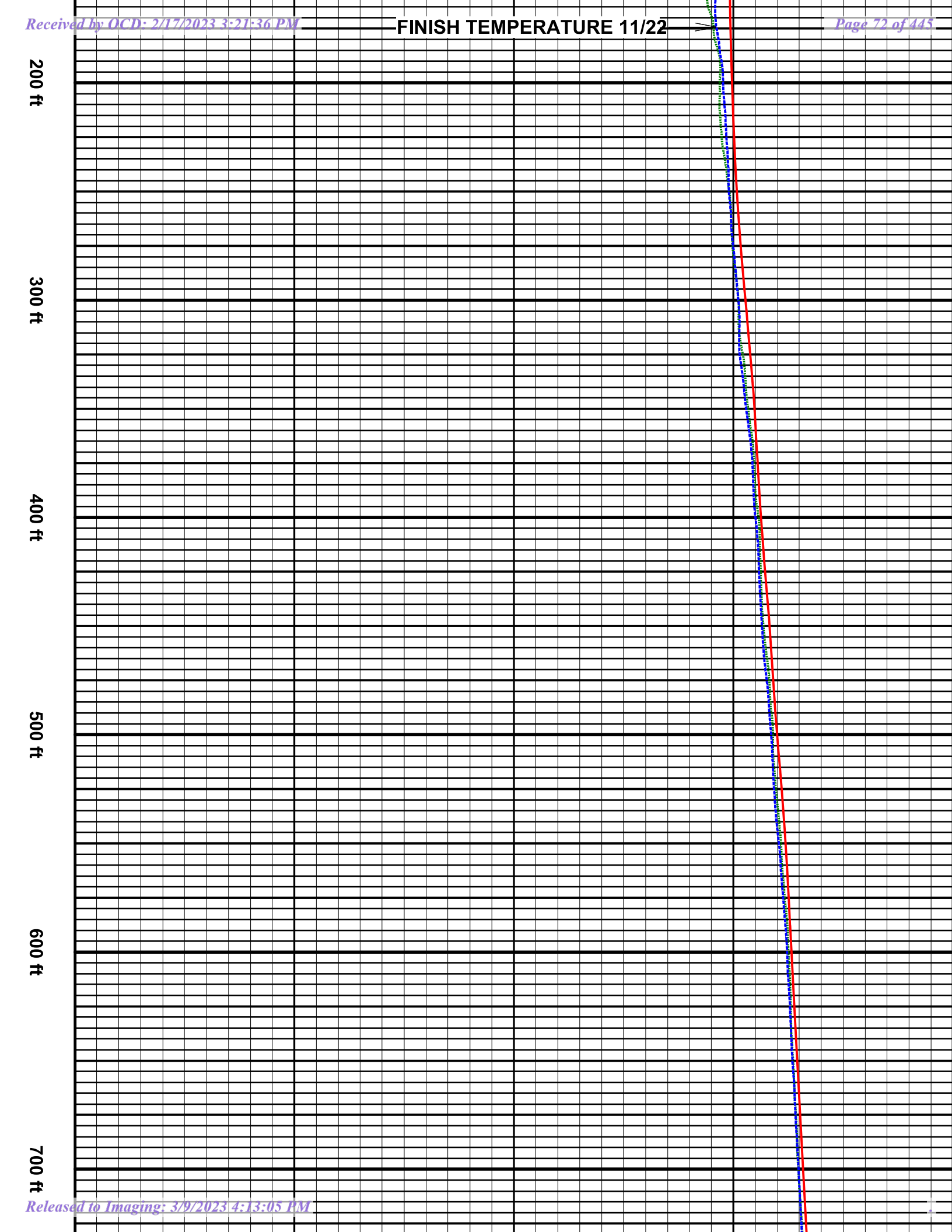
Total Length : 14.71 ft
Total Weight : 39.00 kg
Max Diameter : 2.0 inch

Company : MARATHON
Well : WELL_4
Scale : 1 : 620
Depth in : ft
Software : WinAPlot Ver. 7, 7, 5, 0

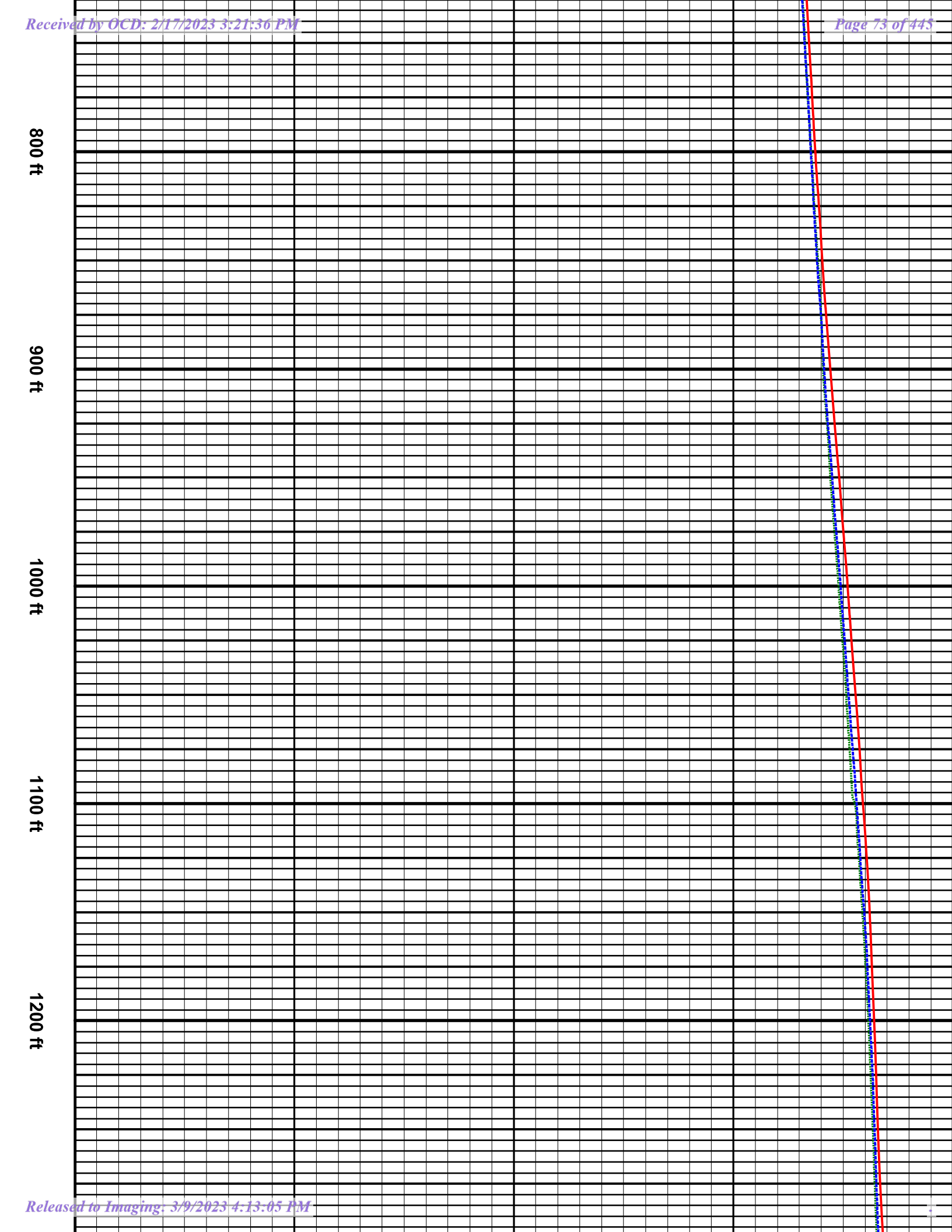
Date : 22.11.2022
Time : 09:12:55
Remarks :
File Name :

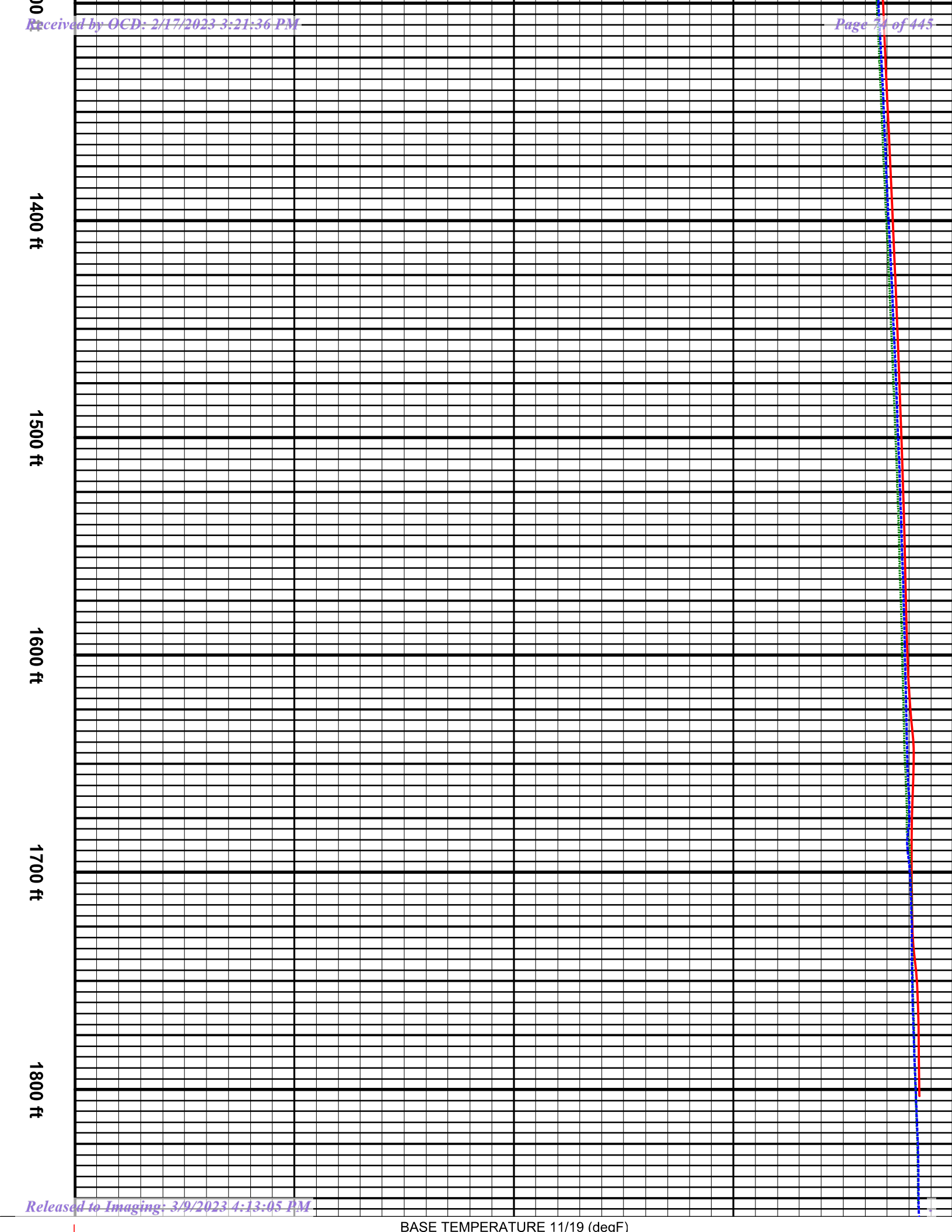


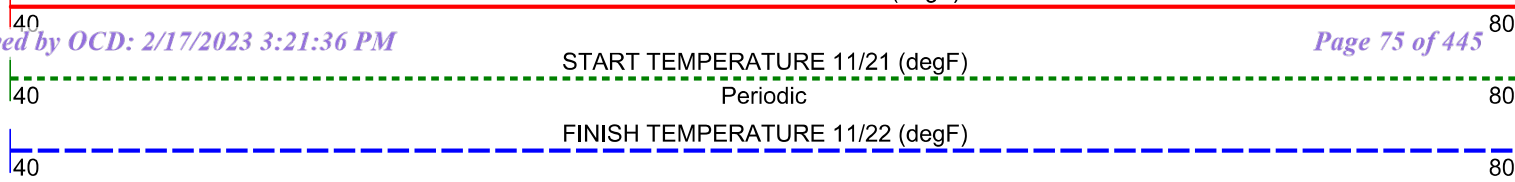
Received by OCD: 2/17/2023 3:21:36 PM



Released to Imaging: 3/9/2023 4:13:05 PM


800 ft
900 ft
1000 ft
1100 ft
1200 ft


1400 ft
1500 ft
1600 ft
1700 ft
1800 ft
BASE TEMPERATURE 11/19 (degF)



Curve Description

Name	Unit	Description
BASE TEMPERATURE 11/19	degF	Borehole Temperature
FINISH TEMPERATURE 11/22	degF	Borehole Temperature
START TEMPERATURE 11/21	degF	Borehole Temperature

CALIBRATION SUMMARY

GR BHT MCW TempS 1466 1466009

Calibration 26.09.2011 10:20:00

	Point 1	Point 2
TempS	1000 Ohm	1250 Ohm

SONIC SURVEYS
CAVERN EXPERIENCE YOU CAN DEPEND ON

API #: 30-025-35957 DATE : 11-19-22 THRU 11-22-22
COMPANY: MARATHON PETROLEUM CO. , LLC
WELL: STATE LPG STORAGE WELL #4
FIELD: JAL STATION
COUNTY: LEA STATE: NEW MEXICO

TEMPERATURE SURVEY
MECHANICAL INTEGRITY TEST

Received by OCD: 2/17/2023 3:21:36 PM

SONIC SURVEYS
CAVERN EXPERIENCE YOU CAN DEPEND ON

INTERFACE SURVEY
DUAL STRING COLLAR LOCATOR
MECHANICAL INTEGRITY TEST

COMPANY: MARATHON PETROLEUM CO, LLC
WELL: STATE LPG STORAGE WELL #4
FIELD: JAL STATION
COUNTY: LEA NM

Location

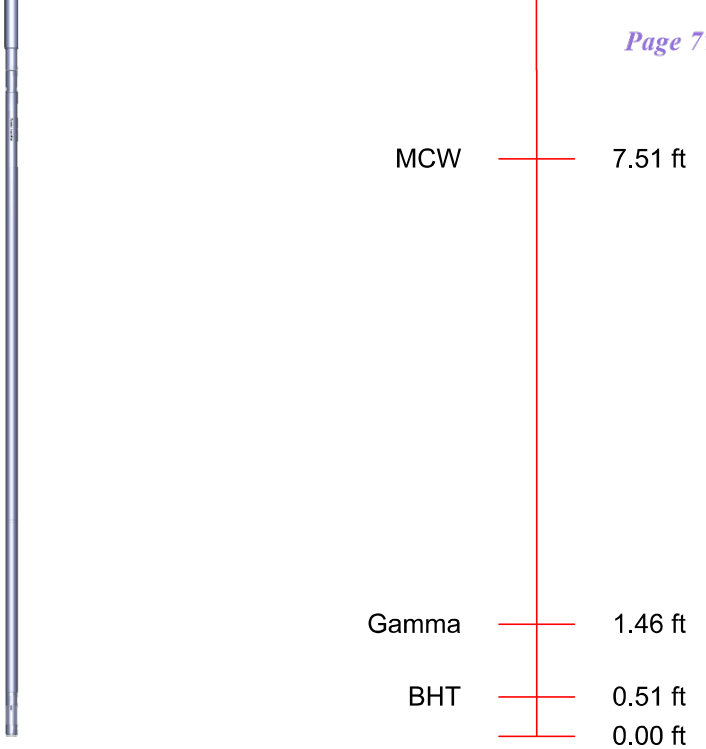
File No.

Permanent Datum: B.H.F Elevation:
Log meas. from: 0' above Perm. Datum
Drill. meas. from: UNKNOWN

Other Services
TEMPERATURE

Depth Scale
1:240

| | | |



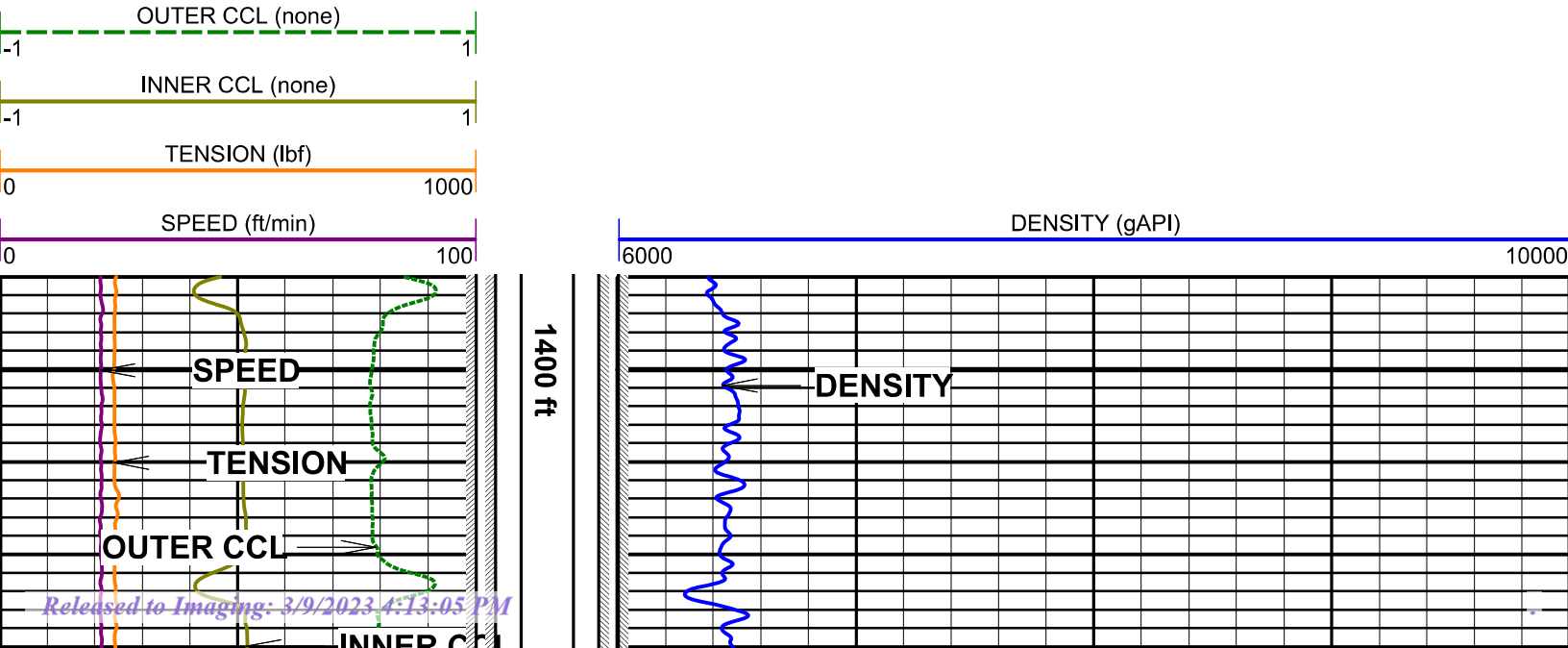
GR BHT MCW

Identifier	:	1466
Asset Number	:	009
Length	:	8.661 ft
Diameter	:	1.8 inch
Weight	:	15.0 kg
Measure Point	:	0.509 ft : BHT
Measure Point	:	1.460 ft : Gamma
Measure Point	:	7.513 ft : MCW

Total Length	:	14.71 ft
Total Weight	:	39.00 kg
Max Diameter	:	2.0 inch

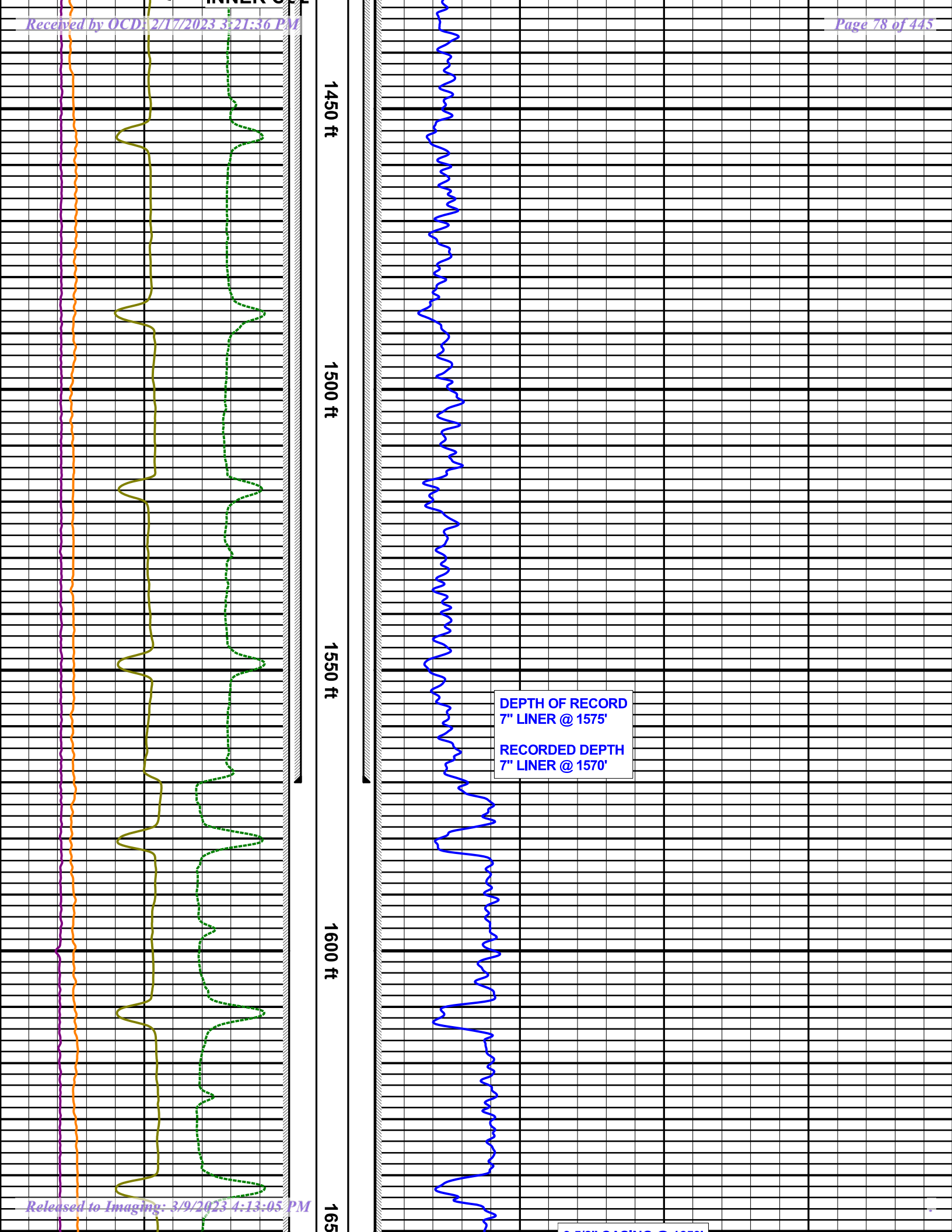
BASE DENSITY LOG 11-19-22

Company	**: MARATHON**	**Date**	**: 19.11.2022**
Well	**: WELL_4**	**Time**	**: 11:33:35**
Scale	**: 1 : 240**	**Remarks**	**:**
Depth in	**: ft**		
Software	**: WinAPlot Ver. 7, 7, 5, 0**	**File Name**	**:**



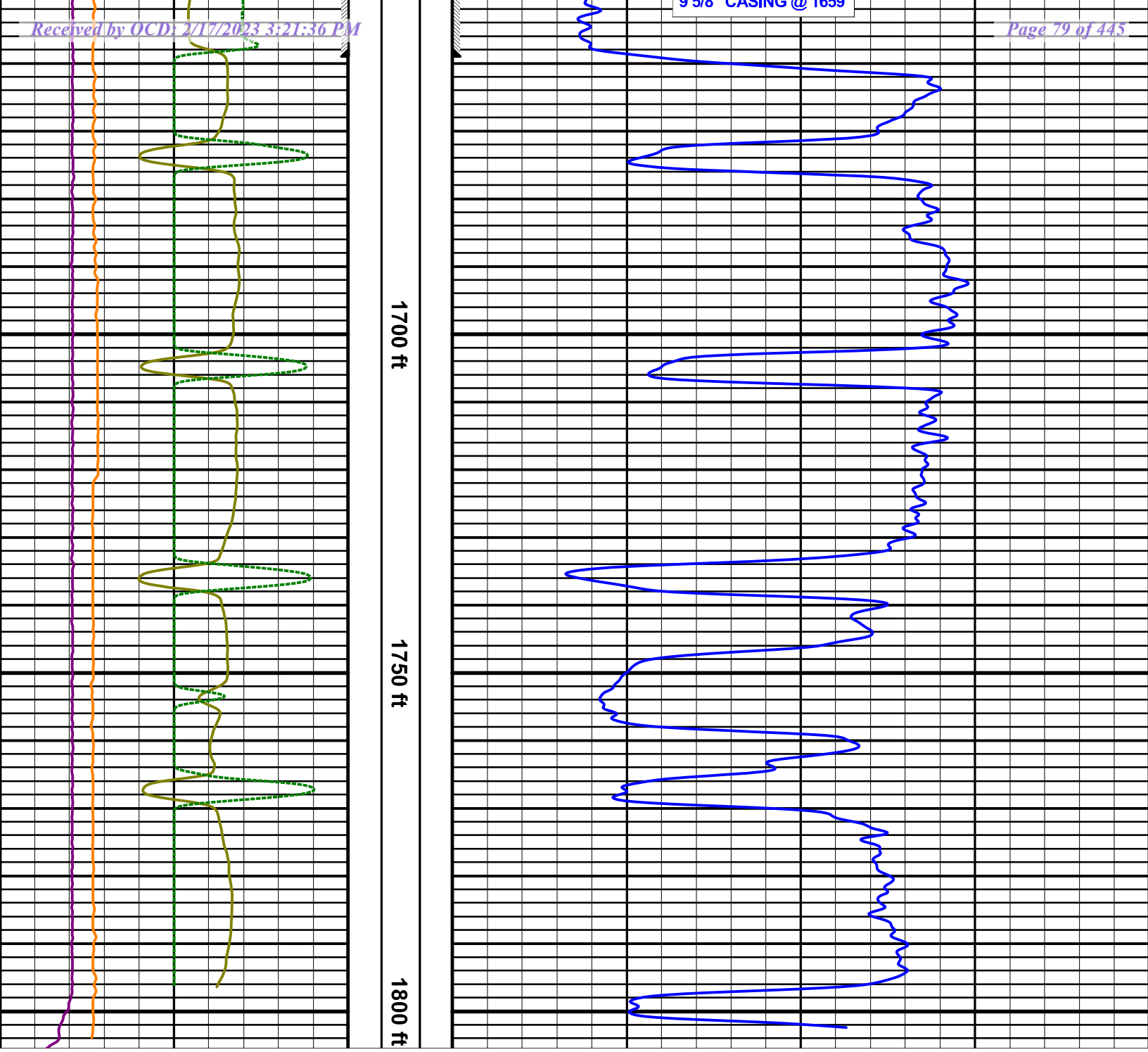
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Received by OCD: 2/17/2023 3:21:36 PM



Released to Imaging: 3/9/2023 4:13:05 PM

Received by OCD: 2/17/2023 3:21:36 PM



PIPE TEST RUNS 1 AND 2 OVERLAID

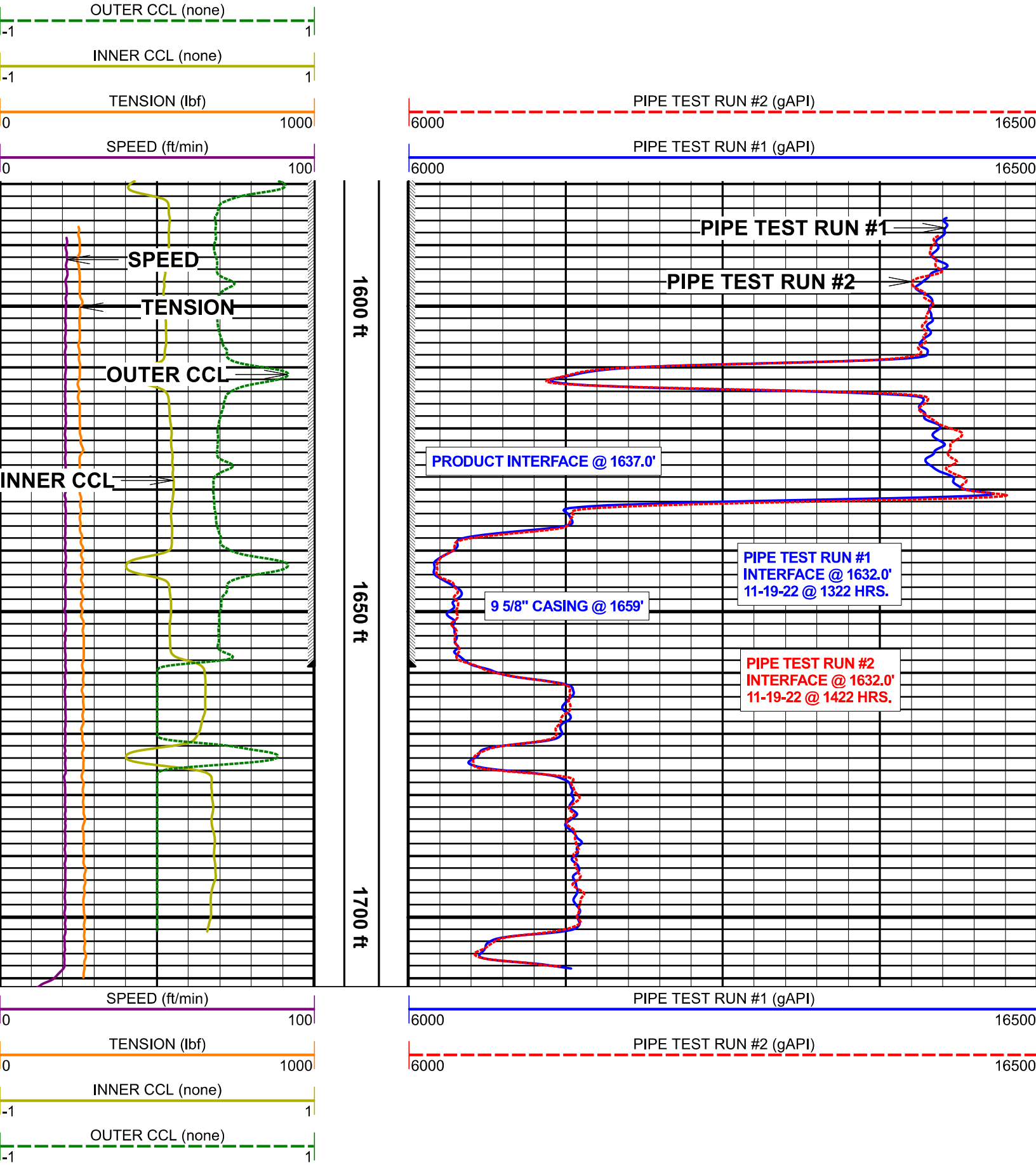
Company : MARATHON
Well : WELL_4

Date : 19.11.2022
Time : 13:18:12

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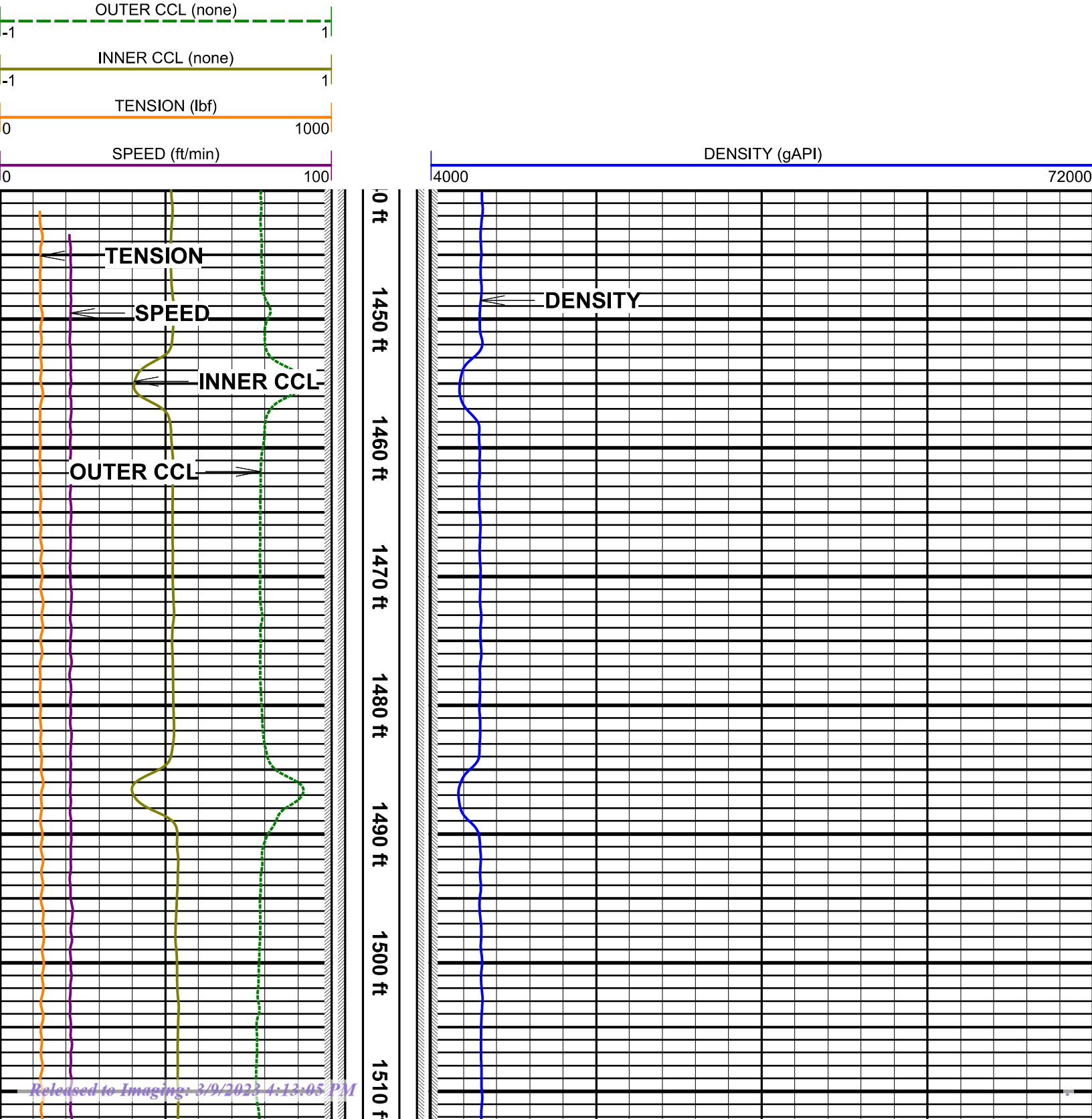
Scale : 1 : 240
Depth in : ft
Software : WinAPlot Ver. 7, 7, 5, 0

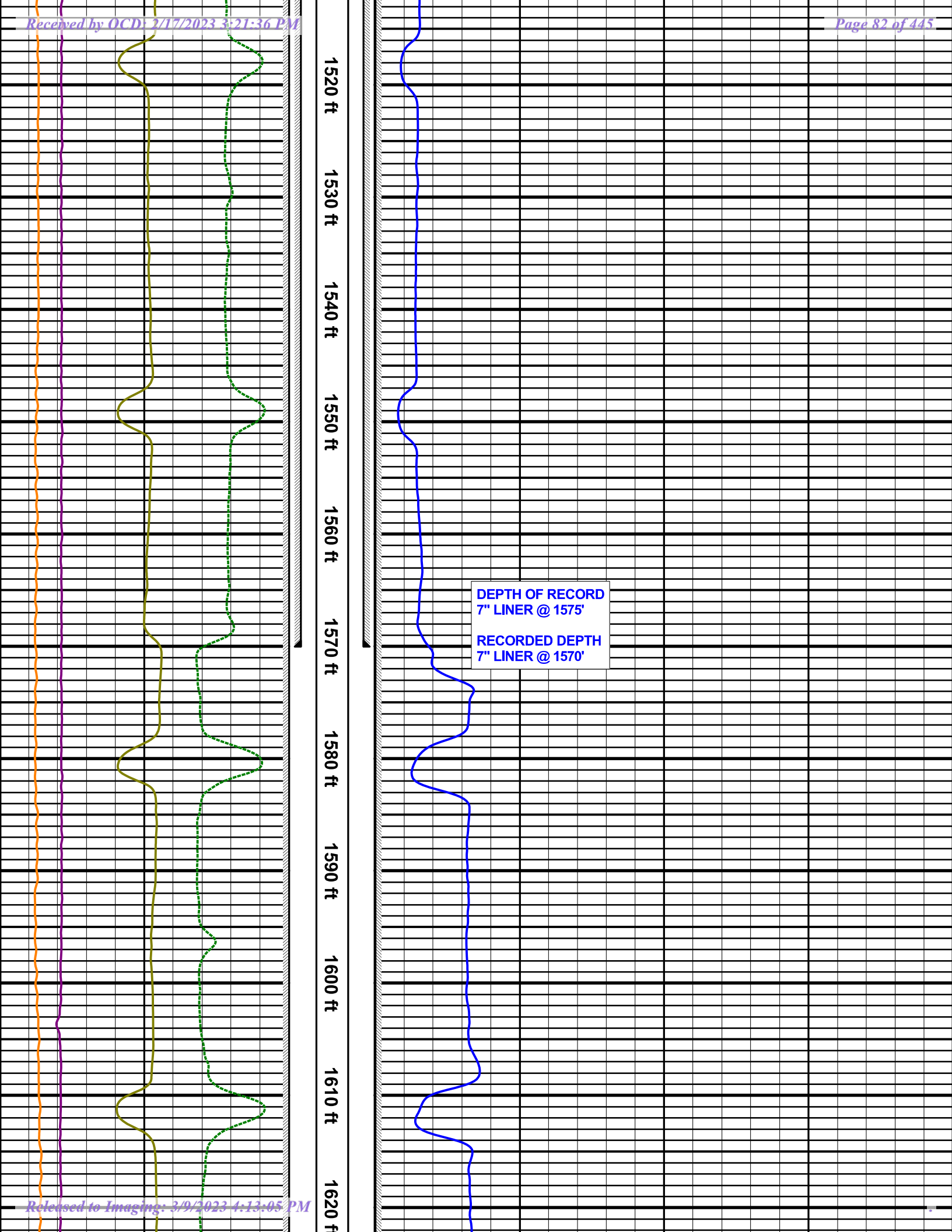
Remarks :
File Name :

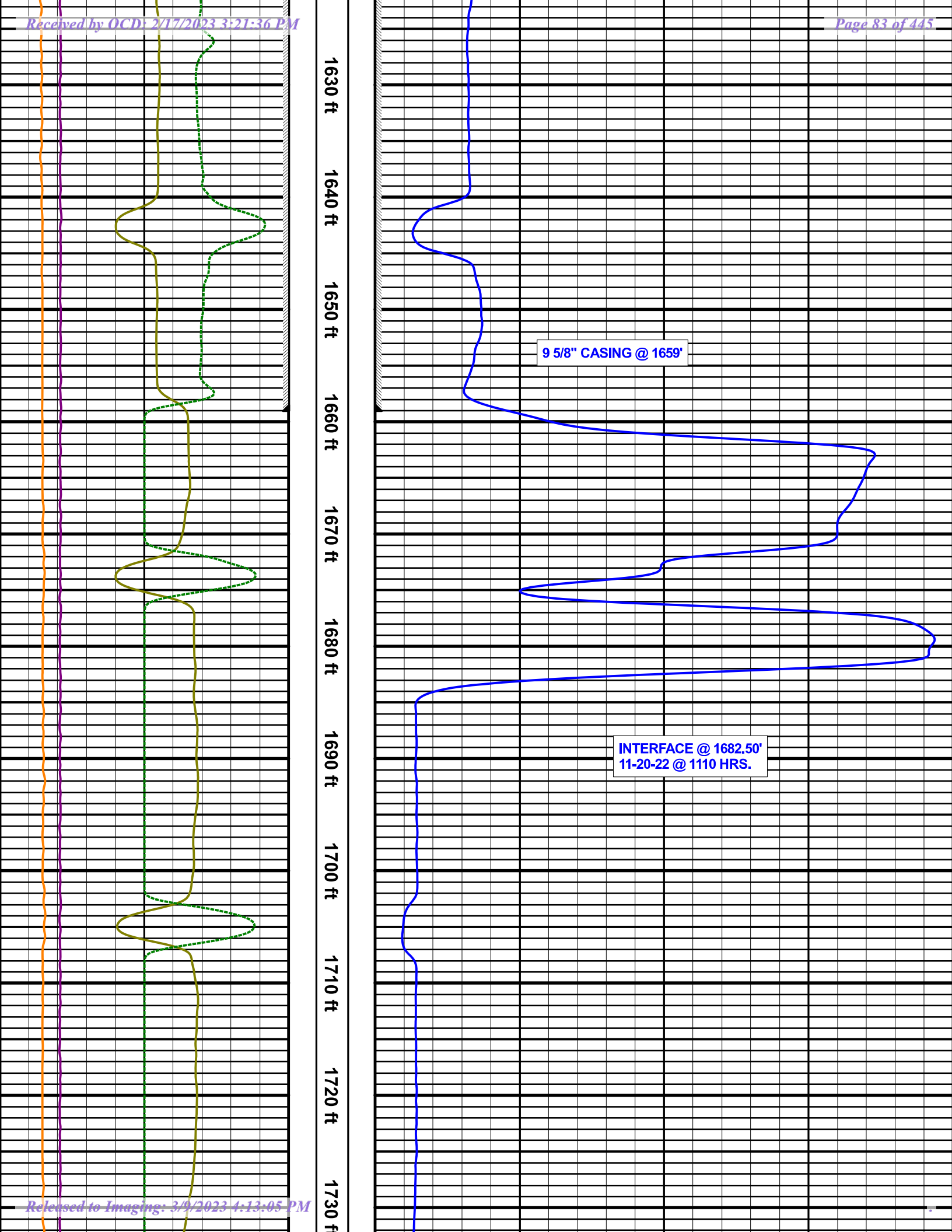


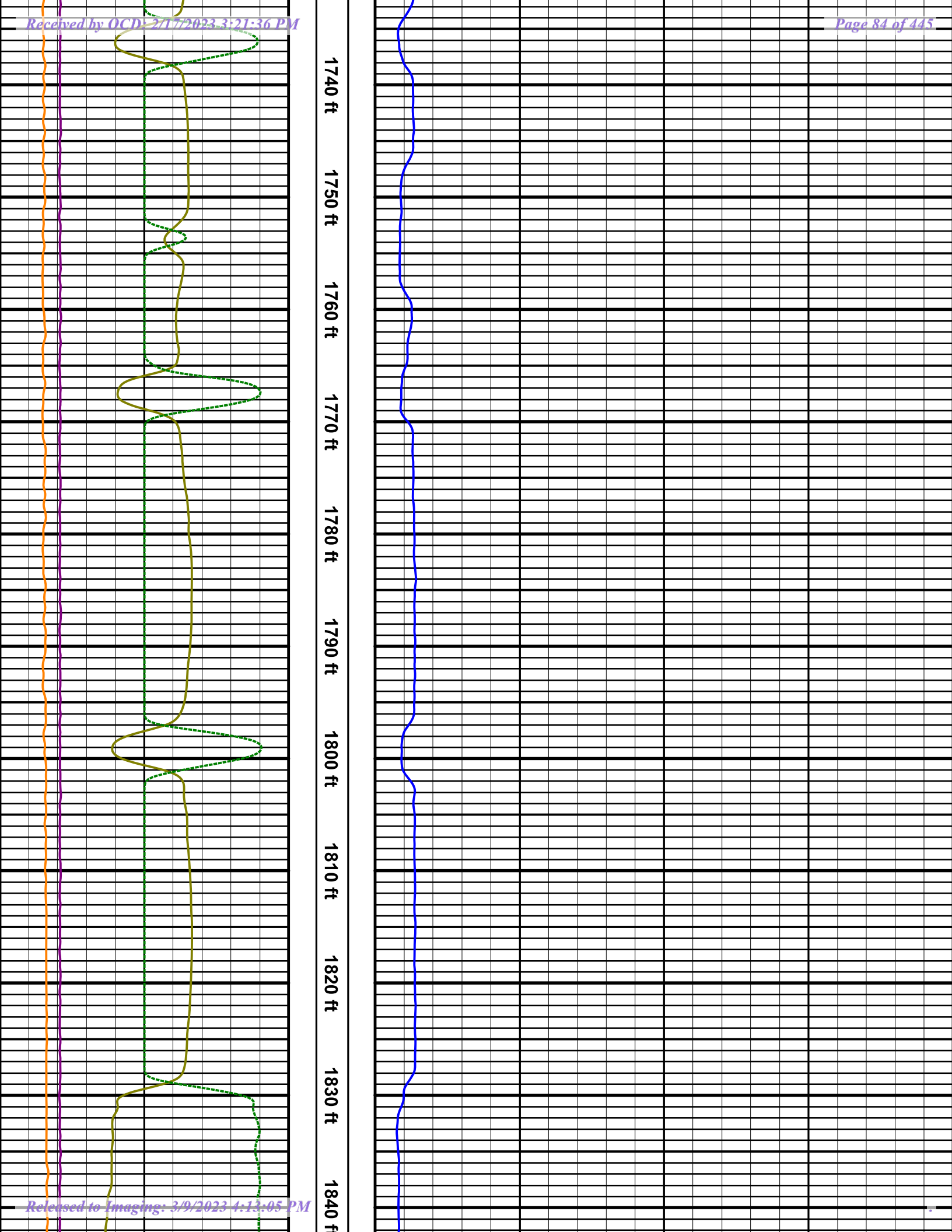
POST INJECTION LOG 11-20-22

Company	**: MARATHON**	**Date**	**: 20.11.2022**
Well	**: WELL_4**	**Time**	**: 10:00:40**
Scale	**: 1 : 120**	**Remarks**	**:**
Depth in	**: ft**		
Software	**: WinAPlot Ver. 7, 7, 5, 0**	**File Name**	**:**

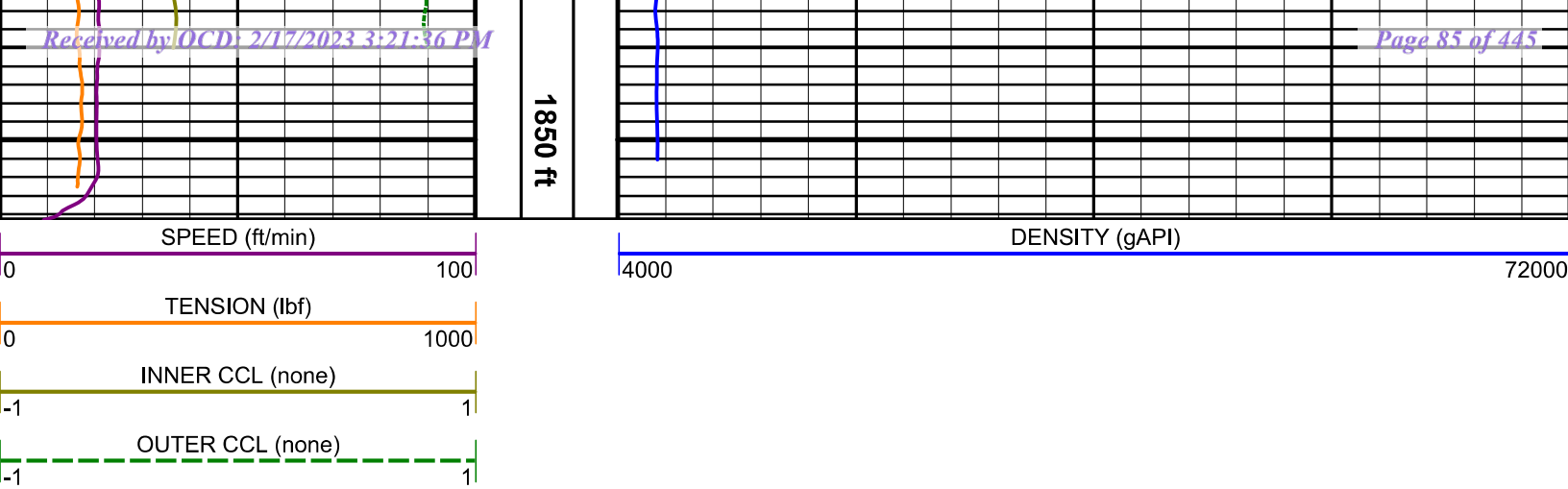



1520 ft
1530 ft
1540 ft
1550 ft
1560 ft
1570 ft
1580 ft
1590 ft
1600 ft
1610 ft
1620 ft
DEPTH OF RECORD
7" LINER @ 1575'
RECORDED DEPTH
7" LINER @ 1570'


1630 ft
1640 ft
1650 ft
1660 ft
1670 ft
1680 ft
1690 ft
1700 ft
1710 ft
1720 ft
1730 ft
9 5/8" CASING @ 1659'
INTERFACE @ 1682.50'
11-20-22 @ 1110 HRS.

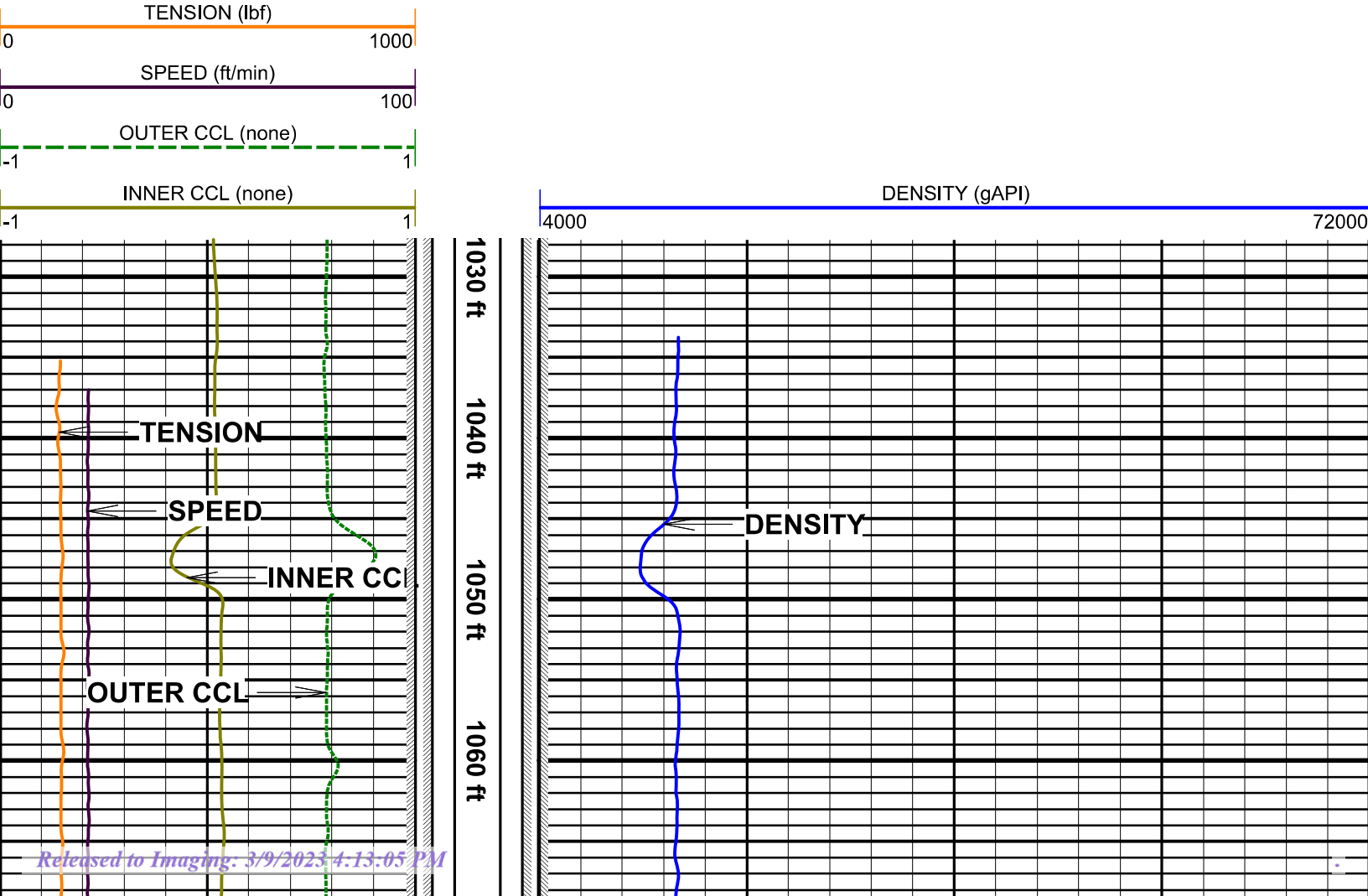

1740 ft
1750 ft
1760 ft
1770 ft
1780 ft
1790 ft
1800 ft
1810 ft
1820 ft
1830 ft
1840 ft

Received by OCD: 2/17/2023 3:21:36 PM

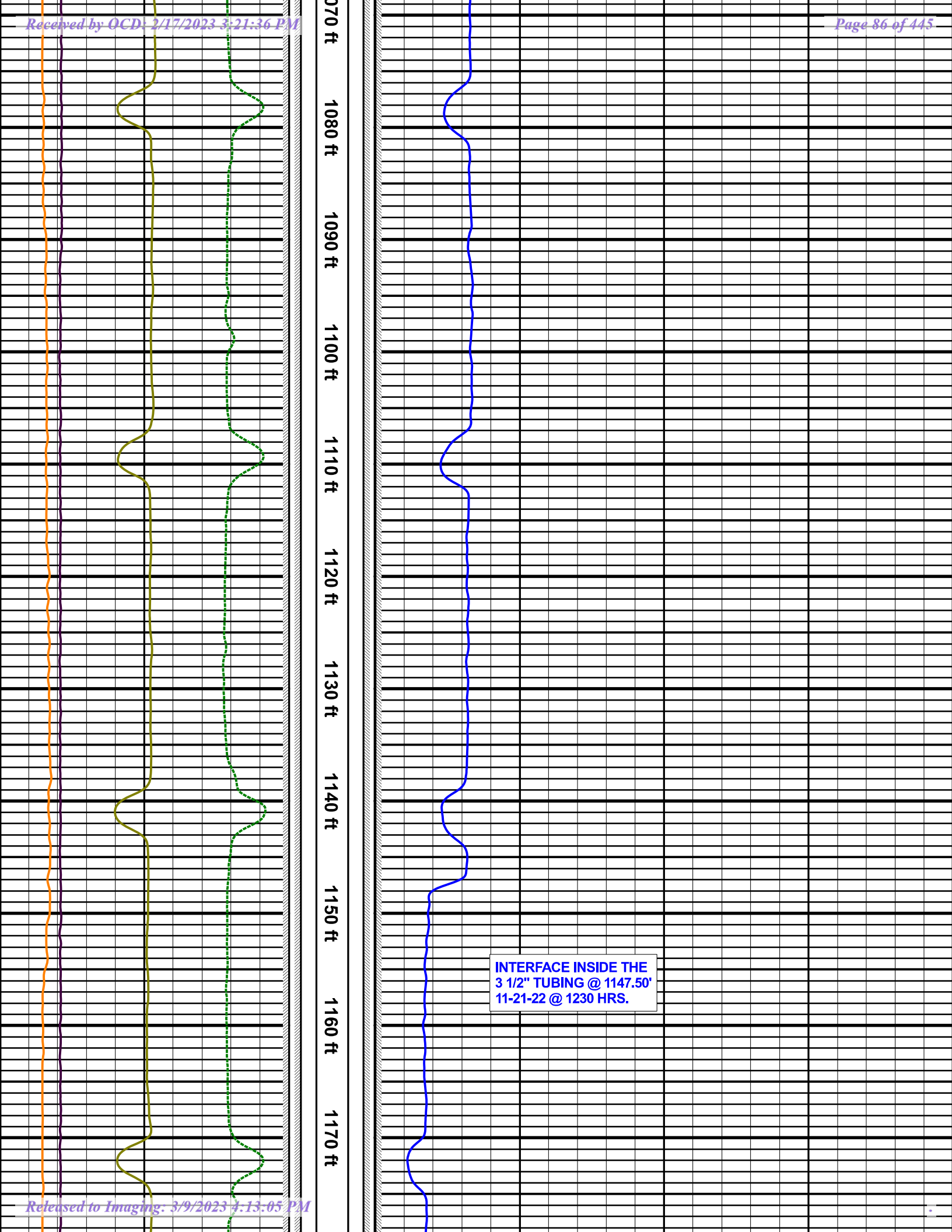


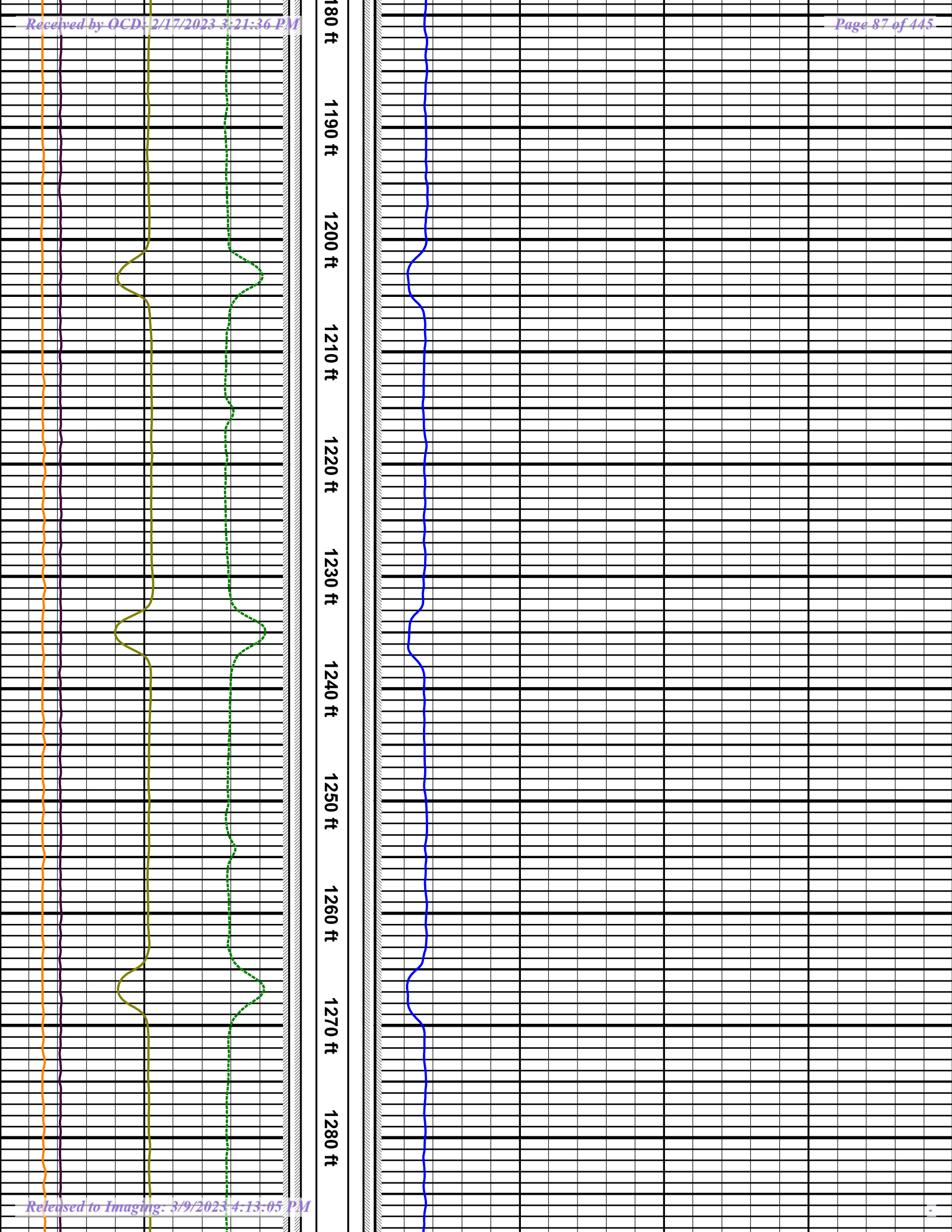
TEST START LOG 11-21-22

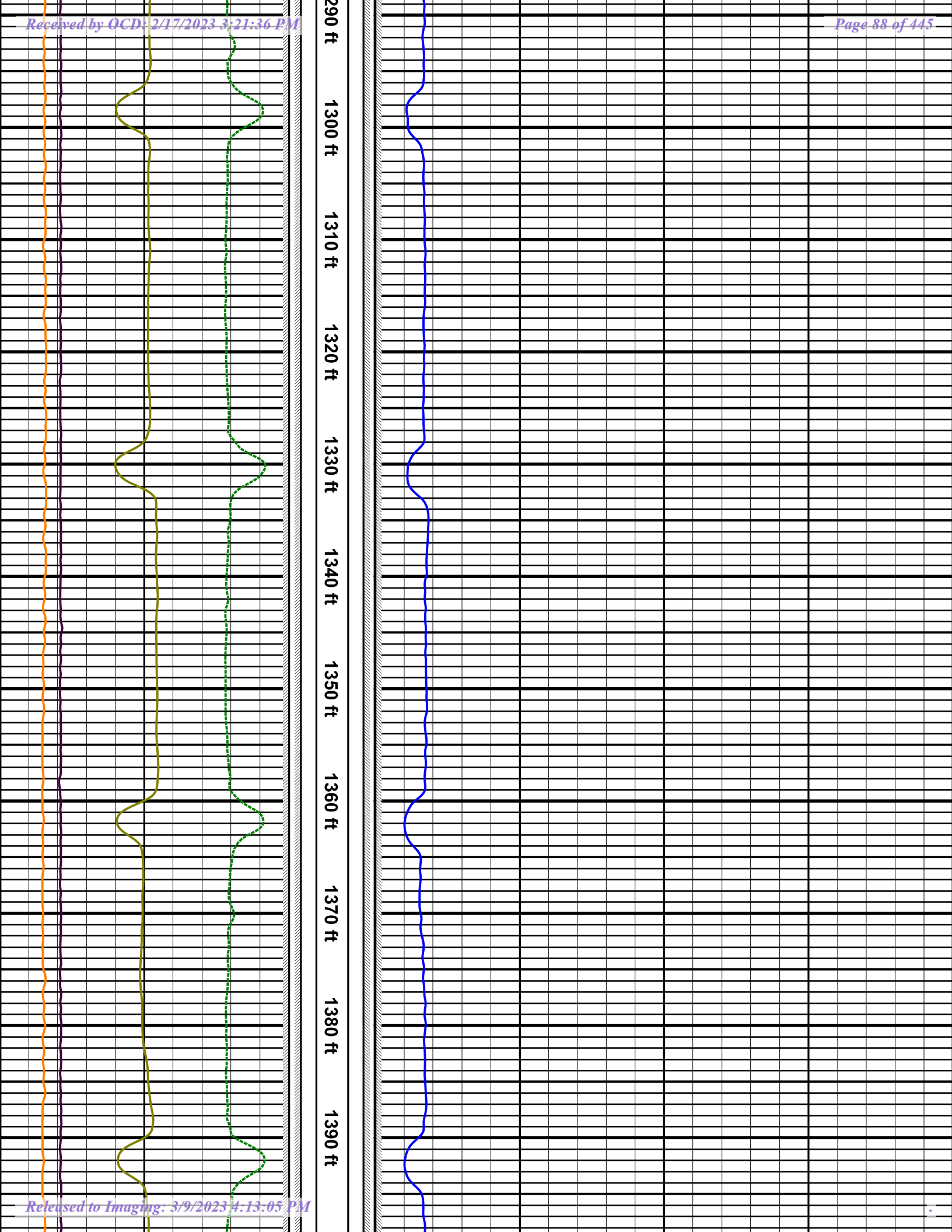
Company	**: MARATHON**	**Date**	**: 21.11.2022**
Well	**: WELL_4**	**Time**	**: 10:54:59**
Scale	**: 1 : 120**	**Remarks**	**:**
Depth in	**: ft**		
Software	**: WinAPlot Ver. 7, 7, 5, 0**	**File Name**	**:**

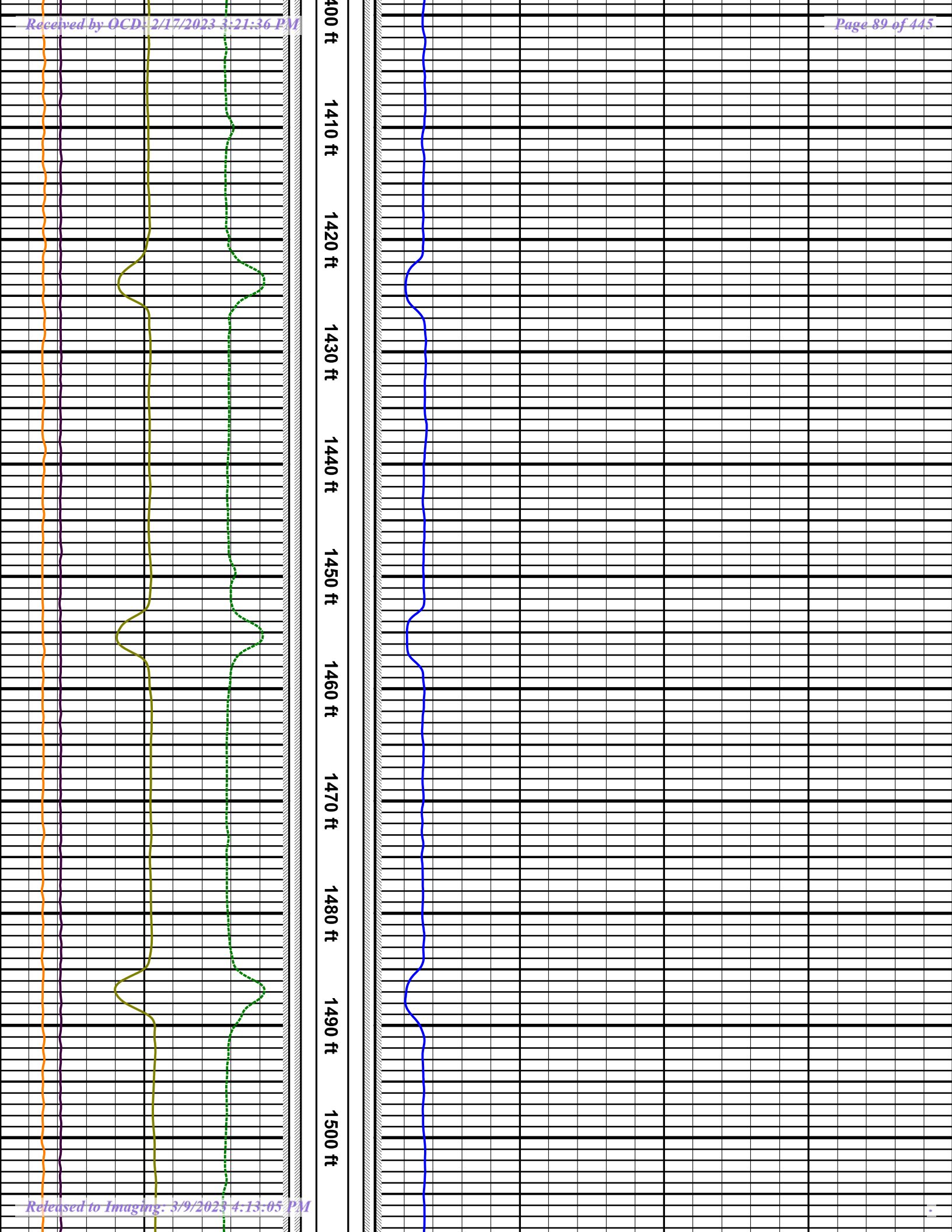


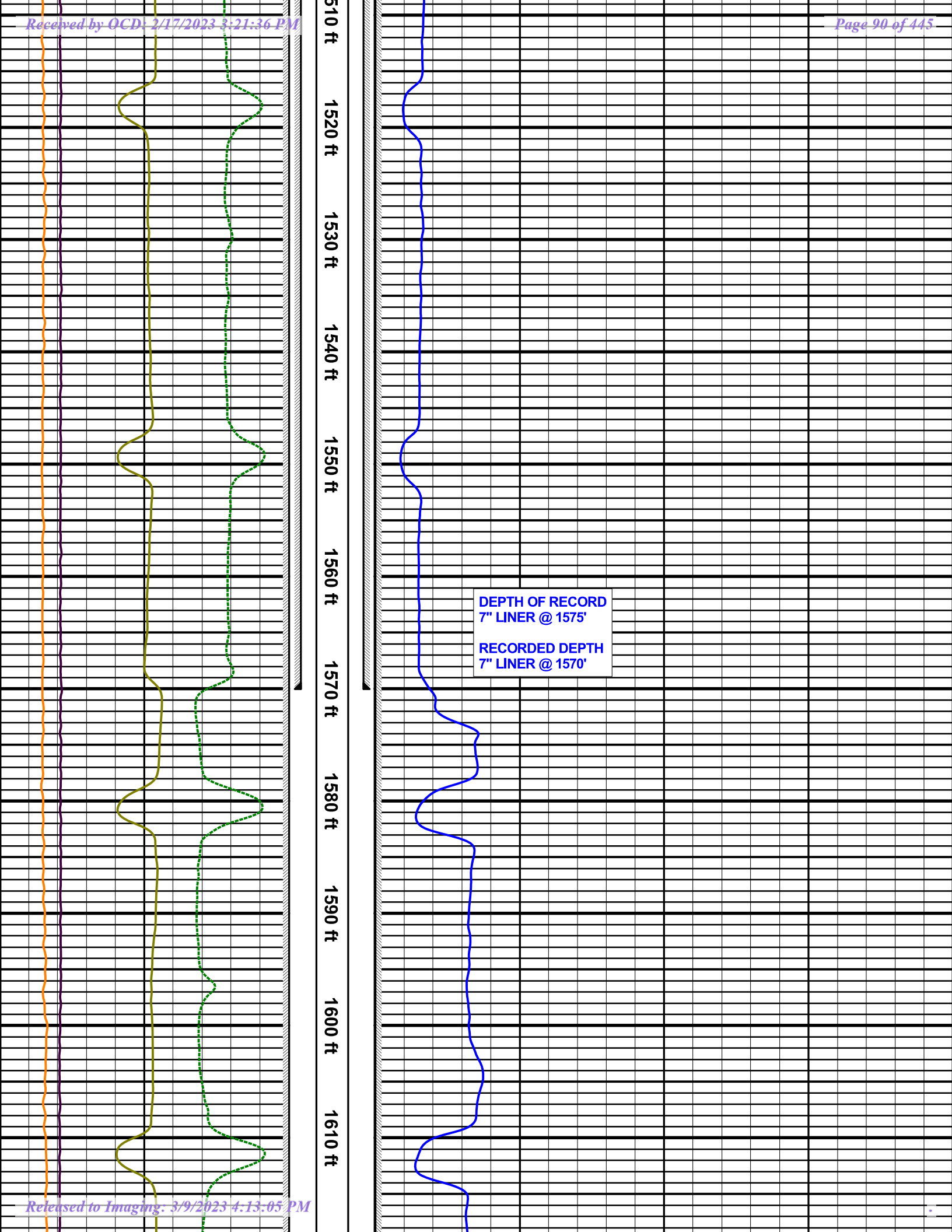
Released to Imaging: 3/9/2023 4:13:05 PM

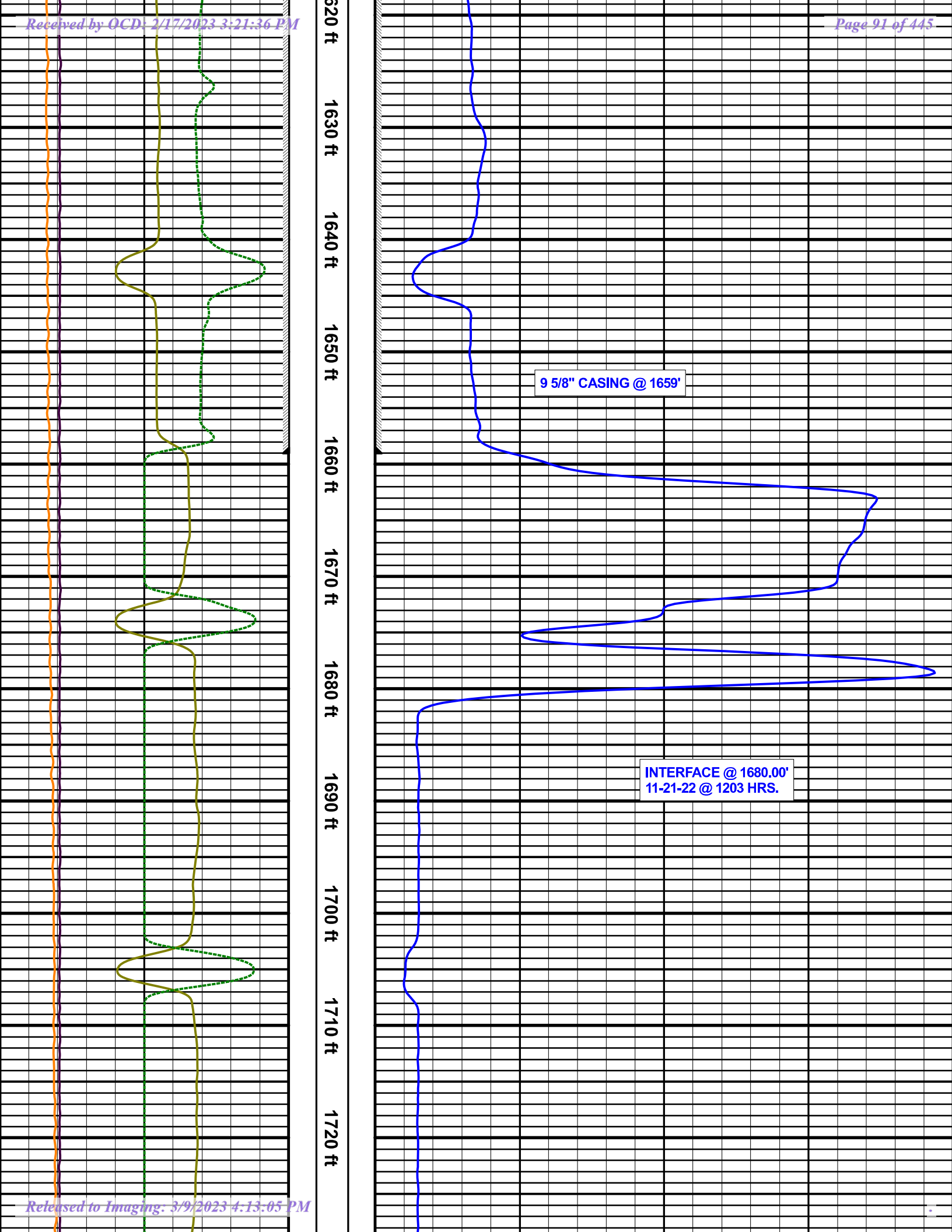

1070 ft
1080 ft
1090 ft
1100 ft
1110 ft
1120 ft
1130 ft
1140 ft
1150 ft
1160 ft
1170 ft
INTERFACE INSIDE THE
3 1/2" TUBING @ 1147.50'
11-21-22 @ 1230 HRS.

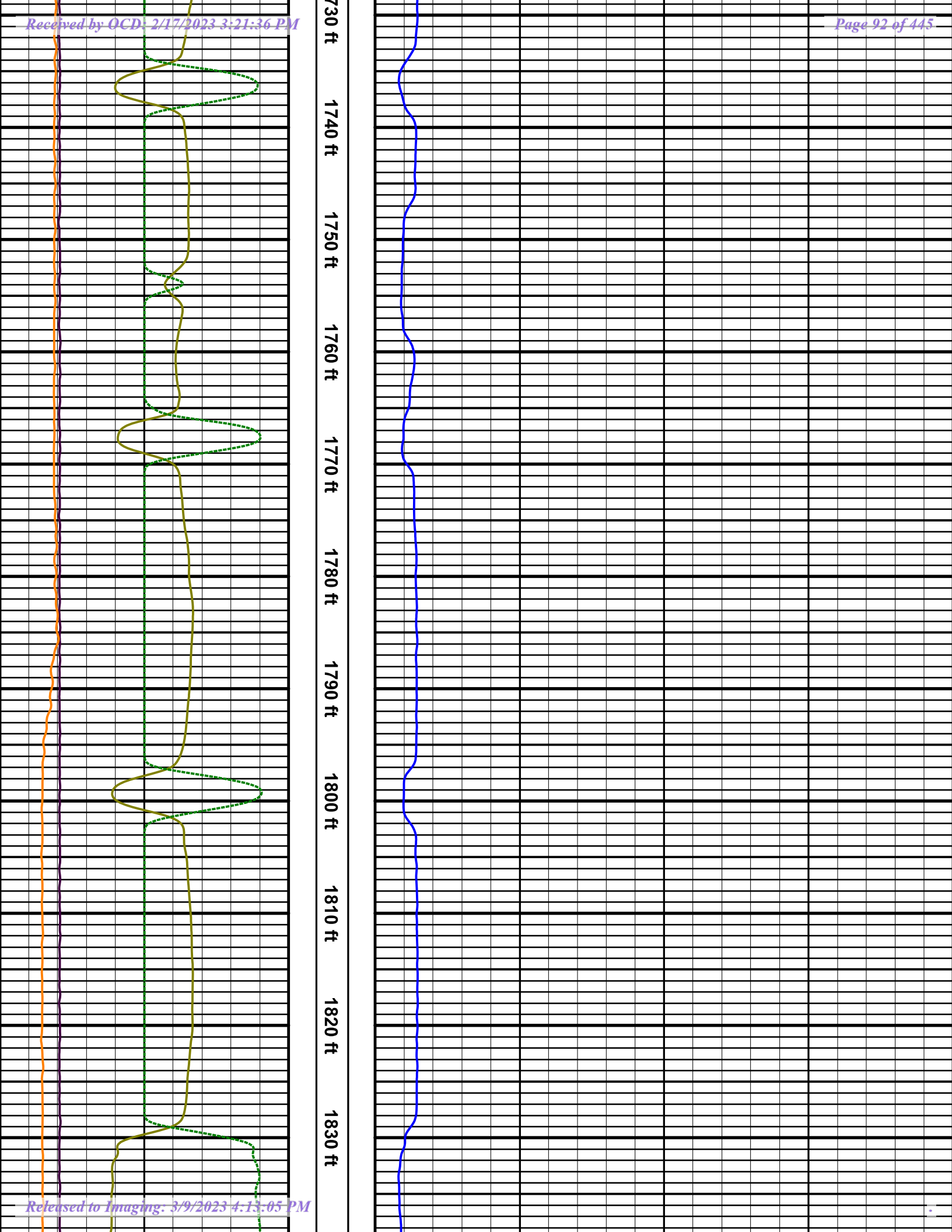

1180 ft
1190 ft
1200 ft
1210 ft
1220 ft
1230 ft
1240 ft
1250 ft
1260 ft
1270 ft
1280 ft

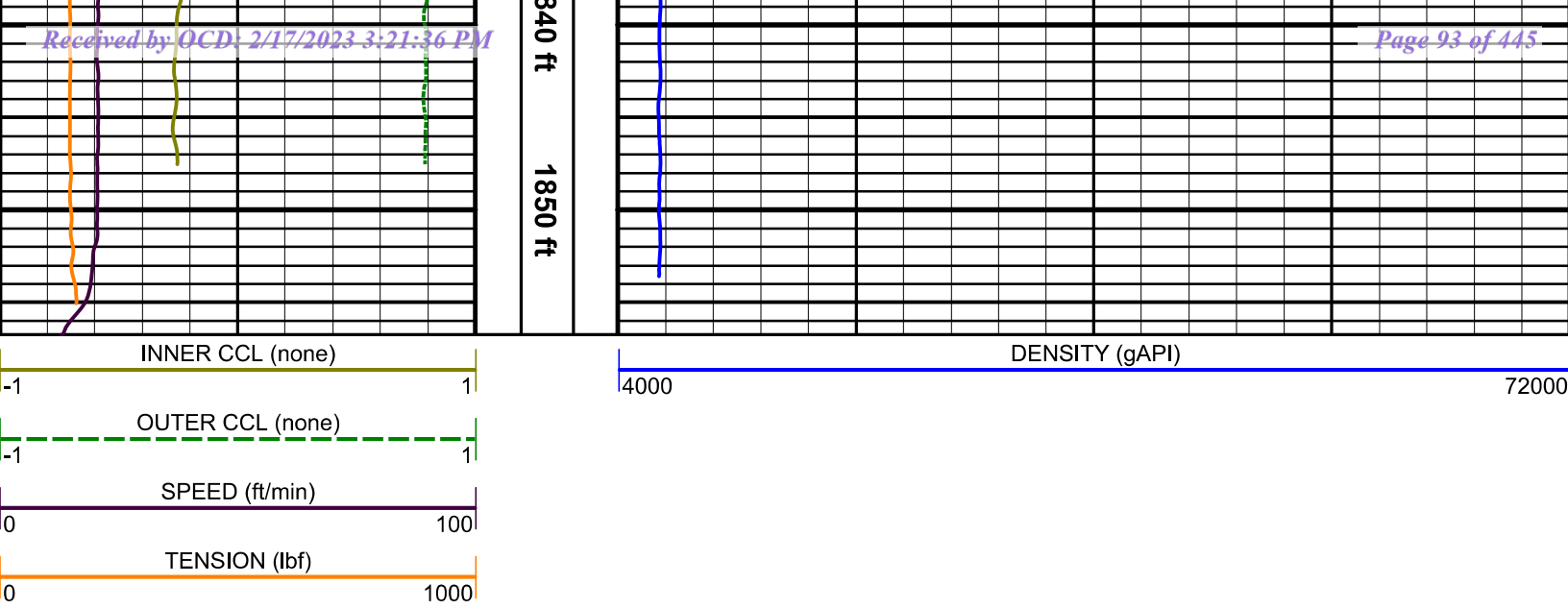

290 ft
1300 ft
1310 ft
1320 ft
1330 ft
1340 ft
1350 ft
1360 ft
1370 ft
1380 ft
1390 ft


1400 ft
1410 ft
1420 ft
1430 ft
1440 ft
1450 ft
1460 ft
1470 ft
1480 ft
1490 ft
1500 ft


510 ft
1520 ft
1530 ft
1540 ft
1550 ft
1560 ft
1570 ft
1580 ft
1590 ft
1600 ft
1610 ft
DEPTH OF RECORD
7" LINER @ 1575'
RECORDED DEPTH
7" LINER @ 1570'

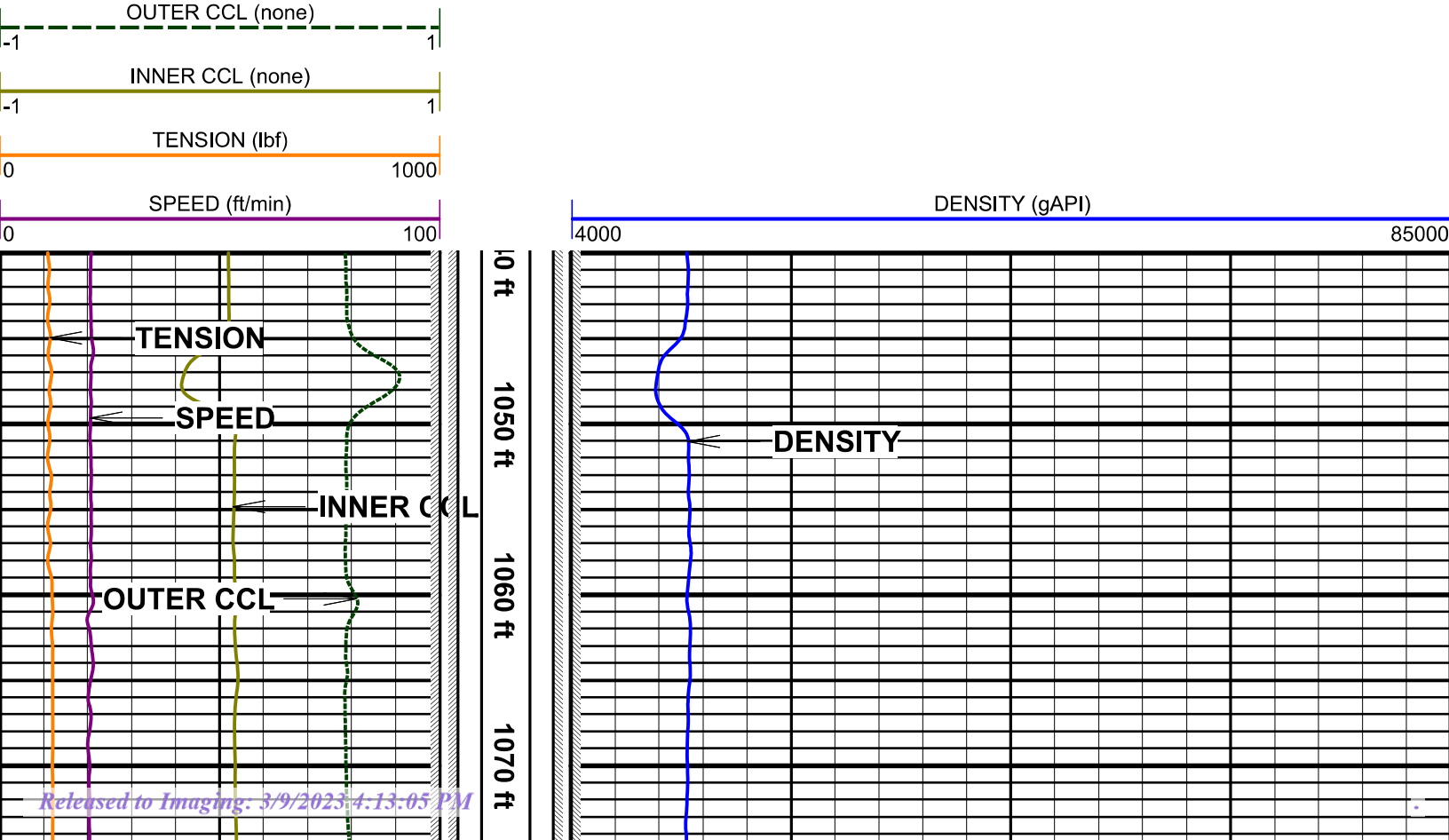

620 ft
1630 ft
1640 ft
1650 ft
1660 ft
1670 ft
1680 ft
1690 ft
1700 ft
1710 ft
1720 ft
9 5/8" CASING @ 1659'
INTERFACE @ 1680.00'
11-21-22 @ 1203 HRS.

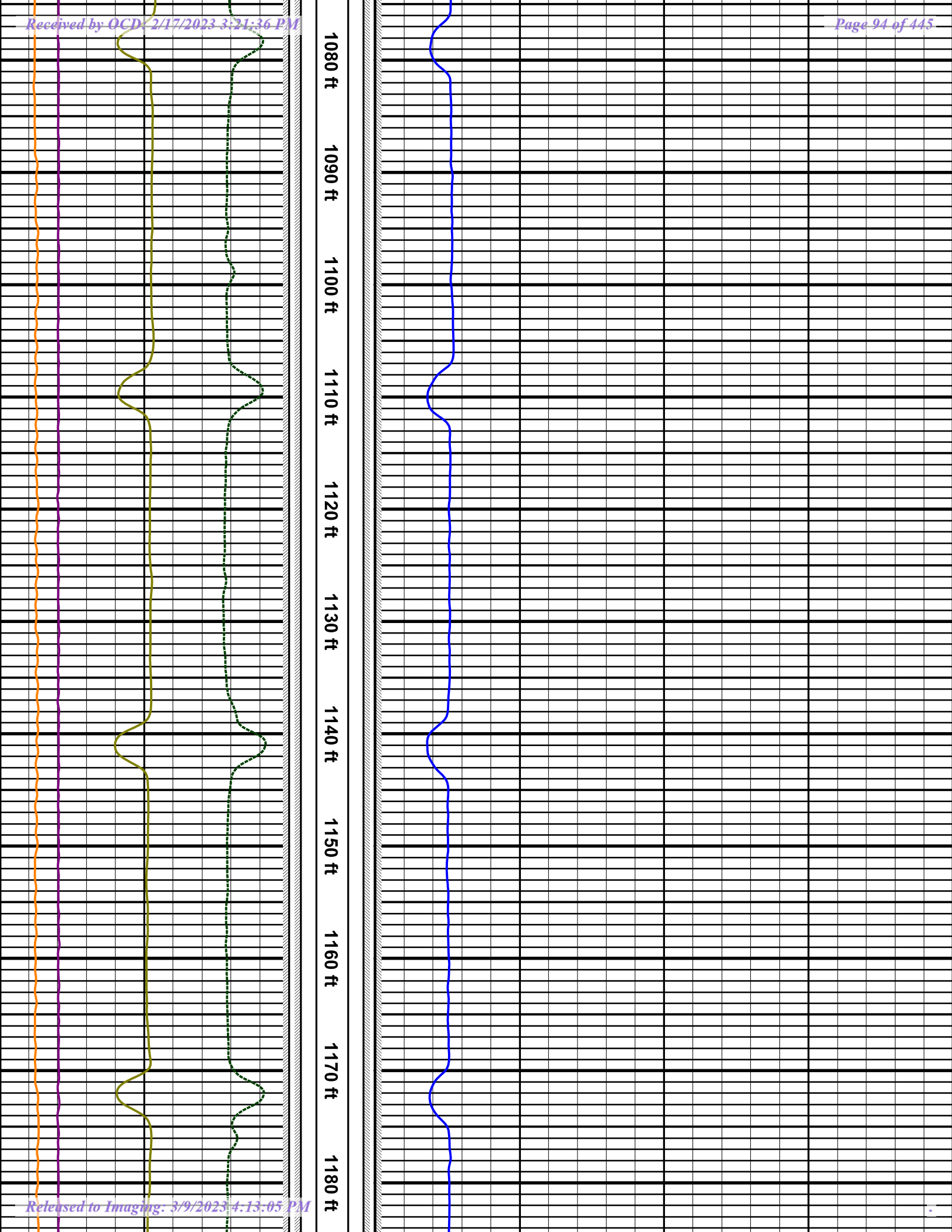

1730 ft
1740 ft
1750 ft
1760 ft
1770 ft
1780 ft
1790 ft
1800 ft
1810 ft
1820 ft
1830 ft

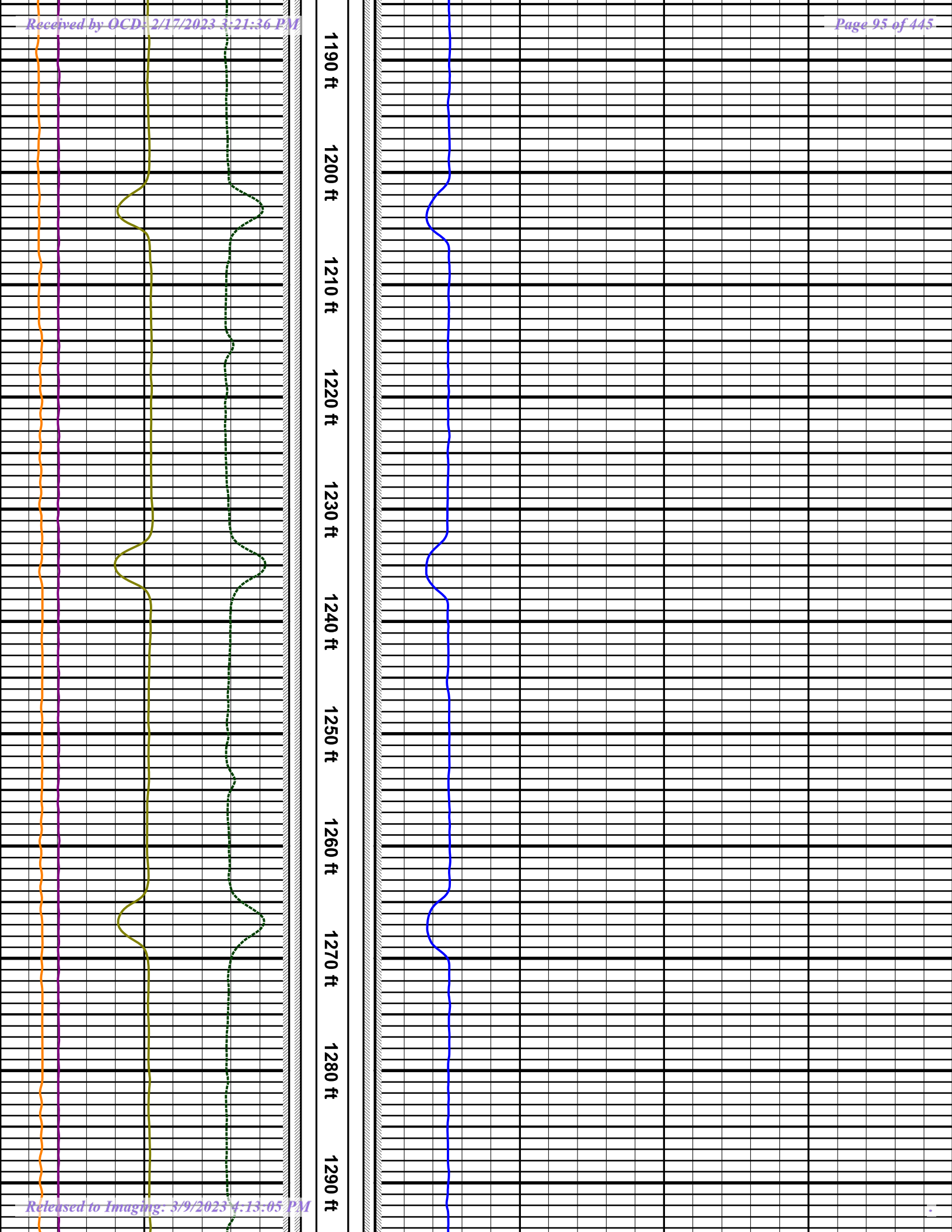


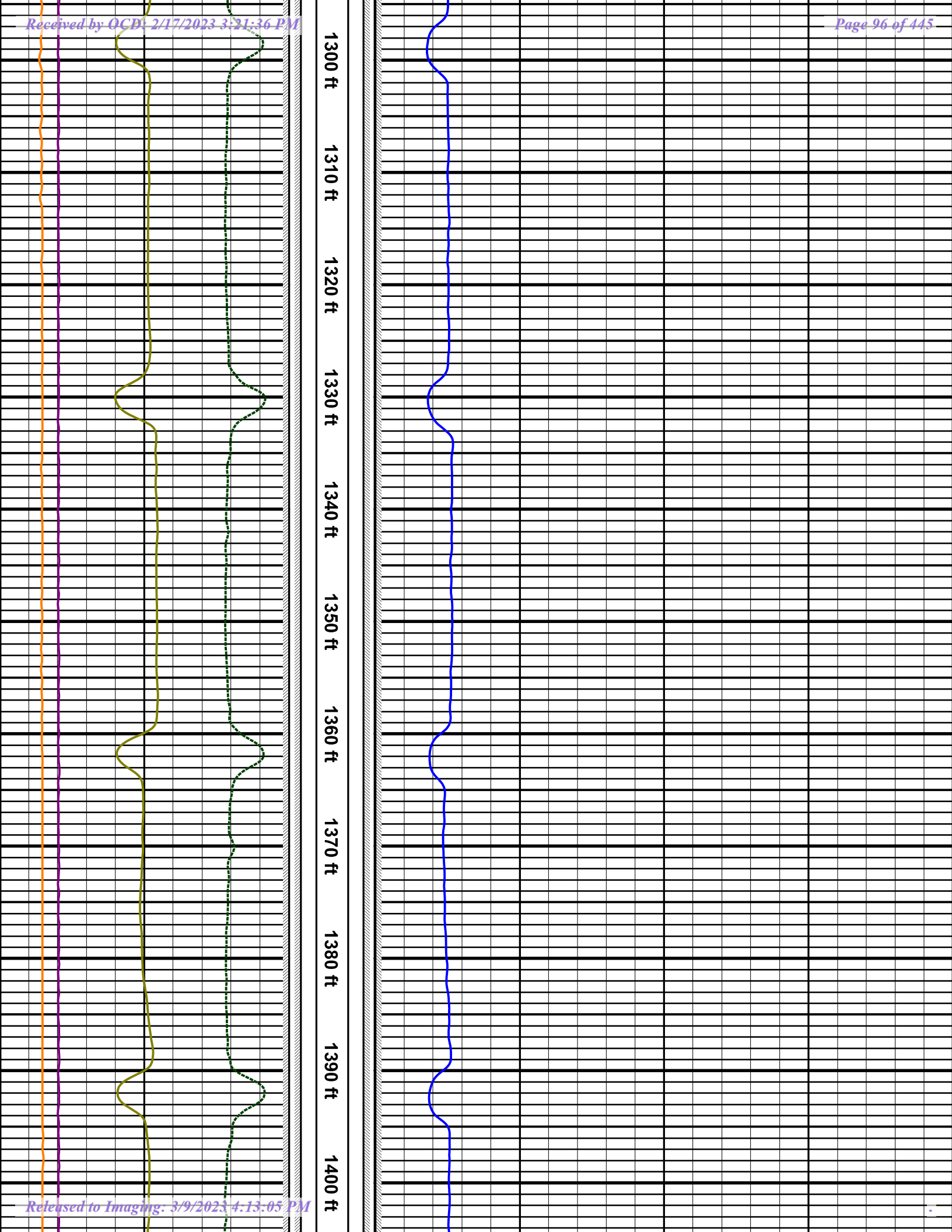
TEST FINISH LOG 11-22-22

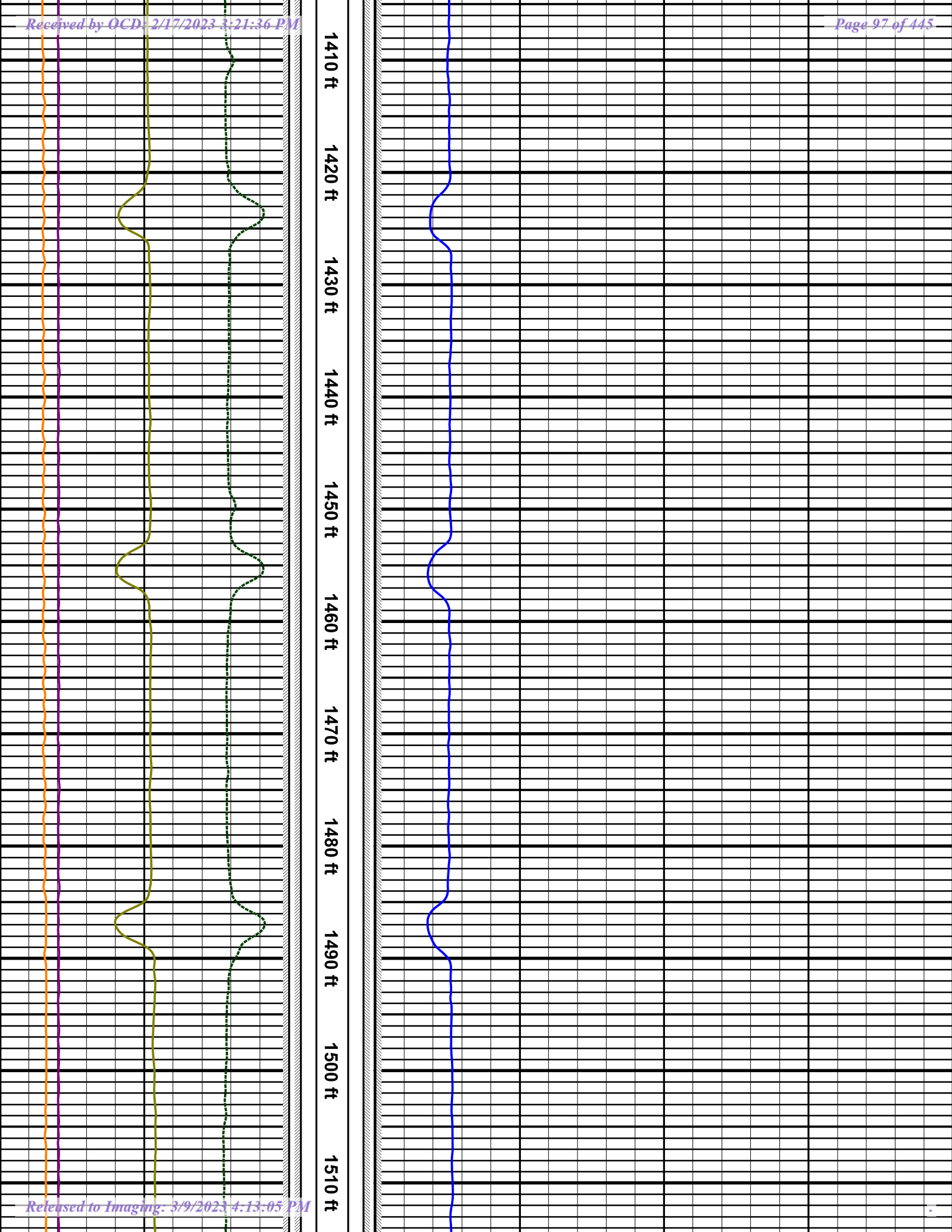
Company	**: MARATHON**	**Date**	**: 22.11.2022**
Well	**: WELL_4**	**Time**	**: 13:00:32**
Scale	**: 1 : 120**	**Remarks**	**:**
Depth in	**: ft**		
Software	**: WinAPlot Ver. 7, 7, 5, 0**	**File Name**	**:**

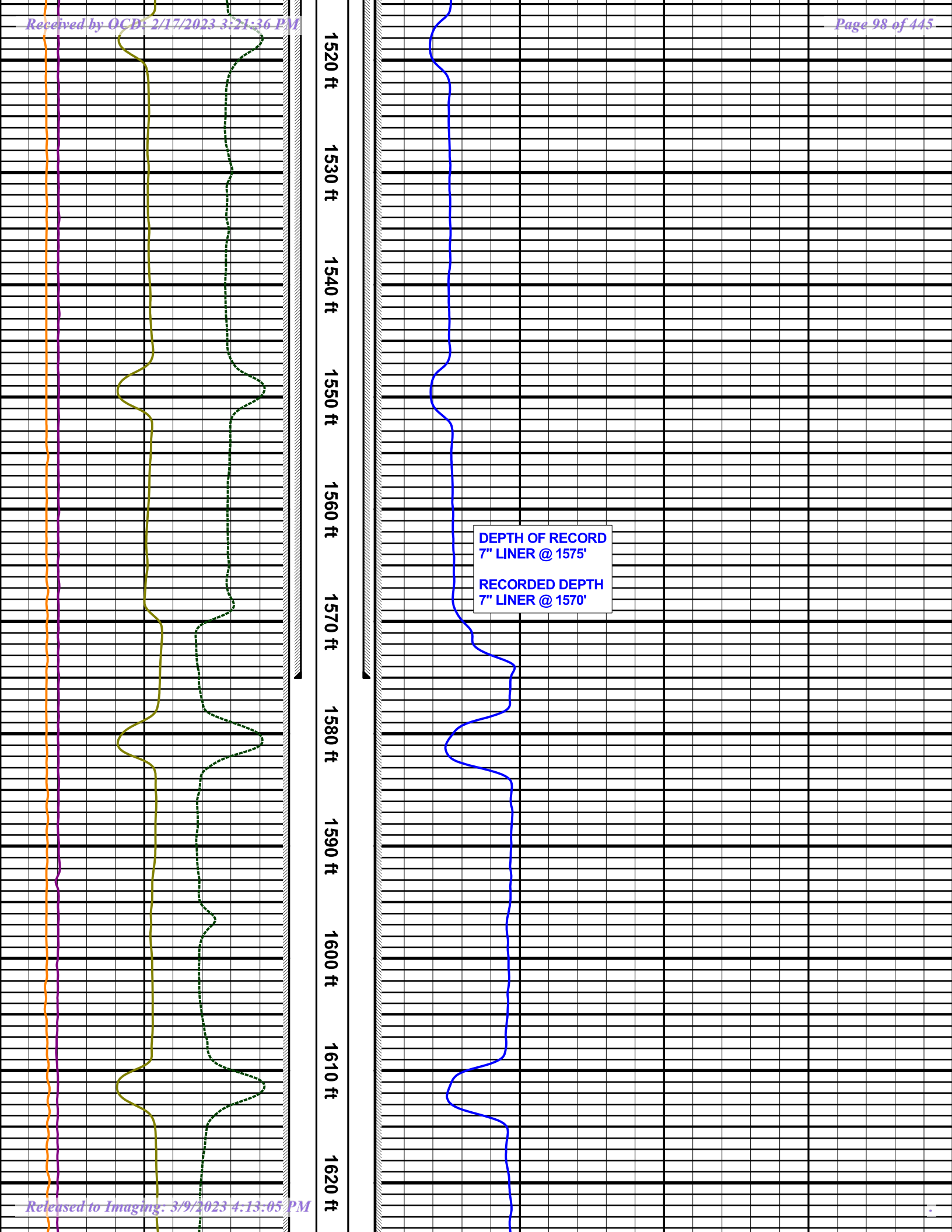


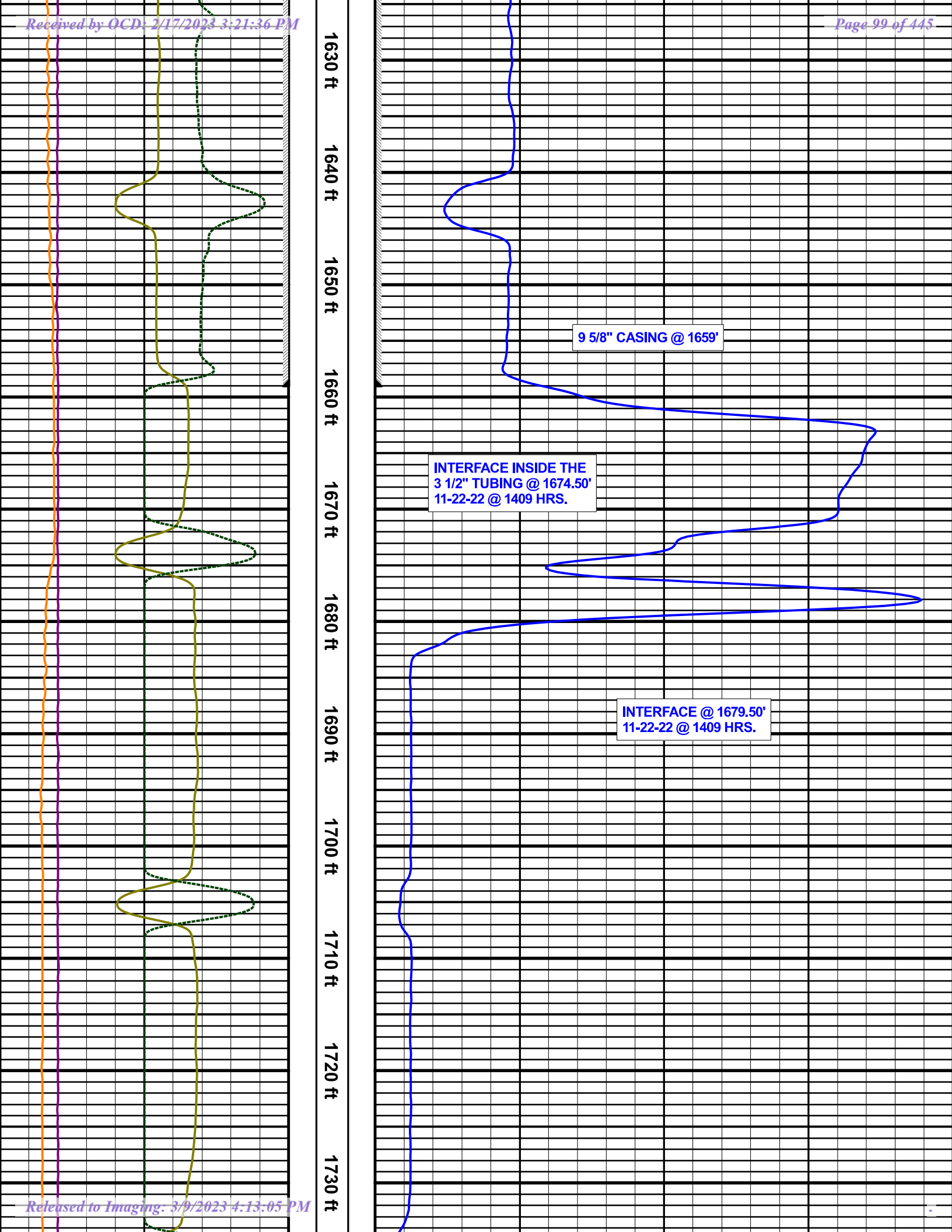

1080 ft
1090 ft
1100 ft
1110 ft
1120 ft
1130 ft
1140 ft
1150 ft
1160 ft
1170 ft
1180 ft

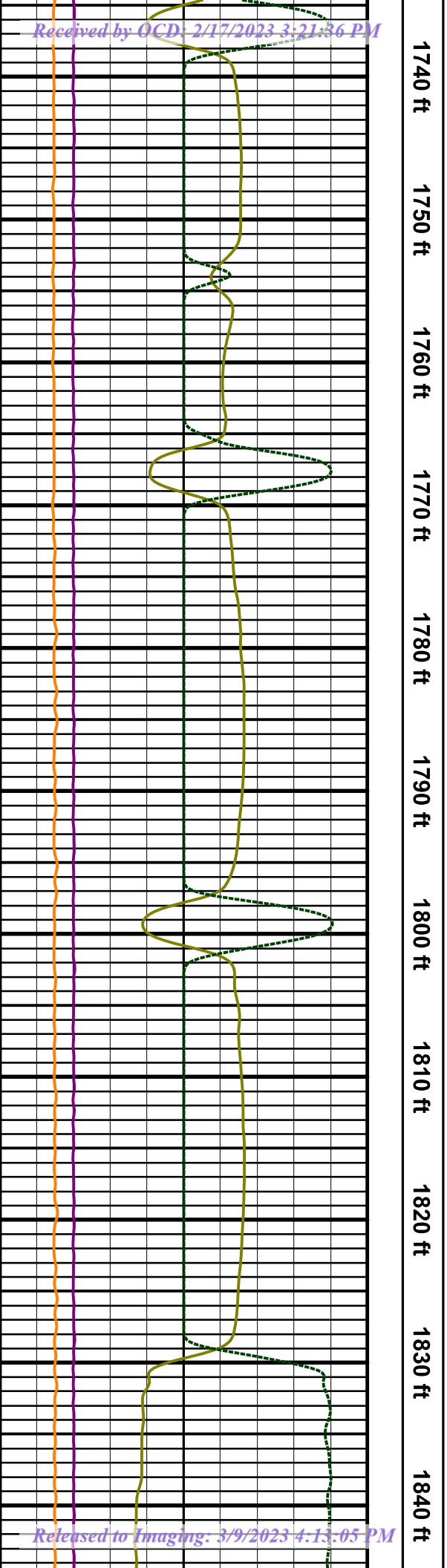

1190 ft
1200 ft
1210 ft
1220 ft
1230 ft
1240 ft
1250 ft
1260 ft
1270 ft
1280 ft
1290 ft


1300 ft
1310 ft
1320 ft
1330 ft
1340 ft
1350 ft
1360 ft
1370 ft
1380 ft
1390 ft
1400 ft

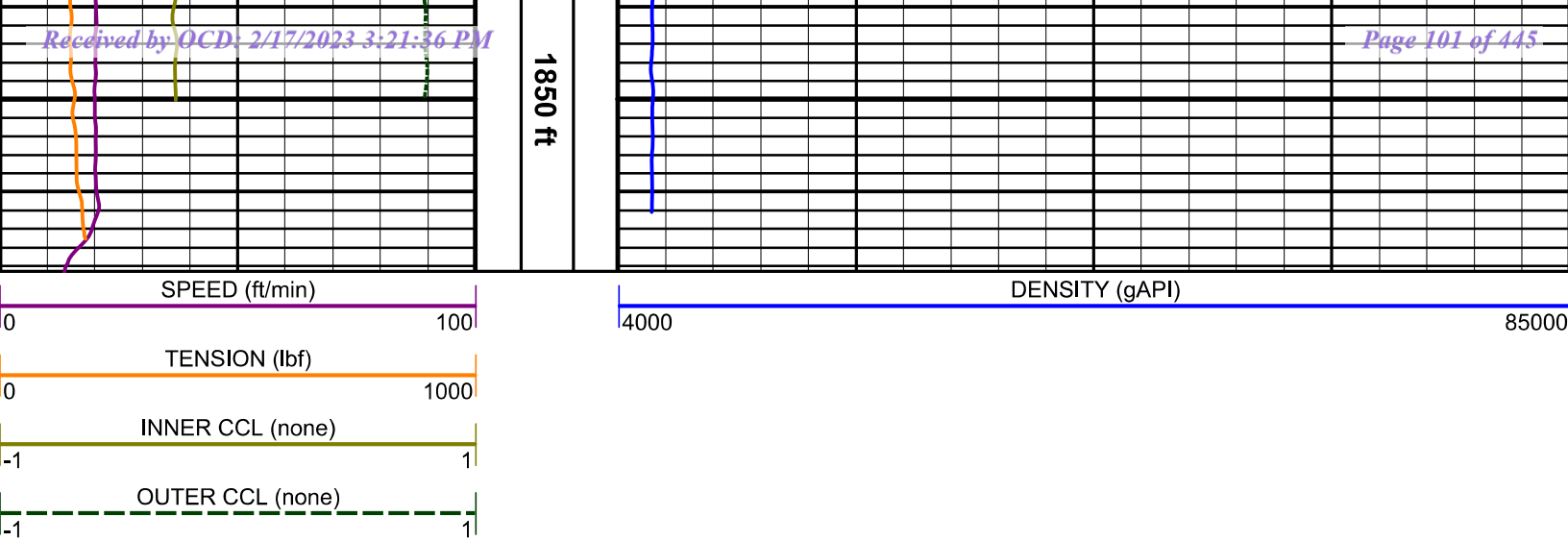

1410 ft
1420 ft
1430 ft
1440 ft
1450 ft
1460 ft
1470 ft
1480 ft
1490 ft
1500 ft
1510 ft


1520 ft
1530 ft
1540 ft
1550 ft
1560 ft
1570 ft
1580 ft
1590 ft
1600 ft
1610 ft
1620 ft
DEPTH OF RECORD
7" LINER @ 1575'
RECORDED DEPTH
7" LINER @ 1570'


1630 ft
1640 ft
1650 ft
1660 ft
1670 ft
1680 ft
1690 ft
1700 ft
1710 ft
1720 ft
1730 ft
9 5/8" CASING @ 1659'
INTERFACE INSIDE THE
3 1/2" TUBING @ 1674.50'
11-22-22 @ 1409 HRS.
INTERFACE @ 1679.50'
11-22-22 @ 1409 HRS.

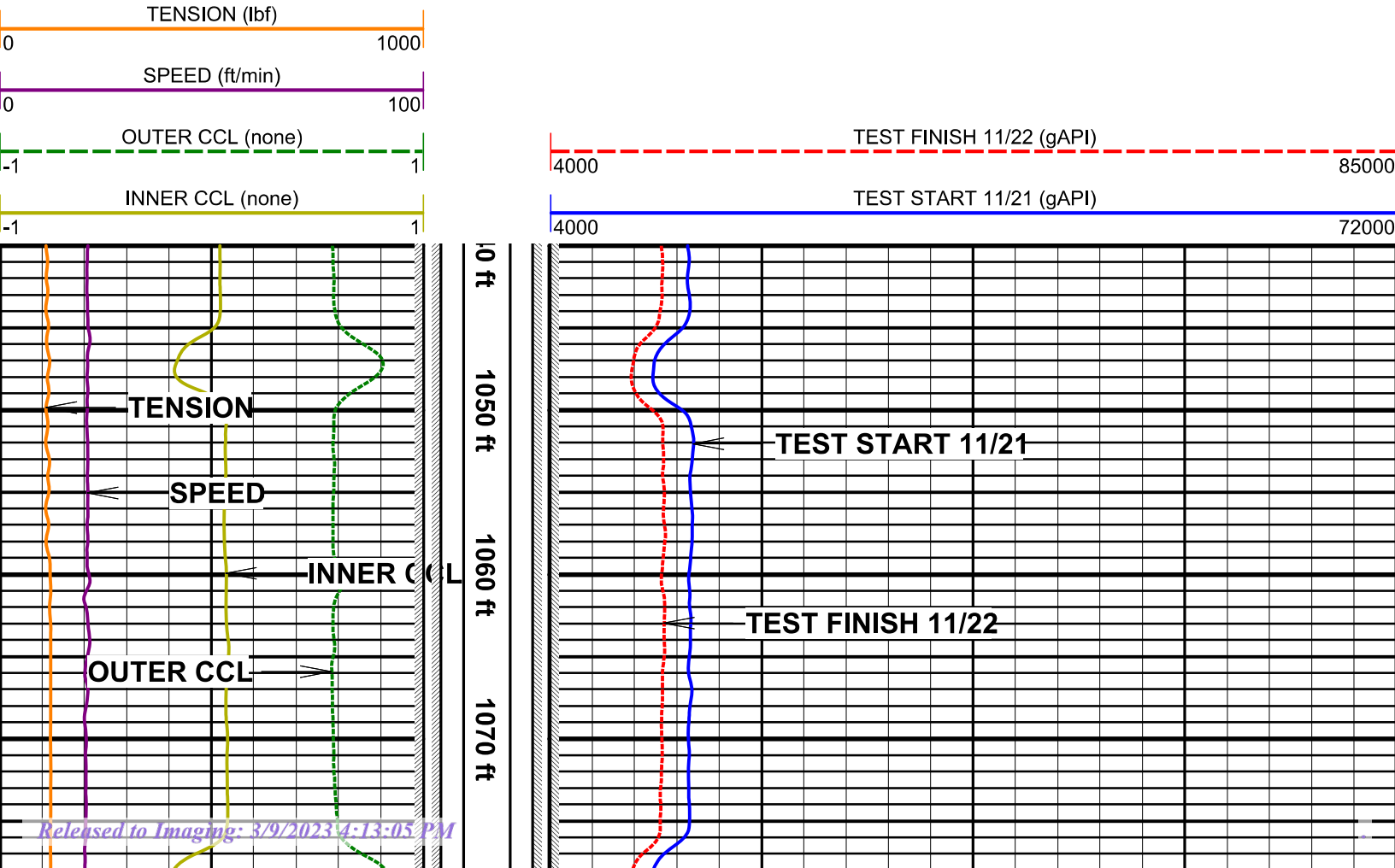

1740 ft
1750 ft
1760 ft
1770 ft
1780 ft
1790 ft
1800 ft
1810 ft
1820 ft
1830 ft
1840 ft

Received by OCD: 2/17/2023 3:21:36 PM

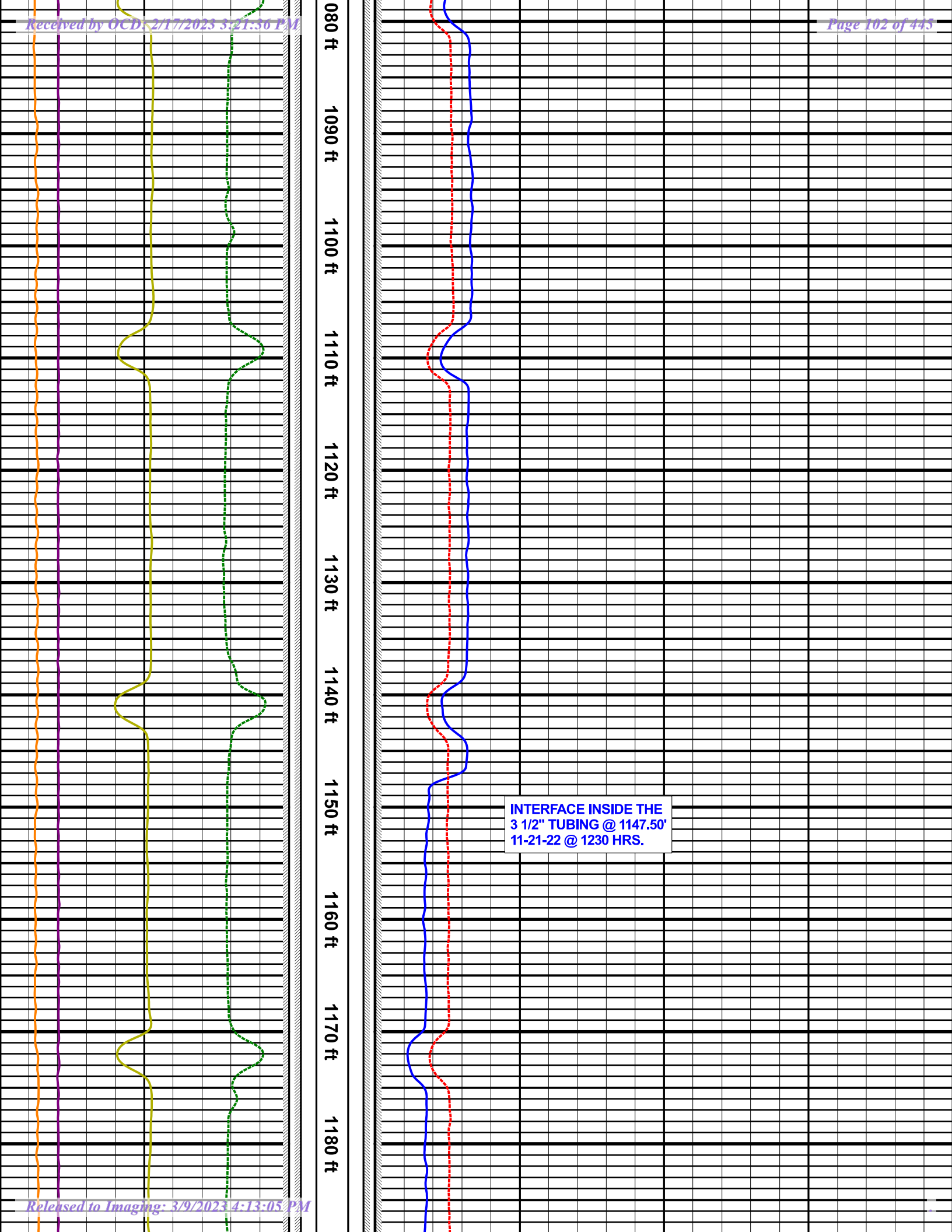


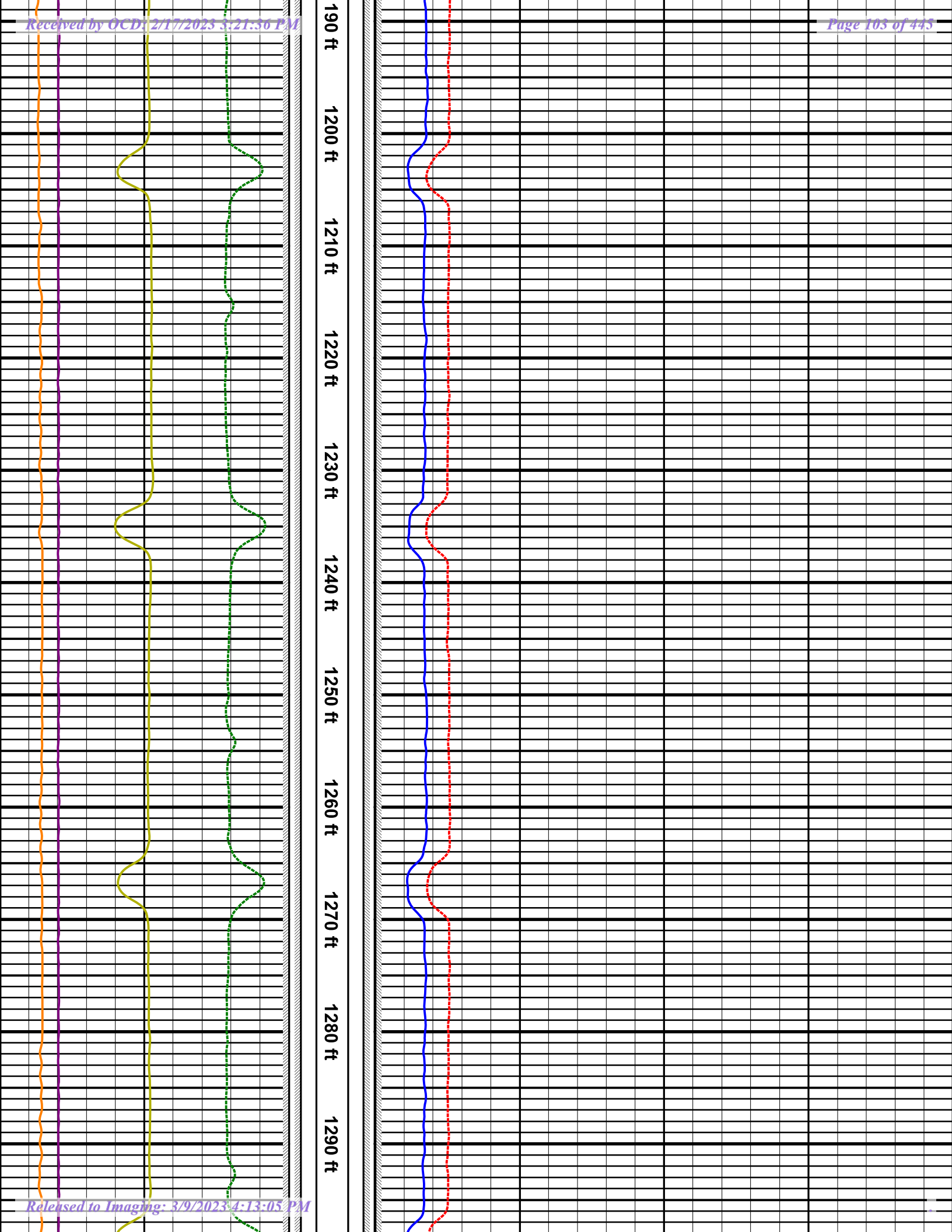
TEST START AND FINISH OVERLAID

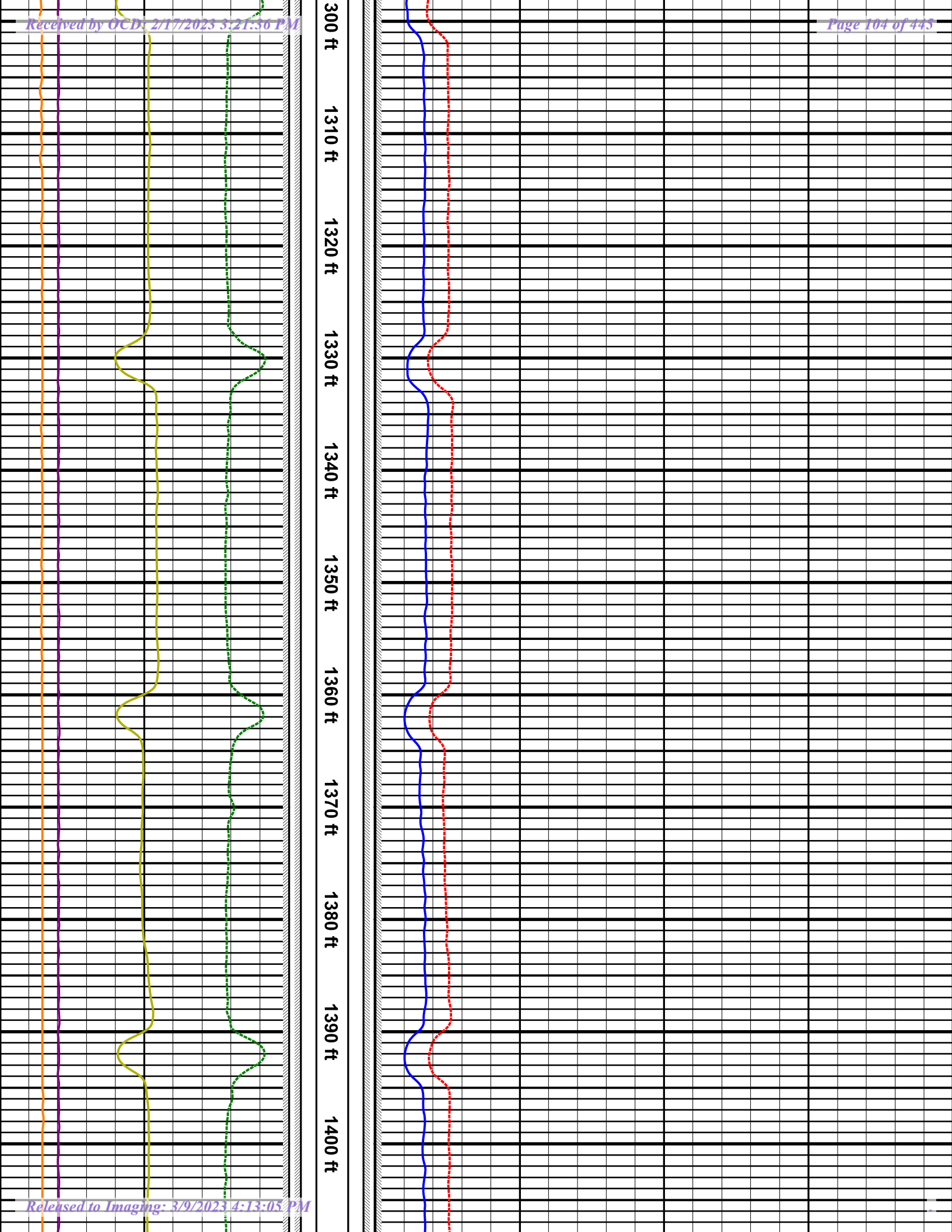
Company	**: MARATHON**	**Date**	**: 22.11.2022**
Well	**: WELL_4**	**Time**	**: 13:00:32**
Scale	**: 1 : 120**	**Remarks**	**:**
Depth in	**: ft**		
Software	**: WinAPlot Ver. 7, 7, 5, 0**	**File Name**	**:**

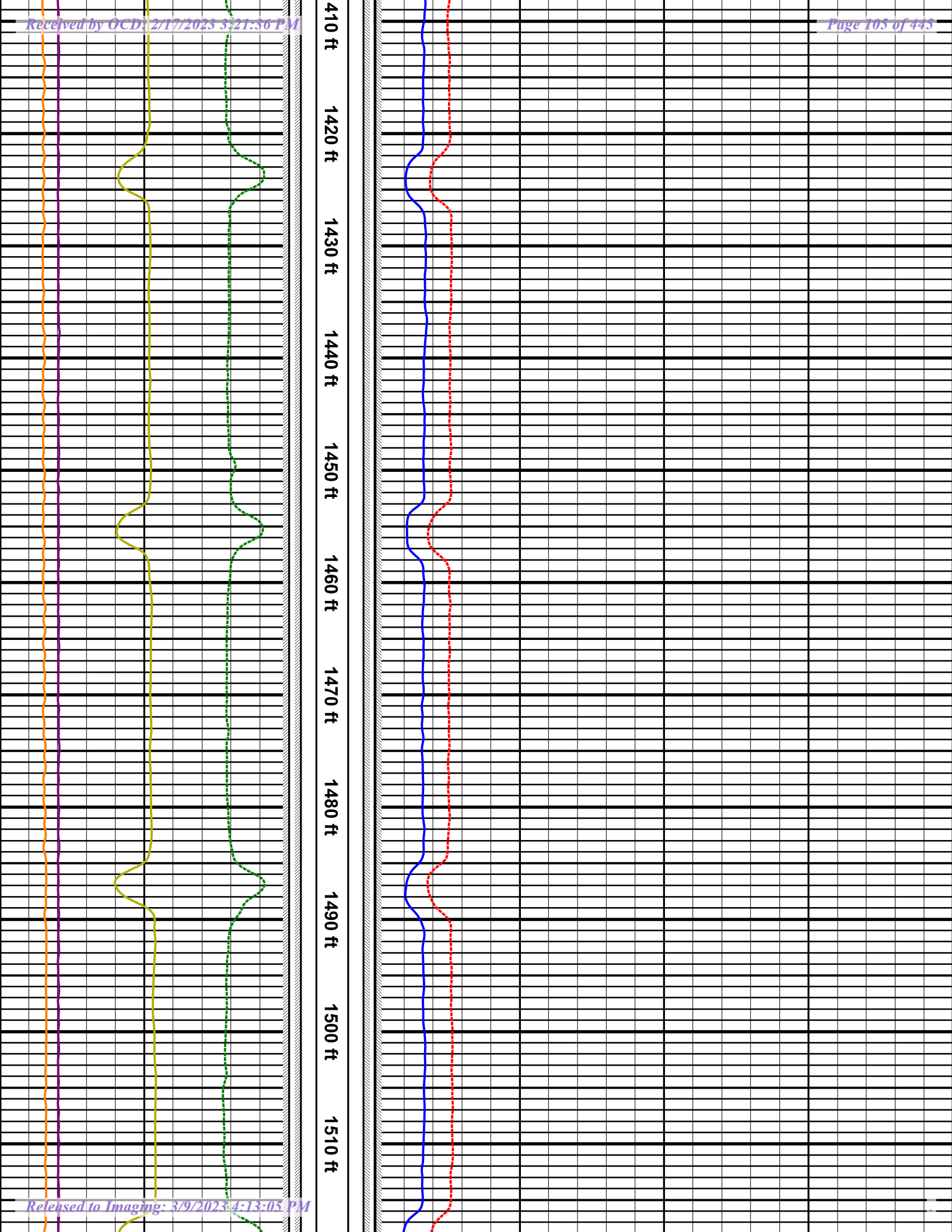


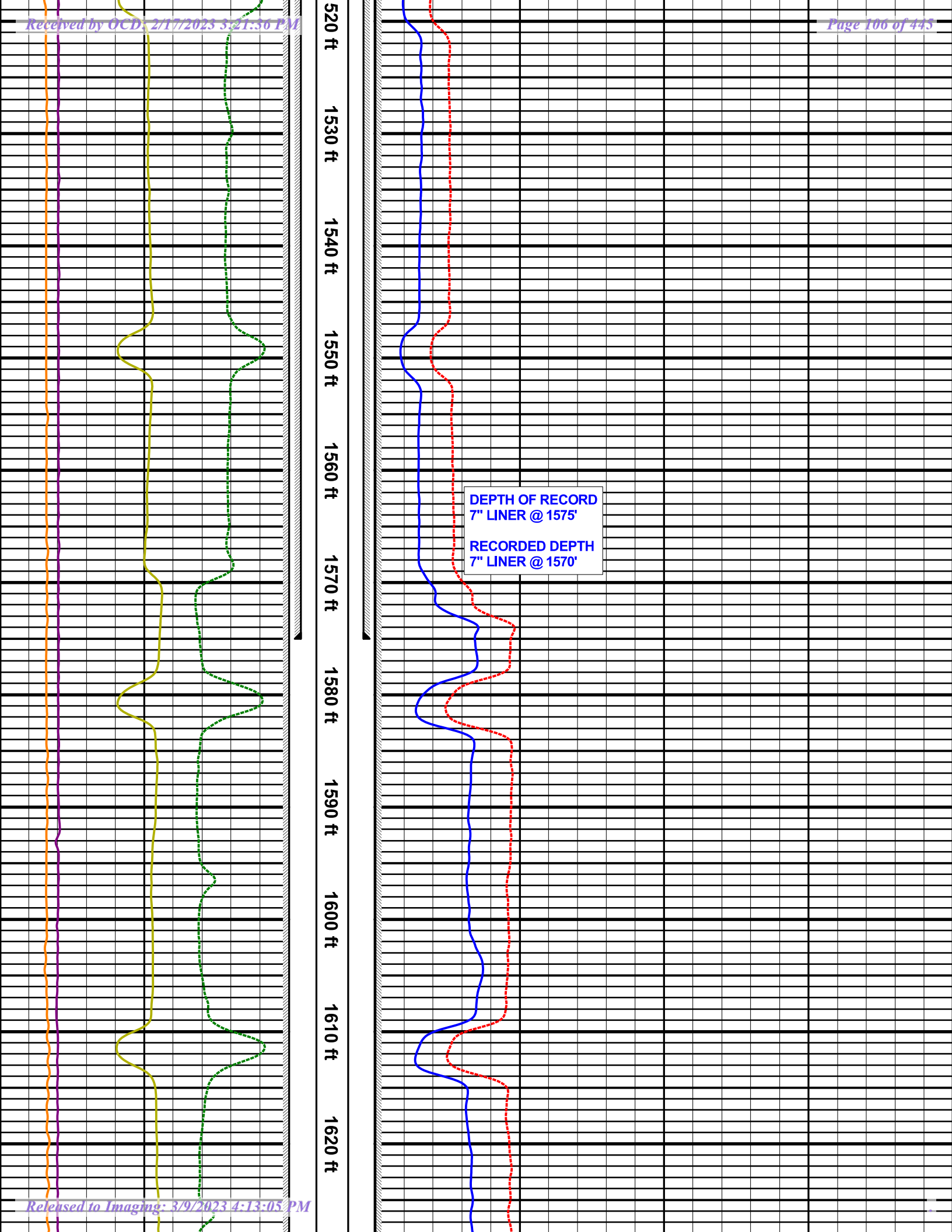
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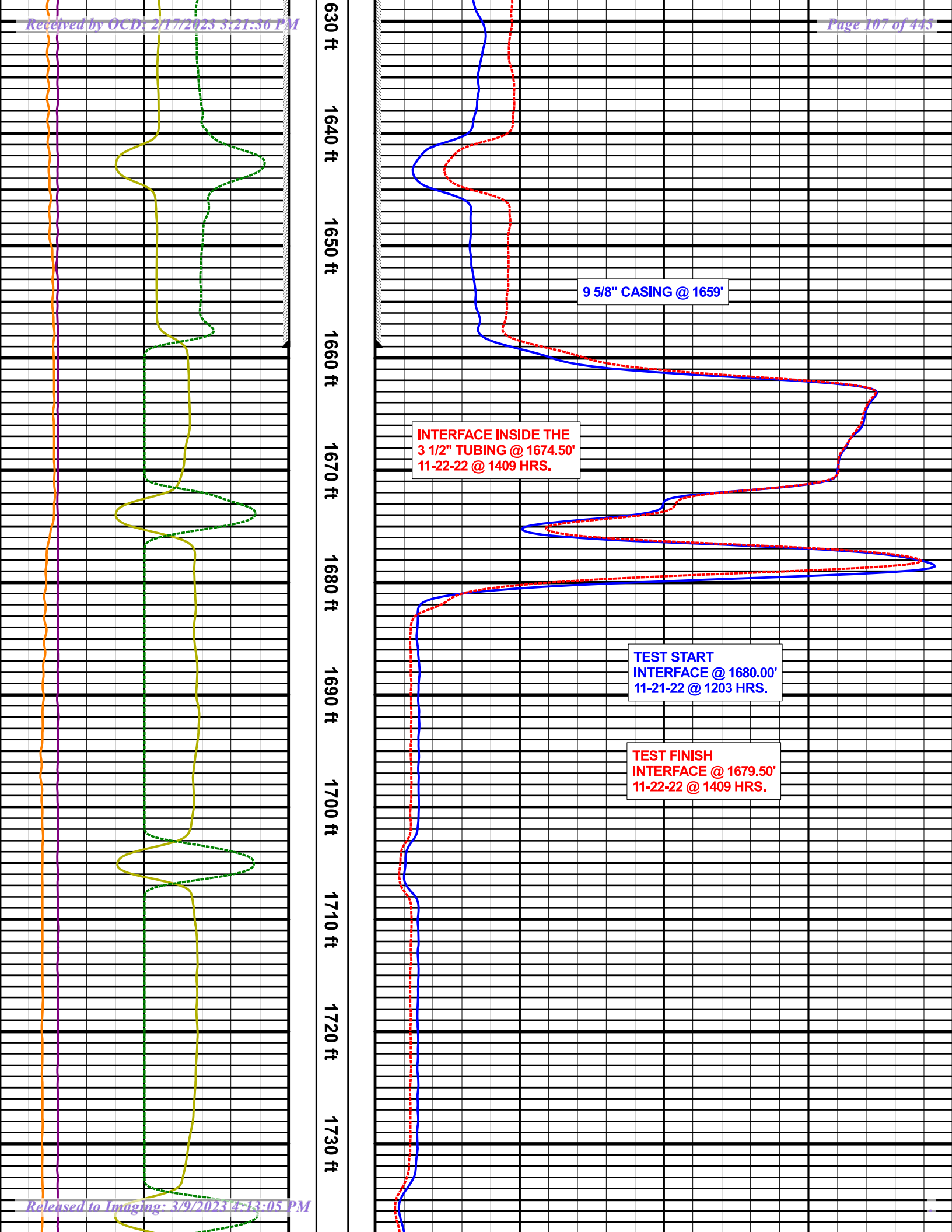

1080 ft
1090 ft
1100 ft
1110 ft
1120 ft
1130 ft
1140 ft
1150 ft
1160 ft
1170 ft
1180 ft
INTERFACE INSIDE THE
3 1/2" TUBING @ 1147.50'
11-21-22 @ 1230 HRS.

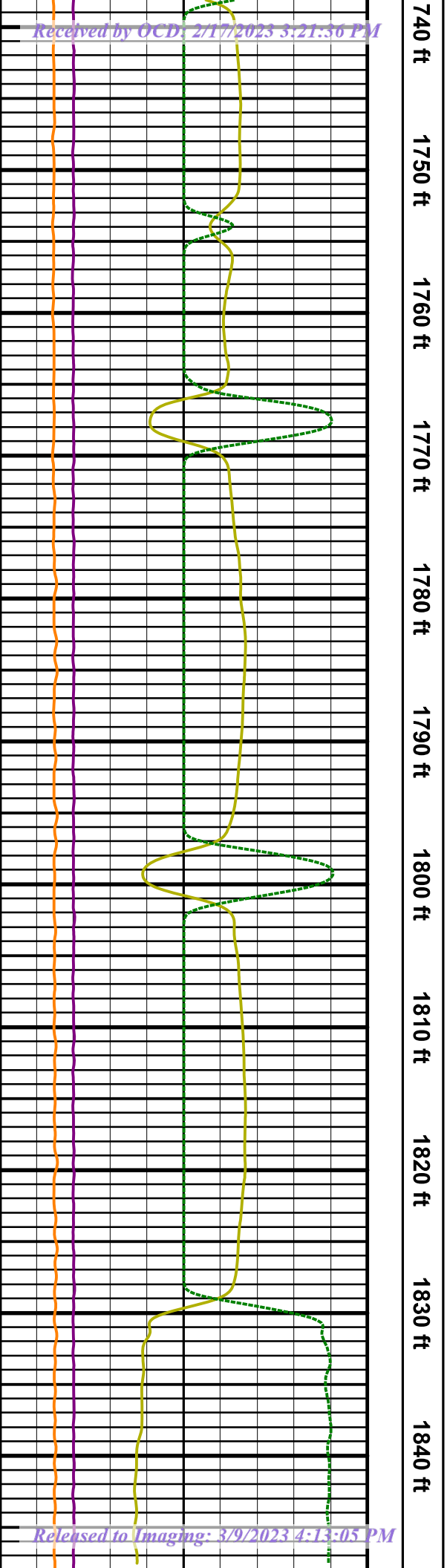

1190 ft
1200 ft
1210 ft
1220 ft
1230 ft
1240 ft
1250 ft
1260 ft
1270 ft
1280 ft
1290 ft

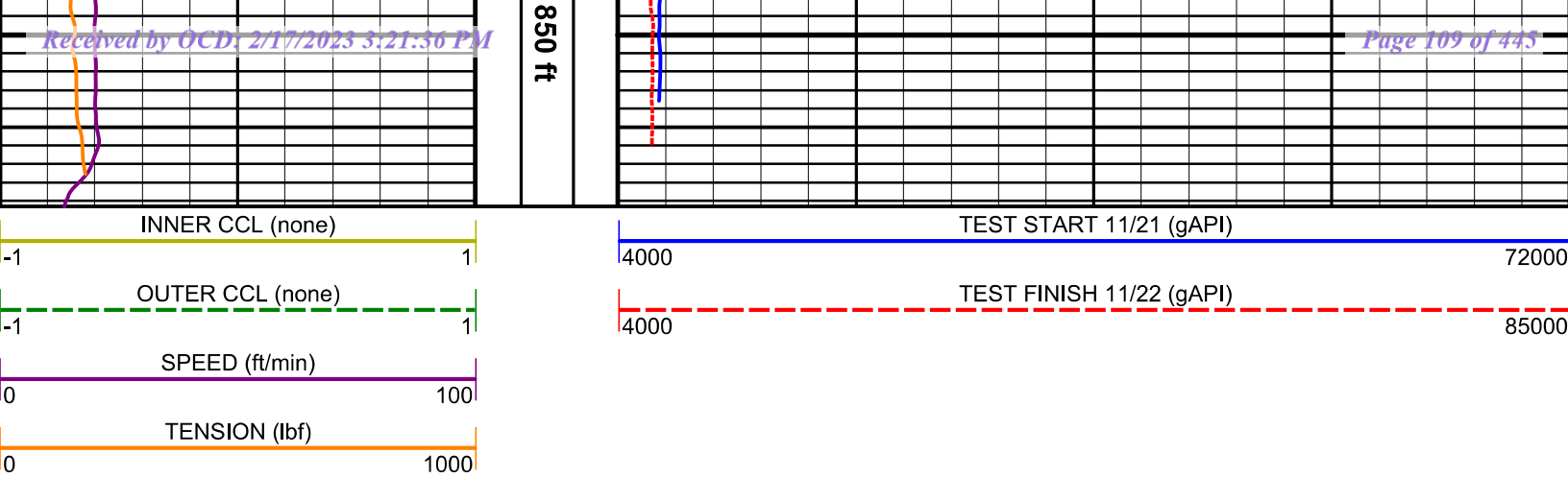

300 ft
1310 ft
1320 ft
1330 ft
1340 ft
1350 ft
1360 ft
1370 ft
1380 ft
1390 ft
1400 ft


1410 ft
1420 ft
1430 ft
1440 ft
1450 ft
1460 ft
1470 ft
1480 ft
1490 ft
1500 ft
1510 ft


1520 ft
1530 ft
1540 ft
1550 ft
1560 ft
1570 ft
1580 ft
1590 ft
1600 ft
1610 ft
1620 ft
DEPTH OF RECORD
7" LINER @ 1575'
RECORDED DEPTH
7" LINER @ 1570'

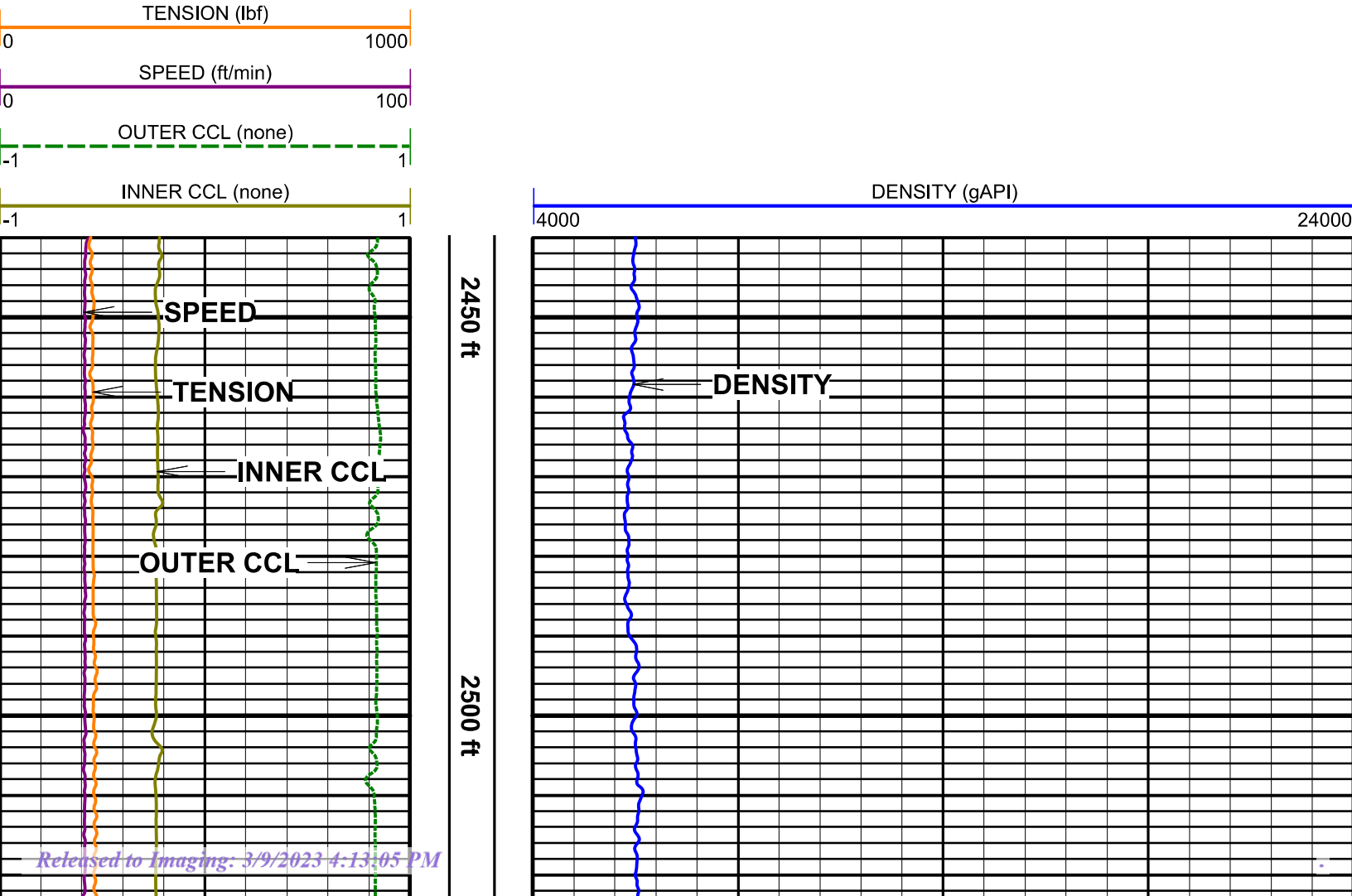

1630 ft
1640 ft
1650 ft
1660 ft
1670 ft
1680 ft
1690 ft
1700 ft
1710 ft
1720 ft
1730 ft
9 5/8" CASING @ 1659'
INTERFACE INSIDE THE
3 1/2" TUBING @ 1674.50'
11-22-22 @ 1409 HRS.
TEST START
INTERFACE @ 1680.00'
11-21-22 @ 1203 HRS.
TEST FINISH
INTERFACE @ 1679.50'
11-22-22 @ 1409 HRS.

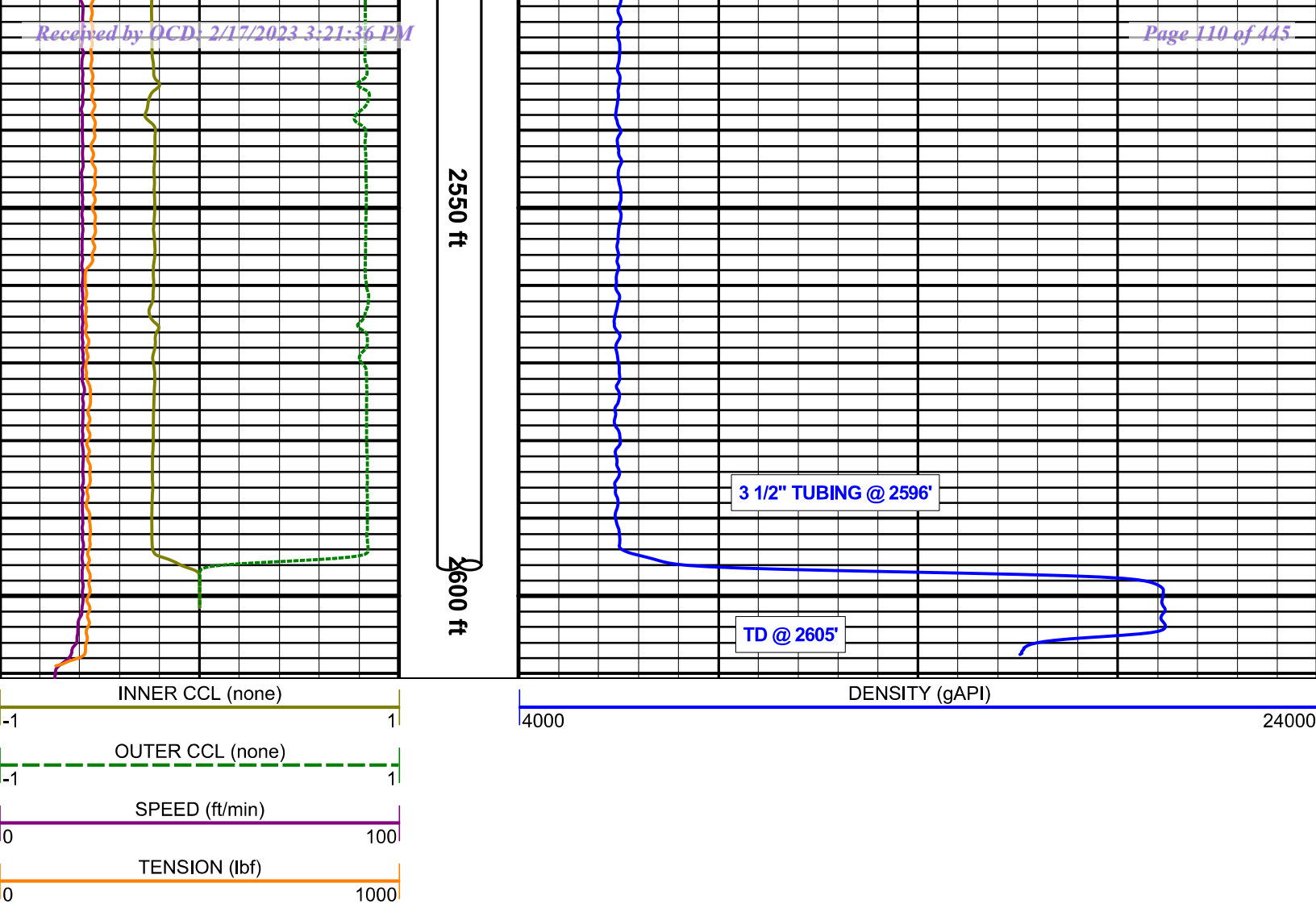

1740 ft
1750 ft
1760 ft
1770 ft
1780 ft
1790 ft
1800 ft
1810 ft
1820 ft
1830 ft
1840 ft



TOTAL DEPTH AND TUBING LOG 11-20-22

Company	**: MARATHON**	**Date**	**: 20.11.2022**
Well	**: WELL_4**	**Time**	**: 10:36:20**
Scale	**: 1 : 240**	**Remarks**	**:**
Depth in	**: ft**		
Software	**: WinAPlot Ver. 7, 7, 5, 0**	**File Name**	**:**





Curve Description

Name	*Unit*	*Description*
DENSITY	gAPI	Gamma Ray
INNER CCL	none	Inner Casing Indicator
OUTER CCL	none	Outer Casing Indicator
Speed	ft/min	Cable speed
Tension	lbf	Cable Tension as measured on surface

N SUMMARY

Tension	Tension	Tension	2015280
Calibration	13.08.2022 13:46:00		
	Point 1	Point 2	
Tension	**0 N**	**22130 N**	

Received by OCD: 2/17/2023 3:21:36 PM

SONIC SURVEYS
CAVERN EXPERIENCE YOU CAN DEPEND ON

API #:	30-025-35957	DATE :	11-19-22 THRU 11-22-22
COMPANY:	MARATHON PETROLEUM COMPANY, LLC		
WELL:	STATE LPG STORAGE WELL #4		
FIELD:	JAL STATION		
COUNTY:	LEA	STATE:	NEW MEXICO

INTERFACE SURVEY
DUAL STRING COLLAR LOCATOR
MECHANICAL INTEGRITY TEST

Released to Imaging: 3/9/2023 4:13:05 PM

LPG STORAGE NO.4

JAL LEA COUNTY, NM

MARATHON PETROLEUM COMPANY. LLC

WORKOVER REPORT

API NO. 30-025-35957
PROJECT NO.: 192025AT

October 17 – 9 November, 2022

WSP USA
SUITE 200
16200 PARK ROW
HOUSTON, TX 77084

TEL.: +1 281 589-5900
WSP.COM

SIGNATURES

PREPARED BY

Irada Mammadova

Digitally signed by Mammadova, Irada (USIM710646)

Irada Mammadova
Workover Engineer

REVIEWED BY

Adrian Villarreal
Sr. Workover Engineer

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1 WORKOVER DATA

This report presents a summary of the well workover.

Table 1.1 Workover Data

Workover Data	
Client	MARATHON PETROLEUM LLC
Location	JAL, LEA COUNTY, NM
Well No.	LPG STORAGE NO.4
Start Date	October 17, 2022
Completion Date	November 09, 2022

The following personnel participated in the well workover.

Table 1.2 Workover Participants

Workover Participants	Company
Sam Flessner	MARATHON PETROLEUM COMPANY, LLC
Jim Tomlensen	MARATHON PETROLEUM COMPANY, LLC
Adrian Villarreal	WSP Project Manager
Ray Musselwhite	WSP Field Supervisor

1.3 Marathon JAL #4 (API 30-025-35957), WO #3 Executive Summary

JAL Workover #4, commenced operations on October 17,2022. Well type a Salt Cavern gas storage. Workover objective was to pull pipe to perform casing integrity on production casing. Well consist of interbedded formation with several cavern compartments with lower cavern compartment as the main storage. The pipe in the cavern consisted of a combine string of 4-3/4" drill collar with 3-1/2" drill pipe crossed over at surface to 4-1/2" tubing with slip-on hanger. Difficulty was encountered in pulling the pipe out of the hole. After multiple attempts working on pipe the pipe parted. A total of 53 joints of 3-1/2" DP where lay out and the bottom end of the parted joint was bent. A casing scraper was ran in hole on 2-7/8" work-string. Followed by setting an RBP plug as a barrier to remove the product spool. The RBP plug was retrieved and E-line unit was rigged up to run Weatherford's Magnetic Flux corrosion "CIT" and Caliper log down to 7" casing shoe. Decision was made to run camera and to locate top of fish at 1,661' (2' below 9-5/8" casing shoe @ 1,659'). Several attempts were made to latch on the fish neck without success during fishing runs it was confirmed that 6" overshot OD would pass along the side of the fish without hanging up; therefore, decision was made to drill down pipe next to fish. RIH with RBP plug as barrier to reinstall the inspected product spool. Spool was tested to 1,500psi and RBP plug was retrieved. The brine string was drilled down consisting of 6-1/8" bit, bit sub, and 25 joints of 4-3/4" 46.8# drill collar with IF connection, 48 joints of 3-1/2" 15.5# drill pipe IF connection, and 10 joints of 3-1/2" 13.3# drill pipe with IF connection. The first drill collar has a 1 in weep hole four feet above bottom pin connection

and bottom of cavern was tagged at 2,613ft. Pipe was placed 10ft off-bottom to get sonar out in lower cavern. Once at bottom a severing tool was ran on Eline to cut off the bit. Access out the pipe was confirmed with severing tool exiting. Then a gyro tool was ran to confirm well trajectory / inclination; pipe was landed vertical. A slim thru-pipe sonar (2in O.D.) was ran by Sonic Survey and horizontal shots were taken 10ft off-bottom of cavern. Followed by GoWell's "ePDT" multi-string corrosion log was conducted. Slip-on hanger was installed on 3-1/2" drill pipe and pipe was landed in product spool with end of pipe at 2,603ft (based on drill pipe measurement) and placing the weep hole at 2,599ft. The 3-1/2" pipe was cold-cut and dress to install the new 11" x 7-1/16" adapter and 7-1/16" x 4-1/16" adapter spool and make up the 4-1/16" brine spool (tree); P-seal and void was pressure tested to 2,000psi for 15 minutes, OK. Brine was pumped down well and left with 100 psi for pre-MIT testing. Secured well and release rig at 5 pm on November 9, 2022. Moved rig to JAL #3 on November 10th.

2 WELL WORKOVER CHRONOLOGY

The following is a chronology of the Marathon Jal 4 workover taken from the WSP USA Field Supervisor's daily reports and the Project Manager's notes. PROJECT # 192025AT

October 17, 2022A

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Offloaded forklift. Offloaded well control equipment. Offloaded and spotted pipe racks. Offloaded and spotted 2 7/8" work string on pipe rack. Spotted and rigged up workover rig. Removed nuts off 11" x 11" brine spool to remove upper section of wellhead. Attempted to remove upper wellhead, broke 3 wedges, began backing out studs, they were rusted in and stub burn. We will have more wedges in the AM. Secured well and signed out.

October 18, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Continued removing brine spool and backed out the bolts that would come out. Pulled up with rig and drove wedges between the flanges, it did finally come off. Nipple up Hydril. Connected BOP accumulator and function tested Hydril. Rigged up work floor and handrails. Spotted and rigged up laydown machine. Made up spear. Speared into 4-1/2" hanger joint. Pulled 82,000 lbs. to move it off slips. Pulled 120,000 lbs. but pipe was stuck and would not come loose. Worked pipe up and down, it had about 2' of travel. Made no progress pulling pipe. Rigged up E-Line to run gauge and junk basket it obstruction at 2,330'; did not reach TD depth 2,616'. Pulled out of hole with junket basket and basket was full of hardened salt. Secured well.

October 19, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Removed nightcap. Made up spear with a heavier pup. Speared into 4 1/2" hanger joint. Pulled 140,000 lbs. on brine string but it was still stuck. Worked pipe up and down, weight going from 70,000 lbs. to 140,000 lbs. Did not move up any. Laid out spear. Connected lines and pumped into tubing with plant pump at 100 psi getting returns from product side. Shut down pump. Speared into brine string. Pulled 140,000 lbs. again but still had no movement. Worked pipe up and down but it did not move up hole any. Offloaded triplex pump and opened top rig tank. Secured well, leaving 140,000 lbs. tension pulled on it.

October 20, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. It still had 140,000 tensions pulled on brine string. Begin putting fresh water from plant into open top tank. Set pipe down on W/H slips. Released and laid out spear. Rigged down work floor and nipple down Hydril. Speared and picked up brine string and removed wellhead slips. Set brine string down and removed spear. Nipple up Hydril. Rigged up work floor. Made up and picked up overshot with packoff. Latches overshot onto brine string. Picked up to string weight (60,000 lbs.). Worked pipe trying to free up pipe but was unsuccessful. Pumped fresh water into brine string, got good returns. Pumped 250 bbls. at 3 bbls. minute at 500 psi. Got some salt pellets in returns. Shut pump down. Attempted to free up pipe. It would move down 5' and back up to that point but would not come up past the starting point. Pumped fresh water into product side of well at 3 bbls. minute. Pumped 250 bbls. Shut down pump. Attempted to free up and pull pipe again, but it never came up past the starting point. Secured well.

October 21, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Added 10' pup joint on top of brine string. Worked pipe not gaining anything up but did gain 1' going down. Stopped with 2000 lbs. upward pull. Tied in pump line. Circulate down brine string but got nothing in returns. Shut down pump. Well flowing back. Worked pipe, it was still hung up at the same place. Worked it down and gained another 3' going down but still stopping at the same place coming up. While pulling up from the free spot with 80,000 lbs

overpull string weight was lost and overpull dropped to 21Klbs with small amount of drag. Laid out the overshot and the 4-1/2" joint. Secured well. Waiting on hydraulic power tongs to arrive.

October 22, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Offloaded tongs and hydraulic unit. Rigged up 3 1/2" tongs. Tripped out of hole with 53 joints (1666') 3-1/2" drill pipe. Bottom joint bent bad. Tally pipe while pulled out of hole. Removed overshot off 4-1/2" joint. Picked up 1 joint of 3-1/2" and secured well. Waited on orders.

October 23, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Rigged down 3-1/2" drill pipe tongs. Rigged up 2-7/8" tubing tongs. Made up bottom hole assembly (7" scraper and sub). Tripped in hole with 7" scraper to 1,555' (20' above 7" casing shoe). Tripped out of hole standing 1,000' of tubing in derrick and laying remainder out. Laid out bottom-hole assembly. Rigged up Nine wireline unit. Tripped in hole with CCL tool and went down to 1,570'. Tripped out of hole and laid out tool. Tripped in hole with Caliper tool. Tripped out of hole and laid out tool. Tripped in hole with Weatherford's "CIT" Magnectic flux tool. Tripped out of hole and laid out tool. Loaded information off tool onto computer in wireline truck. Rigged down wireline unit. Secured well

October 24, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Rigged up Nine wireline unit. Tripped in hole with camera at control speed before exiting 9-5/8" casing shoe. Found top of pipe at 1661' (9-5/8" csg shoe at 1,659') could not see casing shoe. Camera ran down alongside of fish (pipe) until set down with camera at 1,726' on salt. Tripped out of hole with camera. Rigged down wireline unit. Offloaded Delta "RBP" plug. Tripped in hole with RBP setting it at 1,000'. Released latch tool and tripped out of hole standing 2-7/8" work string in derrick. Rigged down tongs and work floor. Nipple down Hydril. Removed product spool. Nipple up drilling spool. Nipple up Hydril and function test. Rigged up work floor and tongs. Tripped in hole with latch tool. Latched onto RBP and checked for pressure under plug; no pressure. Tripped out of hole with RBP. Load RBP onto Delta tool hand truck. Secured well.

October 25, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Offloaded Weatherford fishing tools. Made up bottom-hole assembly but was unable to make up skirt onto mill. Waited on Weatherford to get the threads chased, it was the only skirt they had. Waited on Weatherford to have mill machined so it would screw together. Offloaded power swivel. Offloaded 32 joints of 3 1/2" drill pipe and twelve 4 3/4" drill collars. Made up and tripped in hole with skirted mill but did not touch the fish. Secured well.

October 26, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Made up dress mill with a slight bent in a joint to attempt latch to top of the fish neck and dress the top part to allow overshot / grapple swallow and pack-off and provide access through pipe I.D. Offloaded agitator. Offload nine 5" joints of wash pipe. Tripped in hole with 6" skirt on mill and bent bottom joint. Tried to find fish from 1640' to 1680' but was unsuccessful. Tripped out of hole with work string and bottom-hole assembly. Bent bottom joint more. Tripped in hole and set small amount of weight on fish lots of times but it would always fall off, not on. After many tries, we could no longer touch fish. It was decided to POOH and keep the fish in the open hole to drill around the fish. Secure well.

October 27, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Pulled out of hole with 2-7/8" work string & lay out bottom hole assembly. Rearranged equipment moved laydown machine to side of well to open back for power swivel to be picked up. Ran in hole with retrievable packer to secure the well to remove BOP stack and made-up tubing spool. Pressure test seals to 1,500psi on the. Made up drilling spool and BOP stack to tubing spool. Function test. Ran in hole with retrieving tool to remove Retrievable

packer. Laying down 2-7/8" work string. Loaded out 51 joints 3-1/2" drill pipe being sent to Tuboscope at Odessa. Off-loaded 13 joints 4-1/2" drilled collar & 32 joints 3-1/2" drilled pipe. Secured well. Cleaned up location.

October 28, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Ran in hole with Delta retrievable bridge plug setting it at 1000'. Did push-pull test to ensure it was set properly. Released latch tool and pull out of hole standing work string in derrick. Rigged down tongs and work floor. Nipple down WCE. Removed drilling spool. Nipple up product spool. Energized P-Seals, test void to 2000 psi. for 15 min. Nipple up WCE. Rigged up work floor & tongs. Ran in hole, latched onto, and pulled out of hole with retrievable bridge plug. Spot and tally 25 4-3/4" drill collars. Made up bit and bit sub. Ran in hole with 25 drill collars. Secured well. Spotted and tally 64 joints 3-1/2" drill pipe.

October 29, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Picked up and ran in hole with 29 joints 3-1/2" drill pipe. 54 joints total with drill collars at 1667'. Rigged up power swivel and stripper head. Secured well.

October 31, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Start drilling hanger sting consisting of bit, bit sub, 25 jts of 4-3/4" drill collars, follow by 3-1/2" 15.5# drill pipe tagging at 1764'. Began drilling setting 2000 lbs. on bit and circulating 4 bbls. Freshwater per/min. Rig tag formation at 1764ft with joint #57. Drilled hard to 1826'. Drilled 4 joints down easily. Down to 1983'. Drilled 2 joints down to 2015', drilled hard. Drilled 5 joints down to 2172' drilled easy. Drilled 3 joints down to 2266', drilled hard. Pulled up 20', pipe was free with no torque. Rig drilled to 2266ft with joint #72. Working on hard formation. Total footage covered 502ft. Pick up off bottom, set slips, and secured well.

November 1, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well and bleed of any pressure build up. Kicked on pumps and broke circulation to remove cutting around assembly. Picked up string to get pick up (P/U) weight and slack off (S/O) weight, prior to resume drilling. Wash down to previous drilled depth (2,266ft) and resume drilling. Rig drilled with 4 BPM of fresh water with 2-4 Klbs weight on bit. Rig drilled from 2,266ft with joint #72 to 2,280ft with #73 thru hard formation. Footage drilled 62ft at 7.2 ft/hr. Drilled down hard to 2280'. Drilled easy from 2280' to 2315'. Drilled hard from 2315' to 2328'. Pick up off bottom, set slips, and secured well.

November 2, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well and bleed of any pressure build up. Kicked on pumps to break circulation to remove cuttings around assembly. Picked up string to get pick up (P/U) weight and slack off (S/O) weight, prior to resume drilling. Wash down to previous drilled depth (2,323ft) and resume drilling. Rig drilled with 4 BPM of fresh water with 2-4 Klbs weight on bit. Rig drilled with 4 BPM of fresh water with 2-4 Klbs weight on bit. Rig drilled from 2,328ft with joint #74 to 2,335ft with joint #75 thru hard formation. Drilled easily from 2,335ft with #75 to 2,352ft on same joint. Drilled hard formation from 2,352ft to 2,360ft then pumps broke down. Replacement pump arrived and resumed drilling to 2,362ft to end of day. Footage drilled 32ft at 4 ft/hr and approximately 133ft remaining to reach lower cavern. Pick up off bottom, set slips, and secured well.

November 3, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well and bleed of any pressure build up. Kicked on pumps to break circulation to remove cuttings around assembly. Picked up string to get pick up (P/U) weight and slack off (S/O) weight, prior to resume drilling. Washed down to previous drilled depth (2,362ft) and resume drilling. Rig drilled with 4 BPM of fresh water with 2-4 Klbs weight on bit. Rig drilled from 2,362ft with joint #75 to 2,365ft with same joint thru tight spot worked on pipe until got free. Continue drilling

from 2,365ft with #75 to 2,375ft with joint #76 with very little progress. Worked string up a joint 1 and a half to confirm ability of access previous drilled depth and remove possible cuttings. Footage drilled 8 ft at 1 ft/hr. and approximately 120ft remaining to reach lower cavern. Pick up off bottom, set slips, and secured well. Plan on pulling out of hole next operations.

November 4, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well and bleed of any pressure build up. Kicked on pumps to break circulation to remove cuttings around assembly. Picked up string to get pick up (P/U) weight and slack off (S/O) weight, beginning pull out of hole with pipe to replace bit. Rigged down power swivel. Rigged up 3 1/2" tongs. Removed stripper head. Tripped out of hole with 53 joints of 3 1/2" drill pipe and twenty-five 4 1/2" drill collars. Changed bit. Tripped in hole with twenty-five 4 1/2" drill collars. Secured well.

November 5, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well and bleed of any pressure build up. Kicked on pumps to break circulation. Resumed running 3-1/2" drill pipe back in well to casing shoe (1,659ft) break circulation and get pick up (P/U) weight and slack off (S/O) weight, prior to entering open hole. Resume drilling: Rig drilled with 4 BPM of fresh water with 2-4 Klbs weight on bit. Rig drilled from 2,375ft with joint #76 to 2,386ft with same joint thru hard formation. Drilled easily from 2,386ft with #76 to 2,454ft with joint #77. Drilled hard formation from 2,454ft with joint #77 to 2,486ft with joint #79 thru hard formation to end of day. Footage drilled 111ft at 15.8 ft/hr. and approximately +/-10 ft remaining to reach lower cavern. Pick up off bottom, set slips, and secured well.

November 6, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Break circulation. Tagged and began drilling at 2486'. Drilled to 2493' and went into top of cavern. Picked up 3 joints of pipe finding total depth at 2613'. Picked up 2' off bottom. Rigged up Nine wireline. Tripped in hole with 15' x 2"-gauge tool finding total depth at 2613'. Footage drilled 7ft at 2ft/hr.

  Tripped out of hole, lay out tool. Rigged up eLine to run CCL to confirm locate collars then ran Gyro to bit sub followed by running severing tool to cut bit at bit sub. Confirmed bit off by running severing tool out the end of pipe. Secured well.

November 7, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Rigged up Nine wireline unit. Re-headed wireline. Tripped in hole with Sonic Sonar tool. Log from 1666' to 2080'. Tool was working slower than normal. Tripped out of hole, lay out tool. Secured well.

November 8, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Tripped in hole with sonar tool. Begin running survey at 2080', logged down to 2600'. Completed down shots and will finish at top of upper section of well in the AM. Pulled sonar tool into 7" casing. Secured well.

November 9, 2022

- Held safety meeting, orientation, Lift Plan review and obtained safe work permit. Opened well, it was flat. Dropped sonar tool and continued sonar survey where we left off. Finished Sonar and it was successful. Made up and tripped in hole with Go-Well tool. Ran casing inspection log. Tripped out of hole, lay out tool. Rigged down Nine wireline unit. Rigged down work floor. Nipple down Hydril. UWS set slips in product spool. Cold cut pipe. Installed brine spool. Energized P-seals and test void to 2000 psi for 15 minutes. Pumped brine into well to achieve 100 psi for pre-MIT pressure. Rigged down workover rig. Rigged down pump and tank. Secured well.

3 CASING TALLY

Table 3.1 3 1/2" Casing Tally

Marathon Petroleum Corporation

Company:	Marathon	**Block Weight:**		10,000			
Date:	Monday, October 31, 2022	**Mud Weight(ppg):**		8.4			
Well#	JAL #4	**9-5/8" csg shoe**		1659ft			
Rig#	Standard Energy Rig #53	**Buoyancy Factor (BF)**		0.872	BF using density steel 65.5ppg		
Company Man:	Ray Musselwhite	**Make-up Torque**		11,700 ft/lbs	for 4-3/4" Drill Collar (2.25in ID)		
WSP Engineer:	Adrian A. Villarreal	**Make-up Torque**		11,700 ft/lbs	for 3-1/2" Drill Pipe 15.5#		& 3-1/2" DP 13.3# (10 jts)
Assy. Type	Drill Pipe / Drill Collar / 6-1/8" bit with bit sub	**Tensile**		221Klbs / 80%			
Seq. No	**Joint Name**	**LENGTH**	**Accumulativ**	**DEPTH (ft)**	**Capacity**	**ACCUM. WT. (LBS)**	**COMMENTS**
				2607.00		End of Bit	
Assy. Type # 1	TriCone Bit: 6-1/8 inche	0.40	0.40	2606.60	0.00	10,016	*Bit Cut Off*
	Bit Sub	2.60	3.00	2604.00	0.01	10,122	
1	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.00	34.00	2573.00	0.17	11,387	1" Weep Hole 4ft above bottom Pin
2	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	29.87	63.87	2543.13	0.31	12,606	
3	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.67	94.54	2512.46	0.46	13,857	DC Min I.D 2.25in
4	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.98	125.52	2481.48	0.62	15,121	
5	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.36	155.88	2451.12	0.76	16,360	
6	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.56	186.44	2420.56	0.91	17,606	
7	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.45	216.89	2390.11	1.06	18,849	
8	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.03	247.92	2359.08	1.21	20,115	
9	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.92	278.84	2328.16	1.37	21,376	
10	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.40	309.24	2297.76	1.52	22,616	
11	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.10	340.34	2266.66	1.67	23,885	
12	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.08	371.42	2235.58	1.82	25,153	
13	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.01	402.43	2204.57	1.97	26,418	
14	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	29.60	432.03	2174.97	2.12	27,626	
15	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.12	463.15	2143.85	2.27	28,896	
16	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.73	493.88	2113.12	2.42	30,149	
17	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.18	524.06	2082.94	2.57	31,381	
18	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.13	554.19	2052.81	2.72	32,610	
19	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	29.61	583.80	2023.20	2.86	33,818	
20	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.71	614.51	1992.49	3.01	35,071	
21	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.43	644.94	1962.06	3.16	36,312	
22	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	31.13	676.07	1930.93	3.31	37,582	
23	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.21	706.28	1900.72	3.46	38,815	
24	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	30.18	736.46	1870.54	3.61	40,046	
25	4-3/4" 46.8# Drill Collar, IF connection, I.D 2.25in	29.81	766.27	1840.73	3.75	41,262	
26	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.68	797.95	1809.05	3.94	41,690	
27	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.76	829.71	1777.29	4.12	42,120	
28	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.05	860.76	1746.24	4.30	42,539	
29	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.13	891.89	1715.11	4.48	42,960	
30	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.00	922.89	1684.11	4.66	43,379	
31	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.16	954.05	1652.95	4.84	43,800	
32	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.13	985.18	1621.82	5.02	44,220	
33	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.00	1016.18	1590.82	5.20	44,639	
34	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.06	1047.24	1559.76	5.38	45,059	
35	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.07	1078.31	1528.69	5.56	45,479	
36	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	30.96	1109.27	1497.73	5.74	45,897	
37	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.70	1140.97	1466.03	5.93	46,325	
38	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.25	1172.22	1434.78	6.11	46,748	
39	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.72	1203.94	1403.06	6.29	47,176	
40	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	30.15	1234.09	1372.91	6.47	47,584	
41	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.20	1265.29	1341.71	6.65	48,005	
42	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.76	1297.05	1309.95	6.83	48,434	
43	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.76	1328.81	1278.19	7.02	48,864	
44	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.68	1360.49	1246.51	7.20	49,292	
45	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.78	1392.27	1214.73	7.39	49,721	
46	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.02	1423.29	1183.71	7.57	50,140	
47	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.97	1455.26	1151.74	7.75	50,572	
48	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.71	1486.97	1120.03	7.93	51,001	
49	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	30.95	1517.92	1089.08	8.11	51,419	
50	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	30.95	1548.87	1058.13	8.29	51,837	
51	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.10	1579.97	1027.03	8.47	52,257	
52	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.25	1611.22	995.78	8.66	52,680	
53	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.22	1642.44	964.56	8.84	53,101	
54	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.03	1673.47	933.53	9.02	53,521	
55	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.75	1705.22	901.78	9.20	53,950	
56	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.80	1737.02	869.98	9.39	54,379	
57	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.15	1768.17	838.83	9.57	54,800	
58	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.04	1799.21	807.79	9.75	55,220	
59	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.73	1830.94	776.06	9.93	55,648	
60	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.76	1862.70	744.30	10.11	56,078	
61	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.23	1893.93	713.07	10.30	56,500	
62	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	30.88	1924.81	682.19	10.47	56,917	
63	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.72	1956.53	650.47	10.66	57,345	
64	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.03	1987.56	619.44	10.84	57,765	
65	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.70	2019.26	587.74	11.02	58,193	
66	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.66	2050.92	556.08	11.21	58,621	
67	3-1/2" 15.5# Drill Pipe IF Connection GR: S-135, I.D. 2.458in	31.80	2082.72	524.28	11.39	59,051	

65	3-1/2" 15.5# Drill Pipe IF Connection GR. S-135, I.D. 2.458in	31.70	2019.26	587.74	11.02	58,193	
66	3-1/2" 15.5# Drill Pipe IF Connection GR. S-135, I.D. 2.458in	31.66	2050.92	556.08	11.21	58,621	
67	3-1/2" 15.5# Drill Pipe IF Connection GR. S-135, I.D. 2.458in	31.80	2082.72	524.28	11.39	59,051	
68	3-1/2" 15.5# Drill Pipe IF Connection GR. S-135, I.D. 2.458in	31.82	2114.54	492.46	11.57	59,481	
69	3-1/2" 15.5# Drill Pipe IF Connection GR. S-135, I.D. 2.458in	31.00	2145.54	461.46	11.75	59,899	
70	3-1/2" 15.5# Drill Pipe IF Connection GR. S-135, I.D. 2.458in	30.98	2176.52	430.48	11.93	60,318	
71	3-1/2" 15.5# Drill Pipe IF Connection GR. S-135, I.D. 2.458in	30.97	2207.49	399.51	12.11	60,736	
72	3-1/2" 15.5# Drill Pipe IF Connection GR. S-135, I.D. 2.458in	31.92	2239.41	367.59	12.30	61,168	
73	3-1/2" 15.5# Drill Pipe IF Connection GR. S-135, I.D. 2.458in	31.24	2270.65	336.35	12.48	61,590	
74	3-1/2" 15.5# Drill Pipe IF Connection GR. S-135, I.D. 2.458in	31.20	2301.85	305.15	12.66	62,011	
75	3-1/2" 13.3# Drill Pipe IF connection GR. S-135, I.D. 2.563in	30.78	2332.63	274.37	12.84	62,427	**D.P. 13.3# Min. ID: 2.563in**
76	3-1/2" 13.3# Drill Pipe IF connection GR. S-135, I.D. 2.563in	31.51	2364.14	242.86	13.02	62,853	
77	3-1/2" 13.3# Drill Pipe IF connection GR. S-135, I.D. 2.563in	31.70	2395.84	211.16	13.21	63,282	
78	3-1/2" 13.3# Drill Pipe IF connection GR. S-135, I.D. 2.563in	31.58	2427.42	179.58	13.39	63,708	
79	3-1/2" 13.3# Drill Pipe IF connection GR. S-135, I.D. 2.563in	31.53	2458.95	148.05	13.57	64,134	
80	3-1/2" 13.3# Drill Pipe IF connection GR. S-135, I.D. 2.563in	31.52	2490.47	116.53	13.76	64,560	
81	3-1/2" 13.3# Drill Pipe IF connection GR. S-135, I.D. 2.563in	31.55	2522.02	84.98	13.94	64,986	
82	3-1/2" 13.3# Drill Pipe IF connection GR. S-135, I.D. 2.563in	31.51	2553.53	53.47	14.12	65,412	
83	3-1/2" 13.3# Drill Pipe IF connection GR. S-135, I.D. 2.563in	31.50	2585.03	21.97	14.30	65,838	
84	3-1/2" 13.3# Drill Pipe IF connection GR. S-135, I.D. 2.563in	22.97	2608.00	-1.00	14.44	66,148	
85		-3.00	2605.00	2.00	14.42	66,114	**Less the Bit**
86		-2.00	2603.00	4.00	14.41	66,092	**Correlation from RKB**
87			2603.00	4.00	14.41	66,092	**Depth from Ground Level**
88			2603.00	4.00	14.41	66,092	
89			2603.00	4.00	14.41	66,092	**Landed on Nov. 9, 2022**
90			2603.00	4.00	14.41	66,092	**API thread compound was applied to each connection**
91			2603.00	4.00	14.41	66,092	
92			2603.00	4.00	14.41	66,092	
93			2603.00	4.00	14.41	66,092	
94			2603.00	4.00	14.41	66,092	
95			2603.00	4.00	14.41	66,092	
96			2603.00	4.00	14.41	66,092	
97			2603.00	4.00	14.41	66,092	
98			2603.00	4.00	14.41	66,092	
99			2603.00	4.00	14.41	66,092	
100			2603.00	4.00	14.41	66,092	
101			2603.00	4.00	14.41	66,092	
102			2603.00	4.00	14.41	66,092	
103			2603.00	4.00	14.41	66,092	
104			2603.00	4.00	14.41	66,092	
105			2603.00	4.00	14.41	66,092	
106			2603.00	4.00	14.41	66,092	
107			2603.00	4.00	14.41	66,092	
108			2603.00	4.00	14.41	66,092	
109			2603.00	4.00	14.41	66,092	
110			2603.00	4.00	14.41	66,092	
111			2603.00	4.00	14.41	66,092	
112			2603.00	4.00	14.41	66,092	
113			2603.00	4.00	14.41	66,092	
114			2603.00	4.00	14.41	66,092	
115			2603.00	4.00	14.41	66,092	
116			2603.00	4.00	14.41	66,092	
117			2603.00	4.00	14.41	66,092	
118			2603.00	4.00	14.41	66,092	
119			2603.00	4.00	14.41	66,092	
120			2603.00	4.00	14.41	66,092	
121			2603.00	4.00	14.41	66,092	
122			2603.00	4.00	14.41	66,092	
123			2603.00	4.00	14.41	66,092	

4 WELL SCHEMATIC

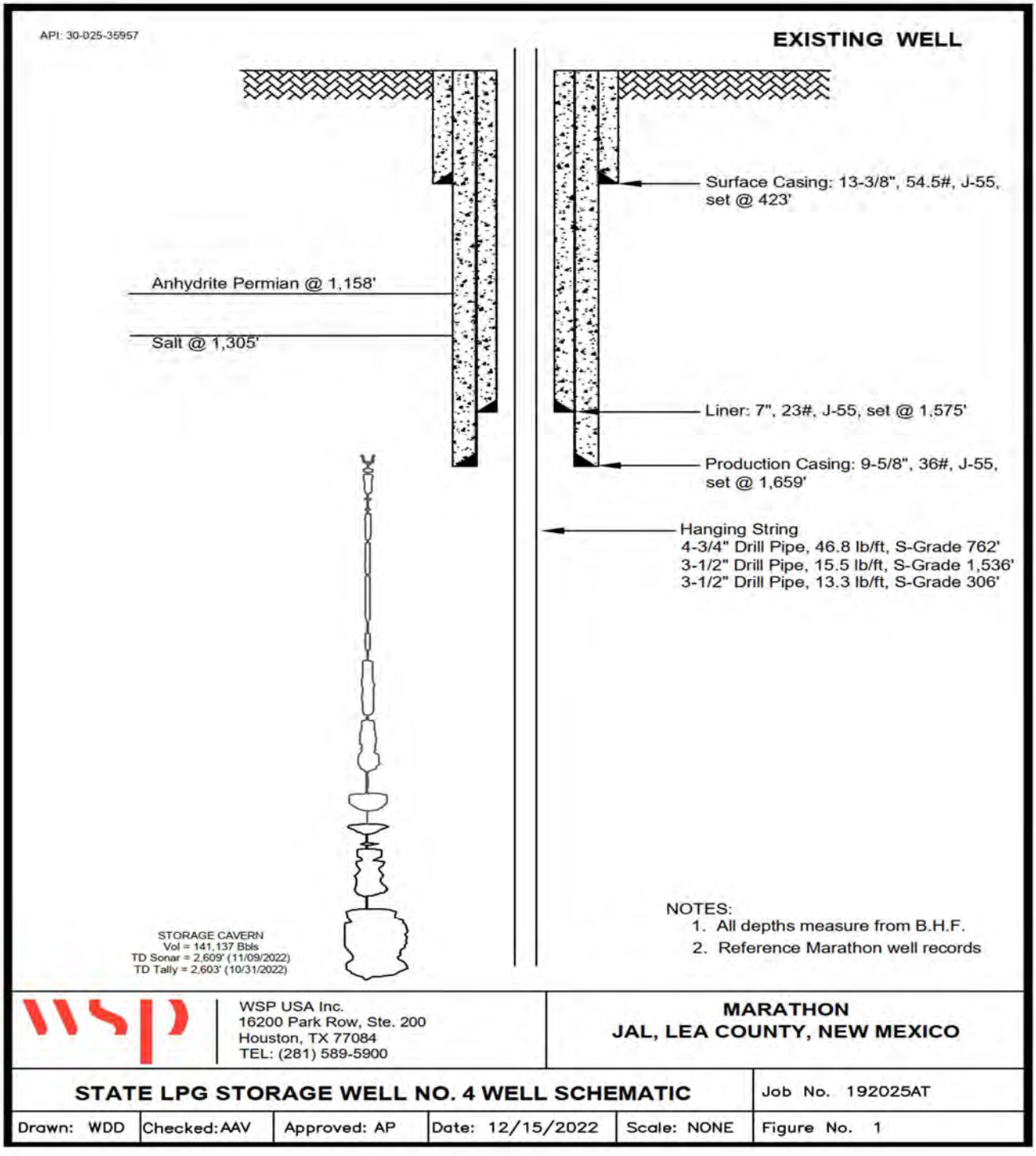


Figure 4-1 Wellbore Schematic

5 WELLHEAD

WSP contracted Universal Wellhead Services company to perform wellhead refurbishment services. WSP also contracted Rina tech. to provide third party inspection services for wellhead equipment. Wellhead drawing along with wellhead inspection reports, are included in Appendix A.

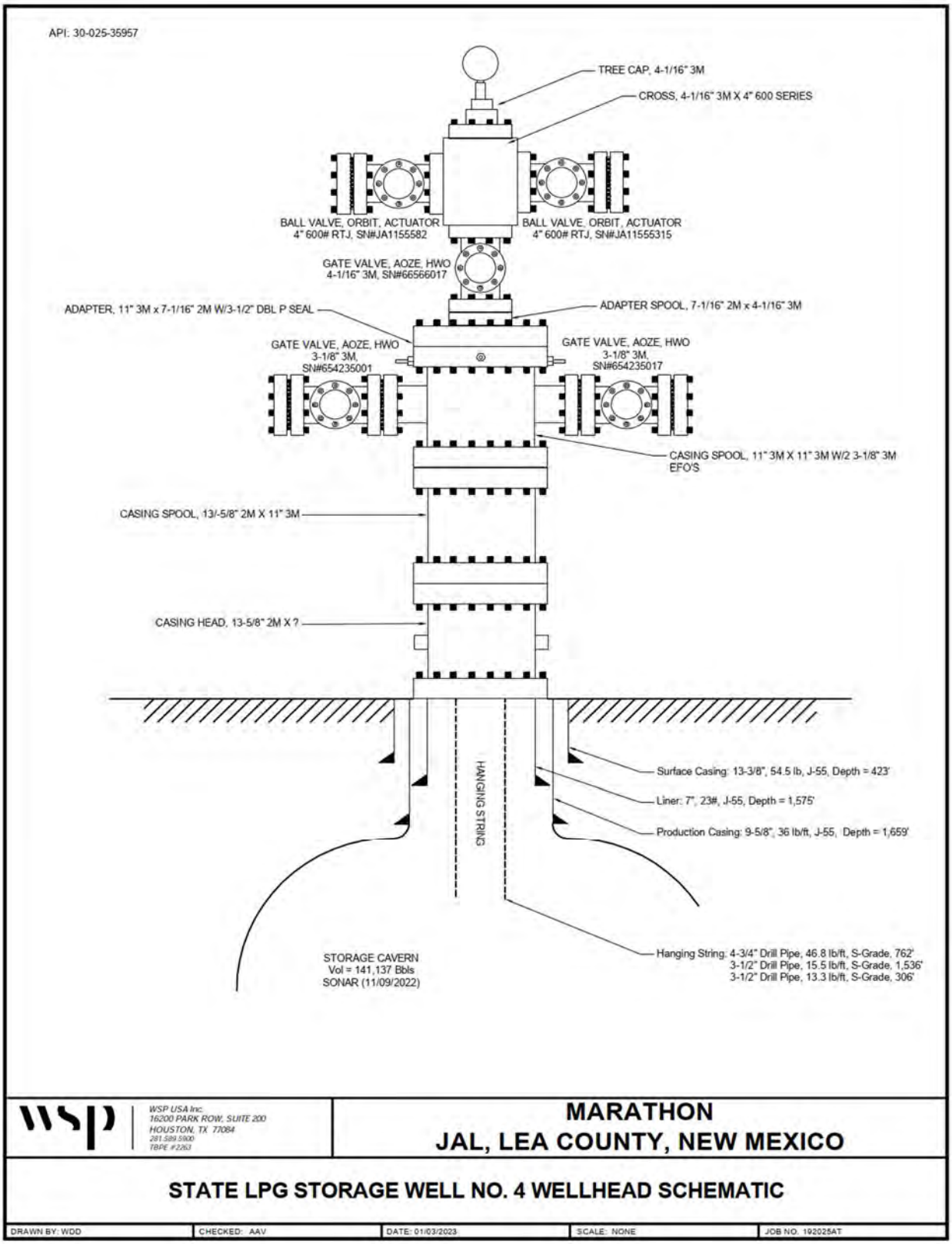


Figure 5-1 Wellhead Schematic

6 LOGS

This section presents a synopsis of all the surveys and logs.

6.1 NINE ENERGY – MULTI-FINGER IMAGING CALIPER LOG (10/23/2022)

This survey derives casing diameter and wear from measuring fingers, plus inductive sensors through radial changes in the casing to longitudinal changes as the tool traverses downhole. Imaging caliper tools from 24 to 80 fingers with a vertical resolution of 0.14 to 0.28 inches depending on the casing size being logged. A 60-arm caliper was used in the attached log.

The Multi-Finger Caliper logged the 7" cemented casing from a depth of 1,566' to surface. The analysis of the results classified 41 joints, 40 of which were defined as Class 1 (0% - 20% max penetration) and 1 (one) joint graded as Class 2 (20% - 40% max penetration) category, mainly related to isolated pitting and deformation. The Nine Energy Casing Inspection Report located within the included log describes the results in detail.

The results of the Multi-Finger Imaging Caliper log indicate that at the time of this survey no existence of anomalies that could be a threat to the mechanical integrity of the wellbore.

6.2 NINE ENERGY- SECUREVIEW LOG (10/23/2022)

This survey uses a tool that generates an electromagnetic field that permeates the casing walls as it is pulled through the casing. Defects in the casing wall will cause a leakage in this electromagnetic field or "flux" that can be measured and quantified to determine percentage of metal loss in the body of the pipe.

The data was processed using Weatherford's Prospect build of Techlog 2018.2 to classify joints based on percent penetration of the worst-case defect. The processing was performed using 7" 23# J55 casing characteristics. Burst pressure was calculated using Barlow method.

The analysis identified 41 joints in the logged interval. 40 joints were classified as Class 1 (less than 20% penetration), and 1 joint was classified as Class 2 (20%-40% penetration). The worst-case defect was found at 744.092ft, showing 24.4% external penetration and a calculated burst pressure of 3765psi. Any anomalies found in the 7" cemented casing should be monitored for progression on future surveys.

The results of the Magnetic Flux indicate that at the time of this survey, none of the anomalies were a threat to the mechanical integrity of the wellbore.

6.3 NINE ENERGY -FLUXVIEW LOG (10/23/2022)

The FluxView tool employs a powerful rare earth magnet to create a magnetic flux field, which temporarily saturates the inner most casing string. Sensitive Hall Effect Sensors mounted on deployment pads measure these subtle magnetic flux differences, creating a full 360° map of the casing. Proprietary analysis software and processing algorithms take these raw magnetic flux variations and quantify any internal or external defects identified. This processing also allows for size and shape of any detected defect to be quantified allowing for updated burst pressure calculations.

FluxView data was acquired from 1566ft to surface in addition to Nine Energy Service's 60 arm caliper which was logged from 1564.9ft to surface. The data was processed using Weatherford's Prospect build of Techlog 2018.2 to classify joints based on percent penetration of the worst-case defect. The processing was performed using 7" 23# J55 casing characteristics. Burst pressure was calculated using Barlow method, without a safety factor.

The analysis identified 41 joints in the logged interval. 40 joints were classified as Class 1 (less than 20% penetration), and 1 joint was classified as Class 2 (20%-40% penetration). The worst-case defect was found at 744.092ft, showing 24.4% external penetration and a calculated burst pressure of 3765psi.

6.4 SONIC SURVEYS – GYRO SURVEY (11/06/2022)

This survey uses a logging tool with a gyroscopic compass and inclination sensor to measure the well deviation and direction of the deviation every 25'. The log was run in the 3-1/2" casing from surface down to a depth of 2,600'. The maximum recorded inclination that occurred in the wellbore within the 3-1/2" drill pipe, was 2.14° shown at 2,300'. The separation from vertical near the bottom of the 3-1/2" drill pipe was 14.65' at a depth of 2,600' located at 11.02' South and -9.65' West.

6.5 SONIC SURVEY – SONAR SURVEY (11/09/2022)

This survey uses an acoustic signal to measure the distance from the tool to the wall of the cavern at a measured depth. The tool is rotated 360° and can be tilted up to 90° to take measurements of the cavern floor and roof. From these measurements, the volume of the cavern is calculated. The survey was run in the cavern from 1,666' to 2,613', with tilted shots taken of the cavern roof and floor.

The table below is a summary of the survey depths and volumes relative to the brine casing depths. Please refer to the Wellbore Schematic for the sources of the depths shown below.

Table 6.1 Sonar Summary

Description	Depth (ft)	Total Volume (bbls)
Top Weep Hole	2,599	136,165
End of 3 1/2" Hanging String	2,603	138,824
Cavern Total	2,613	141,137

6.6 B.6 GOWELL – EPDT LOG (11/09/2022)

The primary objective of an Enhanced Pipe-Thickness Detection Tool (ePDT) is to identify and accurately quantify any wall loss or damage (such as cross-sectional distortion or buckling) within the 3-1/2", 7" and 9-5/8" casings. ePDT tool was run from 1697 feet to surface. No localized defects of note were found in the 3-1/2" drill pipe, the 7" liner, or the 9-5/8" casing. The 7" and 9-5/8" collars were clearly visible throughout the logged interval, indicating any severe defects would be visible. The 3-1/2" collars are thicker than typical wells, likely due to it being drill pipe. Changing electromagnetic properties resulted in a single "B" grade on the 3-1/2" tubing.

APPENDIX

A WORKOVER DOCUMENTS

A.1 WORKOVER PROGRAM
A.2 VENDORS LIST
A.3 RINA - WELLHEAD INSPECTION REPORT
A.4 UNIVERSAL WELLHEAD – WELLHEAD TORQUE REPORT
A.5 NOV TUBOSCOPE – PIPE INSPECTION REPORT

	WELL WORKOVER PROGRAM	Project No. 192025AT
	MARATHON PETROLEUM COMPANY, LLC STATE LPG STORAGE No. 4 API No. 30-025-35957 LEA COUNTY, NEW MEXICO	Date 09/20/2022
		Page 1 of 5

INTRODUCTION

This well workover program presents the proposed steps for working over Marathon Jal State LPG Storage No. 4 (Well No. 4) in Lea County, NM. The actual conditions encountered during the work will determine the appropriate action taken. Any significant deviation from the proposed program will require prior approval by the WSP USA Inc. (WSP) Project Manager and Client.

The objectives of the workover are:

1. Prepare wellsite and mobilize rig, equipment, and personnel.
2. Pull the 3-1/2" hanging string from wellbore and layout for onsite inspection. While laying out pipe, Sonar readings will be taken.
3. Run a casing scraper inside the 7" 23# casing.
4. Inspect and repair wellhead spools, and valves. Replace all studs, nuts, ring gaskets, and flange protectors.
5. Run Magnetic Flux corrosion/ caliper logs and photon density log.
6. Reinstall used 3-1/2" hanging string (decision will be based on inspection). Weep hole to be included on first drill collar.
7. Pipe will be drilled down to TD. Once at bottom drill bit will be cut-off from hanging string.
8. Run GoWell's "ePDT" corrosion log thru the hanging string to 7" casing shoe.
9. Conduct mechanical integrity test (MIT) of the well and cavern (separate procedure will be provided).

WORKOVER PROGRAM

1. Prior to commencing any work, hold initial safety meeting and site orientation with all parties. Each day moving forward, hold safety meetings prior to commencement of work or any major change in work procedure. Conduct Job Safety Analysis (JSA) prior to any critical operations.

   Note: JSA documentation must be kept to submit during post-operations reporting.

2. WSP to remove cavern pressure and handle excess brine to frac tank.
3. Mark and report wellhead height and valve original orientation. Measure and report the height from ground level to the wing valves. Check and report wellhead and casing annuli pressures. Bleed-off wellhead pressures, if any. Check surface casings, landing base, and all spools for corrosion. Pipe contractor will disconnect lines to wellhead and remove pipe around wellhead to allow rig to move in.

   Note: Blind flange will be installed where needed to isolate lines.

4. Ensure Master valve is closed, lock-out tag-out (LOTO) if necessary. Move in and rig up workover rig. Rig up surface lines, tanks, and rig pump to break circulation.

   Note: MATs are not required for site location; however, if the need is required Company Man should arrange ahead of time.

5. Check for Brine (tubing) or Product (TCA) pressure on the well. Circulate well down tubing to ensure no product is present below the hanger. If there is brine pressure on the well, relieve pressure by flowing and pumping brine to the rig tank. Ensure well remains full of brine at all times during the workover. If there is product pressure on the well, flare off product using portable flare system (gas buster) supplied by a third-party contractor.

Notes:

- **Make sure well stays filled with brine during the workover. If required, have extra tanks available filled with brine (9.6 ppg) from nearby pond.**
- **If required, call in a vacuum truck to haul off the excess brine to a brine pit.**

6. Remove tree assembly 7-1/16" x 4-1/16", 3M adapter spool and 11" x 7-1/16", 3M DSA pack-off.

   Note: Arrange to send valves, casing and tubing spool, and adapter to Universal Wellhead shop for refurbishing and coating.

7. Nipple up BOPE (Annular) on the 11" x 11", 3M product (tubing) spool and function test BOP.

   Note: Function test BOP (Annular) after each installation.

8. Rig up casing handling tools and associated equipment to spear 4-1/2" casing joint from tubing spool. The string consists of 4-1/2" landing joint, 3-1/2" drill pipe, and 4-3/4" drill collars.

   Notes:

   - **Once DSA has been removed, confirm tubing I.D. to spear pipe.**
   - **The string consists of 686' of 4-3/4" 46.8# drill collar, 1,915' of 3-1/2" 13.3" drill pipe. Smf 38 of 4-1/2" casing for a total of 2,601'. The weight of this mixed string weighs ~ 59,000 lbs in air.**

9. Make up appropriate size spear, and spear into hanging joint. Raise hanger joint and set in slips. Release and lay down spear.

10. Rig up E-Line unit to perform Sonar recording while pulling out the joints placing the end of pipe above each Cavern section based on log from 2007 Cavern report by **Sonarwire Inc**.

    - Prior to running Sonar, rig up 2" sinker bar with gauge ring and run to end of hanging string at 2,601'. Pull out of hole (POOH).

      Note: If required, have wireline brushes to remove debris.

    - Rig up Sonar tool and keep rigged up. Plan to run in Sonar tool to take reading at the following depths from bottom to top: 2,500', 2,380', 2,340', 2,280', 2,150', 2,050', 1,995', 1,890', 1,830', 1,780', 1,705', and 1,666'

      i. Perform shots to Map the cavern.

      ii. Take horizontal shot every 2'.

      iii. Increase shot density in cavern interval where anomalous measurements are taken.

      iv. Note any anomalies and notify the WSP Project Manager and the client. POH.

    - Rig down E-Line tools after taking last reading.

11. Pull and lay down approximately 1,915' of 3-1/2" Drill Pipe, and 686' of 4-3/4" Drill Collar. Tally the pulled hanging string. Set aside hanging string on pipe rack for inspection.

    Notes:

    - **Steps 11 & 12 overlap due to running thru-pipe Sonar and pulling hanging string in tandem.**
    - **Plan to have pipe inspection conducted on site. Call pipe inspection contractor well in advance.**
      - **Acceptable criteria will be yellow band**
      - **Drill 1 weep hole in first joint 1' from end of tool joint**

12. Rig up clean out BHA with used tri-cone bit with welded cones, and 7" 23# rotating casing scraper and run-on work string to depth at 1,555' MD (±20' above 7" csg shoe @ 1,575'). Circulate hole clean. POOH and lay down work string and scraper.
13. Make up and run-in hole with 7" Retrievable Bridge Plug (RBP) on work string and set plug at a minimum depth of 980' in the 7" 23# liner. Avoid casing collars located at 938', 970', and 1,000' base on below BHF. Release overshot running tool from "RBP". Close Full Open Safety Valve (FOSV) on work string and close annular and pressure test above "RBP" to 500 psi for 15 minutes while holding observe casing annulus (CCA) for any pressure increase. Bleed off pressure and open annular and FOSV. POOH with work string and "RBP" running tool.
14. Nipple down BOPE. Remove 11" x 11" 3M product (tubing) spool. Send the spool and valves off to third party shop for refurbishing.
15. Nipple up BOPE on the 11" x 11" casing spool and function test BOP.

    Note: Function test BOP (Annular) after each installation.
16. Run in with 7" RBP retrieving tool on work string and latch on to RBP, equalize pressure, release RBP and pull out of hole (POOH) and lay down.
17. Rig up E-Line unit with pack-off. The following casing inspection logs and formation log down to 5' above 7" 23# casing shoe (csg shoe @ 1,575' MD).

    - Multi-finger Imaging Caliper
    - Magnetic-Flux Leakage Casing Inspection
    - Density log across the casing shoe to check for washouts
18. Rig down (R/D) E-Line unit.
19. Make up and run-in hole with 7" RBP on work string and set plug at a depth of 980' in the 7" 23# liner. Avoid casing collars located at 938', 970', and 1,000' base on below BHF. Release overshot running tool from "RBP". Close Full Open Safety Valve (FOSV) and close annular and P/T above "RBP" to 500 psi for 15 minutes while holding observe CCA's for any pressure increase. Bleed off pressure and open annular and FOSV. Remove work string and "RBP" running tool, stand same in derrick.

    Note: Bottom RBP barrier will be installed to secure wellbore while installing casing spools, flanges, and valves.
20. Nipple down BOP. Have the wellhead contractor inspect the 11" x 11", 3M casing spool flange. Install repaired/new 11" x 11", 3M product (tubing) spool and 3" side-entry valves ANSI 900.
21. Energize and test casing P-seal to 1,500 psi for 15 minutes.

    Notes:

    - **Pressure test on P-seal is base 1.2x maximum calculated surface nitrogen pressure during MIT (1.2 x 1,207psi ~ 1,500psi)**
    - **Depending on the style of hanger the test pressure might change. Confirm with PM or Engineer.**
22. Nipple up BOPE (Annular) on the 11" x 11", 3M product (tubing) spool and function test BOP.

    Note: Function test BOP after each installation.
23. M/U and run in with 7" RBP retrieving tool on work string and latch on to packer, equalize pressure, release packer and pull out of hole (POOH) and lay down.
24. Tally hanging string. Ensure each coupling is doped with modified API thread compound.

Notes:

- **It is critical that pipe tally is accurate listing number of drill collars and drill pipe prior to run in well.**
- **Send copy of pipe tally to WSP Workover Engineer prior to running pipe in well for review. Do not run pipe until after receiving approval from WSP Workover Engineer.**

25. Rig up casing handling tools, and power swivel to rerun/drill down the 3-1/2" hanging string.

    Note: Well in advance confirm with pipe inspector of previous pulled hanging string consisting of 3-1/2" drill pipe with 4-3/4" drill collars a list of number reusable drill pipe / drill collar to make arrangement ahead to obtain replacements.

26. Run 3-1/2" hanging string and make up each connection to recommended torque, see below. Run down to 9-5/8" casing shoe at 1,659' MD and break circulation before entering open hole (OH). At approximately 1,758' MD (99' MD in OH) it is expected to drill down the joints. See table below with additional section required to drill across. Circulate hole clean as required to remove drilled cuttings to prevent packing off.

    NOTE: Well history shows that drilling will be required across the following intervals and that top fish expected @ 2,247' (left in well 2007)

Interval Drilled	Top Depth	Bottom Depth
	1,758 ft	2,008 ft
	2,008 ft	2,254 ft
	2,265 ft	2,320 ft
	2,326 ft	2,370 ft
E-Line run CCL confirmed bit depth	2,370 ft	2,410 ft
	2,410 ft	2,454 ft
Fell into Top of Cavern @ 2,511 ft	2,454 ft	2,511 ft
Tagged Bottom @ 2,621 ft	2,511 ft	2,621 ft

- **3-1/2" IF Drill Pipe & Drill Collar recommended torque: 11,700 ft-lbs**
- **Plan to drill weep hole on first drill collar 1' from pin tool joint.**
- **Ensure to have back-up 6-1/8in tri-cone bit.**
- **Sufficient hydraulic fluid for the power swivel.**
- **Sufficient tanks for returned brine fluid.**

27. Land hanging string with casing spear or landing joint in the 11" x 11", 3M product (tubing) spool. Rig down handling equipment and power swivel.

28. Nipple down BOPE. Install repaired 11" x 7-1/16", 3M DSA pack-off with 7-1/16" x 4-1/16" adapter spool with 2x 4", 600# side-entry valves one on each side and test P-seal to 3,000 psi for 15 minutes.

29. Install blinds and test flanges on brine and product side-entry outlet valves for MIT. Inspect overall condition of test flanges. Torque all wellhead connections to API 6A specifications.

30. Rig up E-Line unit with pack-off and RIH with CCL tool to confirm collar depth. POOH and RIH with severing tool to cut collar at bit to leave in OH to obtain open ended hanging string. POOH.

31. Rig up GoWell's thru-tubing "ePDT" corrosion log run down across 7" casing shoe depth at 1,575' MD. POOH. Rig down E-Line unit and demob same.
32. Rig down workover rig. Load out rental tools and move rig. Restore location.
33. Use rig pump to pressure the well with brine to the specified MIT pressure. Verify pressure on product and tubing side with dead weight gauge or digital pressure recorder.
34. Ensure all rentals have been moved to well pad #3 and area is clean.
35. Perform nitrogen interface MIT per MIT procedure under separate cover and begin 2 days before completion of WO on well #3. Contact Wellsite leader for timing for mobilization of eLine unit and nitrogen.

ATTACHMENTS

- Existing Wellbore schematic with Sonar Cross-section
- Existing Wellhead Schematic
- Correlation Sonar log from 2007 by SonarWire Inc.

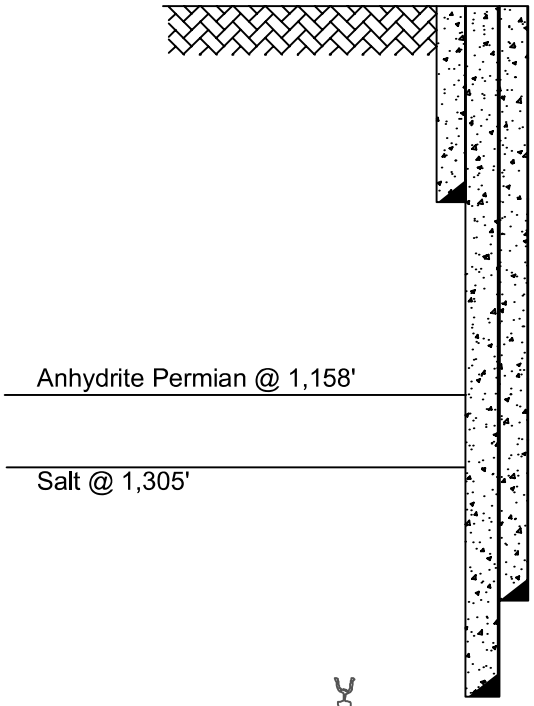
Adrian A. Villarreal, WSP USA

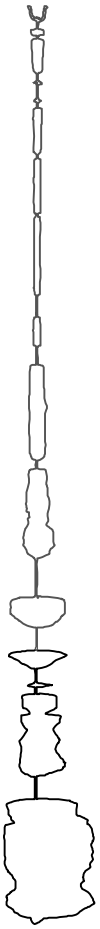
PREPARED BY Adrian A. Villarreal 10/5/2022

APPROVED BY J. Austin Powers 10/14/2022

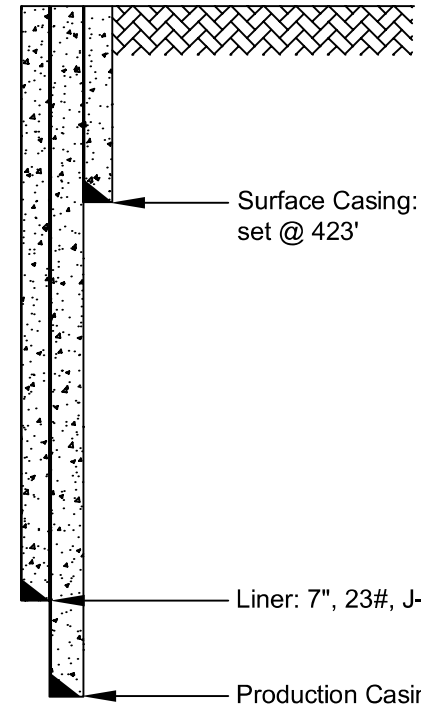
API: 30-025-35957

EXISTING WELL





STORAGE CAVERN
Vol = 141,137 Bbls
TD Sonar = 2,609' (11/09/2022)
TD Tally = 2,603' (10/31/2022)



Surface Casing: 13-3/8", 54.5#, J-55, set @ 423'

Liner: 7", 23#, J-55, set @ 1,575'

Production Casing: 9-5/8", 36#, J-55, set @ 1,659'

Hanging String
4-3/4" Drill Pipe, 46.8 lb/ft, S-Grade 762'
3-1/2" Drill Pipe, 15.5 lb/ft, S-Grade 1,536'
3-1/2" Drill Pipe, 13.3 lb/ft, S-Grade 306'

NOTES:
1. All depths measure from B.H.F.
2. Reference Marathon well records

WSP USA Inc.
16200 Park Row, Ste. 200
Houston, TX 77084
TEL: (281) 589-5900

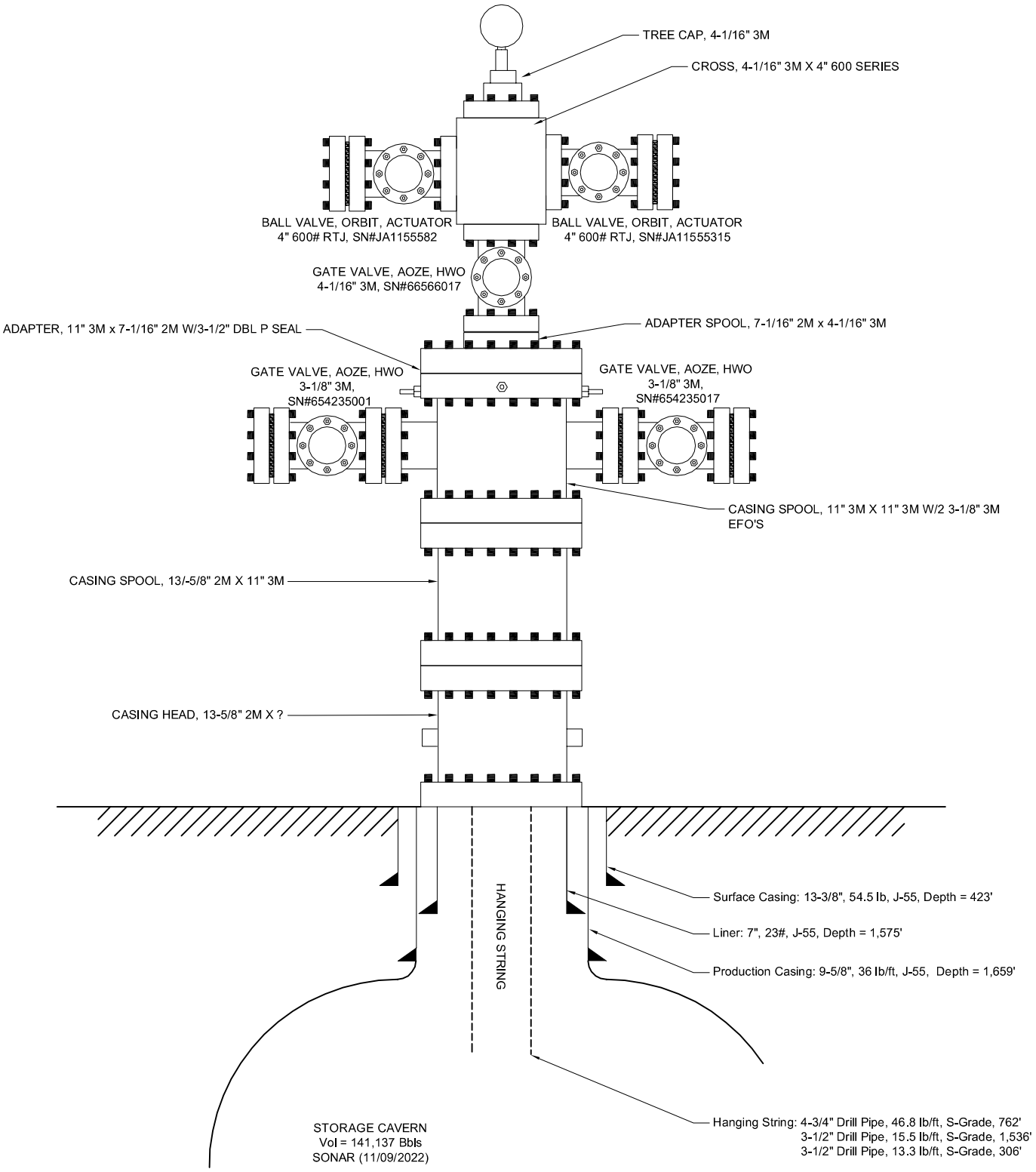
MARATHON
JAL, LEA COUNTY, NEW MEXICO

STATE LPG STORAGE WELL NO. 4 WELL SCHEMATIC

Job No. 192025AT

Drawn: WDD	Checked: AAV	Approved: AP	Date: 12/15/2022	Scale: NONE	Figure No. 1

API: 30-025-35957



WSP USA Inc.
16200 PARK ROW, SUITE 200
HOUSTON, TX 77084
281.589.5900
TBPE #2263

MARATHON
JAL, LEA COUNTY, NEW MEXICO

STATE LPG STORAGE WELL NO. 4 WELLHEAD SCHEMATIC

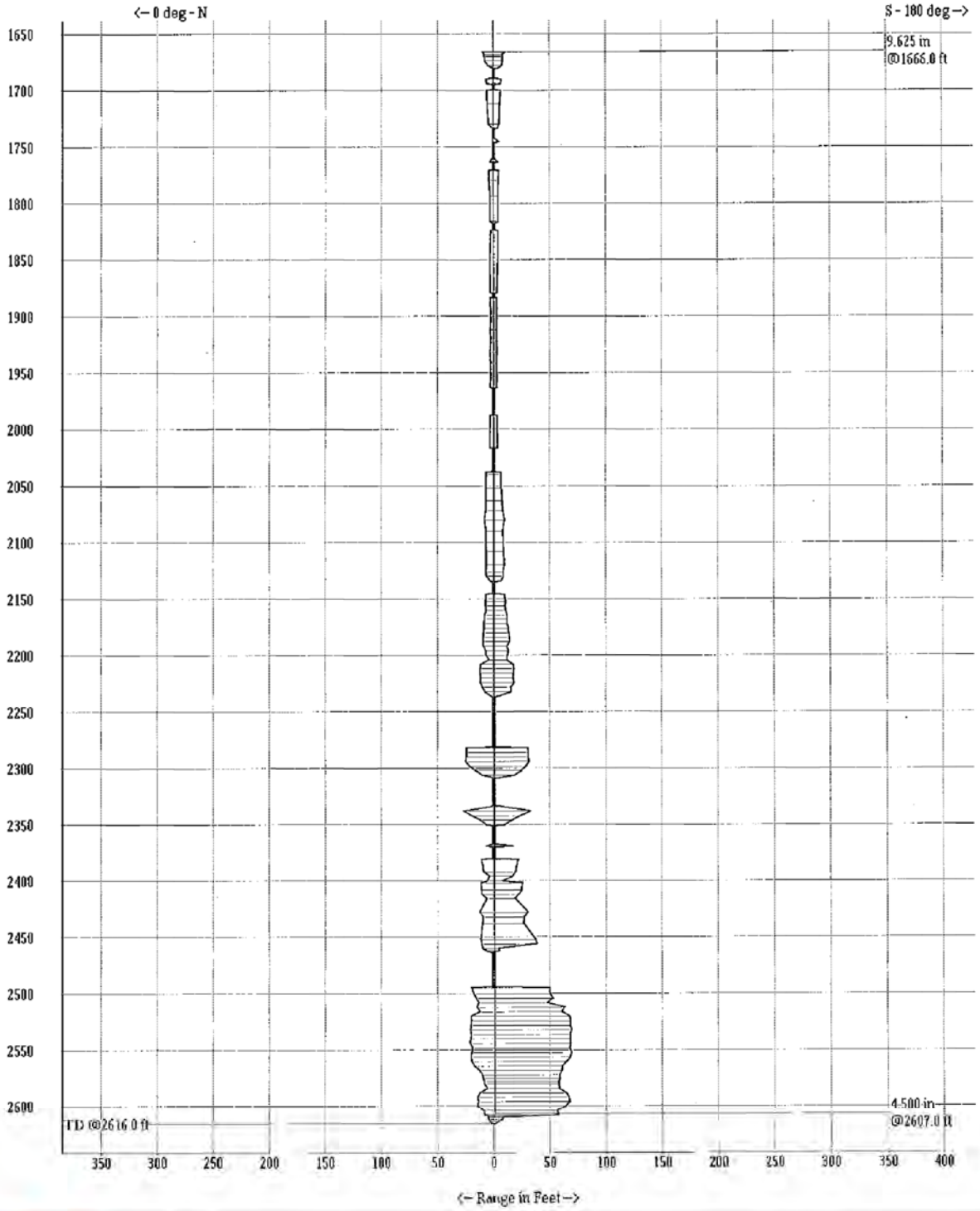
DRAWN BY: WDD	CHECKED: AAV	DATE: 01/03/2023	SCALE: NONE	JOB NO. 192025AT

EXISTING WELL

WESTERN REFINING
JAL, NM

SONARWIRE, INC
Vertical Cross Section

STATE LPG WELL NO. 4
Fri, Aug 31, 2007



Released to Imaging: 3/9/2023 4:13:05 PM

Received by OCD: 2/17/2023 3:21:36 PM

Created by	Number	Task Code	Type	Issue Date	ISN acct#	Vendor	Description	Contact	Phone	Cell	E-Mail	ISN E-Mail	HSE/ISN WSP	Marathon ISN Comments
JA	192025AT001 REV1	2.08	WO	10/5/2022	400-175870	Delta Oil Tools	mechanical set retrievable bridge plug set in 7" 23# J55	Eddie Bernard	318-336-3210; 337-706-4341		eddie.bernard@deltaoiltools.com	jeffrey.ferguson@deltaoiltools.com	A - Requested ISN update 9/14/22	9/19/22 - Safety Status Not Met
JA	192025AT002 Rev1	2.11	WO	10/5/2022	400-141258	CDK Perf DBA Nine Energy Service, Inc	Provide casing inspection logs (Weatherford CI flux and GoWell tools) and jet cut of 3.5" tubing, hoist sonar	Pete Curtis	936-577-1336		pete.curtis@nineenergyservice.com	jordan.crescenzi@nineenergyservice.com	A - Under CDK Perforating, Requested ISN update 9/14/22	9/19/22 - Contractor has denied access to view company profile
JA	192025AT003 REV1	02.18	WO	10/5/2022	400-164313	Universal Wellhead Service Holdings	Wellhead/valve inspection, refurbish, and field services	John Madiero	713-849-3003; 713-598-1414		johnmadeiro@universalwellhead.com jasonwhite@universalwellhead.com tommymiller@universalwellhead.com		A - Requested ISN update 9/14/22	9/19/22 - Safety Status Met
DW	192025AT003A	2.18	WO	10/14/2022	400-164313	Universal Wellhead Service Holdings	remove surface pipe, wellhead and brine line coating, and temporary blind flange rental, welding 10/14 requested rates for certified forklift operator 10/27 2nd request - rates for cert forklift op	John Madiero Jason White Odessa	713-849-3003; 713-598-1414		johnmadeiro@universalwellhead.com jasonwhite@universalwellhead.com tommymiller@universalwellhead.com		A - Requested ISN update 9/14/22	9/19/22 - Safety Status Met
JA	192025AT005	2.08	WO	44839	400-127753	Tuboscope NOV	Perform pipe inspection 3.5" 15.50# S135 used premium IF connections drill pipe and 4-3/4" drill collars The inspection will consist of visual threads, visual tube, OD gage, UT wall, dimensional 2, EMI, and magnetic particle slip/upset area.	Steve Menard Jeremiah Brus	337-412-2596 661-343-1281		steve.menard@nov.com; jeremiah.brus@nov.com	uvaldo.martinez@nov.com	Approved w/Variance, Requested ISN update 9/14/22	
JA	192025AT006	2.08	WO		400-117856	Weatherford Intl LLC USA	Rentals -BOP package, spool, safety valve, nipple, flanges, casing scraper 10/14 Per Derrek will add elevators for 3.5 DP and 4-3/4" DC 10/26 Not needing crossovers to NOV agitation tool	Derrek Borne Sabrina Terry	832-331-5136; 325-436-3038		derrek.borne@weatherford.com sabrina.terry@weatherford.com		ISN grade A	
JA	192025AT007 REV1	2.08	WO	10/5/252	400-134304	United Rentals Operator provided by UWS	provide 12K variable reach forklift and light tower (quote 210788749)Rev1)	Jeff Sullivan	575-394-0012 (branch office); 703-338-9634		jsulliva@ur.com	jsulliva@ur.com sbaca@ur.com	rental only, no operator	rental only, no operator
JA	192025AT009	2.22	SFC	10/5/2022	400-178867	J & J Rentals, LLC (Hobbs)	Toilets and handwash stations	Christina, Paco Joes Hernandez	575-602-5162		jandirentals10@yahoo.com		Not connected, Sent Request 9-12-22	
JA	192025AT010	2.07	PO	10/12/2022	NA	DH Rockbit	(3) 6-1/8" reman motor bit w/gauge protection; buy 1, return 1; (1) 6- 1/8" Junk bit w/ frozen cones (2) Bit subs 3-1/2 Reg Box, by 3-1/2 IF Box 10/26/22 per AV, will not need the welded tri-cone bit	Wayne Jared			dhrockbit@aol.com		rentals only	
JA	192025AT011 REV1	2.13	WO	10/6/2022	400-161827	Standard Energy Services	WO rig, crew, kill truck, vacuum trucks	Todd Cox	806-777-8836		todd@thestandardenergy.com	jack@thestandardenergy.com	B, Requested ISN update 9/14/22	9/19/22 - Safety Status Not Met
JA	192025AT012	2.11		10/12/2022	400-129164	Sonic Surveys, Ltd.	run 2" low profile Sonar tool and MIT - replace Socon	Sam Tolleson Tony - HSE			sam@sonic-surveys.com gary@sonic-surveys.com ron.hicks@sonic-surveys.com tony@sonic-surveys.com	tony@sonic-surveys.com	A - Requested ISN update 9/14/22	
JA	192025AT013	2.18	WO	10/6/2022	NA	RINA Tech USA, Inc	Perform 3rd party wellhead inspection services	Amanda Fielder	832-457-4077; 832-310-1423		amanda.fielder@rina.org		no site work	NA
JA	192025AT014	2.24	WO	10/12/2022	400-127759	Total Safety US Inc.	HSE OVERSIGHT (wellsite remote H2S monitors not needed) only personal H2S	Sean Chamblee	713-703-6295		schamblee@totalsafety.com		connection request 10/7/22	
JA	192025AT015	3.01	PO	10/12/2022	NA	Patriot Steel	New drill pipe and drill collars; returnable if not used; must pay trsp and inspections	Reed Barbier	337-288-1431; 337-400-2061		reed@patriotsteelgroup.com		NA	
JA	192025AT016 CANCEL	2.11	PO	NA		GoWell International - run through Nine Energy	thru tubing corrosion log (hoisted by Nine Energy)	Chris Bily	512 762 6888		chris.bily@gowellpetro.com		rental only, no operator	
JA	192025AT017		WO	10/14/2022	NA	Agapito Associates Inc	3rd party consultant	Eric Busch	T: 970-242-4220 | C: 832-216-0785		ebusch@agapito.com			
DW	192025AT018	2.08	WO	10/14/2022	400-153639	Adler Tank Rentals	provide Gas buster, 200' layflat line with pump (to move brine from brine pond to frac tank), Frac tank, Containment for frac tank, rig pump & tank, other equipment as requested, including fixed costs for mobilization/demobilization, and cleaning of rental items	Chad Carson	432-634-9478		chad.carson@adlertankrentals.com		ISN A grade	
DW/JA	192025AT019 Rev1	2.08/02.19/02.20	WO	10/14/2022	400-128793	Graco Oilfield Services	provide 3.5 power swivel. IF Kelly Valve, Operator, Inspection, Kelly Valve Redress, Trucking (as needed) approximately 20 Days 10/19 5K reverse unit (w/pump/tank/hoses) 10/21/22 casing jacks $6K/day $175/hour from Monahans TX	Dennis Cormier	281-705-2056		dennis.cormier@gracosvcs.com		ISN A grade	
DW	192025AT020	2.22	WO	10/25/2022	400-246248	Dynasty Energy Services LLC	provide Laydown Machine, Operator, Delivery and Pickup of the machine (approximate 10 days usage) Only have a 10K recirculating unit, not 5K.	Monty Johnston		972-567-9578	MJohnston@dynastyes.com	MJohnston@DynastyES.com kalexander@dynastyes.com	A - Requested ISN update 9/14/22	10/18/22 - Safety Status Not Met Compliance in Process
JA	192025AT021	02.08	PO	10/20/2022		Bourque Sales & Service Inc	tongs w/hydraulic unit and 10 dies, 10 extra dies	Colin		337-232-6622	colin@bourquesales.com		NA	
DW	192025AT022	02.19	WO	10/20/2022	400-127685	Acme Truck Line Inc.	Provide miscellaneous trucking	Shannon Runnels	800-825-6246		shannon.runnels@acmetruck.com	robert.raymond@acmetruck.com	ISN A grade	
DW	192025AT023	02.19	WO	10/24/2022	400-129890	Rig Runner	Provide miscellaneous trucking	Rebecca Coleman	832-871-4900		rcoleman@rigrunnerinc.com	johnston@rigrunnerinc.com	ISN-A	
JA	192025AT024	02.11	WO		400-784127	DHVI - Downhole Video	CaptureCam HD	Jerod Hobbs	304.612.1030 580.768.2774		jerod.hobbs@dhvi.net	lenny.lavoie@dhvi.ca	ISN-A	
DW	192025AT026	02.19	WO	10/25/2022	400-135825	Hughes Oilfield Transportation, Inc	Provide miscellaneous trucking	Lorri Bradshaw	432-580-4975		tickets@hugheshotshot.com	sutton7896@yahoo.com	A - Requested ISN update 9/14/22	
DW	192025AT027	02.19	PO	10/26/2022	N/A	Priority 1	Hotshot from DH Rockbit 220 Barren Springs Bldg 9 Houston 77090 to Marathon	Eric Law	888-569-8035	281-881-3978	eric.law@priority1.com		NA	NA
JA	192025AT030	02.08	WO	44893	400-223133	Pima Oilfield Services LLC	Stripper head listed on daily field ticket - $292/day	Shawn Dobson		806-549-0055	shawn@pimaoil.com		ISN A grade	
DW	192025AT031	2.22	WO	44883	400-126914	Cudd Pressure Control Inc.	provide nitrogen services estimated for (1) day for (1) one well	Tony Drainer	432-250-6206	432-559-6000	tdrainer@cudd.com	ebaldridge@thrutubing.com	ISN-A	
DW	192025AT032	02.22	WO	44902	N/A	Knight Oil Tools	to provide an Elevator, 3-1/2" Bottleneck RG 150 Ton	Gary Jones	713-466-6600	713-501-5827	gary.jones@ke.services			

RINA	**Customer:**	WSP	
	Project:	Marathon Cavern Well #4	
	Report No.:	RP001	
	Inspector/s:	Robert Phillips	
Inspection Report	**Visit Date/s:**	10/31/2022	
	Report Date:	11/1/2022	**Page** 1 of 5

1. Reference Section

Purchase Order:	192025AT013	**RINA Job ID:**	PES041-113
Inspection Notification:	Phone/email	**Customer Reference:**	
Main Vendor:	Universal Wellhead	**Main Vendor Location:**	Odessa, Texas
Manufacturer:	NA	**Manufacturer Location:**	NA
Vendor sub-order No.:	NA		
Other key Attendees:	**Name of Person**	**Company / Position & Contact Details**	
	Tommy Miller	Odessa Operations Manager 432/661/5810	
Equipment / Material:			
Inspection Activities Performed:	☒ **Stage/Intermediate** ☐ **Final** ☐ **Dispatch / Shipment**		
Next Visit Date/s:	11/4/2022 pending arrival of second wellhead for refurbishment		

2. Overall Result of inspections

X	SATISFACTORY	Witness of hydro test on well head and gate valve
	UNSATISFACTORY	
	PENDING ITEMS(S)	
	PUNCHLIST RAISED	PL No.:
	NCR RAISED	NCR No.:
	IRN ISSUED	IRN No.:

CUSTOMER ACTION REQUIRED ☐ **YES** ☐ **NO**

If yes, provide details here:

QUALITY FINDINGS (not subject to an NCR being raised, corrected at time of Inspection)

3. Time & Expenses Expenditure

Time

DATE	WORK HOURS	TRAVEL HOURS	DISTANCE
10/31/2022	4	6	390

RINA	**Customer:**	WSP	
	Project:	Marathon Cavern Well #4	
	Report No.:	RP001	
	Inspector/s:	Robert Phillips	
Inspection Report	**Visit Date/s:**	10/31/2022	
	Report Date:	11/1/2022	**Page** 2 of 5

4. Documents Section

Detail all the applied Customer, Vendor docs and International Codes & Standards referenced

Document Number	Rev.	Title	Code Status

5. Presented Quantities

P.O./Tag Item	Item Description	Ordered	Presented This Visit	Rejected This Visit	Accepted This Visit	Qty. for Release
	Well Head and gate valve for Cavern Well #4	1	1	0	1	1

6. Details of Inspection & Test instruments Used

Equipment Name	Manufacturer	Serial No. / ID No.	Next Calibration

7. Detailed Results of Inspections

Summary table of the inspection activities performed & results

QCP / ITP Step	Inspection Activity	Result		
	Material Test Reports	☐ Accept	☐ Reject	☒ Pending
	Check Fittings, plugs, seals	☒ Accept	☐ Reject	☐ Pending
	Witness Pressure Test	☒ Accept	☐ Reject	☐ Pending
N/A	Verify Final Dimensions of Casing Spools	☐ Accept	☐ Reject	☐ Pending
	Studs and Nuts Teflon Coated	☒ Accept	☐ Reject	☐ Pending
N/A	Internal Coated	☐ Accept	☐ Reject	☐ Pending
N/A	Final Paint	☐ Accept	☐ Reject	☐ Pending

Detailed results of inspections (QCP/ITP Activity No., Inspection Performed including quality findings)

Detailed here below, in a clear and concise way, the activities performed and the results:

TPI made an inspection visit to Universal Wellhead in Odessa, Texas on October 31, 2022. Equipment was already disassembled and rebuilt at time of inspection, so no teardown pictures were taken. TPI was advised that casing spool was already rebuilt and shipped back to field per customer request, so no inspection was performed on spool.

RINA	**Customer:**	WSP	
	Project:	Marathon Cavern Well #4	
	Report No.:	RP001	
	Inspector/s:	Robert Phillips	
Inspection Report	**Visit Date/s:**	10/31/2022	
	Report Date:	11/1/2022	**Page** 3 of 5

Inspector verified fittings, plugs, and seals at time of hydro test. Hydrotest was performed at 2,000 psi for 5 minutes on both the well head and then well head to spool. No leaks or pressure drop were observed at time of test. Studs and nuts were observed as Teflon coated. TPI requested documentation for MTR's, coating reports for spool that was shipped, and reports for valves that were rebuilt at vendor sub-supplier. Final paint was not applied at time of hydro test, so TPI requested coating reports to be provided for external paint as well.

Information was to be emailed to TPI for review. The next well head is scheduled to be in the shop the end of the on November 4th or first of the week of November 7th.

8. HSE

Check and comment on results (as applicable)

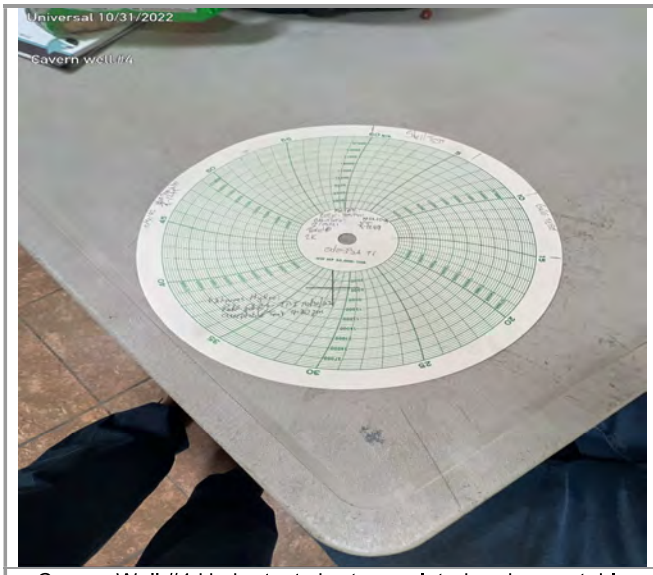
	Any Incidents	
	PPE in Use	
	HSE Induction Given	
	Child Labour Seen	
	Poor Working Conditions	
	Unfair / Forced Labour	
	Waste Recycling Practiced	
	Other	

9. Attachments Section

Document Number	Rev.	Title

10. Pictures Section

RINA	**Customer:**	WSP	
	Project:	Marathon Cavern Well #4	
	Report No.:	RP001	
	Inspector/s:	Robert Phillips	
Inspection Report	**Visit Date/s:**	10/31/2022	
	Report Date:	11/1/2022	**Page** 4 of 5



Cavern Well #4 Hydro test chart-completed and acceptable



Cavern Well #4 Hydrotest in process-acceptable at 2000 psi



Chart Recorder 202E-335940 SN# and calibration current



Wellhead data plate

RINA	**Customer:**	WSP	
	Project:	Marathon Cavern Well #4	
	Report No.:	RP001	
	Inspector/s:	Robert Phillips	
Inspection Report	**Visit Date/s:**	10/31/2022	
	Report Date:	11/1/2022	**Page** 5 of 5



Valve data plate


Teflon coated bolts verified on assembled components

Place:	**Odessa, Texas**	**Date:**	**10/31/2022**

RINA ☐W ☑R US 140
Date:
Company
Robert Phillips

Inspector Signature and Stamp

UNIVERSAL WELLHEAD SERVICES, LLC.

Field Sheet/Shop

Customer Marathon Field/Well # Cara Wall #4

Torque Unit # _____ Calibration Date _____

Flange Location / Size	Torque Value
3 900 Qty 2 Spool	170 FT lbs
4 900 Qty 2 Tree	230 FT lbs
4 600 Qty 2 Tree	230 FT lbs

Durometer tool # _____ Calibration Date 9-1-22

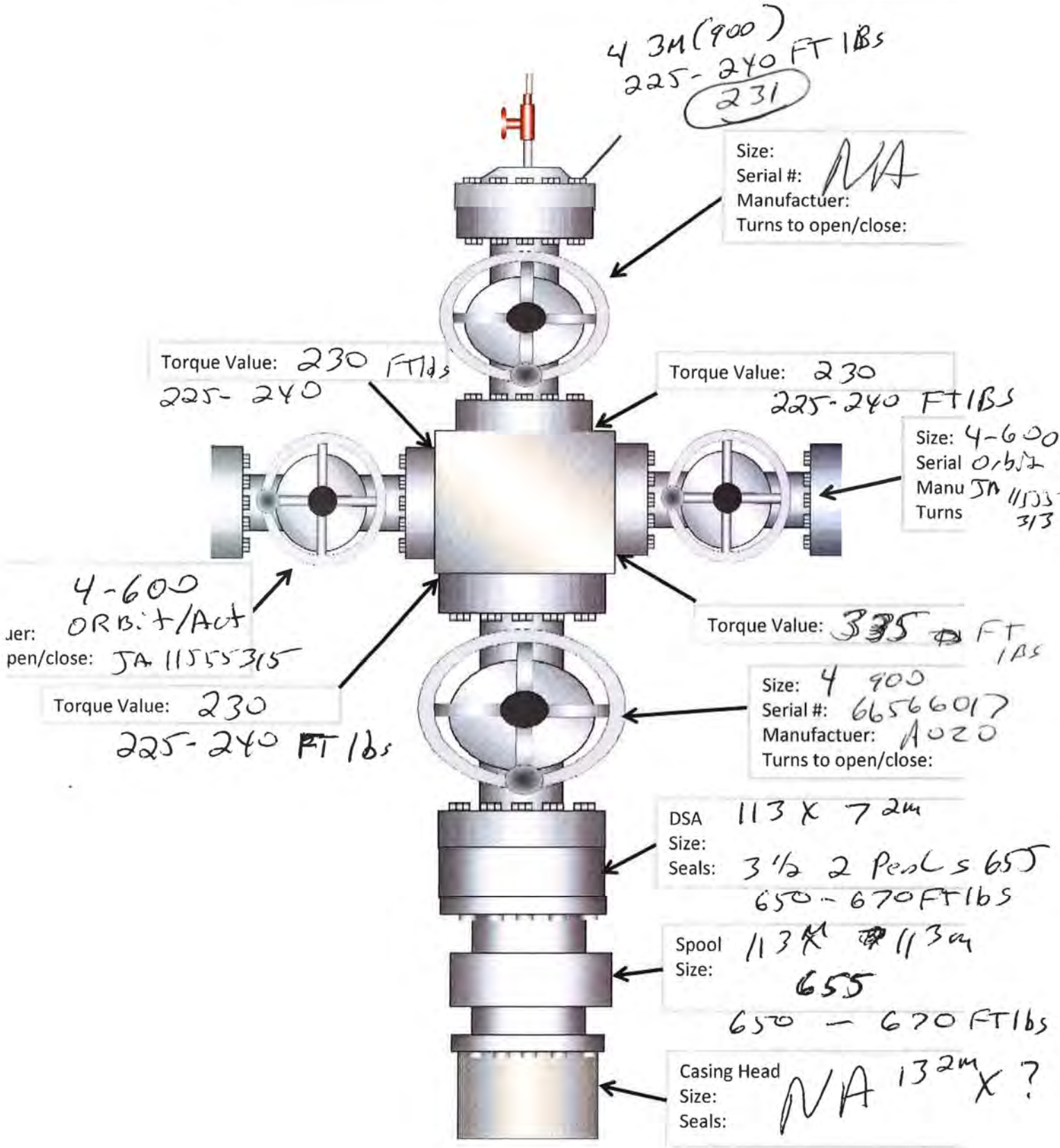
Seal Type	Seal Size	Material	Batch #	Location	Duro reading
P Seals	3 1/2	90 Duro	1	OBSG	89 Duro

Field Service Tech / Date

Company Rep / Date

Field Cavern Well 4

Well # _____



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Tuboscope — NOV Wellbore Technologies

DRILL PIPE INSPECTION REPORT

The New Inspection Standard

Inspector:	SANTOS RIOS	BA/Invoice:	7948753
Inspection Date:	10/29/2022	Tracking:	
Well:		AFE/PO:	
Area:	WTX	Specification:	◉ DS-1 ○ API

| | | |

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Inspection Date:	10/29/2022	Tracking:	
Well:		AFE/PO:	
Area:	WTX	Specification:	◉ DS-1 ○ API

Customer:	WSP USA	Loc:	NOV TUBOSCOPE CRANE YARD	Rig:							
Operator:		Yard:		Inspection Comments:	DAMAGES CONSIST OF EXCESSIVE PITTING ON THREADS/ SHOULDERS. I RECIVED THE DRILL PIPE WITH NO PROTECTORS / THREAD COMPUND WITH AN EXCESSIVE AMOUNT OF RUST ON CONNECTIONS. DOWN GRADES (CLASS II / DBR'S) MAJORITY ARE LOW WALLS, A FEW DEMENSIONAL REJECTS, AND 1 EMI REJECT					
Category:	3	Dim:	◉ 1 ○ 2 ○ 3	UTEA:	☐	Inspection:	○ DMPI ○ WMPI	ID/OD Blast:	☐	Blacklight Conns:	☐	EMI:	◉ I ○ II ○ FLUT
Size:	3.5	Lb/ft:	13.30	Grade:	S-135	Conn:	NC38	Range:	2	Type:	DRILL PIPE		

Criteria:	Min OD	Tong Pin	OD Threshold	MAX ID	Nom Wall	Min Wall	Min Seal	Min Shld	Tong Box	CB Max	Bevel Min	Bevel Max	Pin Length Min	Pin Length Max	Box Depth Min	Box Depth Max
	4 21/32	4	-	2 25/32	0.368	0.294	21/64	-	5 5/8	4 9/64	4 19/32	6 5/64	-	-	-	-

	TUBE BODY											PIN CONNECTION									BOX CONNECTION												
	Serial No.	Length	Slip Cut	Pitting	Bent	Slip Area Mash	Cracked	ID Coating	Tube Wall Min	% Nom	Tube Wall Max	Tube Class	Pin ID	Pin OD	Tong Space	Pin Length	Bevel Dia	Reface	Hard band	Thread Service	Conn Cond	TJ Class	Box OD	Tong Space	CB Dia	Box Depth	Reface	Bevel Dia	Hard band	Thread Service	Conn Cond	TJ Class	Overall Class	Repair Joints	Reject	Comments
17	181P	-	☐	☐	☐	☐	☐	-	0.288	78.26%	-	2	2 5/8	-	6 7/8	-	-	-	☐	☐	OK	P	4 11/16	8	-	-	-	-	☐	☐	OK	P	2	☐	☐	LOW WALL
18	242P	-	☐	☐	☐	☐	☐	-	0.289	78.53%	-	2	2 5/8	-	7 1/2	-	-	-	☐	☐	OK	P	4 5/8	8	-	-	-	-	☐	☐	OK	2	2	☐	☐	LOW WALL
19	15846P	-	☐	☐	☐	☐	☐	-	0.358	97.28%	-	P	2 9/16	-	9	-	-	-	☐	☐	P	P	4 23/32	8 3/4	-	-	-	-	☑	☐	DS	P	P	☑	☐	CENTER TUBE FM CUT MPI OK
20	1155P	-	☐	☐	☐	☐	☐	-	0.278	75.54%	-	2	2 5/8	-	8 1/8	-	-	-	☐	☐	OK	P	4 3/4	7 3/4	-	-	-	-	☐	☐	OK	P	2	☐	☐	LOW WALL
21	6253P	-	☐	☐	☐	☐	☐	-	0.29	78.80%	-	2	2 5/8	-	7 5/8	-	-	-	☐	☐	OK	P	4 5/8	6 7/8	-	-	-	-	☐	☐	OK	2	2	☐	☐	LOW WALL
22	7052P	-	☐	☐	☐	☐	☐	-	0.263	71.47%	-	2	2 9/16	-	7 5/8	-	-	-	☐	☐	OK	P	4 19/32	8 1/8	-	-	-	-	☐	☐	OK	2	2	☐	☐	LOW WALL
23	3210P	-	☐	☐	☐	☐	☐	-	0.306	83.15%	-	P	2 9/16	-	7 1/8	-	-	-	☐	☐	DT	P	4 21/32	5 3/4	-	-	-	-	☑	☐	DS	P	P	☑	☐	-
24	10169P	-	☐	☐	☐	☐	☐	-	0.346	94.02%	-	P	2 9/16	-	8 5/8	-	-	-	☐	☐	P	P	4 21/32	6 1/2	-	-	-	-	☑	☐	P	P	P	☑	☐	BOX SLIP AREA SLIP CUT MPI OK
25	9408P	-	☐	☐	☐	☐	☐	-	0.289	78.53%	-	2	2 5/8	-	9 3/8	-	-	-	☐	☐	OK	P	4 9/16	7	-	-	-	-	☐	☐	OK	2	2	☐	☐	LOW WALL
26	20398P	-	☐	☐	☐	☐	☐	-	0.287	77.99%	-	2	2 5/8	-	8	-	-	-	☐	☐	OK	P	4 3/4	7 1/4	-	-	-	-	☐	☐	OK	P	2	☐	☐	LOW WALL
27	3476P	-	☐	☐	☐	☐	☐	-	0.274	74.46%	-	2	2 9/16	-	8 1/4	-	-	-	☐	☐	DS	P	4 25/32	8 3/8	-	-	-	-	☐	☐	OK	P	2	☑	☐	LOW WALL
28	14094P	-	☐	☐	☐	☐	☐	-	0.385	104.62%	-	P	2 9/16	-	9 5/8	-	-	-	☐	☐	P	P	4 25/32	8 3/4	-	-	-	-	☑	☐	P	P	P	☑	☐	CENTER TUBE FM CUT MPI OK
29	8825P	-	☐	☐	☐	☐	☐	-	0.287	77.99%	-	2	2 9/16	-	8 1/8	-	-	-	☐	☐	OK	P	4 7/8	7 1/4	-	-	-	-	☐	☐	OK	P	2	☐	☐	LOW WALL
30	9870P	-	☐	☐	☐	☐	☐	-	0.341	92.66%	-	P	2 5/8	-	9	-	-	-	☐	☐	P	P	4 3/4	7 7/8	-	-	-	-	☑	☐	DS/P	P	P	☑	☐	CENTER TUBE FM CUT MPI OK
31	4707P	-	☐	☐	☐	☐	☐	-	0.292	79.35%	-	2	2 9/16	-	8	-	-	-	☐	☐	OK	P	4 3/4	6 1/4	-	-	-	-	☐	☐	OK	P	2	☐	☐	LOW WALL
32	15752P	-	☐	☐	☐	☐	☐	-	0.34	92.39%	-	P	2 9/16	-	8 5/8	-	-	-	☐	☐	DS	P	4 25/32	8 1/8	-	-	-	-	☐	☐	DS	P	P	☑	☐	-
33	6437P	-	☐	☐	☐	☐	☐	-	0.284	77.17%	-	2	2 9/16	-	7 1/8	-	-	-	☐	☐	OK	P	4 9/16	7	-	-	-	-	☐	☐	OK	2	2	☐	☐	LOW WALL
34	3345P	-	☐	☐	☐	☐	☐	-	0.272	73.91%	-	2	2 9/16	-	8 5/8	-	-	-	☐	☐	OK	P	4 23/32	6	-	-	-	-	☐	☐	OK	P	2	☐	☐	LOW WALL
35	19063P	-	☐	☐	☐	☐	☐	-	0.29	78.80%	-	2	2 9/16	-	6 1/2	-	-	-	☐	☐	OK	P	4 3/4	5 7/8	-	-	-	-	☐	☐	OK	P	2	☐	☐	LOW WALL
36	13928P	-	☐	☐	☐	☐	☐	-	0.287	77.99%	-	2	2 9/16	-	10 1/8	-	-	-	☐	☐	OK	P	4 5/8	8 1/8	-	-	-	-	☐	☐	OK	2	2	☐	☐	LOW WALL
37	1657P	-	☐	☐	☐	☐	☐	-	0.286	77.72%	-	2	2 9/16	-	5 5/8	-	-	-	☐	☐	OK	P	4 23/32	6 3/4	-	-	-	-	☐	☐	OK	P	2	☐	☐	LOW WALL

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Tuboscope / NOV Wellbore Technologies

DRILL PIPE INSPECTION REPORT

The New Inspection Standard

Inspector:	SANTOS RIOS	BA/Invoice:	7948753
Inspection Date:	10/29/2022	Tracking:	
Well:		AFE/PO:	
Area:	WTX	Specification:	◉ DS-1 ○ API

| | | |

APPENDIX

B LOGS

B.1 NINE ENERGY – MULTI-FINGER IMAGING CALIPER LOG (10/23/2022)
B.2 NINE ENERGY– MAGNETIC FLUX LOG (10/23/2022)
B.3 NINE ENERGY– SECUREVIEW LOG (10/23/2022)
B.4 SONIC SURVEY – GYRO SURVEY (11/06/2022)
B.5 SONIC SURVEY – SONAR SURVEY (11/09/2022)
B.6 GoWELL – EPDT LOG (11/09/2022)

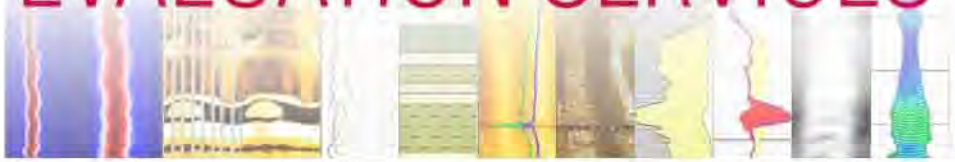
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Nine

CALIPER ANALYSIS

Weatherford®

INTERPRETATION & EVALUATION SERVICES



Company	MARATHON PETROLEUM COMPANY
Well	STORAGE WELL #4
Field	LANGLIE MATTIX
County	LEA COUNTY
State/Province	NEW MEXICO
Country	USA
UWI/API	30-025-35957
Log Date	2022-10-23
Location	1000' FSL & 1230' FWL

Permanent Datum GL Elevation 3312.000 Log Measured from GL above Perm. Datum Drilling measured from	Elevations	
	KB DF GL	 3312.000 ft

Run Number	MAIN PASS
Depth Driller	
Depth Logger	
First Reading	1564.900 ft
Last Reading	1.000 ft
Casing Driller	
Casing Logger	
Bit Size	
Hole Fluid Type	GAS
Density/Viscosity	/
PH/Fluid Loss	/
Sample Source	
Rm @ Measured Temp	@
Rmf @ Measured Temp	@
Rmc @ Measured Temp	@
Rm @ BHT	@
Max Recorded Temp	
Engineer	ROY COLLLINS
Base	N/A
Service Order	N/A

In interpreting, communicating or providing information and/or making recommen
or oral, as to logs or test or other data, type or amount of material, or Work or other s
or manner of performance, or in predicting results to be obtained, the Contractor will
benefit of the Contractor's best judgment based on its experience and will perform al
and workmanlike manner. Any interpretation of test or other data, and any recom
description based upon such interpretations, are opinions based upon inferences fro
empirical relationships and assumptions, which inferences and assumptions are n
respect to which professional engineers and analysts may differ.

ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE
THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES
ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR
WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THERE
CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING
TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE IN VOLV
SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTH
COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVIC

dations, either written
ervice to be furnished,
give the Company the
l such Work in a good
ne- ation or reservoir
m easurements and
ot fallible, and with

E SERVICES WILL BE AT
S NOT WARRANT THE
R RECOMMENDATION,
FOR, UNDER ANY
, COMPLETION, WELL
ING, ANY RISK TO THE
ER INDIVIDUAL. THE

Analysis Date	Log Analyst	Location
2022-10-25	W. LEE	CALGARY

Field Remarks

N/A

ANALYSIS REMARKS:

PROCESSED USING 7" 23# CASING SPECIFICATIONS

CASING TABLE

Type	OD (in)	Weight (lb/ft)	Grade	Thread Type	ID (in)	Start Depth (ft)	Stop Depth (ft)
Liner	7.000	23.00	J55		6.366	-2.000	1575.000

CLASSIFICATION TABLE

Class 1 < 20%	Class 2 20% - 40%	Class 3 40% - 60%	Class 4 60% - 80%	Class 5 80% - 100%	Total Joints Logged
40	0	0	0	0	40

JOINT TABLE

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JOINT TABLE

Joint No.	Top Depth (ft)	Bottom Depth (ft)	Joint Length (ft)	Casing OD (in)	Casing Weight (lbm/ft)	Casing Grade	Max Wall Loss (%)	OD/ID	Worst Defect Depth (ft)	Worst Defect Type	Joint Class
2	1.158	43.237	42.080	7.000	23.00	J55					1
3	43.237	82.827	39.589	7.000	23.00	J55					1
4	82.827	121.618	38.791	7.000	23.00	J55					1
5	121.618	161.153	39.536	7.000	23.00	J55					1
6	161.153	200.495	39.342	7.000	23.00	J55					1
7	200.495	239.021	38.526	7.000	23.00	J55					1
8	239.021	278.457	39.436	7.000	23.00	J55					1
9	278.457	316.686	38.229	7.000	23.00	J55					1
10	316.686	356.571	39.885	7.000	23.00	J55					1
11	356.571	395.715	39.144	7.000	23.00	J55					1
12	395.715	434.383	38.669	7.000	23.00	J55					1
13	434.383	473.554	39.171	7.000	23.00	J55					1
14	473.554	513.726	40.172	7.000	23.00	J55					1
15	513.726	552.093	38.367	7.000	23.00	J55					1
16	552.093	591.690	39.597	7.000	23.00	J55					1
17	591.690	630.564	38.874	7.000	23.00	J55					1
18	630.564	669.876	39.312	7.000	23.00	J55					1
19	669.876	709.436	39.560	7.000	23.00	J55					1
20	709.436	749.294	39.858	7.000	23.00	J55					1
21	749.294	788.378	39.084	7.000	23.00	J55					1
22	788.378	826.568	38.190	7.000	23.00	J55					1
23	826.568	865.054	38.486	7.000	23.00	J55					1
24	865.054	903.919	38.865	7.000	23.00	J55					1
25	903.919	942.285	38.366	7.000	23.00	J55					1
26	942.285	982.016	39.731	7.000	23.00	J55					1
27	982.016	1021.971	39.955	7.000	23.00	J55					1
28	1021.971	1060.931	38.960	7.000	23.00	J55					1
29	1060.931	1099.157	38.226	7.000	23.00	J55					1
30	1099.157	1138.819	39.662	7.000	23.00	J55					1
31	1138.819	1176.498	37.679	7.000	23.00	J55					1
32	1176.498	1215.410	38.912	7.000	23.00	J55					1
33	1215.410	1254.038	38.628	7.000	23.00	J55					1
34	1254.038	1292.440	38.402	7.000	23.00	J55					1
35	1292.440	1330.609	38.169	7.000	23.00	J55					1
36	1330.609	1369.293	38.684	7.000	23.00	J55					1
37	1369.293	1408.938	39.645	7.000	23.00	J55					1
38	1408.938	1448.708	39.770	7.000	23.00	J55					1
39	1448.708	1488.223	39.514	7.000	23.00	J55					1
40	1488.223	1527.999	39.776	7.000	23.00	J55					1
41	1527.999	1564.999	37.891	7.000	23.00	J55					1

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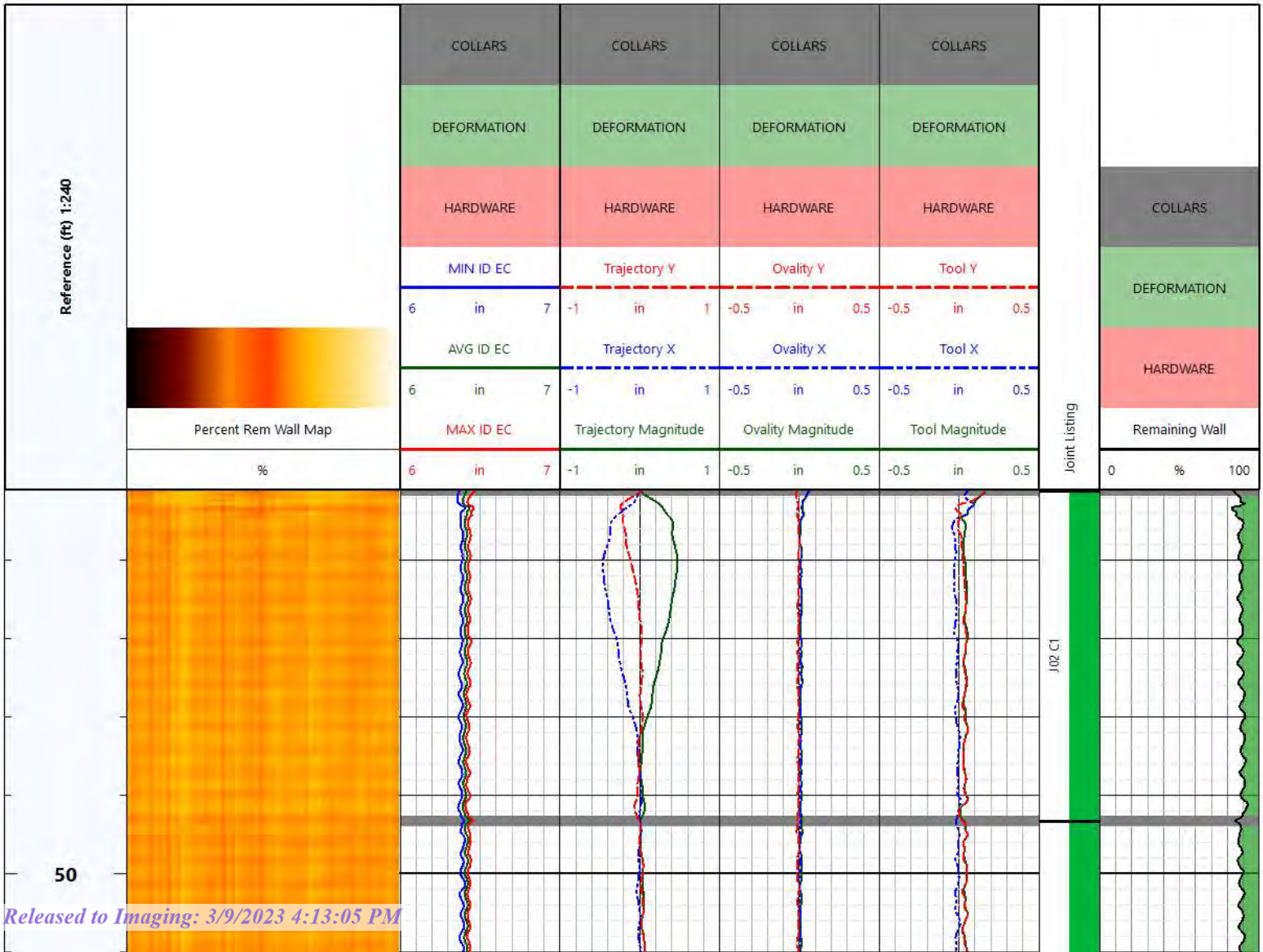
* Defect type derived from Pipeline Operators Forum - 'Specifications and requirements for in-line inspection of pipelines - Version 2016'

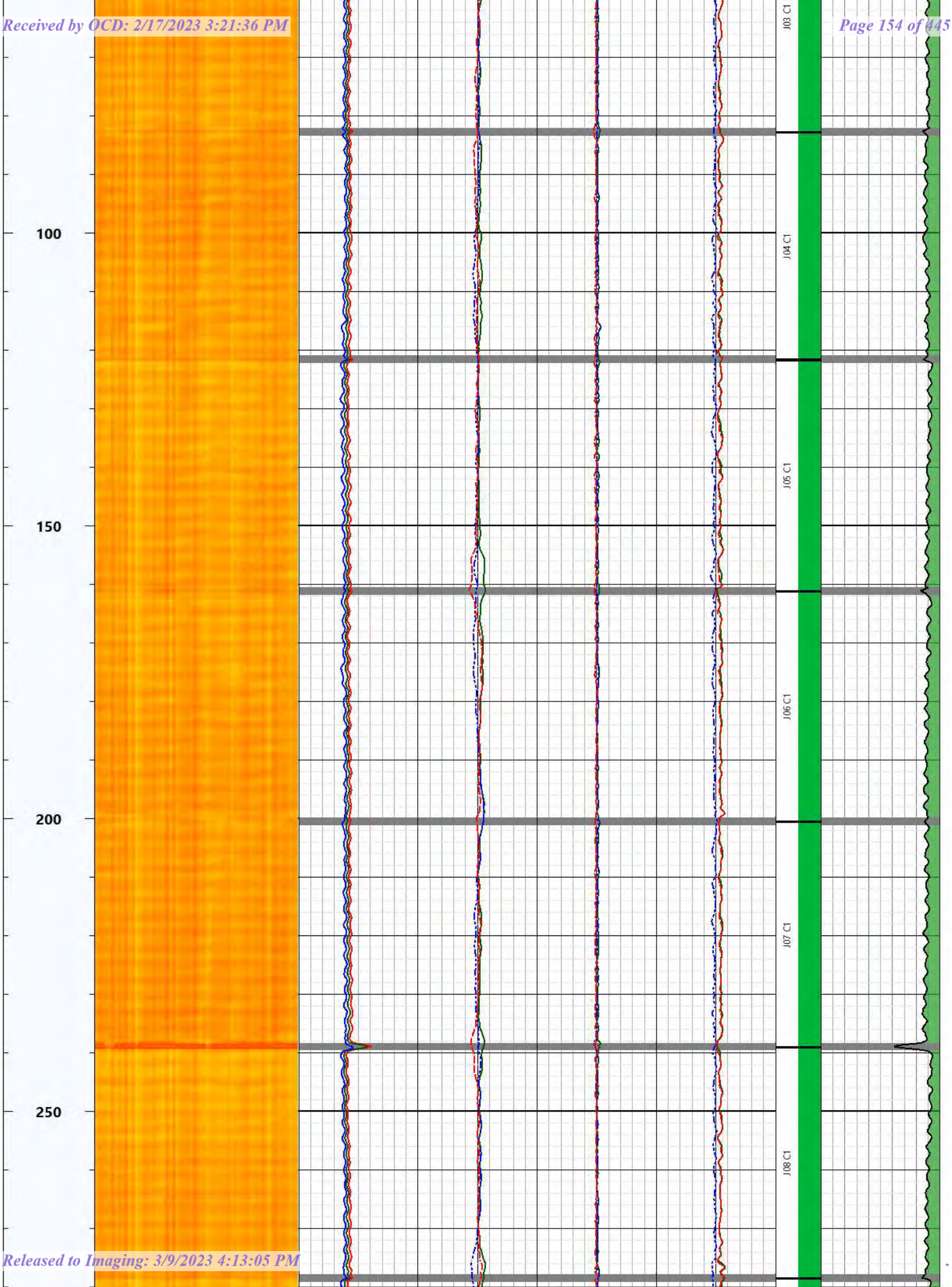
HARDWARE TABLE

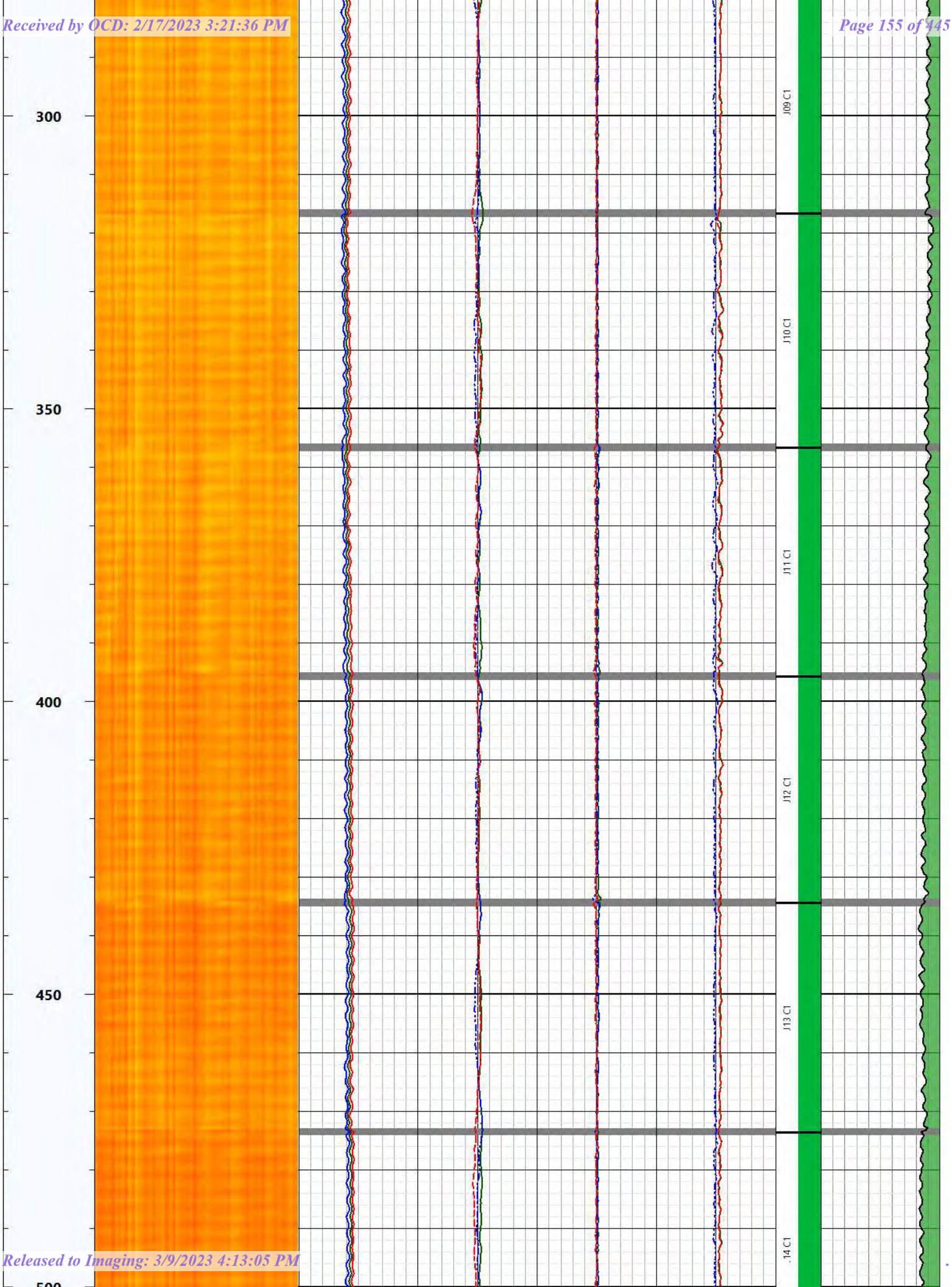
Number	Top Depth (ft)	Bottom Depth (ft)	Length (ft)	Description
1	1525.755	1528.587	2.832	Possible Hardware

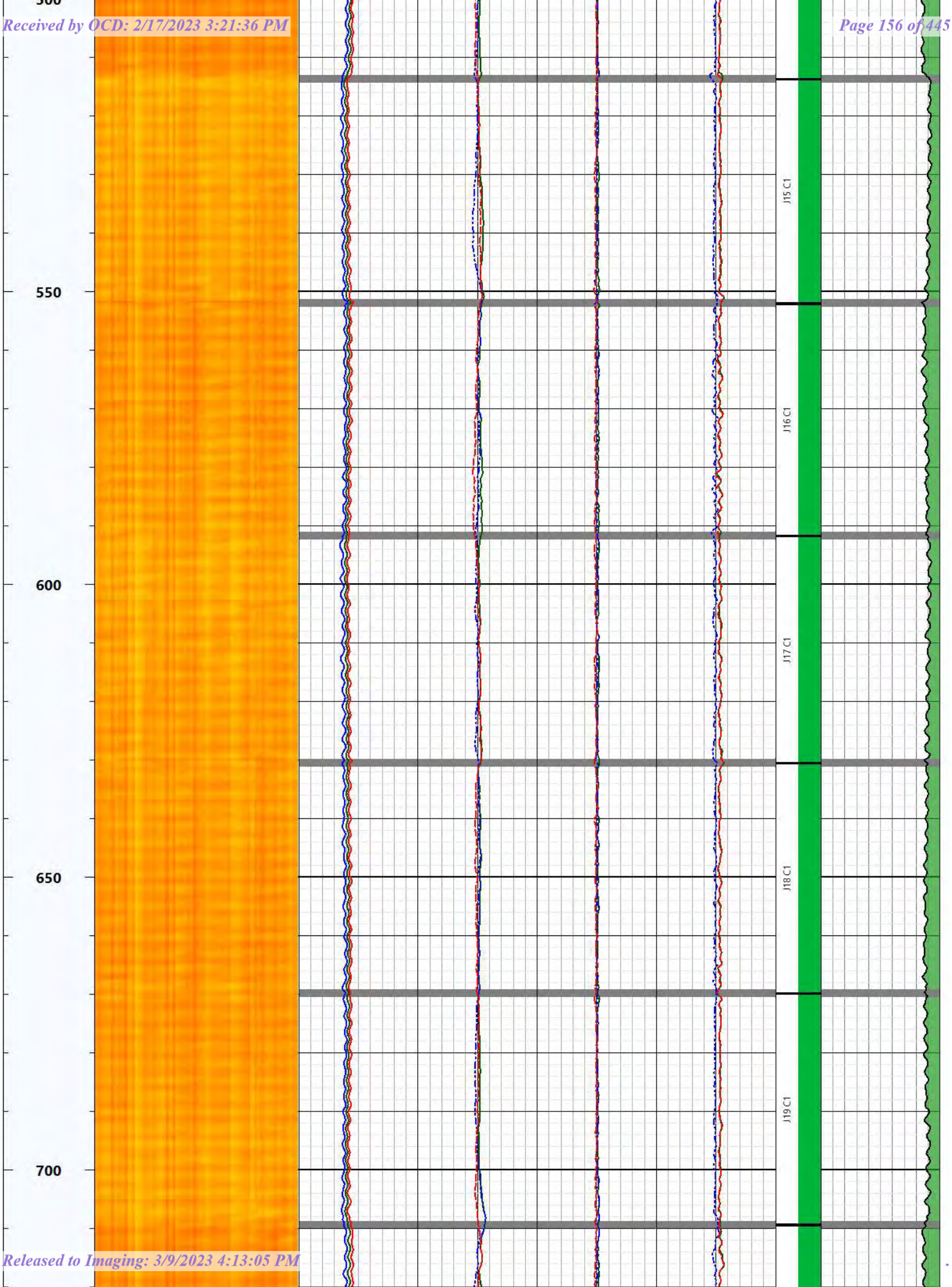
ANALYSIS PARAMETERS

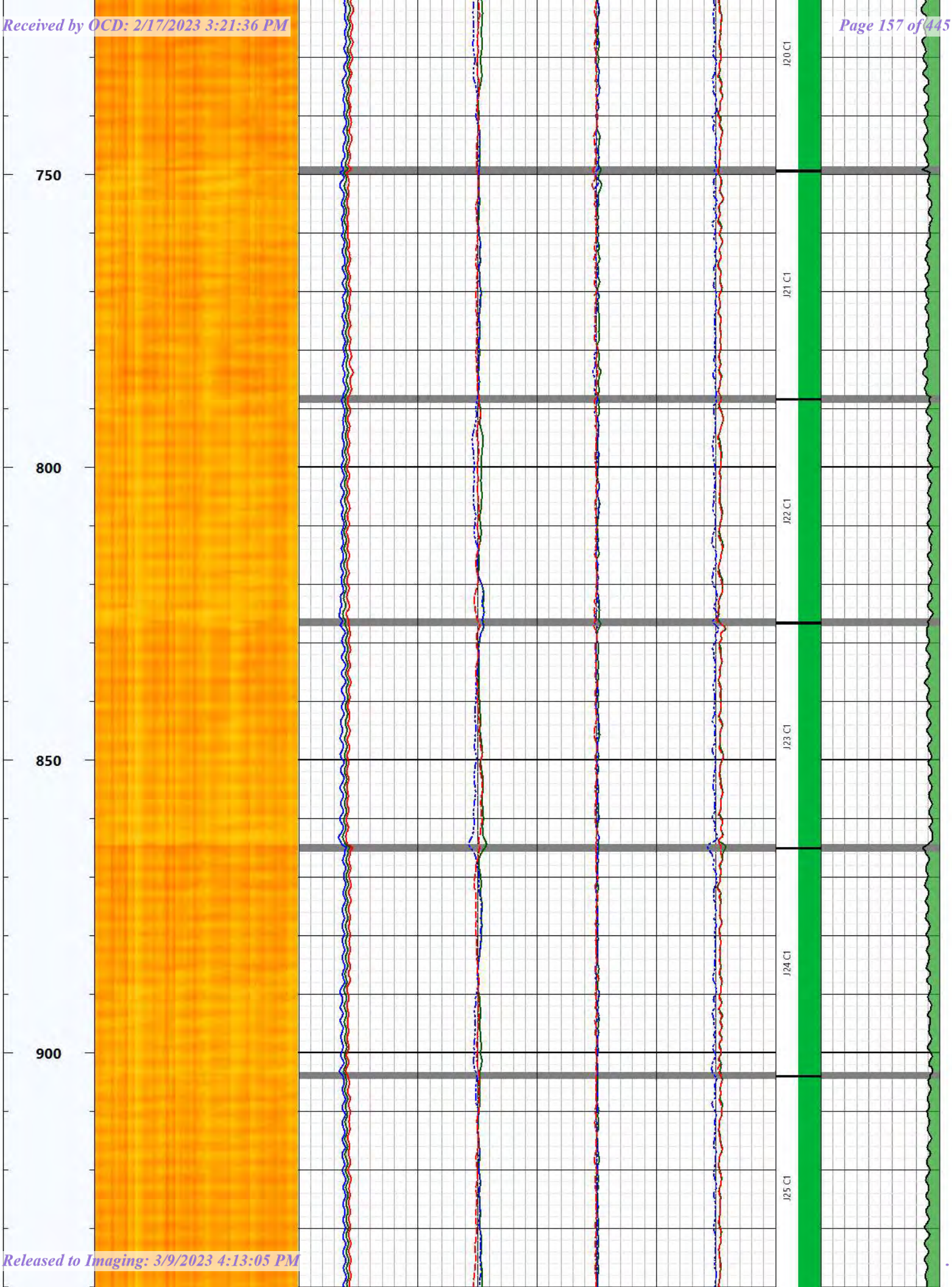
Software Version	2018.1
Rotate To High Arm	No
Wall Loss Colour Threshold	80.0%
Burst Pressure Calculation Method	None
Burst Pressure Safety Factor	N/A
Joint Worst Defect Display	Max Wall Loss
Ignore Defects Below Penetration	20.0%

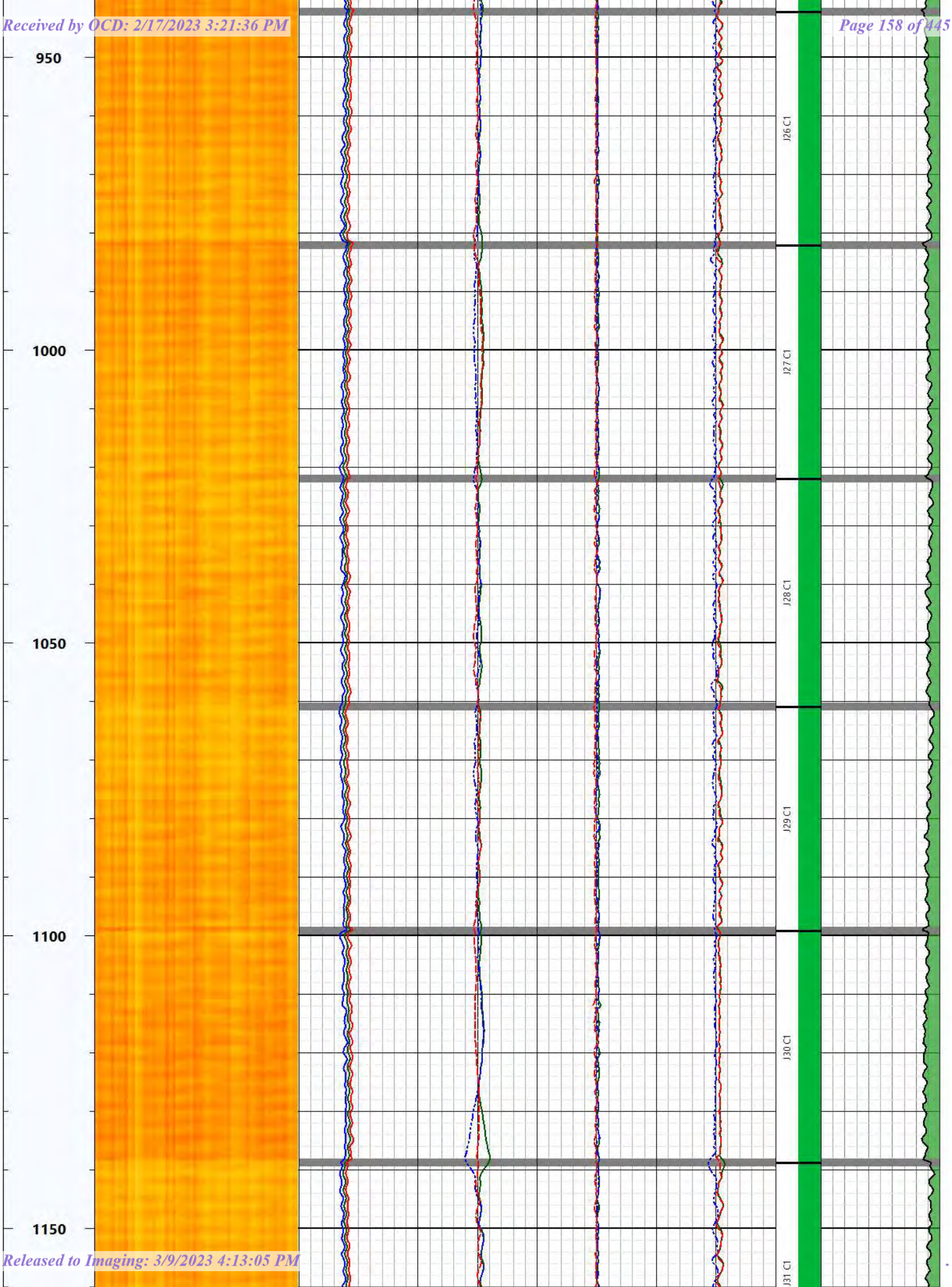


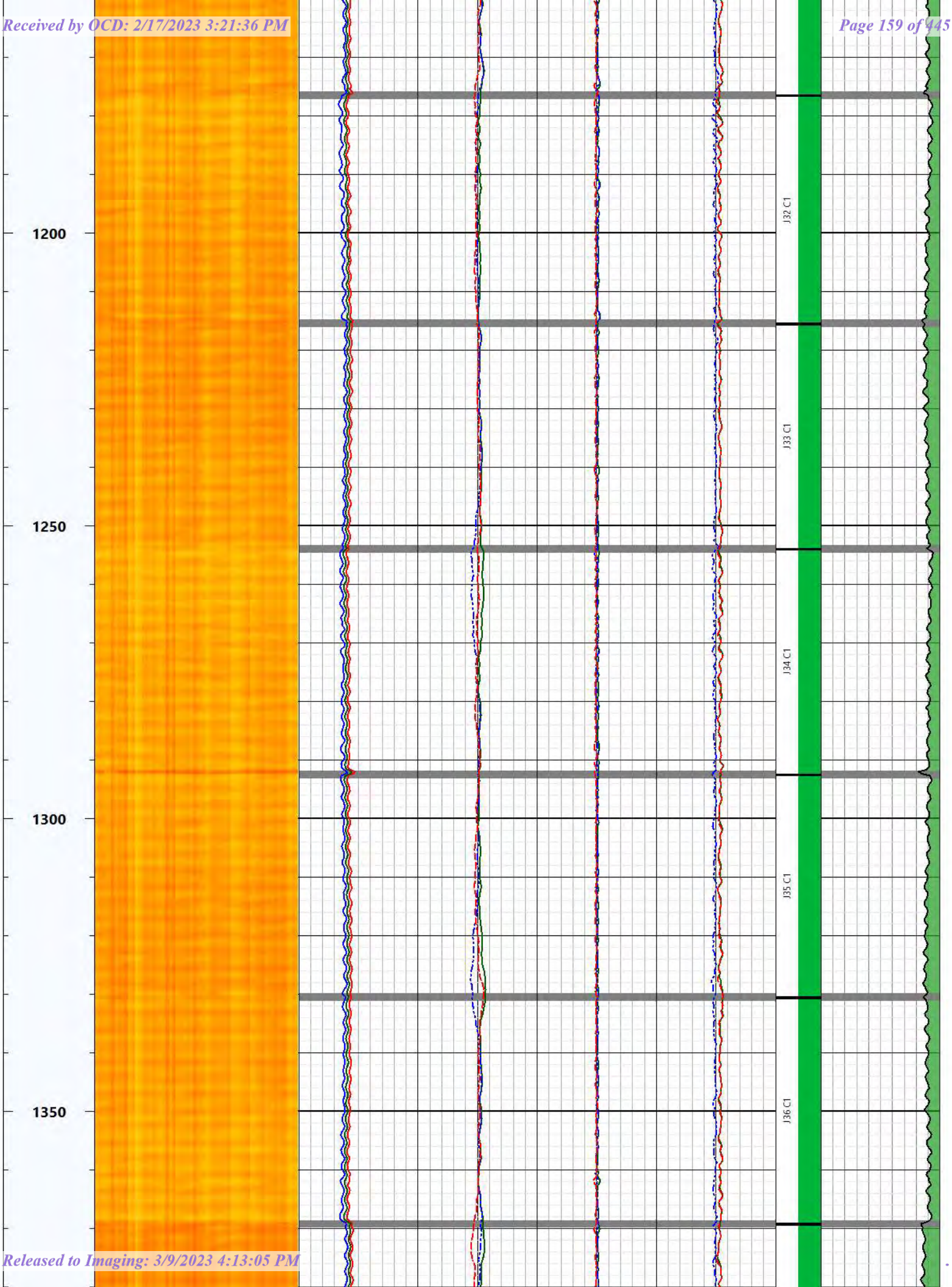

100
150
200
250
J03 C1
J04 C1
J05 C1
J06 C1
J07 C1
J08 C1


300
350
400
450
500
J09 C1
J10 C1
J11 C1
J12 C1
J13 C1
.14 C1

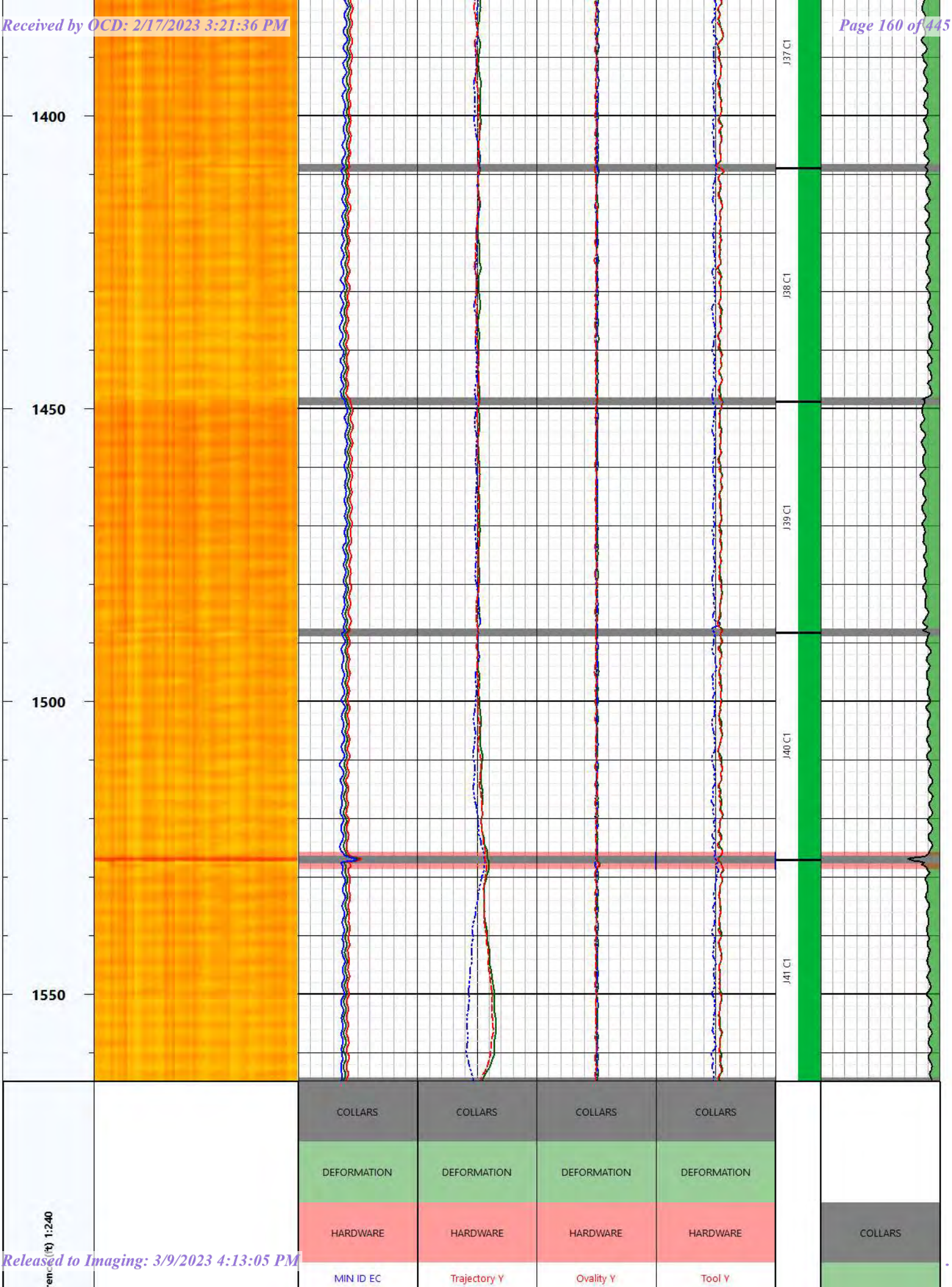

550
600
650
700
J15 C1
J16 C1
J17 C1
J18 C1
J19 C1


750
800
850
900
J20 C1
J21 C1
J22 C1
J23 C1
J24 C1
J25 C1


950
1000
1050
1100
1150
J26 C1
J27 C1
J28 C1
J29 C1
J30 C1
J31 C1

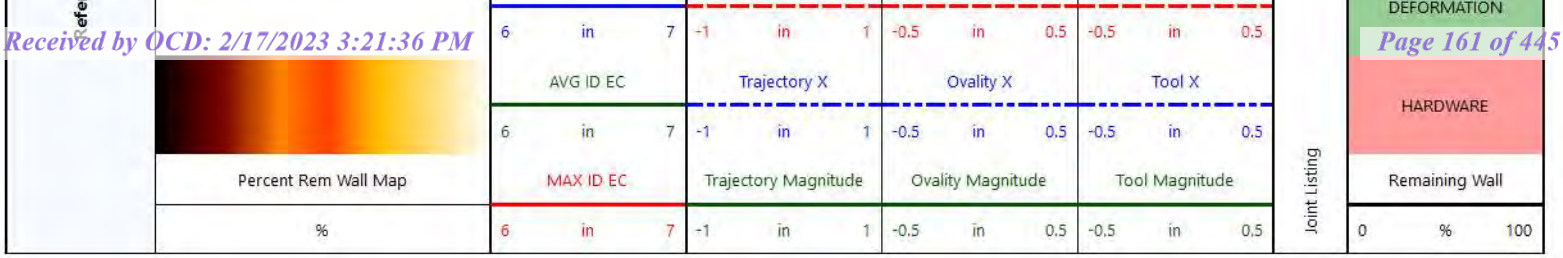

1200
1250
1300
1350
J32 C1
J33 C1
J34 C1
J35 C1
J36 C1

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Company	MARATHON PETROLEUM COMPANY
Well	STORAGE WELL #4
Field	LANGLIE MATTIX
State/Province	NEW MEXICO
UWI/API	30-025-35957

Nine

Weatherford®

CALIPER ANALYSIS

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Nine

SECUREVIEW FLUXVIEW ANALYSIS

Weatherford®

INTERPRETATION & EVALUATION SERVICES



Company	MARATHON PETROLEUM COMPANY
Well	STORAGE WELL #4
Field	LANGLIE MATTIX
County	LEA COUNTY
State/Province	NEW MEXICO
Country	USA
UWI/API	30-025-35957
Log Date	2022-10-23
Location	1000' FSL & 1230' FWL

Permanent Datum GL Elevation 3312.000	Elevations	
Log Measured from GL above Perm. Datum	KB	
Drilling measured from	DF	
	GL	3312.000 ft

Run Number	MAIN PASS
Depth Driller	
Depth Logger	
First Reading	1566.000 ft
Last Reading	-8.000 ft
Casing Driller	
Casing Logger	
Bit Size	
Hole Fluid Type	GAS
Density/Viscosity	/
PH/Fluid Loss	/
Sample Source	
Rm @ Measured Temp	@
Rmf @ Measured Temp	@
Rmc @ Measured Temp	@
Rm @ BHT	@
Max Recorded Temp	
Engineer	ROY COLLLINS
Base	N/A
Service Order	N/A

In interpreting, communicating or providing information and/or making recommen
or oral, as to logs or test or other data, type or amount of material, or Work or other s
or manner of performance, or in predicting results to be obtained, the Contractor will
benefit of the Contractor's best judgment based on its experience and will perfo
and workmanlike manner. Any interpretation of test or other data, and any re
description based upon such interpretations, are opinions based upon inferenc
empirical relationships and assumptions, which inferences and assumptions
respect to which professional engineers and analysts may differ.

ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FRO
THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND
ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATIO
WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT,
CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRI
TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE IN
SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY
COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE S

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dations, either written
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give the Company the
l such Work in a good
ne ation or reservoir
m easurements and
ot fallible, and with

E SERVICES WILL BE AT
S NOT WARRANT THE
R RECOMMENDATION,
FCO E, UNDER ANY
, COMPLETION, WELL
ING ANY RISK TO THE
ER INDIVIDUAL. THE

Field Remarks

N/A

ANALYSIS REMARKS:

DATA ACQUIRED BY NINE ENERGY SERVICE
PROCESSED USING 7" 23# J55 CASING CHARACTERISTICS
BURST PRESSURE CALCULATED USING MB31G METHOD, WITHOUT A SAFETY FACTOR

Location	Log Analyst	Analysis Date
CALGARY	W. LEE	2022-10-25

CASING TABLE

Type	OD (in)	Weight (lb/ft)	Grade	Thread Type	ID (in)	Start Depth (ft)	Stop Depth (ft)
Liner	7.000	23.00	J55		6.366	-2.000	1575.000

CLASSIFICATION TABLE

Class 1 < 20%	Class 2 20% - 40%	Class 3 40% - 60%	Class 4 60% - 80%	Class 5 80% - 100%	Total Joints Logged
40	1	0	0	0	41

JOINT TABLE

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JOINT TABLE

Joint No.	Top Depth (ft)	Bottom Depth (ft)	Joint Length (ft)	Casing OD (in)	Casing Weight (lbm/ft)	Casing Grade	Max Wall Loss (%)	OD/ID	Burst Pressure (psi)	Worst Defect Depth (ft)	Worst Defect Length (in)	Worst Defect Width (in)	Worst Defect Type	Joint Class
1	-1.916	1.213	3.129	7.000	23.00	J55								1
2	1.213	41.065	39.852	7.000	23.00	J55								1
3	41.065	80.623	39.559	7.000	23.00	J55								1
4	80.623	119.928	39.304	7.000	23.00	J55								1
5	119.928	159.544	39.616	7.000	23.00	J55								1
6	159.544	198.906	39.362	7.000	23.00	J55								1
7	198.906	237.612	38.706	7.000	23.00	J55								1
8	237.612	277.211	39.600	7.000	23.00	J55								1
9	277.211	315.772	38.561	7.000	23.00	J55								1
10	315.772	355.303	39.531	7.000	23.00	J55								1
11	355.303	394.457	39.153	7.000	23.00	J55								1
12	394.457	433.354	38.897	7.000	23.00	J55								1
13	433.354	472.808	39.454	7.000	23.00	J55								1
14	472.808	512.865	40.057	7.000	23.00	J55								1
15	512.865	551.446	38.581	7.000	23.00	J55								1
16	551.446	590.858	39.412	7.000	23.00	J55								1
17	590.858	629.716	38.858	7.000	23.00	J55								1
18	629.716	669.099	39.384	7.000	23.00	J55								1
19	669.099	708.659	39.560	7.000	23.00	J55								1
20	708.659	748.695	40.035	7.000	23.00	J55	24.4	OD	5771	744.092	0.787	0.996	SIP	2
21	748.695	787.661	38.966	7.000	23.00	J55								1
22	787.661	825.936	38.276	7.000	23.00	J55								1
23	825.936	864.564	38.627	7.000	23.00	J55								1
24	864.564	903.532	38.968	7.000	23.00	J55								1
25	903.532	941.590	38.058	7.000	23.00	J55								1
26	941.590	981.476	39.887	7.000	23.00	J55								1
27	981.476	1021.224	39.747	7.000	23.00	J55								1
28	1021.224	1060.372	39.149	7.000	23.00	J55								1
29	1060.372	1098.758	38.386	7.000	23.00	J55								1
30	1098.758	1138.070	39.312	7.000	23.00	J55								1
31	1138.070	1175.866	37.796	7.000	23.00	J55								1
32	1175.866	1214.917	39.051	7.000	23.00	J55								1
33	1214.917	1253.643	38.727	7.000	23.00	J55								1
34	1253.643	1291.967	38.323	7.000	23.00	J55								1
35	1291.967	1330.293	38.326	7.000	23.00	J55								1
36	1330.293	1369.034	38.741	7.000	23.00	J55								1
37	1369.034	1408.732	39.698	7.000	23.00	J55								1
38	1408.732	1448.143	39.411	7.000	23.00	J55								1
39	1448.143	1487.898	39.755	7.000	23.00	J55								1
40	1487.898	1526.808	38.890	7.000	23.00	J55								1

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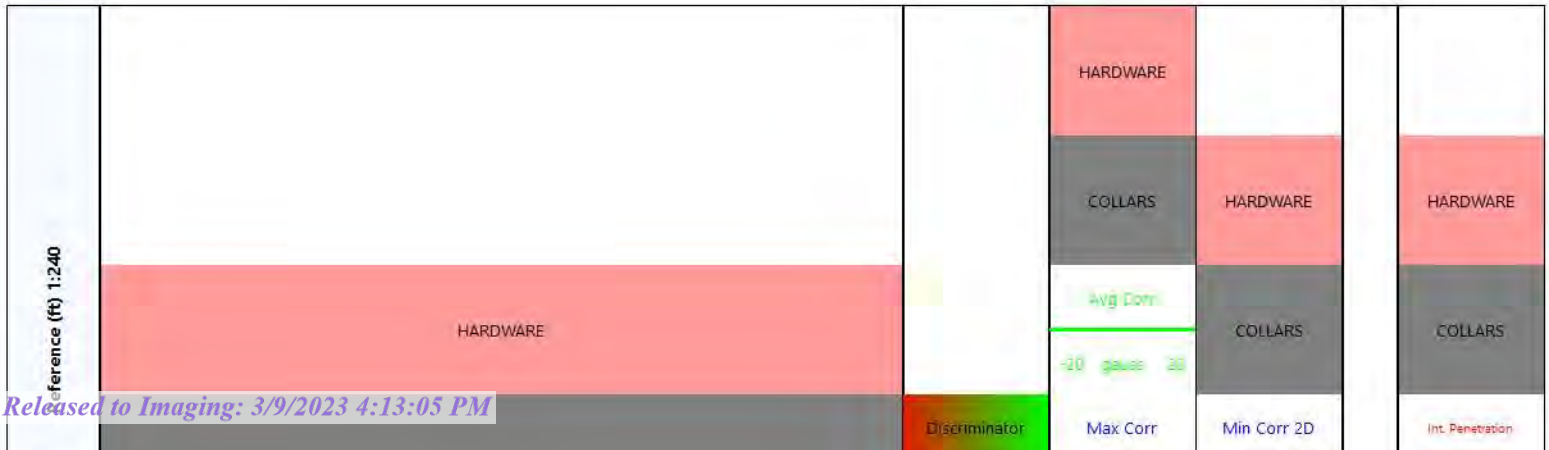
40	1407.909	1528.000	39.899	7.000	23.00	J55								
41	1528.000	1568.000	39.142	7.000	23.00	J55								

HARDWARE TABLE

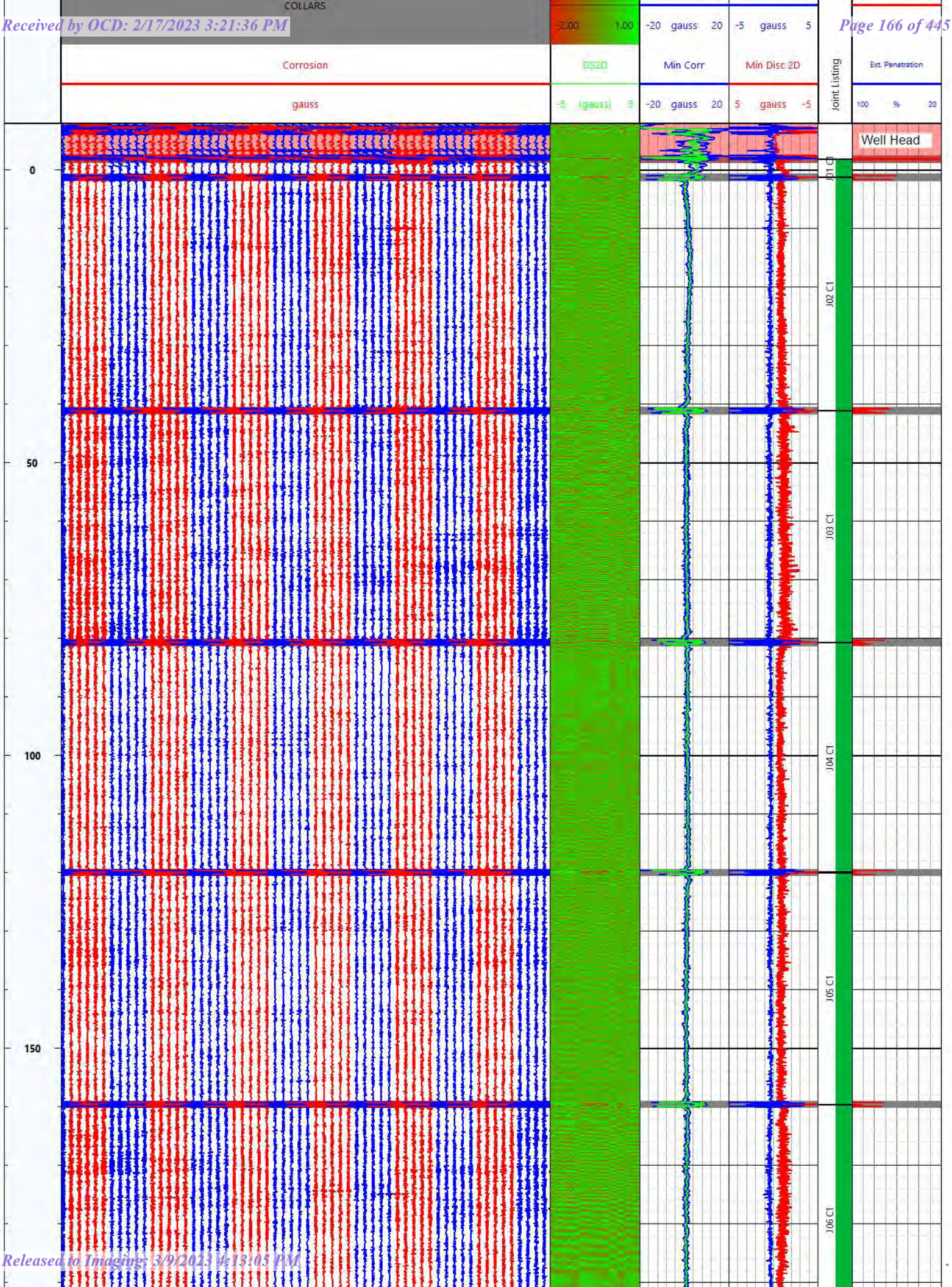
Number	Top Depth (ft)	Bottom Depth (ft)	Length (ft)	Description
1	-8.000	-1.272	6.728	Well Head
2	630.249	630.959	0.710	Possible Hardware
3	788.180	788.978	0.798	Possible Hardware
4	942.306	942.890	0.584	Possible Hardware
5	1099.259	1100.110	0.851	Possible Hardware
6	1330.694	1331.573	0.879	Possible Hardware
7	1409.284	1410.027	0.743	Possible Hardware
8	1526.092	1528.406	2.314	Possible Hardware
9	1546.568	1548.554	1.985	Possible Hardware

ANALYSIS PARAMETERS

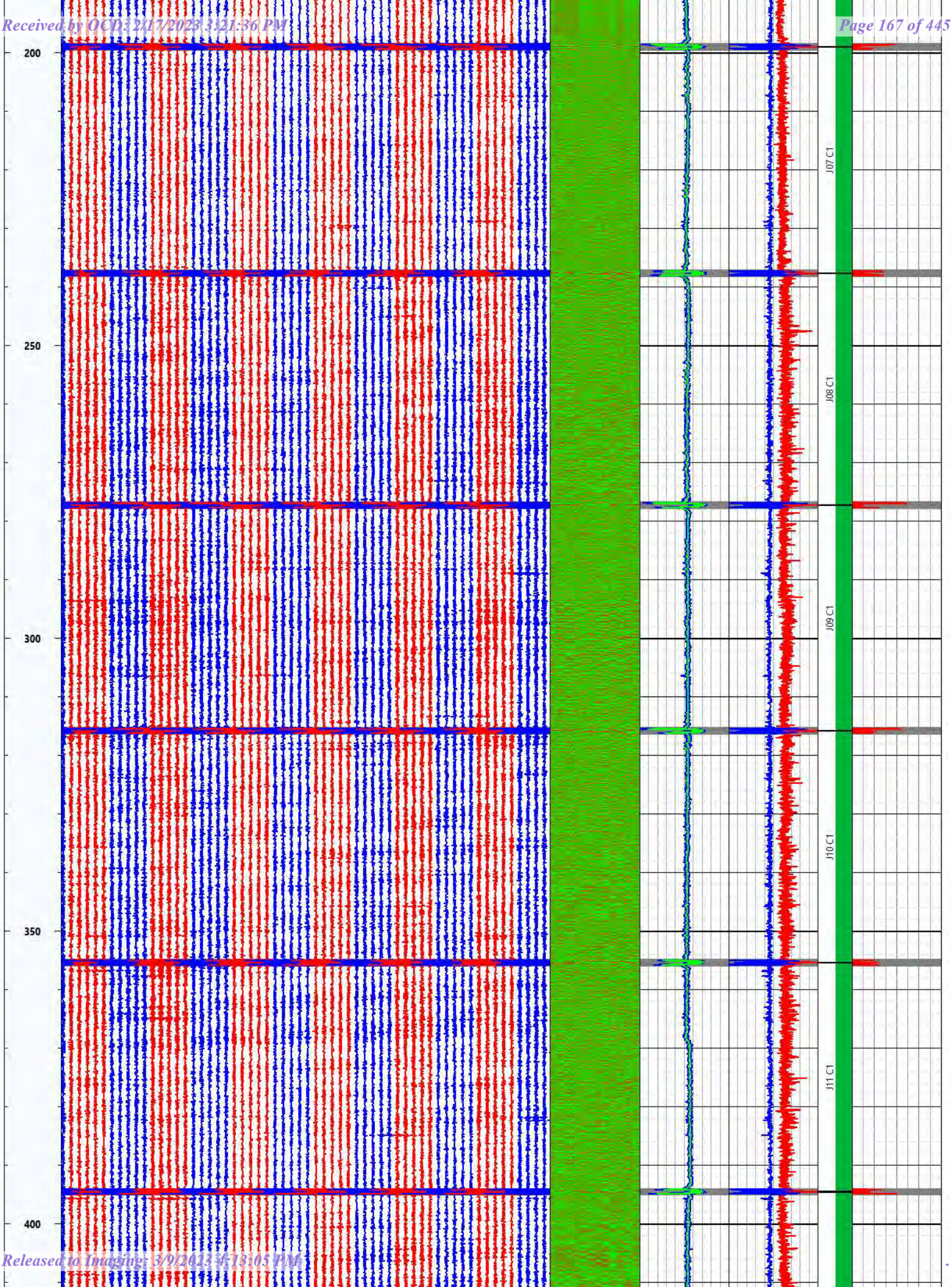
Software Version	2018.1
Milling Suppression	Off
Analysis Method	SecureView
Burst Pressure Calculation Method	Mod B31G
Burst Pressure Safety Factor	1.000
Joint Worst Defect Display	Max Wall Loss
Ignore Defects Below Penetration	20.0%

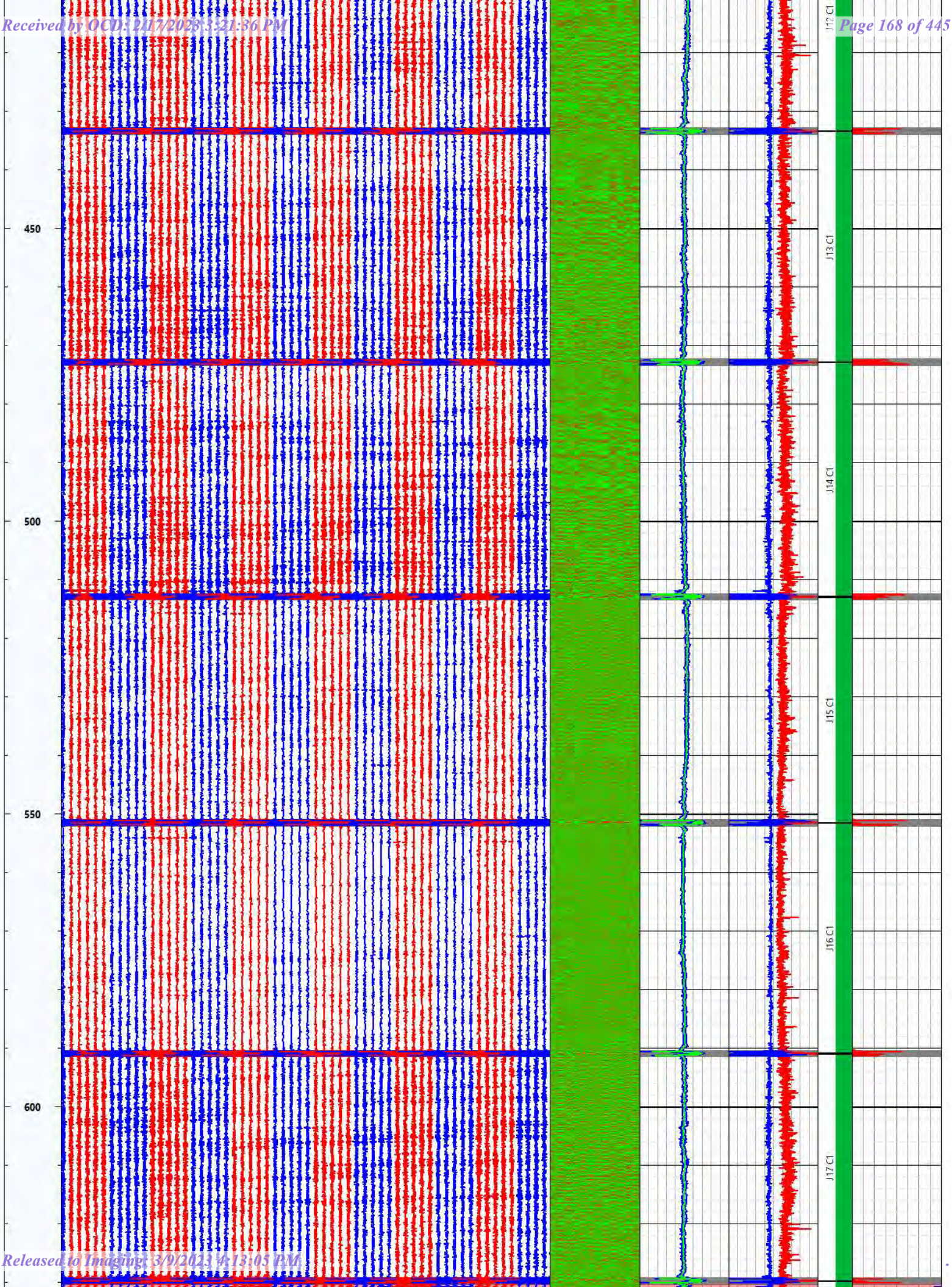


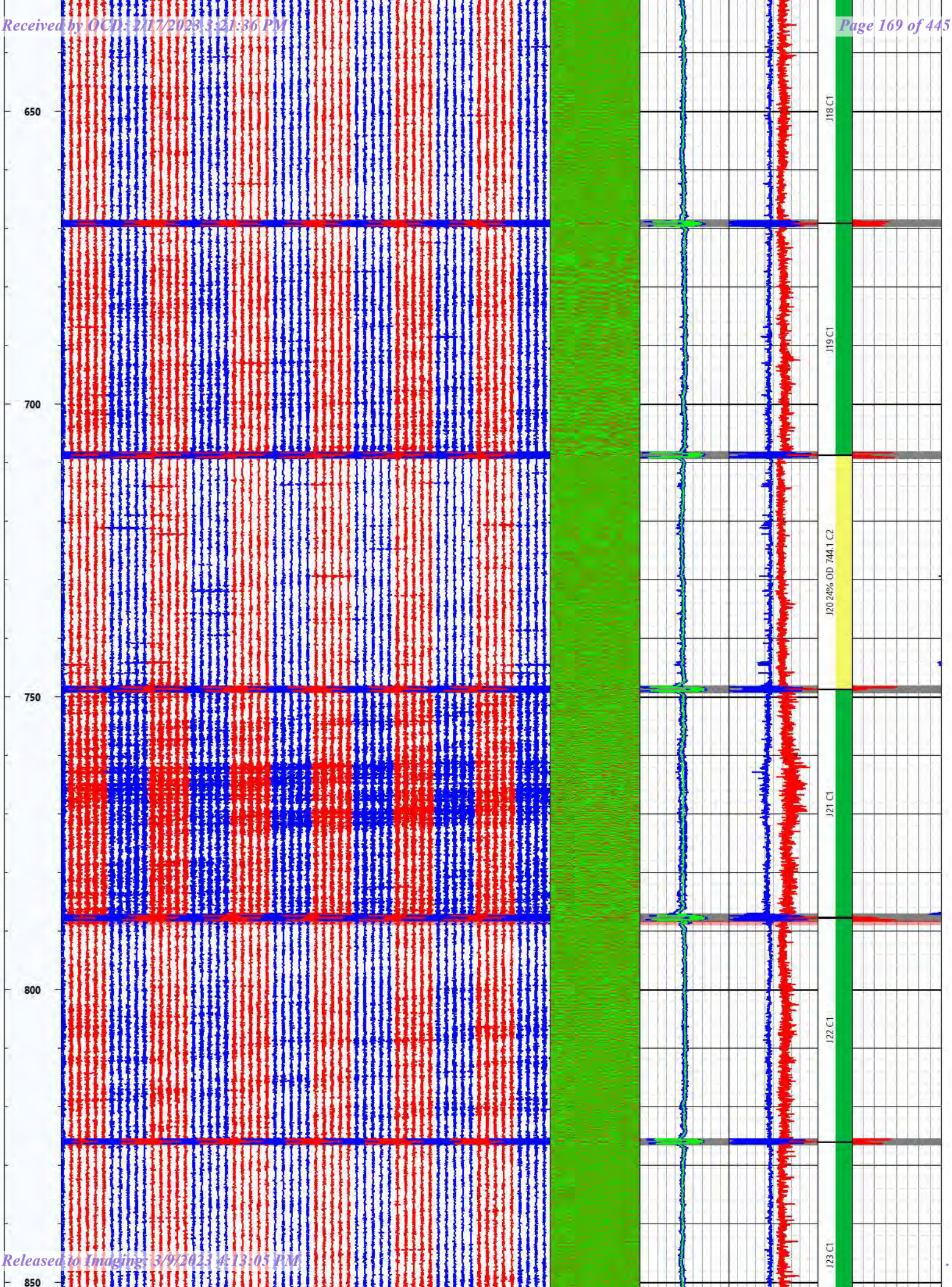
Received by OCD: 2/17/2023 3:21:36 PM

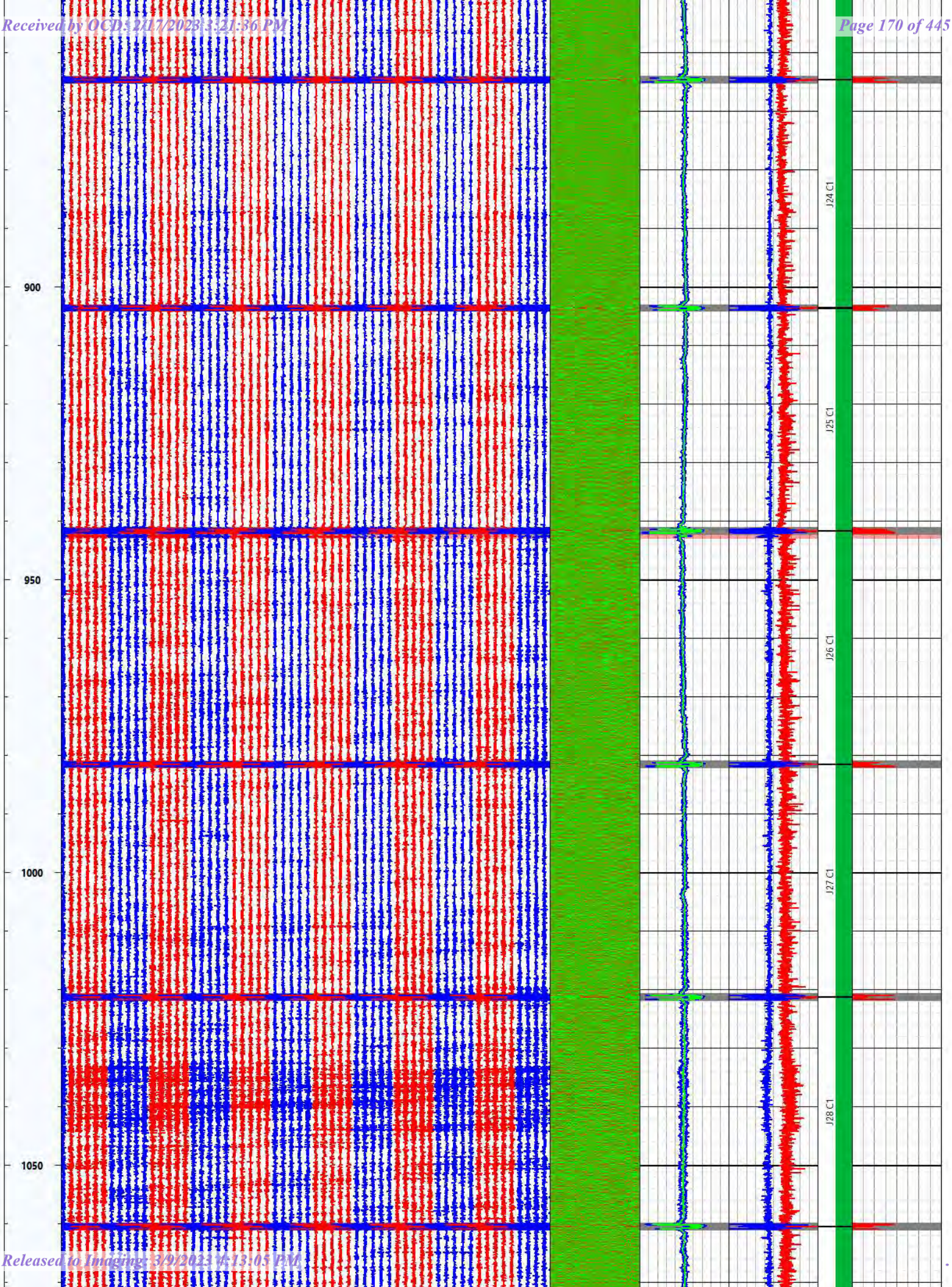


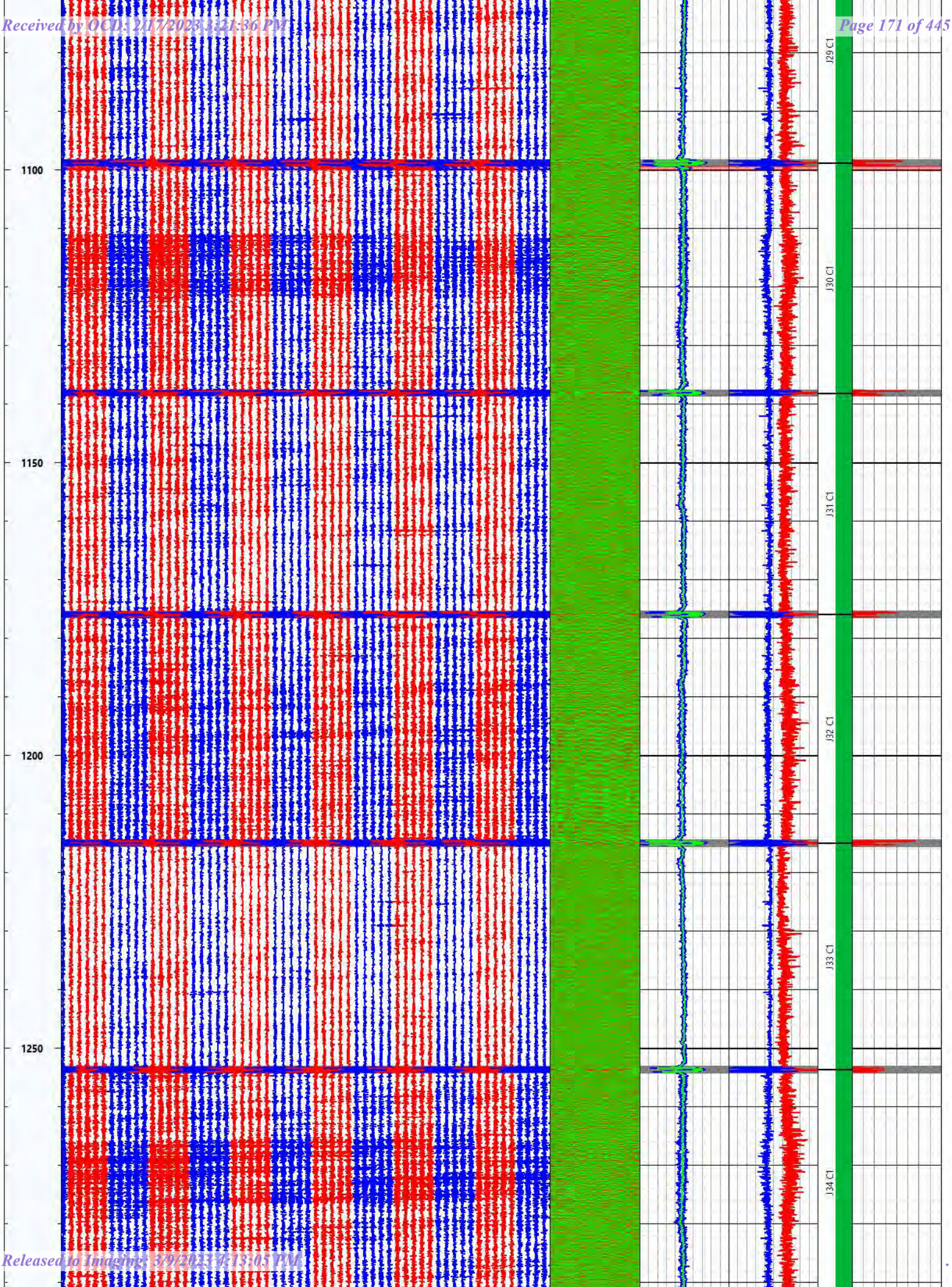
Released to Imaging: 3/9/2023 4:13:05 PM

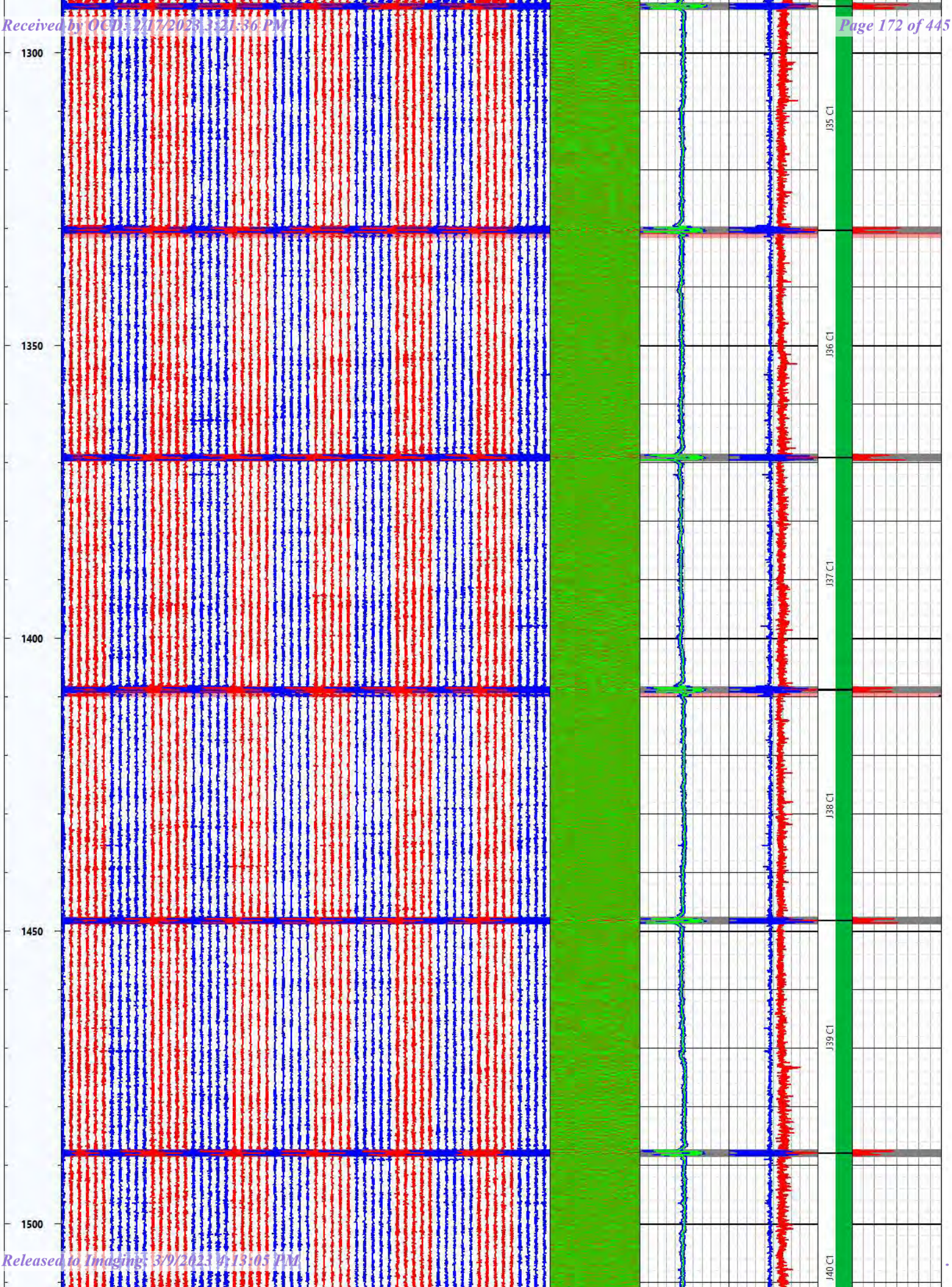

200
250
300
350
400
J07 C1
J08 C1
J09 C1
J10 C1
J11 C1


450
500
550
600
J12 C1
J13 C1
J14 C1
J15 C1
J16 C1
J17 C1


650
700
750
800
850
J18 C1
J19 C1
J20 24% OD 744.1 C2
J21 C1
J22 C1
J23 C1


900
950
1000
1050
J24 C1
J25 C1
J26 C1
J27 C1
J28 C1


1100
1150
1200
1250
J29 C1
J30 C1
J31 C1
J32 C1
J33 C1
J34 C1


1300
1350
1400
1450
1500
J35 C1
J36 C1
J37 C1
J38 C1
J39 C1
J40 C1



Collar Summary

The following images are representations of the magnetic field as measured by the CIT instruments and are not intended to represent the actual physical shape of the object or defect portrayed. These collars have been removed from the penetration analysis presented.

Well: STORAGE WELL #4

Collar at Joint 1 at -1.916ft

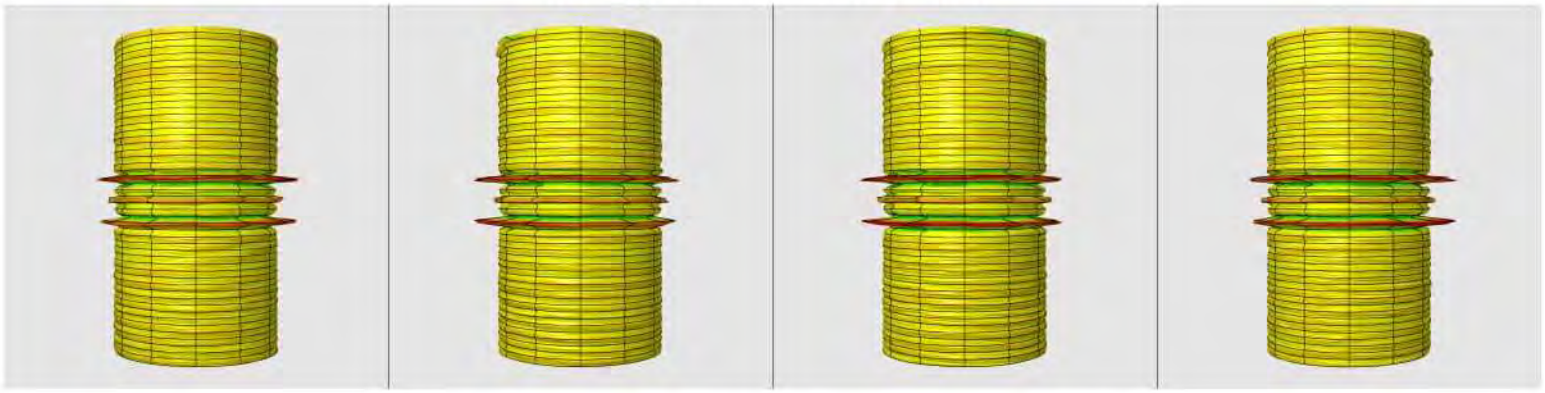
Image Display Range: -4.408ft - 0.587ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative





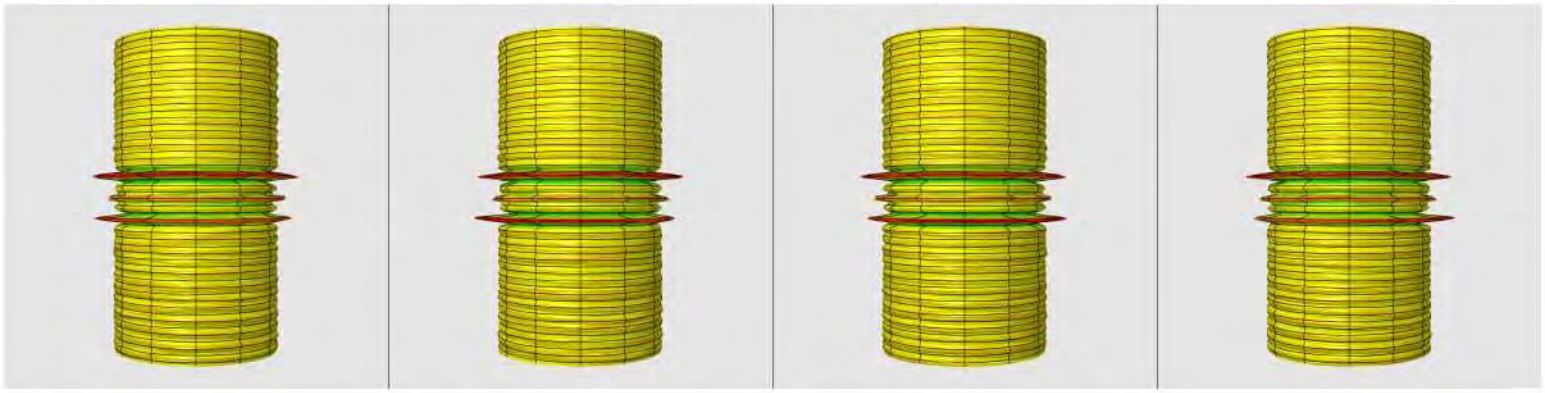
Collar between Joints 1 and 2 at 1.213ft

Image Display Range: -1.283ft - 3.712ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



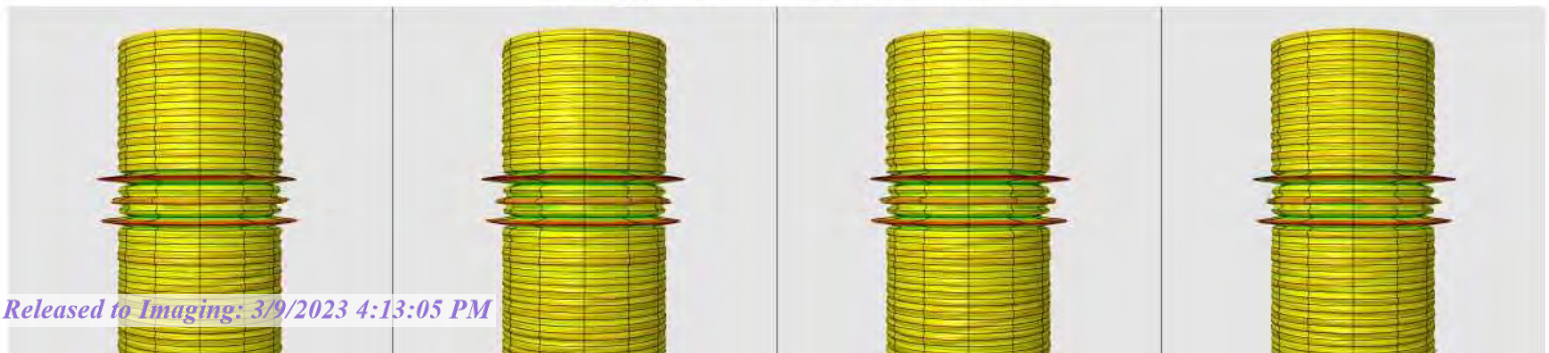
Collar between Joints 2 and 3 at 41.065ft

Image Display Range: 38.571ft - 43.566ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



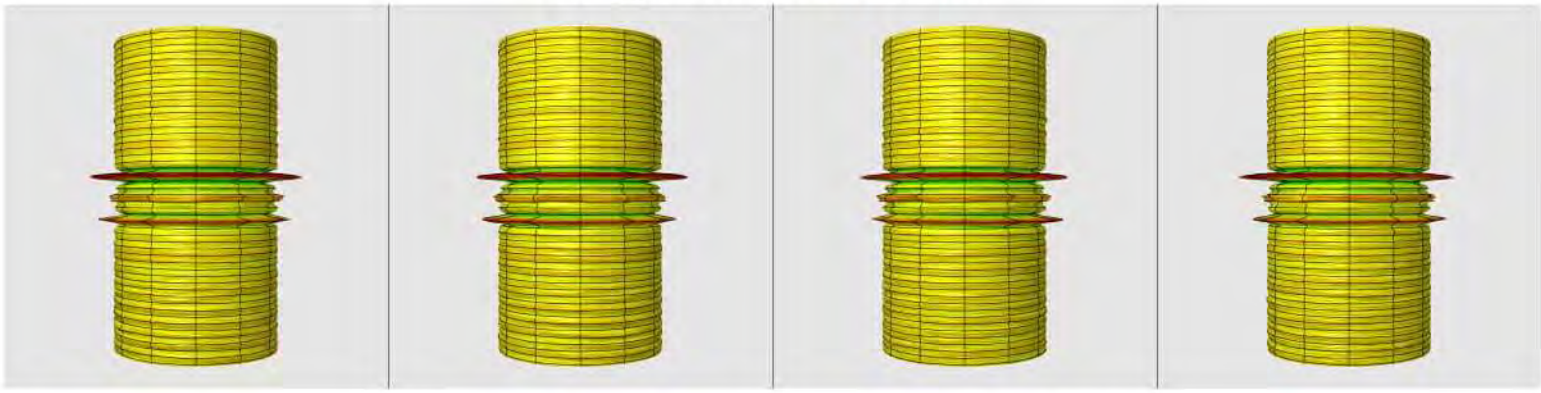
Collar between Joints 3 and 4 at 80.623ft

Image Display Range: 78.130ft - 83.125ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



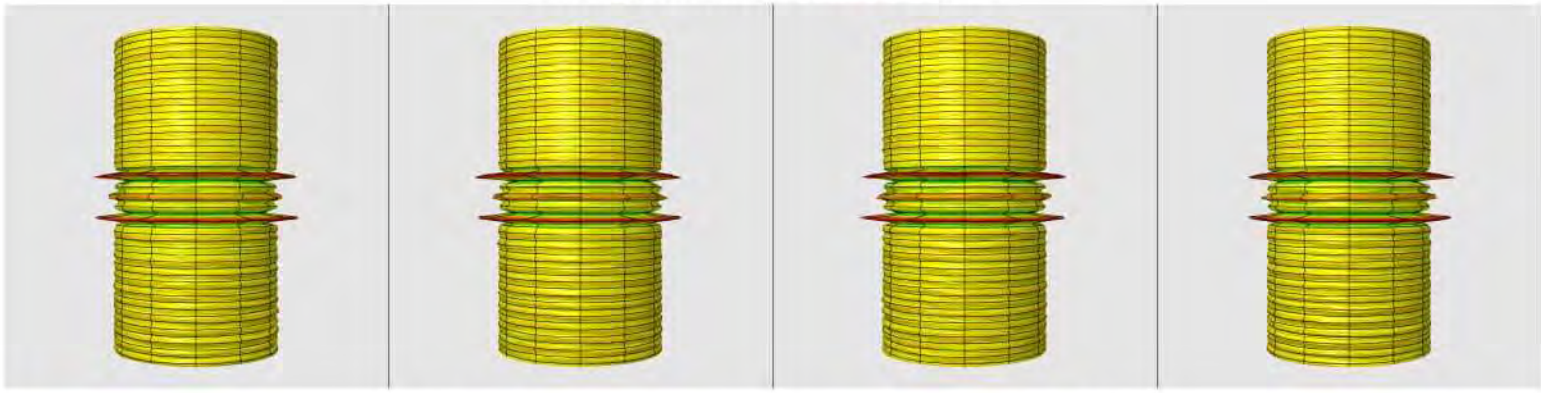
Collar between Joints 4 and 5 at 119.928ft

Image Display Range: 117.434ft - 122.429ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



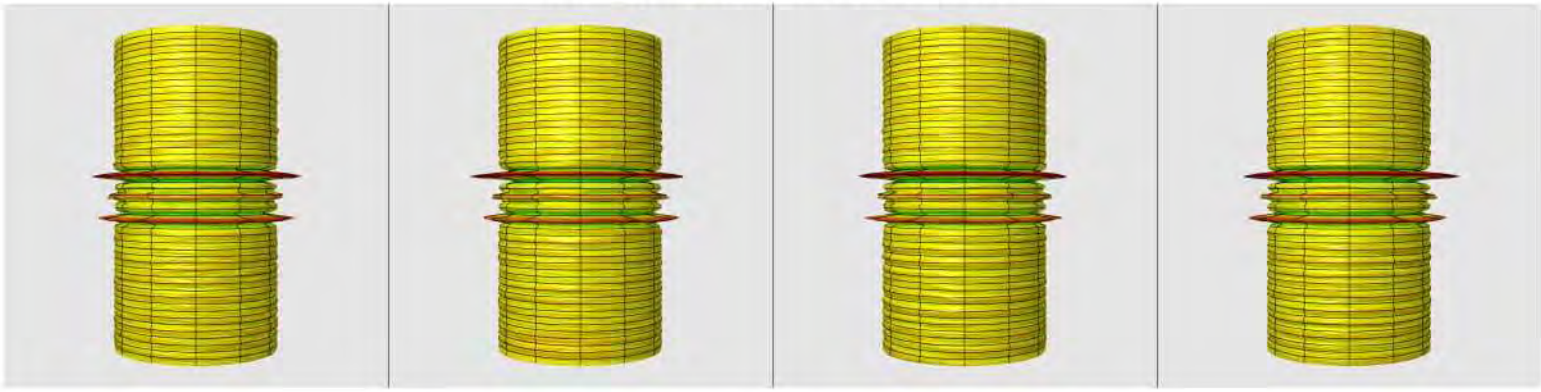
Collar between Joints 5 and 6 at 159.544ft

Image Display Range: 157.051ft - 162.046ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



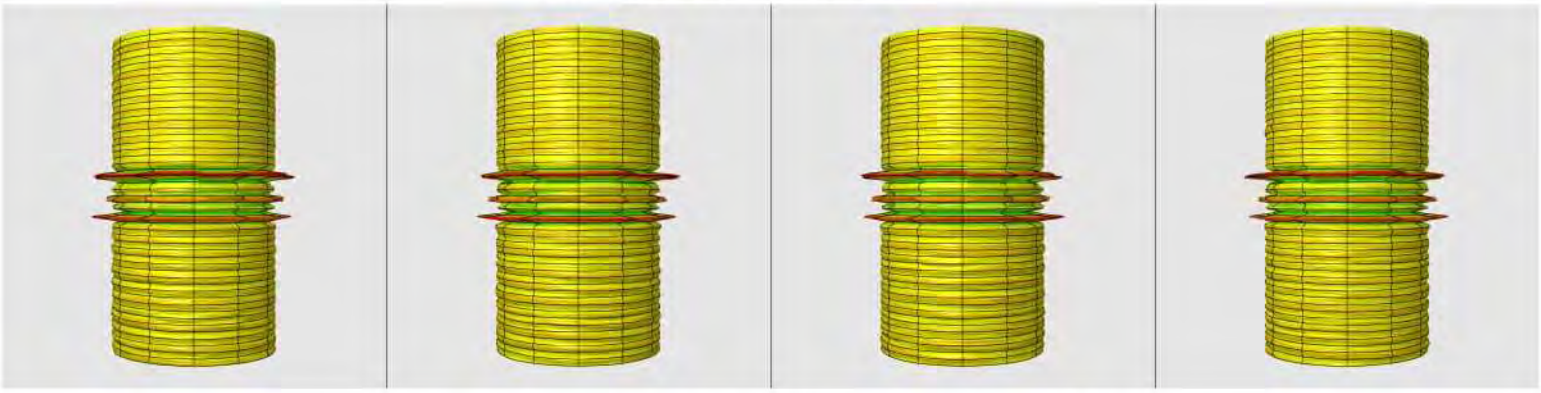
Collar between Joints 6 and 7 at 198.906ft

Image Display Range: 196.412ft - 201.407ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



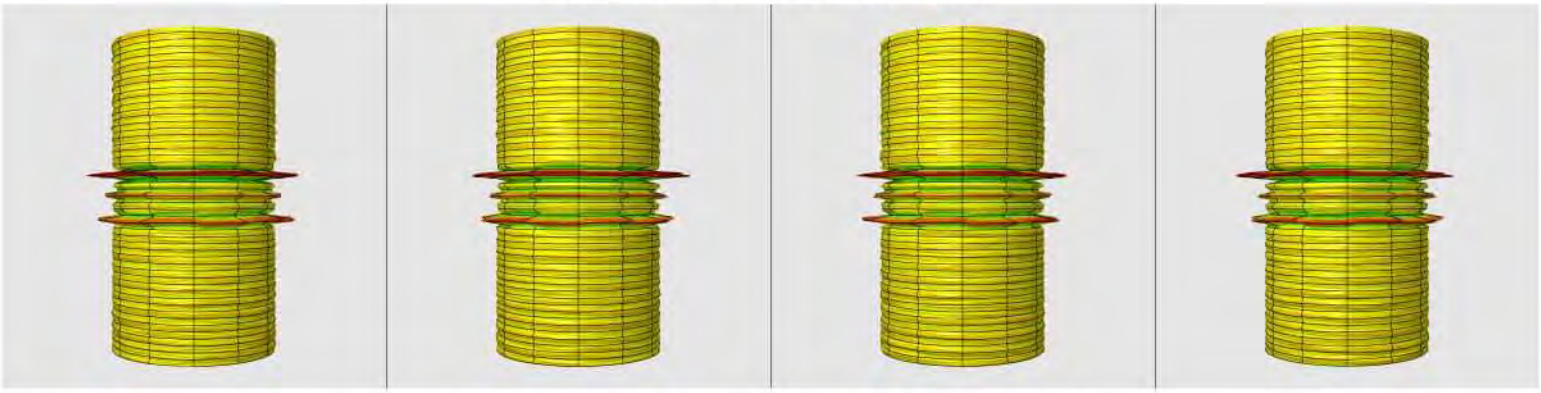
Collar between Joints 7 and 8 at 237.612ft

Image Display Range: 235.118ft - 240.113ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



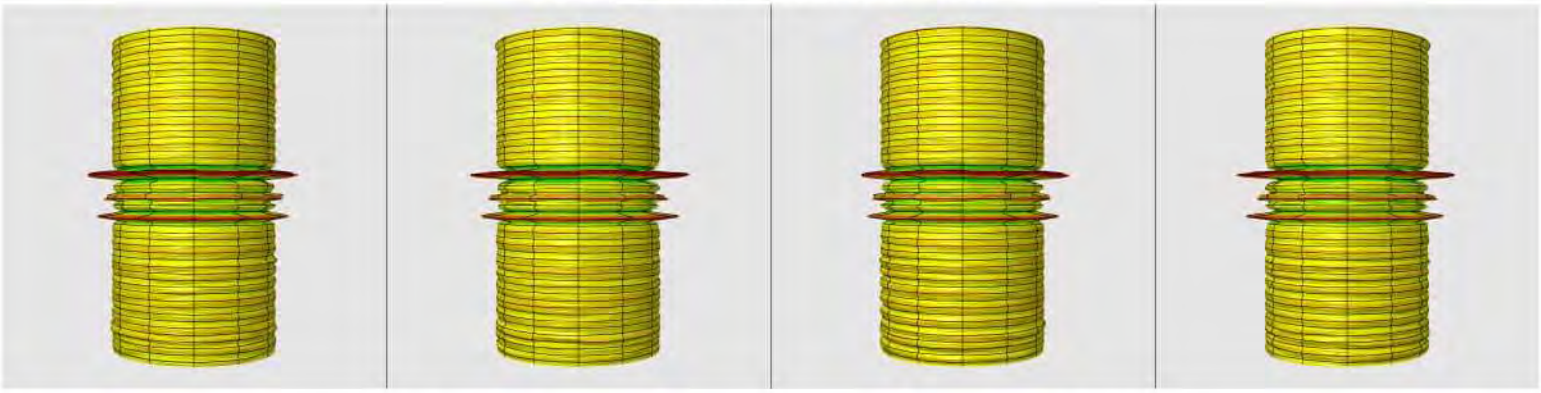
Collar between Joints 8 and 9 at 277.211ft

Image Display Range: 274.718ft - 279.713ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



Collar between Joints 9 and 10 at 315.772ft

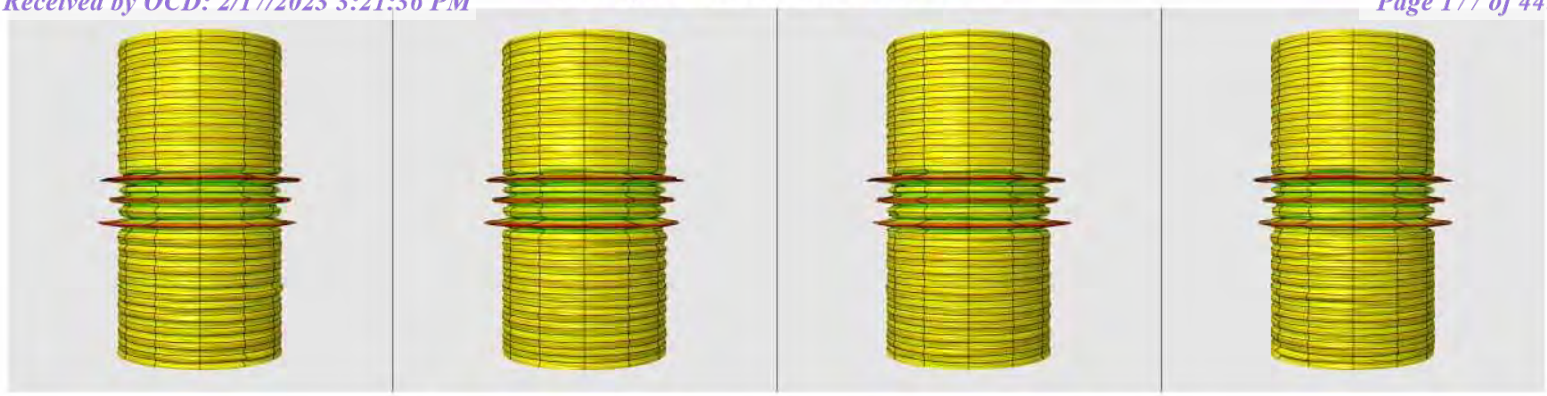
Image Display Range: 313.276ft - 318.271ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



Collar between Joints 10 and 11 at 355.303ft

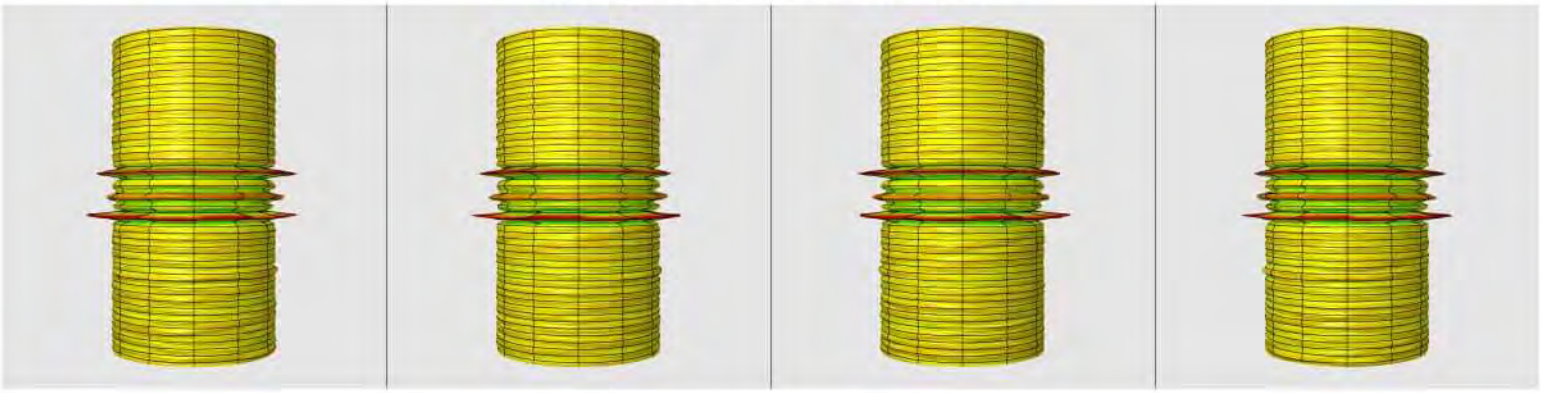
Image Display Range: 352.810ft - 357.805ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%

Data Type: Corrosion 2nd Derivative



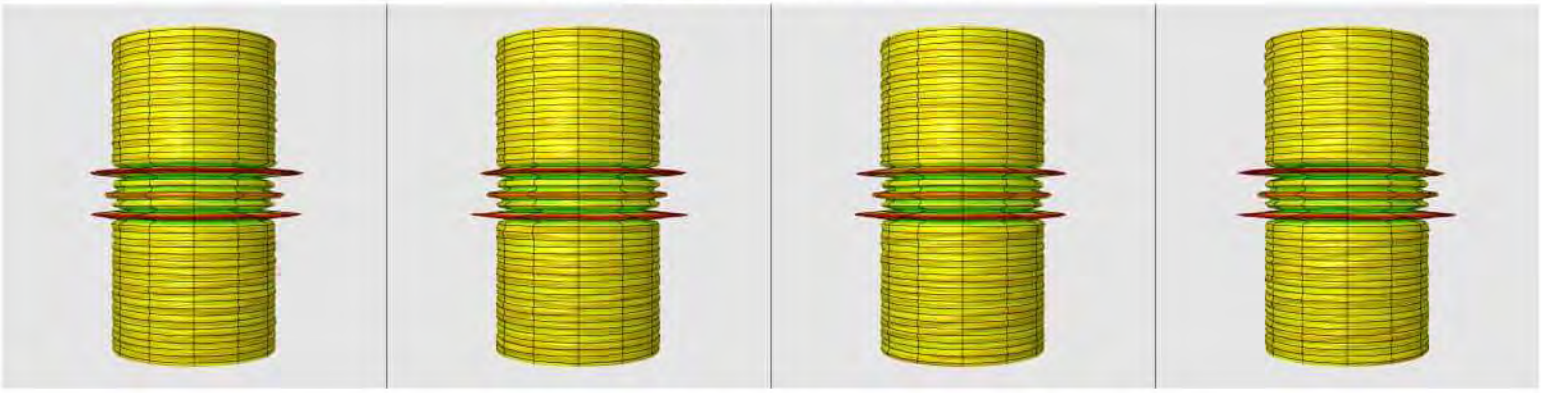
Collar between Joints 11 and 12 at 394.457ft

Image Display Range: 391.967ft - 396.962ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



Collar between Joints 12 and 13 at 433.354ft

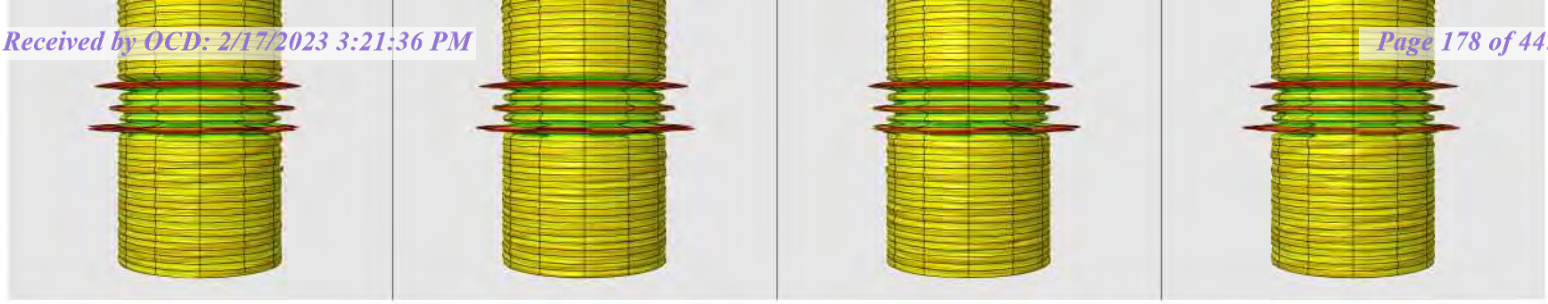
Image Display Range: 430.861ft - 435.856ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



Collar between Joints 13 and 14 at 472.808ft

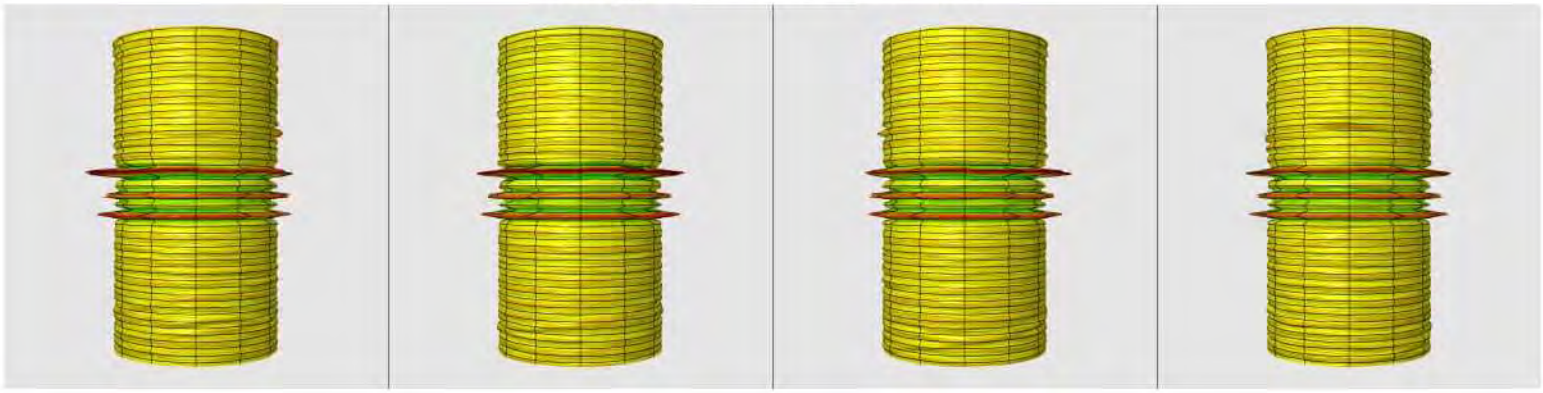
Image Display Range: 470.313ft - 475.308ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative





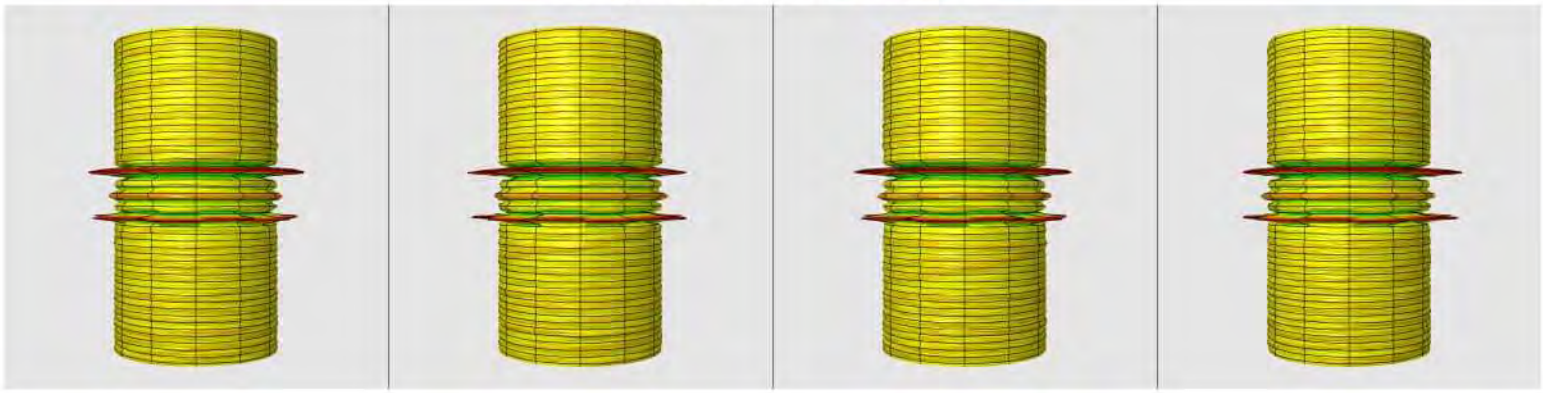
Collar between Joints 14 and 15 at 512.865ft

Image Display Range: 510.372ft - 515.367ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



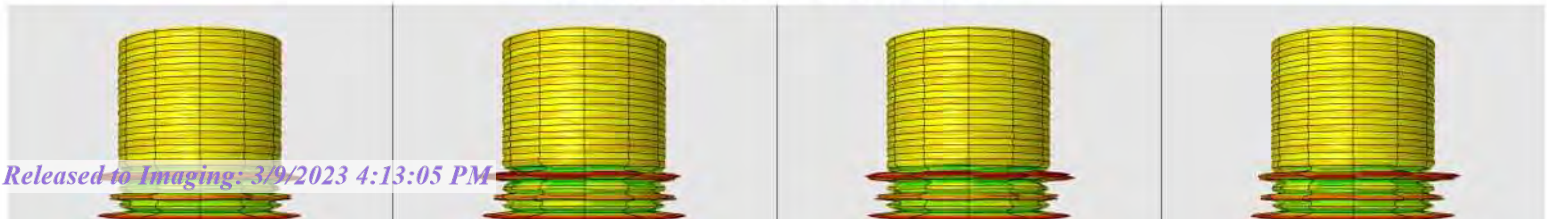
Collar between Joints 15 and 16 at 551.446ft

Image Display Range: 548.955ft - 553.950ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



Collar between Joints 16 and 17 at 590.858ft

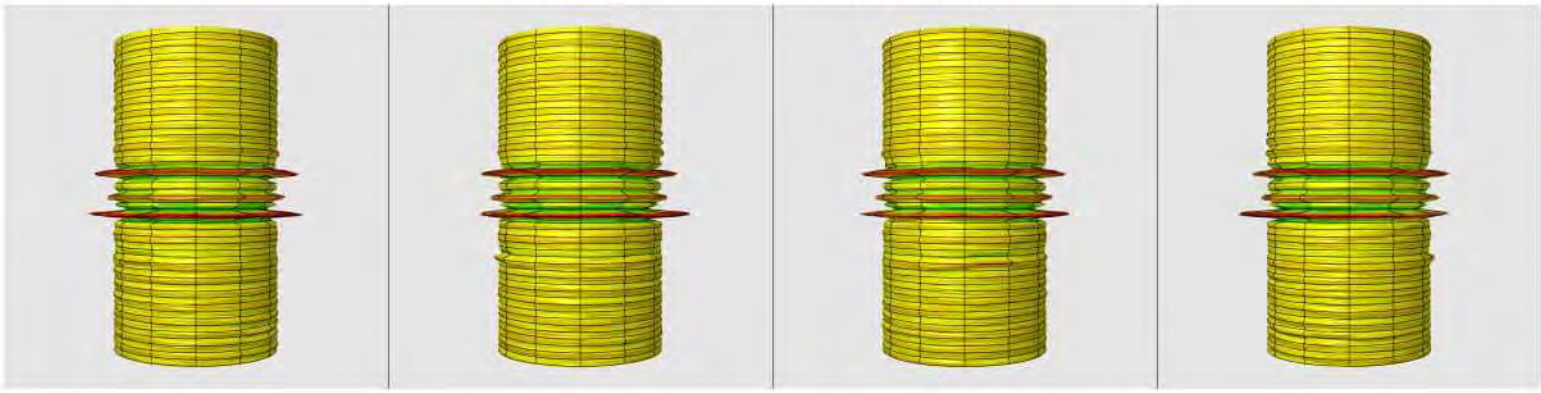
Image Display Range: 588.366ft - 593.361ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative





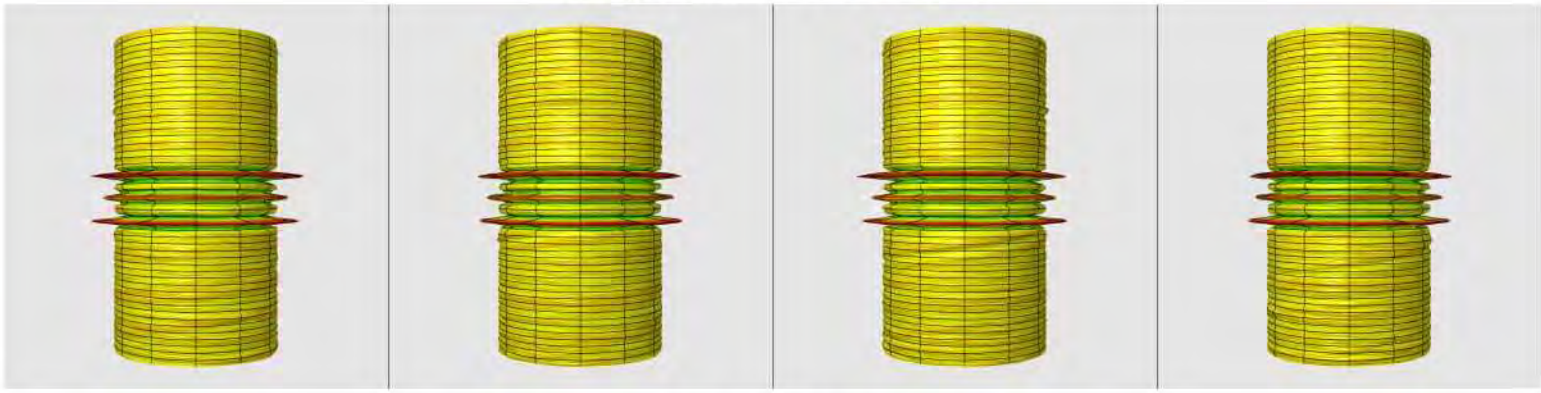
Collar between Joints 17 and 18 at 629.716ft

Image Display Range: 627.219ft - 632.215ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



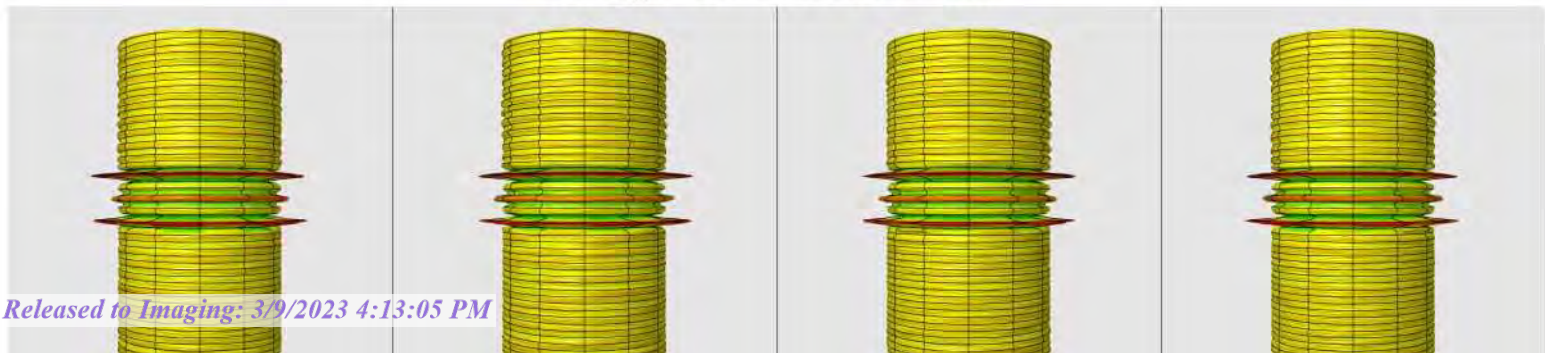
Collar between Joints 18 and 19 at 669.099ft

Image Display Range: 666.606ft - 671.601ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



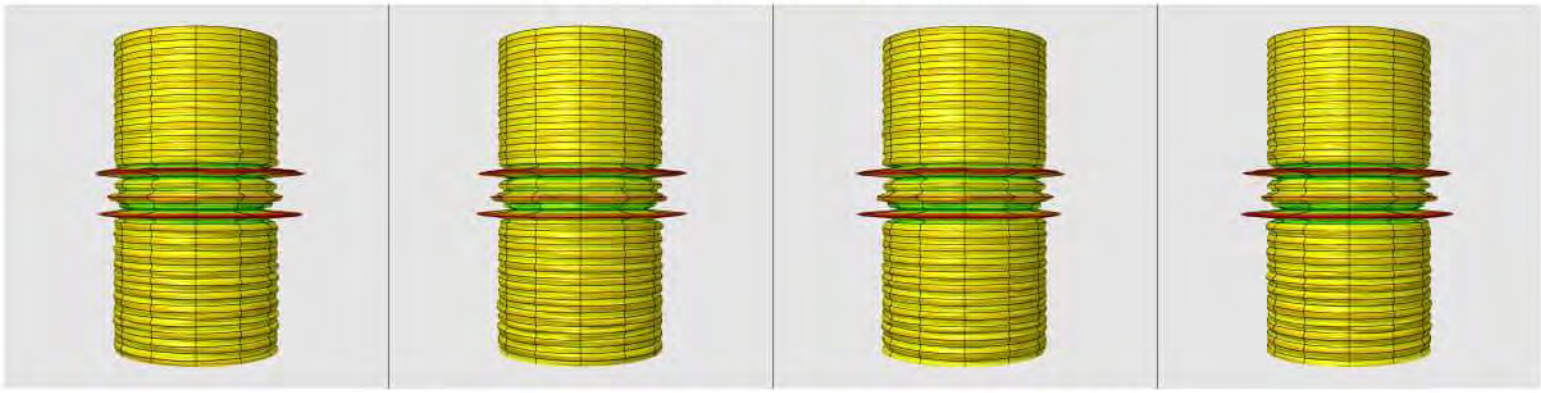
Collar between Joints 19 and 20 at 708.659ft

Image Display Range: 706.165ft - 711.160ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



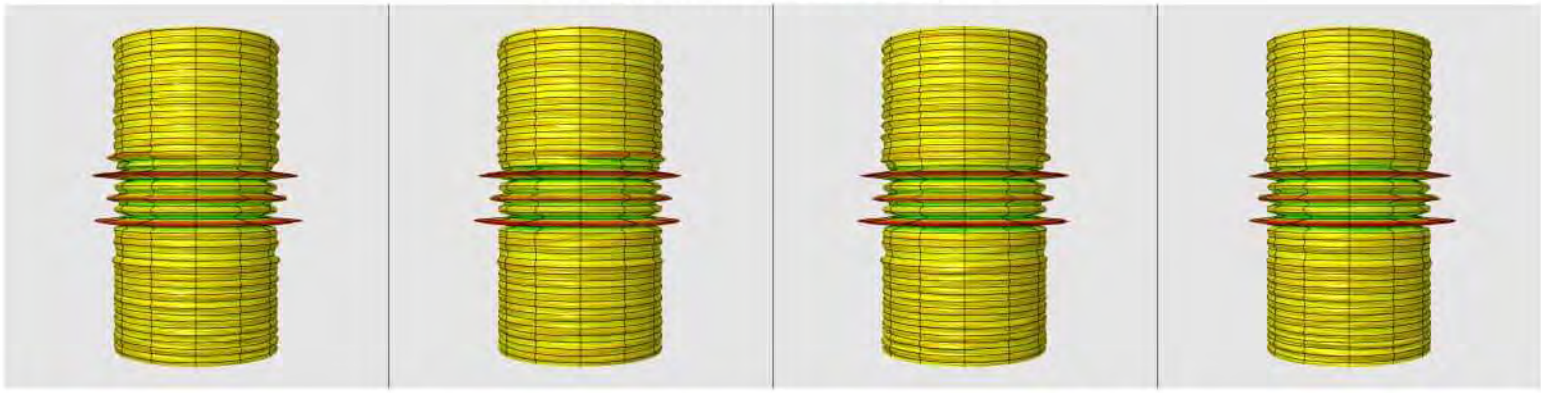
Collar between Joints 20 and 21 at 748.695ft

Image Display Range: 746.199ft - 751.194ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



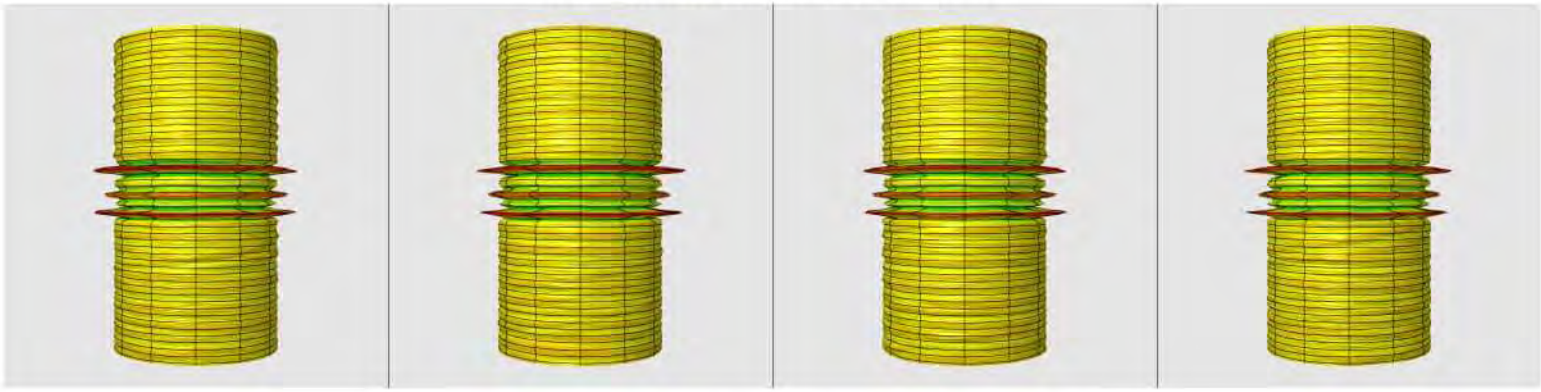
Collar between Joints 21 and 22 at 787.661ft

Image Display Range: 785.167ft - 790.162ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



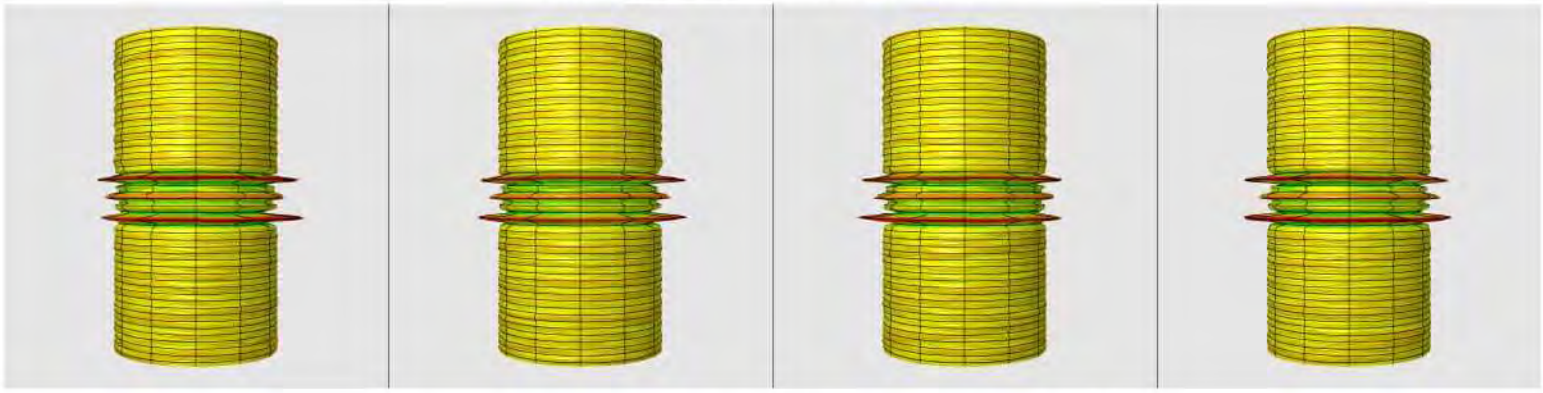
Collar between Joints 22 and 23 at 825.936ft

Image Display Range: 823.447ft - 828.442ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



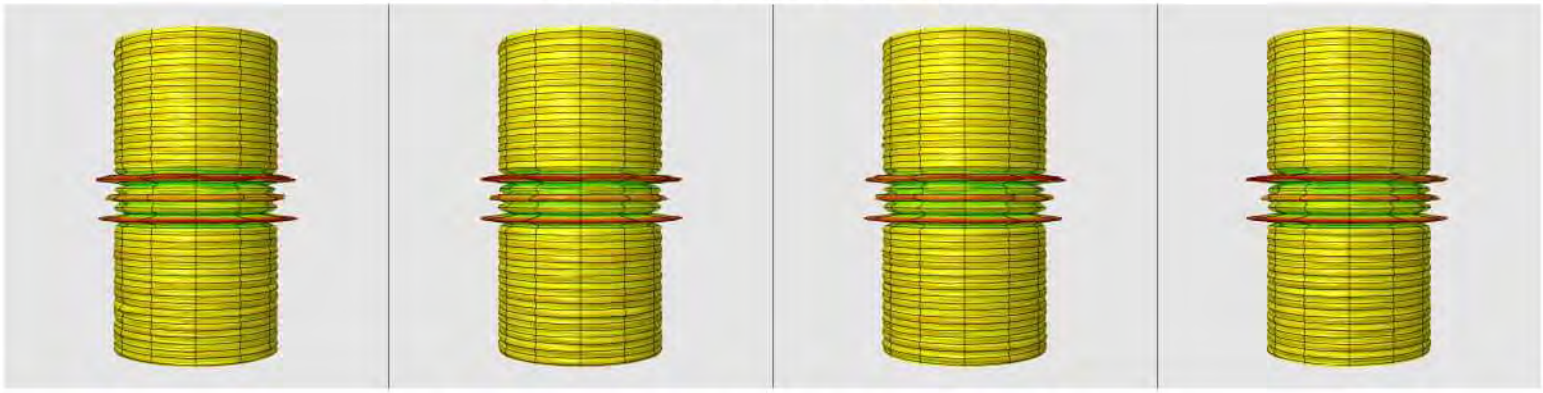
Collar between Joints 23 and 24 at 864.564ft

Image Display Range: 862.070ft - 867.065ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



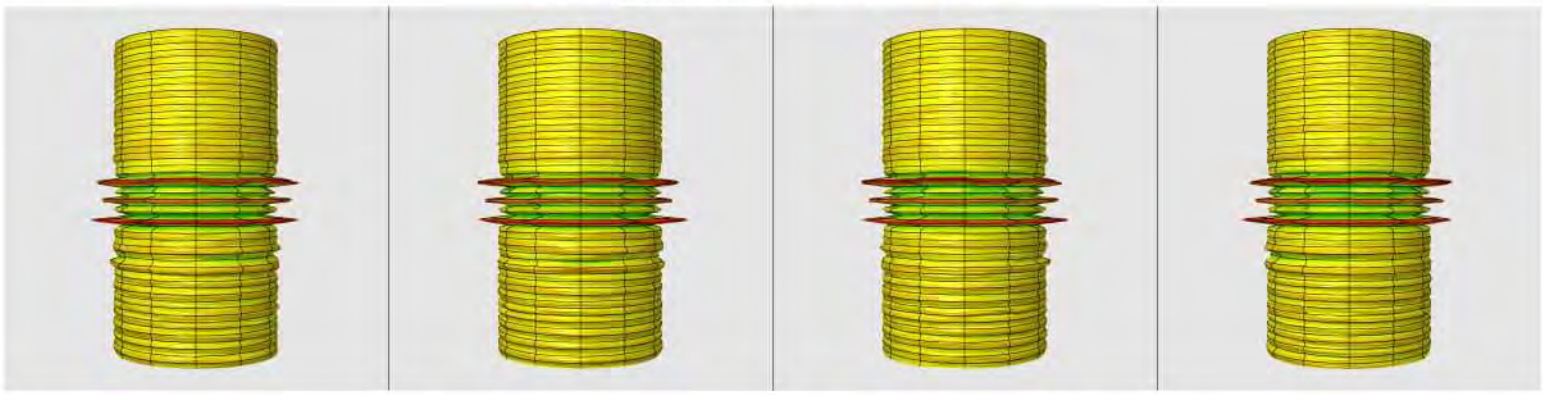
Collar between Joints 24 and 25 at 903.532ft

Image Display Range: 901.038ft - 906.033ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



Collar between Joints 25 and 26 at 941.590ft

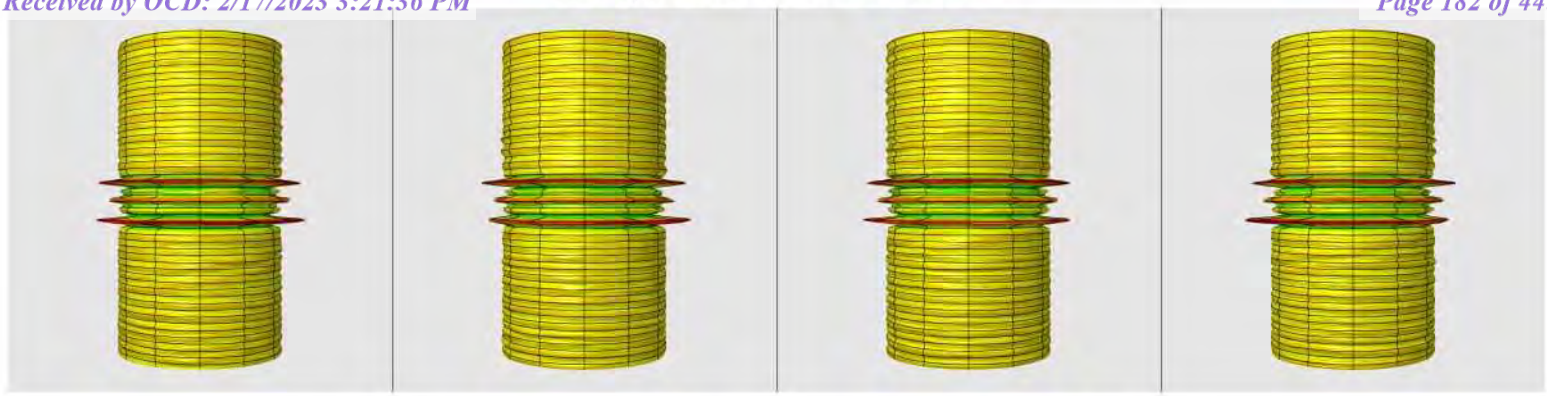
Image Display Range: 939.096ft - 944.091ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



Collar between Joints 26 and 27 at 981.476ft

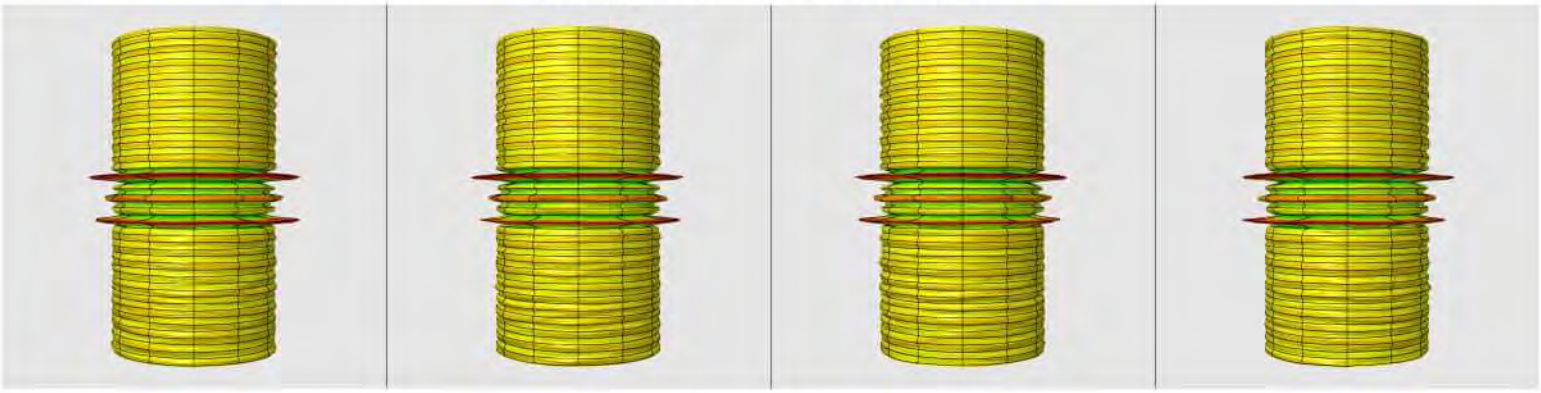
Image Display Range: 978.983ft - 983.978ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%

Data Type: Corrosion 2nd Derivative



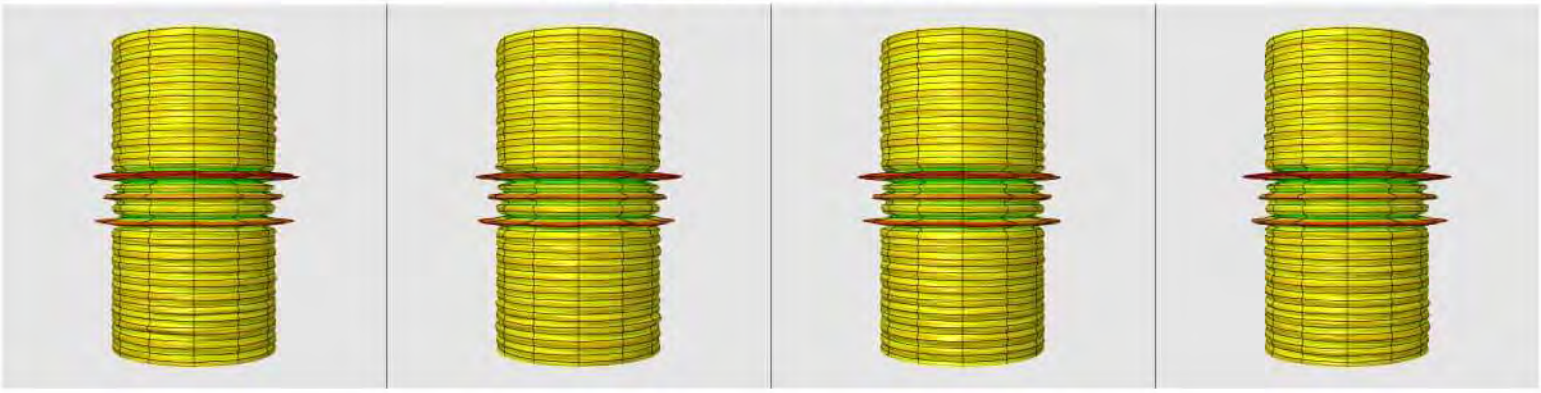
Collar between Joints 27 and 28 at 1021.224ft

Image Display Range: 1018.730ft - 1023.725ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



Collar between Joints 28 and 29 at 1060.372ft

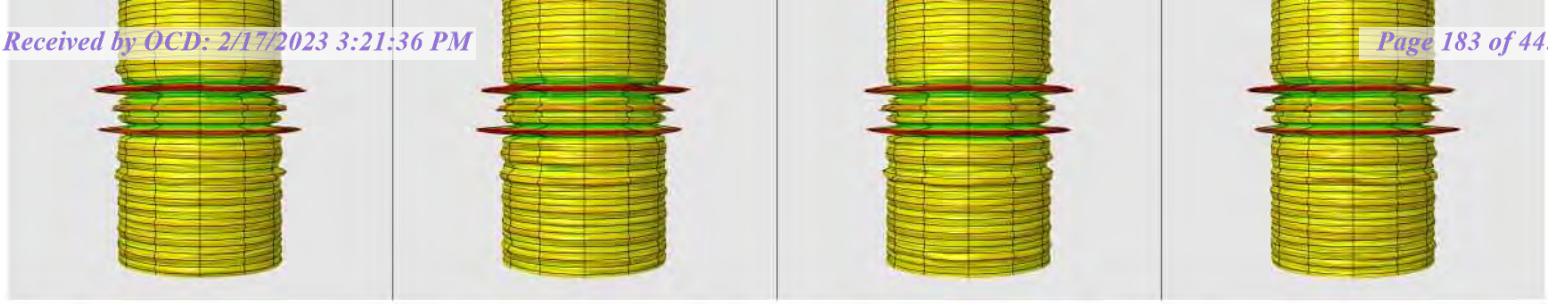
Image Display Range: 1057.879ft - 1062.874ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



Collar between Joints 29 and 30 at 1098.758ft

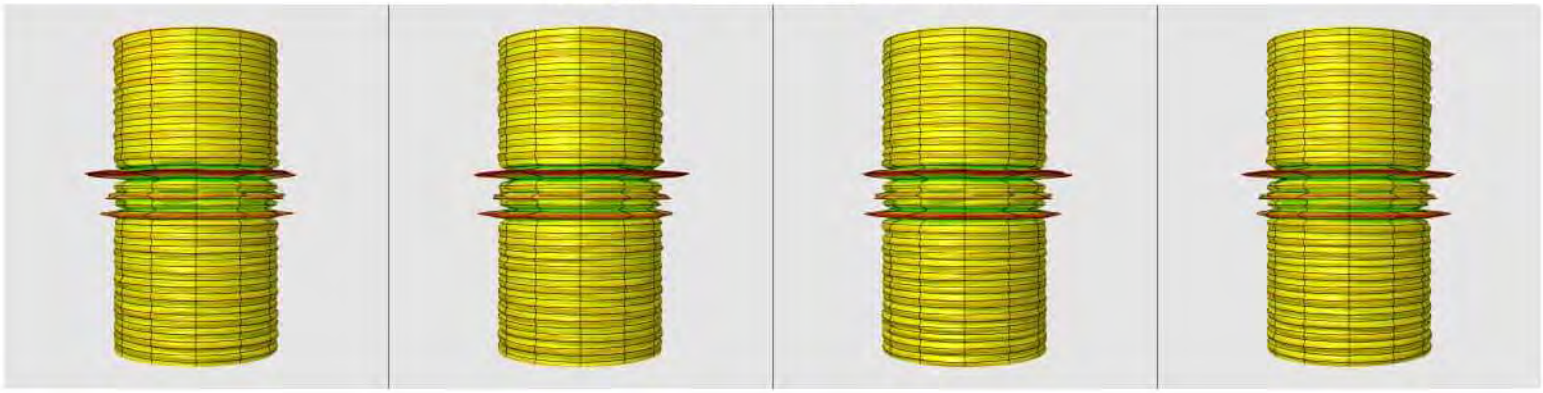
Image Display Range: 1096.265ft - 1101.260ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative





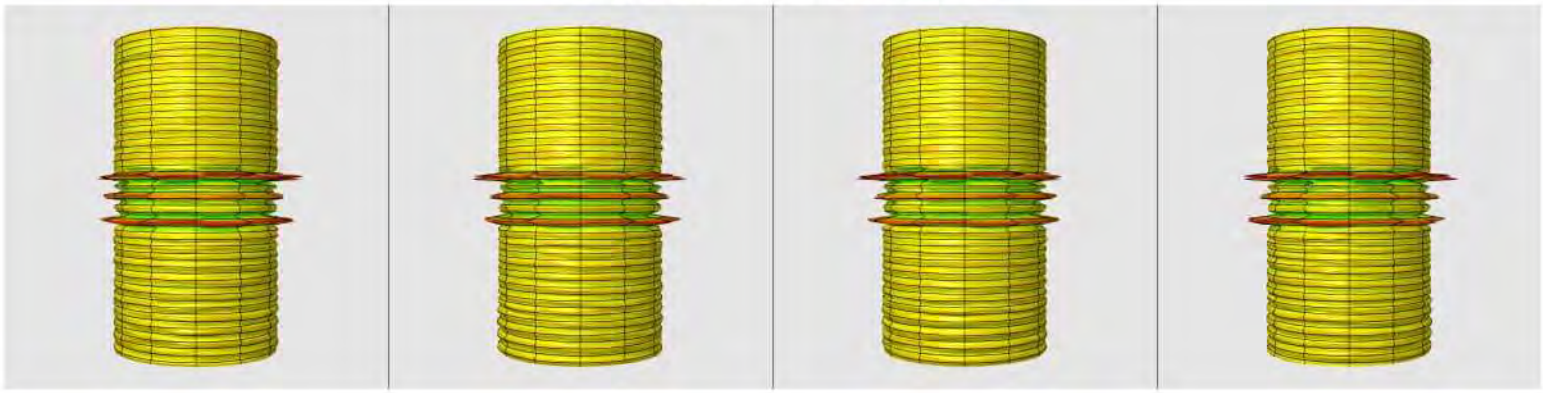
Collar between Joints 30 and 31 at 1138.070ft

Image Display Range: 1135.577ft - 1140.573ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



Collar between Joints 31 and 32 at 1175.866ft

Image Display Range: 1173.373ft - 1178.368ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



Collar between Joints 32 and 33 at 1214.917ft

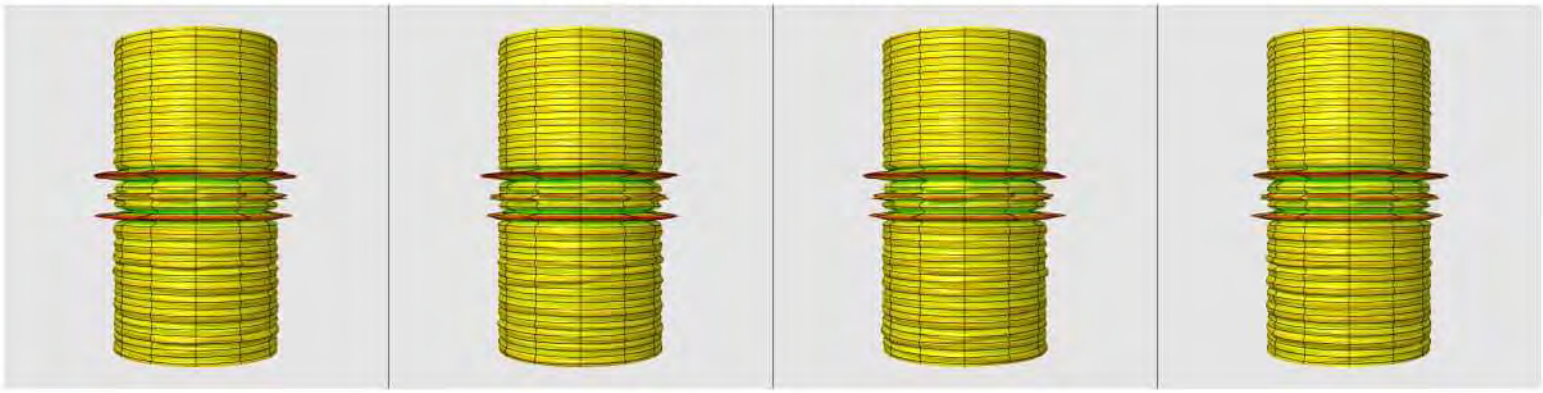
Image Display Range: 1212.423ft - 1217.418ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative





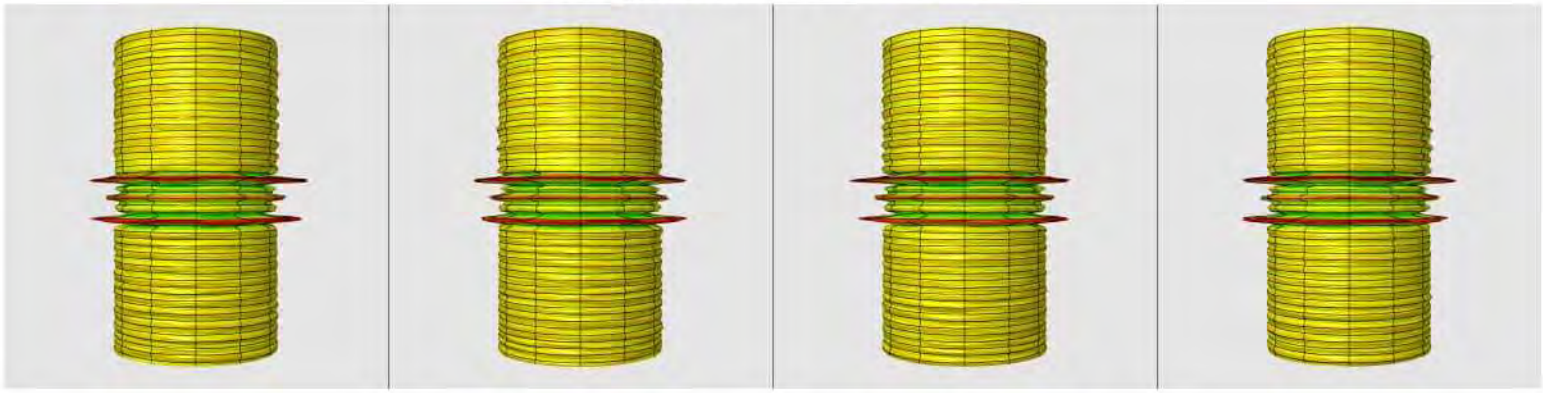
Collar between Joints 33 and 34 at 1253.643ft

Image Display Range: 1251.153ft - 1256.148ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



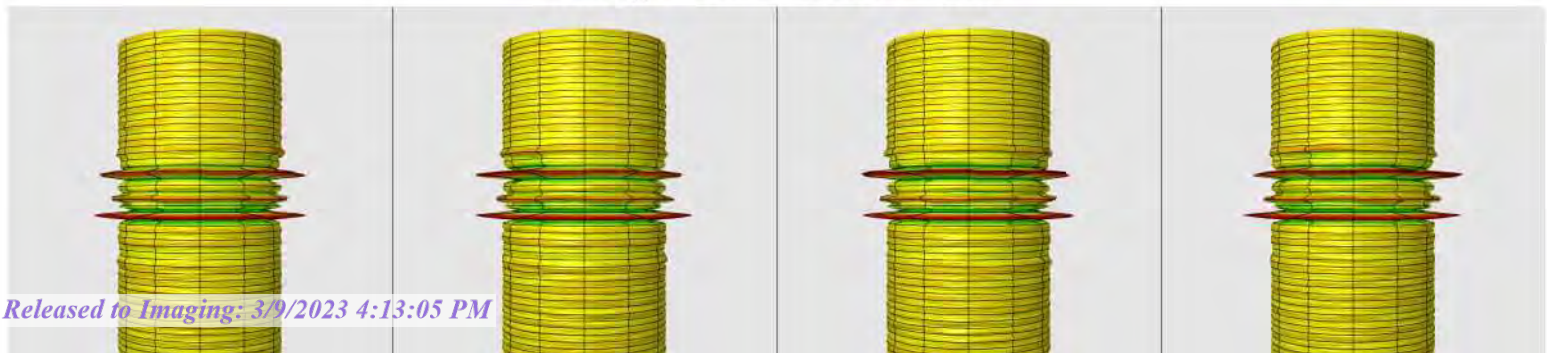
Collar between Joints 34 and 35 at 1291.967ft

Image Display Range: 1289.473ft - 1294.469ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



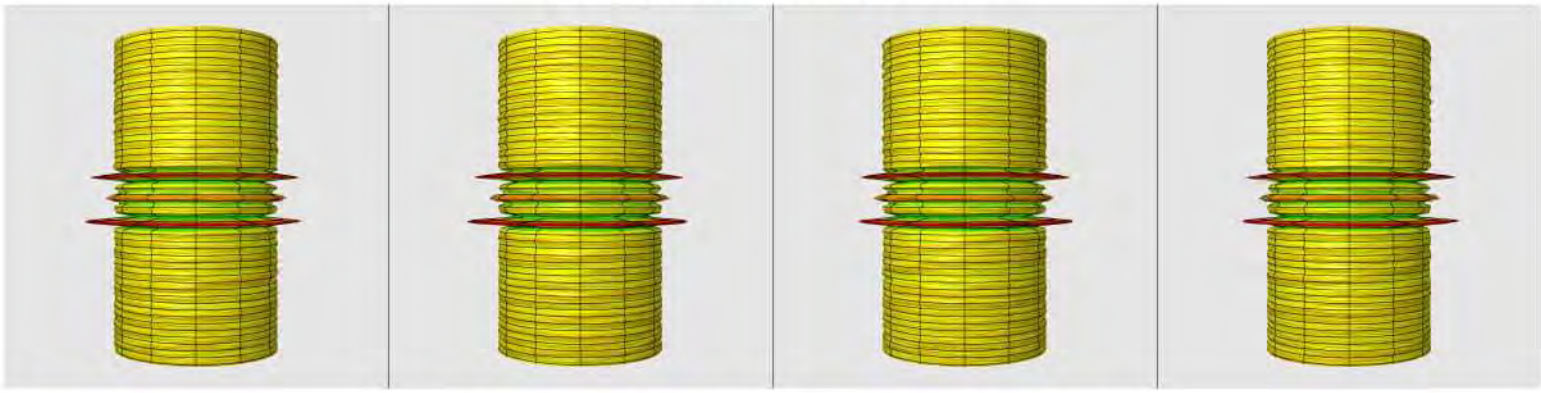
Collar between Joints 35 and 36 at 1330.293ft

Image Display Range: 1327.802ft - 1332.797ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



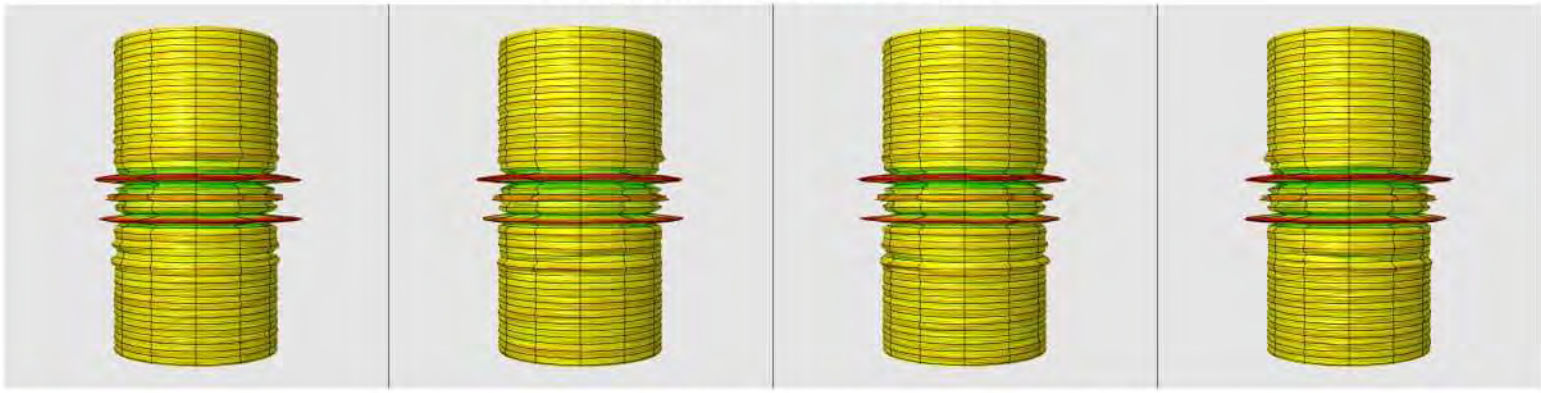
Collar between Joints 36 and 37 at 1369.034ft

Image Display Range: 1366.540ft - 1371.535ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



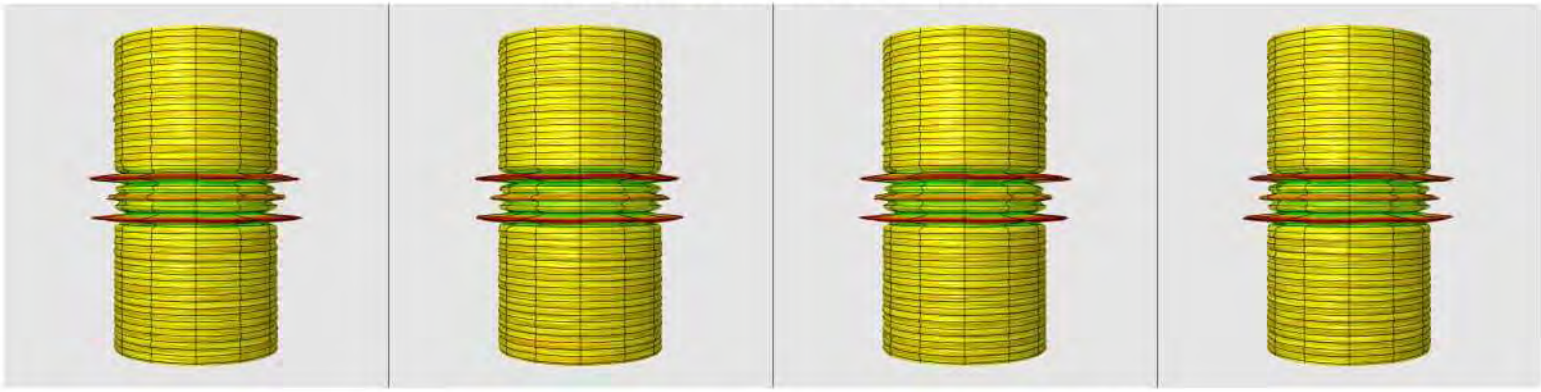
Collar between Joints 37 and 38 at 1408.732ft

Image Display Range: 1406.239ft - 1411.234ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



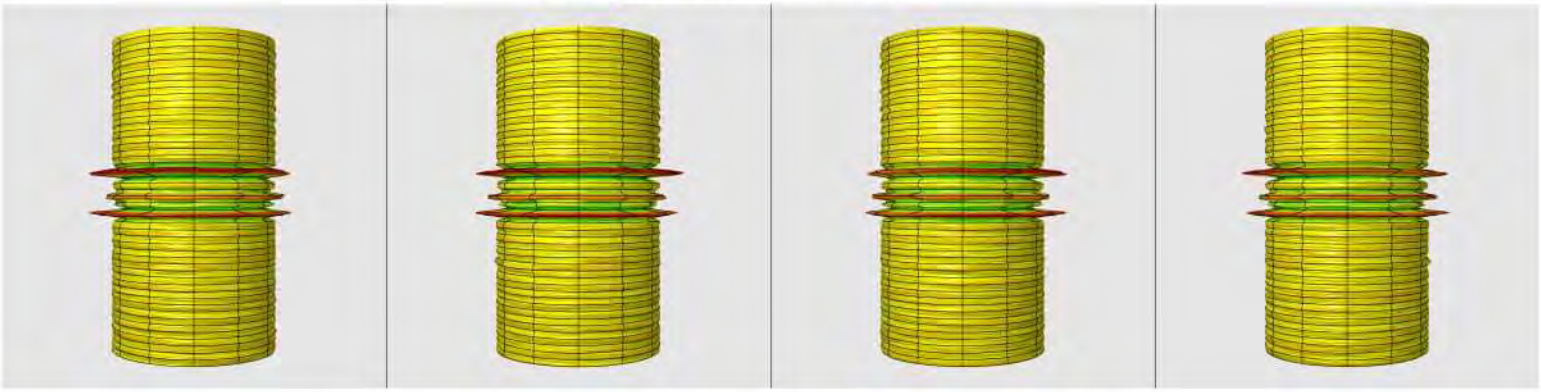
Collar between Joints 38 and 39 at 1448.143ft

Image Display Range: 1445.650ft - 1450.645ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



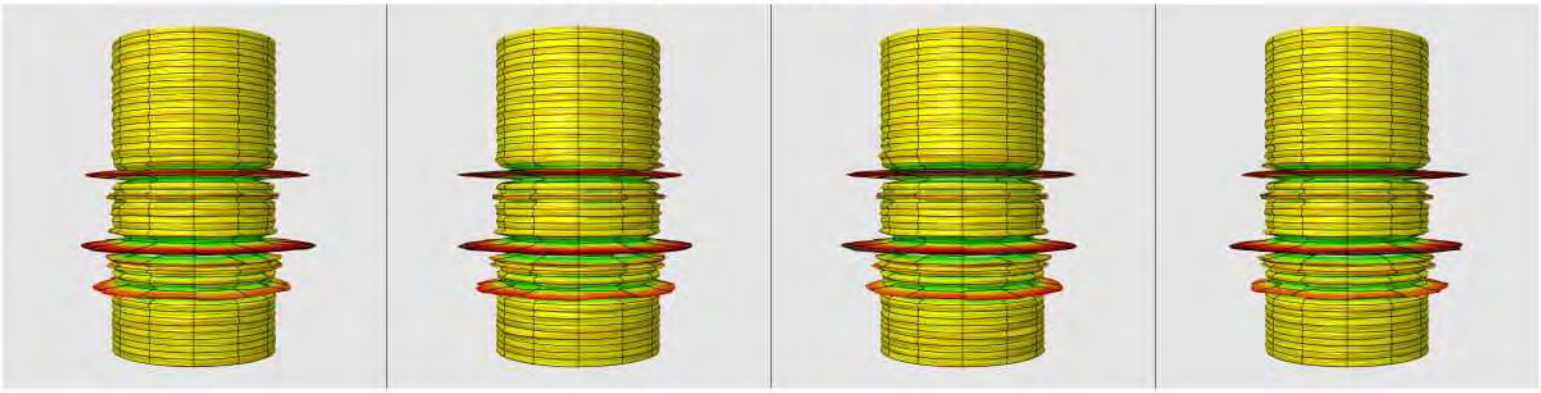
Collar between Joints 39 and 40 at 1487.909ft

Image Display Range: 1485.413ft - 1490.408ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



Collar between Joints 40 and 41 at 1526.808ft

Image Display Range: 1524.316ft - 1529.311ft
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Corrosion 2nd Derivative



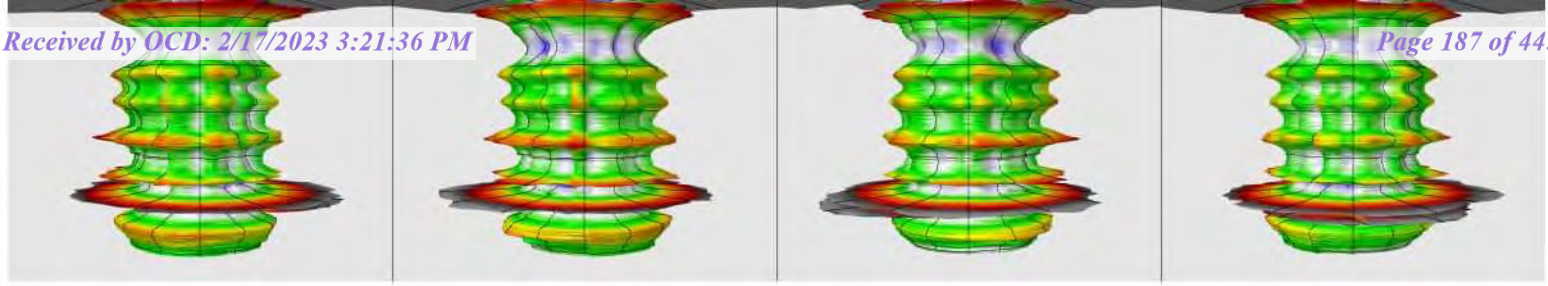
Hardware Summary

The following images are representations of the magnetic field as measured by the CIT instruments and are not intended to represent the actual physical shape of the object or defect portrayed. This hardware has been removed from the penetration analysis presented. Included in the Hardware classification are external casing hardware such as scratchers and centralizers, in-string hardware such as orientation collars and cement staging tools, and internal build-ups of waxes and asphaltenes.

Classified as Hardware: Well Head, -8.000ft to -1.272ft

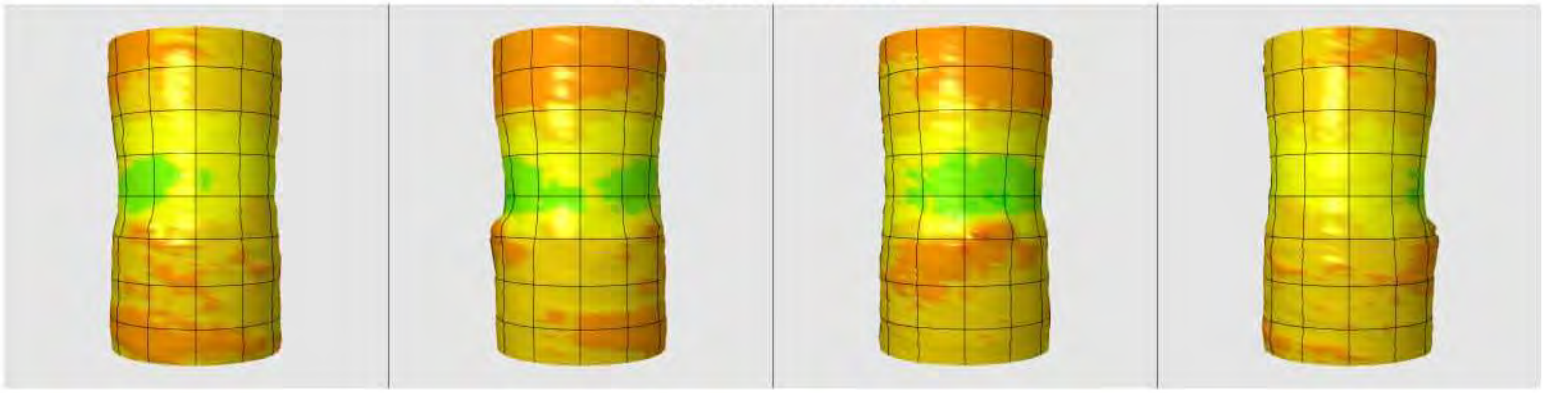
Image Display Range: -8.000ft - -0.938ft
Joints: No Joint - 1
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Raw Corrosion





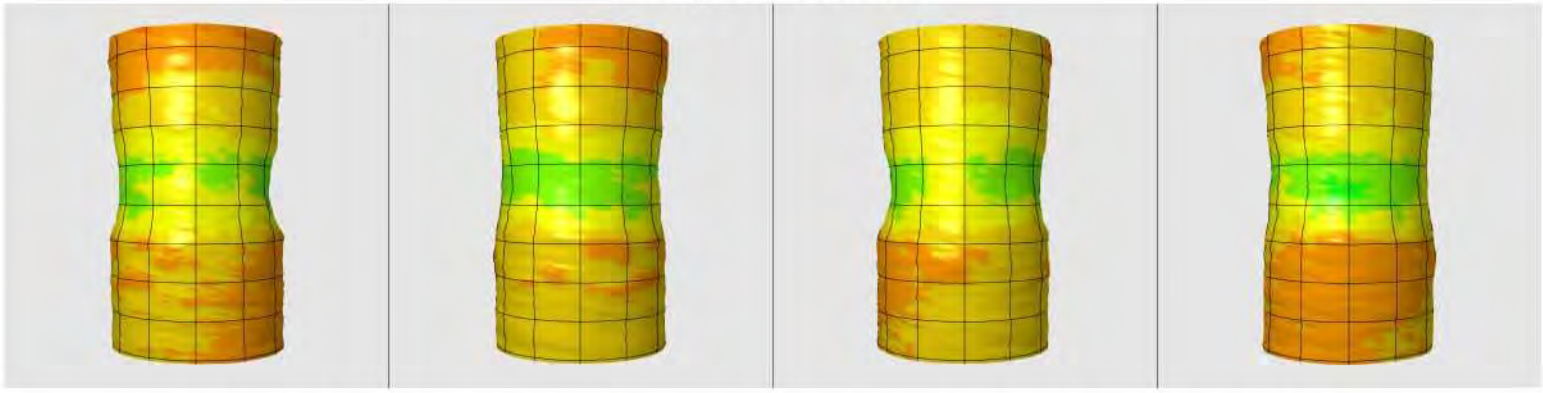
Classified as Hardware: Possible Hardware, 630.249ft to 630.959ft

Image Display Range: 630.213ft - 630.992ft
Joint: 18
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Raw Corrosion



Classified as Hardware: Possible Hardware, 788.180ft to 788.978ft

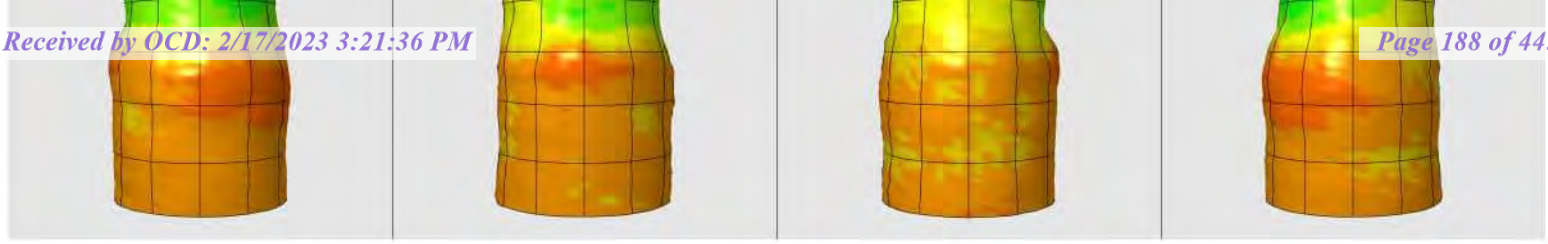
Image Display Range: 788.145ft - 789.014ft
Joint: 22
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Raw Corrosion



Classified as Hardware: Possible Hardware, 942.306ft to 942.890ft

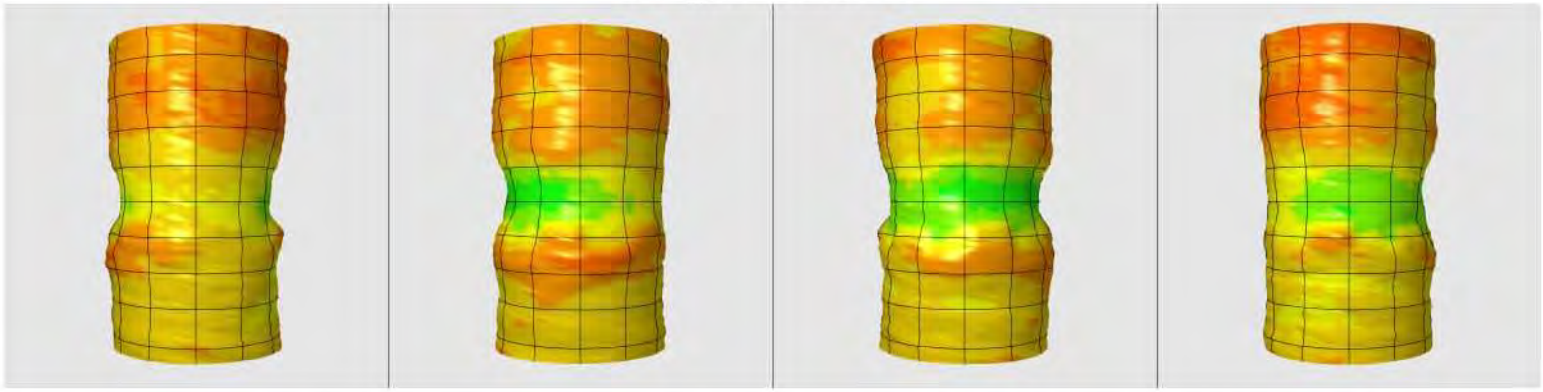
Image Display Range: 942.279ft - 942.910ft
Joint: 26
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Raw Corrosion





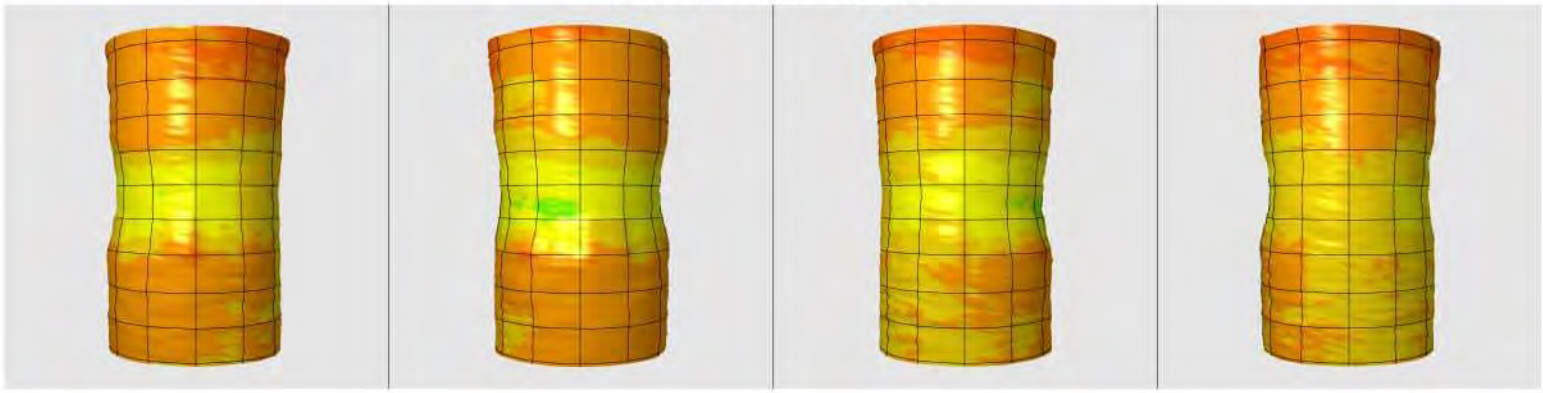
Classified as Hardware: Possible Hardware, 1099.259ft to 1100.110ft

Image Display Range: 1099.218ft - 1100.153ft
Joint: 30
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Raw Corrosion



Classified as Hardware: Possible Hardware, 1330.694ft to 1331.573ft

Image Display Range: 1330.656ft - 1331.616ft
Joint: 36
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Raw Corrosion



Classified as Hardware: Possible Hardware, 1409.284ft to 1410.027ft

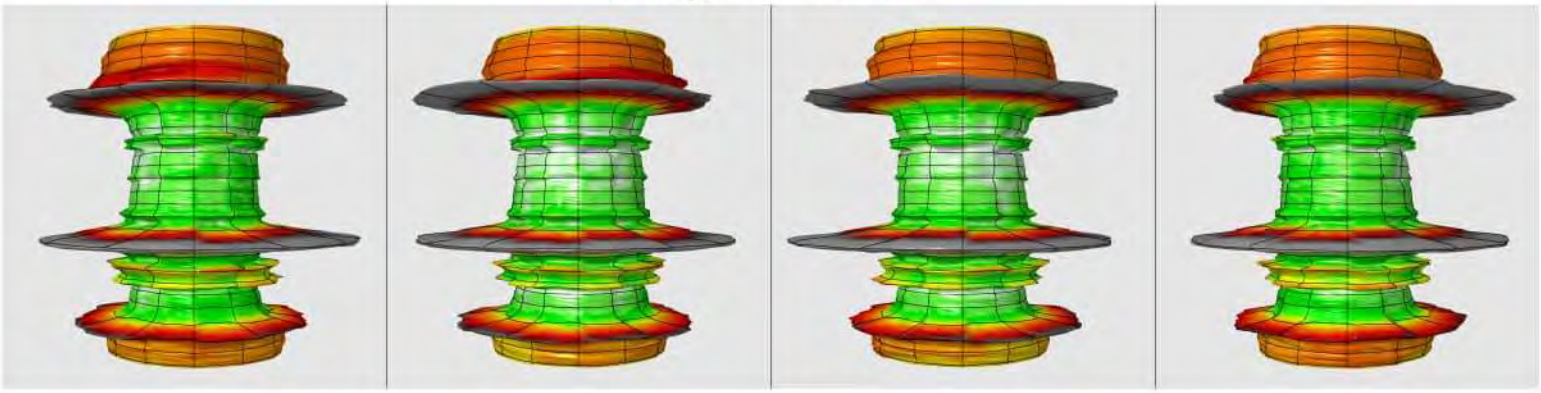
Image Display Range: 1409.249ft - 1410.061ft
Joint: 38
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Raw Corrosion





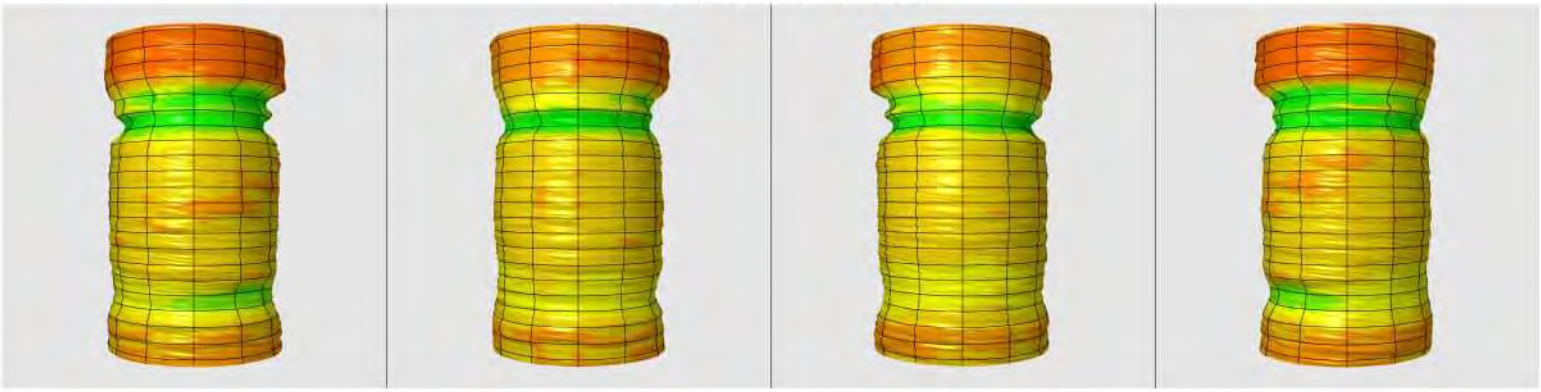
Classified as Hardware: Possible Hardware, 1526.092ft to 1528.406ft

Image Display Range: 1525.973ft - 1528.524ft
Joints: 40 - 41
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Raw Corrosion



Classified as Hardware: Possible Hardware, 1546.568ft to 1548.554ft

Image Display Range: 1546.470ft - 1548.652ft
Joint: 41
Aspect Magnification: 10.0
Radial Scale: 30.00 - -30.00gauss
Zoom: 90%
Data Type: Raw Corrosion



Company	MARATHON PETROLEUM COMPANY
Well	STORAGE WELL #4
Field	LANGLIE MATTIX
State/Province	NEW MEXICO
UWI/API	30-025-35957

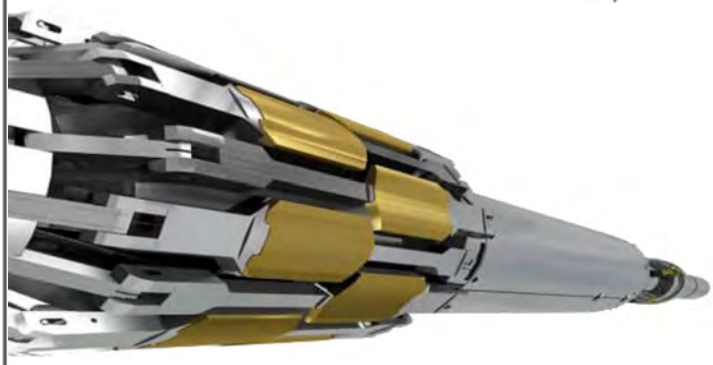
SECUREVIEW

Nine

Weatherford

FLUXVIEW ANALYSIS





Company	MARATHON PETROLEUM COMPANY
Well Name	STORAGE WELL #4
Location	LANGLIE MATTIX, LEA COUNTY, NEW MEXICO, USA
Survey Date	10/23/2022
Interpretation Analyst	W. LEE
Interpretation Date	10/25/2022

Nine

SecureView™

Evaluation Summary

Weatherford



Disclaimer

In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.



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19 Appendix 17



1 Executive Summary

FluxView data was acquired from 1566ft to surface in addition to Nine Energy Service's 60 arm caliper which was logged from 1564.9ft to surface. The data was processed using Weatherford's Prospect build of Techlog 2018.2 to classify joints based on percent penetration of the worst-case defect. The processing was performed using 7" 23# J55 casing characteristics. Burst pressure was calculated using Barlow method, without a safety factor.

The analysis identified 41 joints in the logged interval. 40 joints were classified as Class 1 (less than 20% penetration), and 1 joint was classified as Class 2 (20%-40% penetration). The worst-case defect was found at 744.092ft, showing 24.4% external penetration and a calculated burst pressure of 3765psi.

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2 Joint Table

Class 1 <20.0%	40	Class 2 20.0% - 40.0%	1	Class 3 40.0% - 60.0%	0	Class 4 60.0% - 80.0%	0	Class 5 80.0% - 100.0%	0	Total Joints Logged	

Joint Number	Top Depth (ft)	Bottom Depth (ft)	Joint Length (ft)	Casing OD (in)	Casing Weight (lbm/ft)	Casing Grade	Max Wall Loss (%)	OD/ID	Burst Pressure (psi)	Worst Defect Depth (ft)	Worst Defect Type	Joint Cl
1	1.017	3.550	2.533	7.000	23.00	J55	12.6	ID	4353	1.673	AXL	1
2	3.550	43.237	39.687	7.000	23.00	J55	13.8	ID	4293	4.370	AXL	1
3	43.237	82.827	39.589	7.000	23.00	J55	12.7	ID	4348	45.532	AXL	1
4	82.827	121.618	38.791	7.000	23.00	J55	12.9	ID	4338	101.184	AXL	1
5	121.618	161.153	39.536	7.000	23.00	J55						1
6	161.153	200.495	39.342	7.000	23.00	J55	13.2	ID	4323	192.294	AXL	1
7	200.495	239.021	38.526	7.000	23.00	J55	13.6	ID	4303	233.275	AXL	1
8	239.021	278.457	39.436	7.000	23.00	J55	13.0	ID	4333	277.374	AXL	1
9	278.457	316.686	38.229	7.000	23.00	J55						1
10	316.686	356.571	39.885	7.000	23.00	J55						1
11	356.571	395.715	39.144	7.000	23.00	J55	14.3	ID	4268	394.759	AXL	1
12	395.715	434.383	38.669	7.000	23.00	J55	14.8	ID	4243	419.972	AXL	1
13	434.383	473.554	39.171	7.000	23.00	J55	16.2	ID	4174	444.053	GEN	1
14	473.554	513.726	40.172	7.000	23.00	J55	16.2	ID	4174	478.307	GEN	1
15	513.726	552.093	38.367	7.000	23.00	J55						1
16	552.093	591.690	39.597	7.000	23.00	J55	14.3	ID	4268	563.566	AXL	1
17	591.690	630.564	38.874	7.000	23.00	J55						1
18	630.564	669.876	39.312	7.000	23.00	J55	13.5	ID	4308	653.674	AXL	1
19	669.876	709.436	39.560	7.000	23.00	J55	13.8	ID	4293	672.007	AXL	1
20	709.436	749.294	39.858	7.000	23.00	J55	24.4	OD	3765	744.092	SIP	2
21	749.294	788.378	39.084	7.000	23.00	J55	13.4	ID	4313	783.713	AXL	1
22	788.378	826.568	38.190	7.000	23.00	J55						1
23	826.568	865.054	38.486	7.000	23.00	J55						1

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Joint Number	Top Depth	Bottom Depth	Joint Length	Casing OD	Casing Weight	Casing Grade	Max Wall Loss	OD/ID	Burst Pressure	Worst Defect Depth	Worst Defect Type	Joint Cl
24	865.054	903.919	38.865	7.000	23.00	J55						1
25	903.919	942.285	38.366	7.000	23.00	J55						1
26	942.285	982.016	39.731	7.000	23.00	J55	12.9	ID	4338	945.399	AXL	1
27	982.016	1021.971	39.955	7.000	23.00	J55	13.0	ID	4333	987.589	AXL	1
28	1021.971	1060.931	38.960	7.000	23.00	J55						1
29	1060.931	1099.157	38.226	7.000	23.00	J55						1
30	1099.157	1138.819	39.662	7.000	23.00	J55	15.5	ID	4208	1134.723	AXL	1
31	1138.819	1176.498	37.679	7.000	23.00	J55						1
32	1176.498	1215.410	38.912	7.000	23.00	J55						1
33	1215.410	1254.038	38.628	7.000	23.00	J55	13.2	ID	4323	1221.638	AXL	1
34	1254.038	1292.440	38.402	7.000	23.00	J55						1
35	1292.440	1330.609	38.169	7.000	23.00	J55	13.8	ID	4293	1325.712	AXL	1
36	1330.609	1369.293	38.684	7.000	23.00	J55	12.5	ID	4358	1341.755	AXL	1
37	1369.293	1408.938	39.645	7.000	23.00	J55	15.1	ID	4228	1370.276	AXL	1
38	1408.938	1448.708	39.770	7.000	23.00	J55						1
39	1448.708	1488.223	39.514	7.000	23.00	J55	14.6	ID	4253	1455.920	AXL	1
40	1488.223	1527.009	38.787	7.000	23.00	J55						1
41	1527.009	1564.900	37.891	7.000	23.00	J55						1

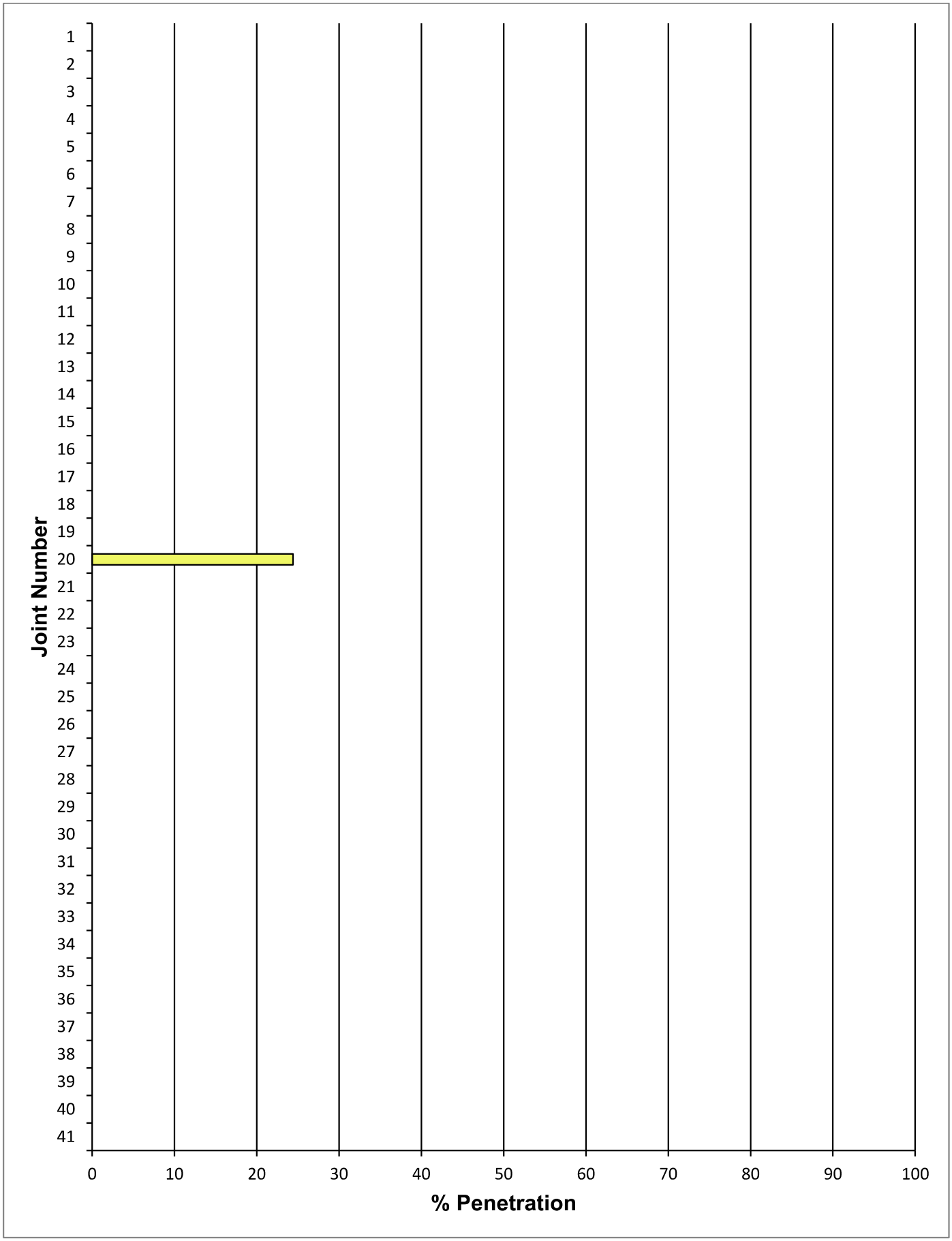
* Defect type derived from Pipeline Operators Forum – 'Specifications and requirements for in-line inspection of pipelines - Version 2016'

Defect Type	Description
GEN	General Defect
AXL	Axial Defect
CIR	Circumferential Defect
SIP	Single Isolated Pit
UNCL	Unclassified

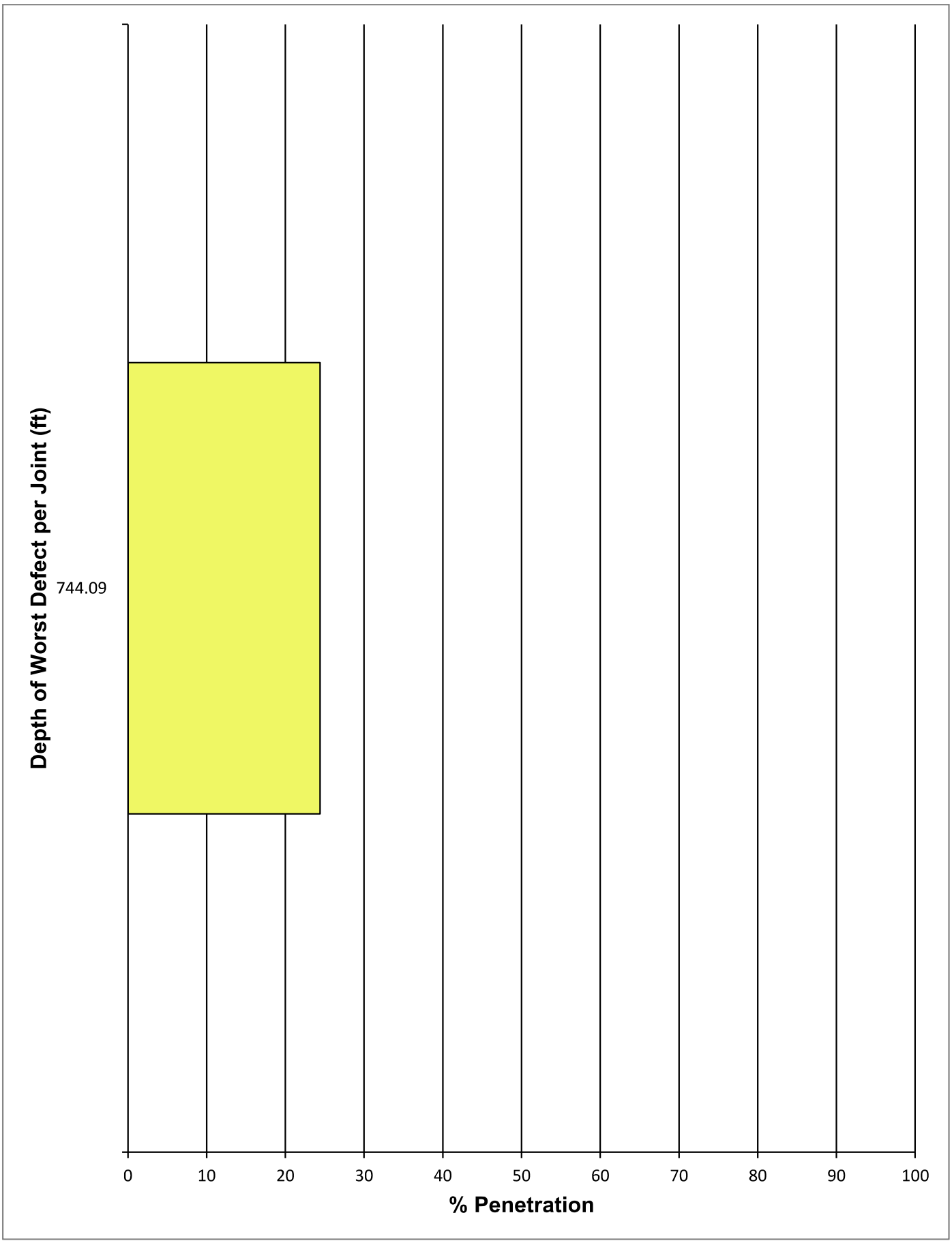
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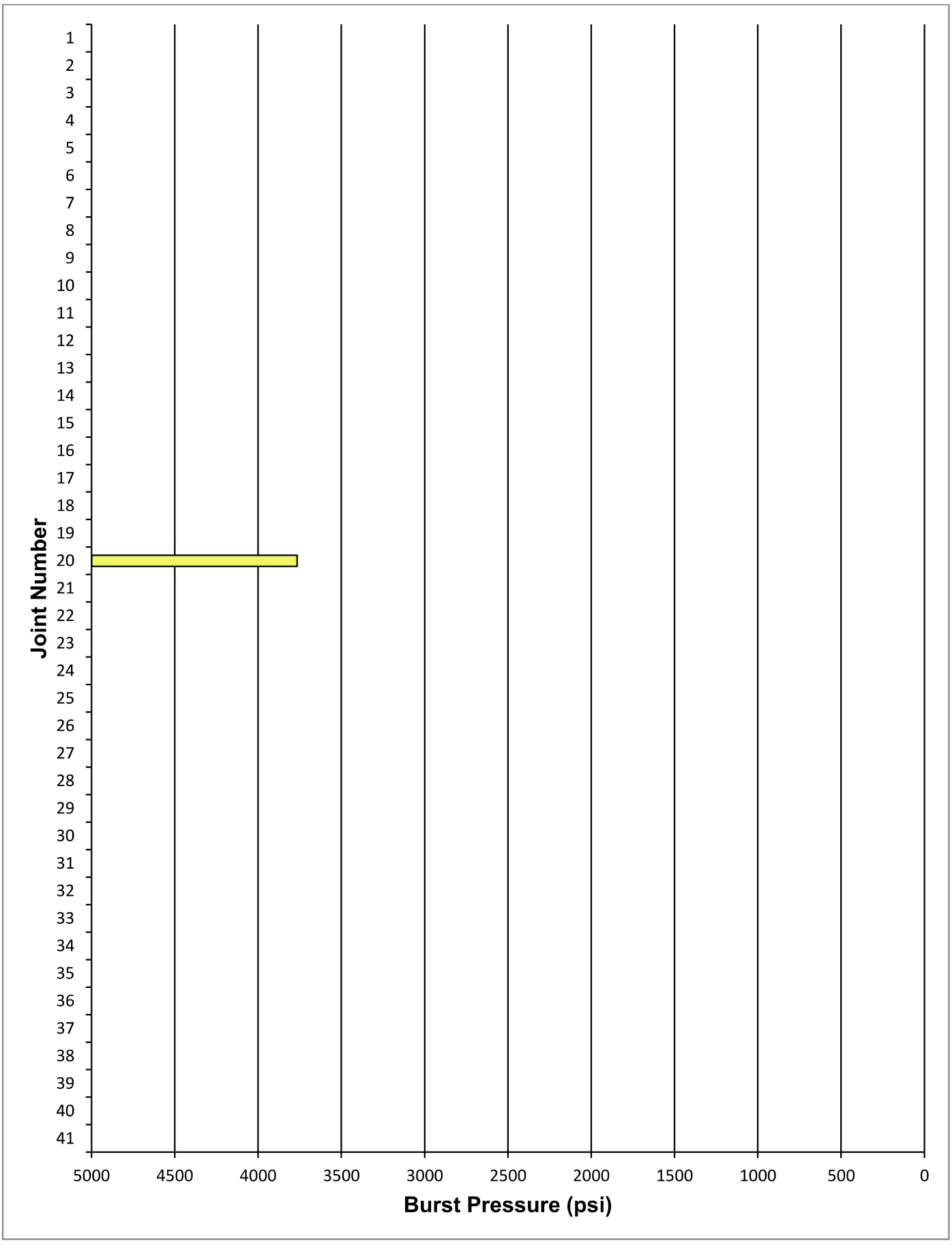
3 Max Penetration by Joint Number



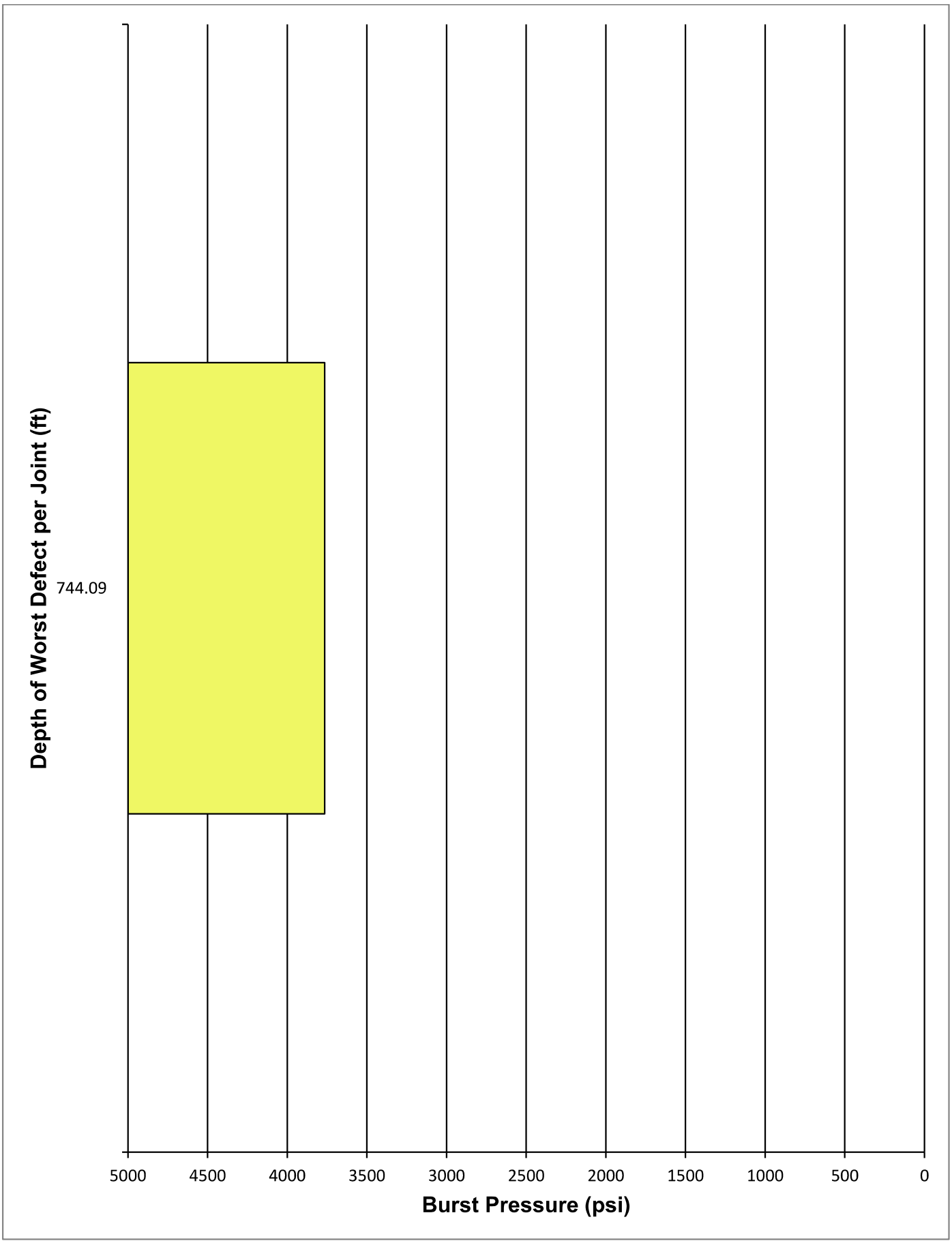
4 Max Penetration by Depth



5 Burst Pressure by Joint Number



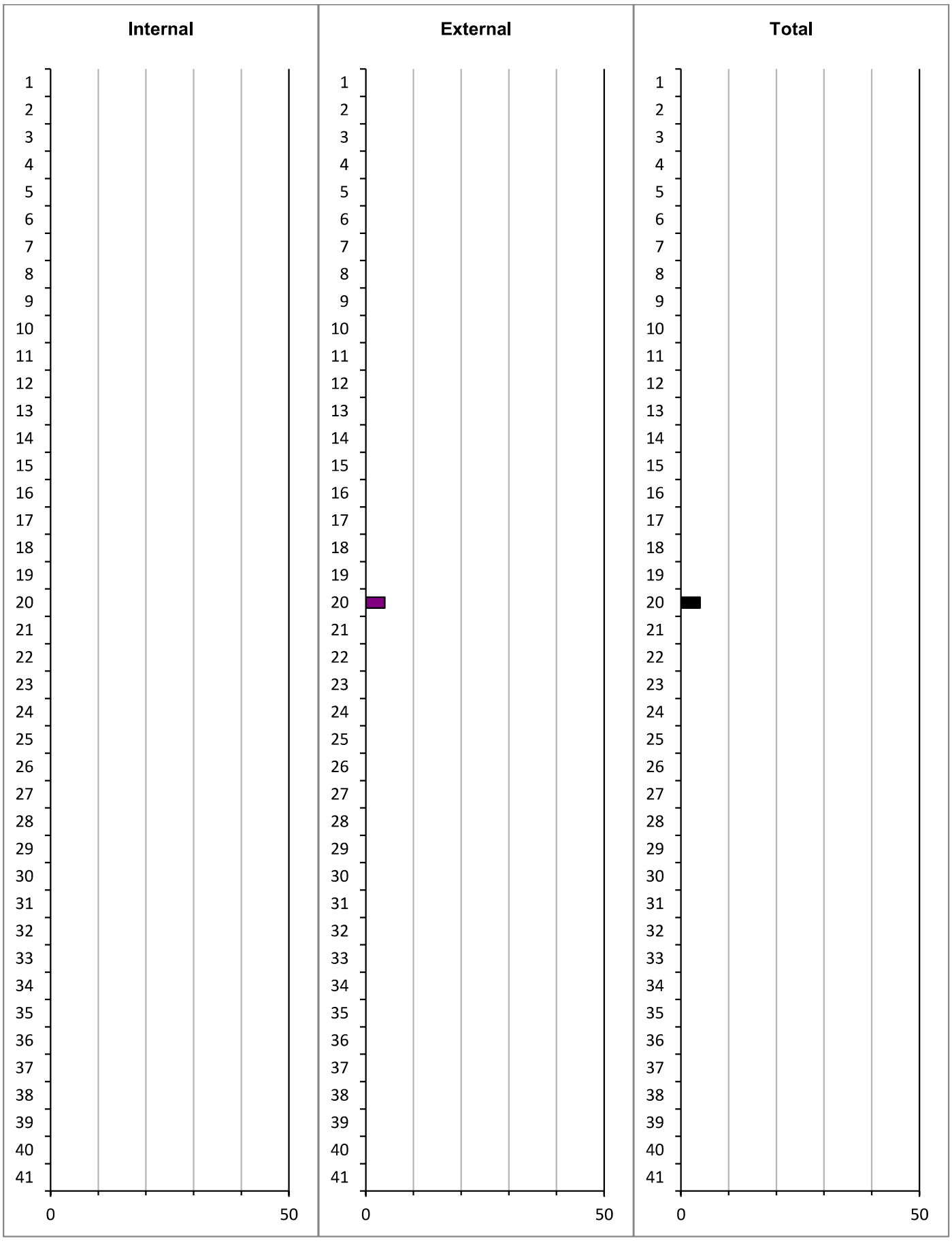
6 Burst Pressure by Depth



7 Defect Class Frequency by Joint

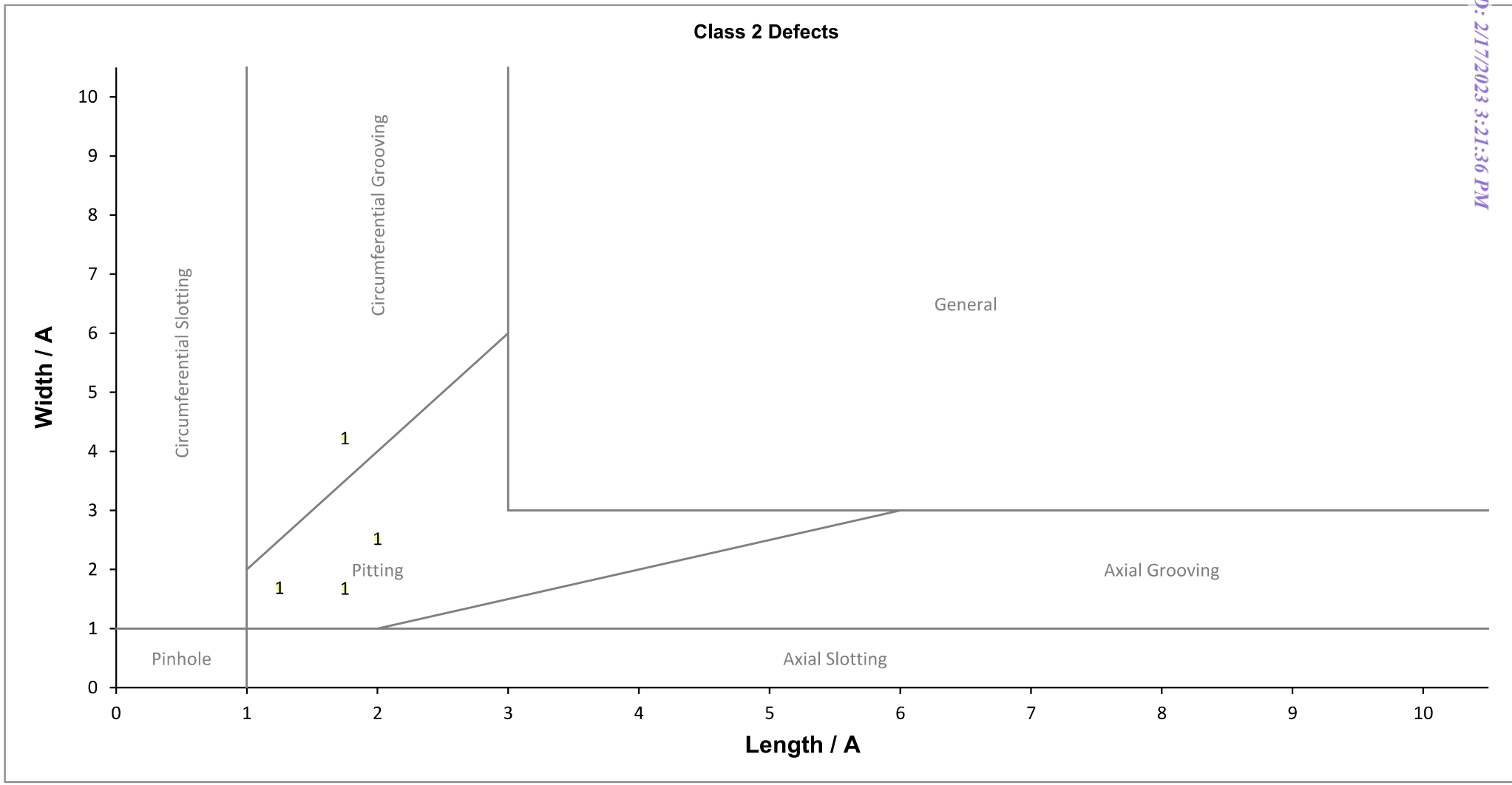


8 Defect Location Frequency by Joint



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9 Defect Classification



A = Wall Thickness or 10mm (0.4in), whichever is greater

* Based on Pipeline Operators Forum – 'Specifications and requirements for in-line inspection of pipelines - Version 2016'

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10 Well Data

Well Information					
Company	MARATHON PETROLEUM COMPANY				
Well	STORAGE WELL #4				
Field	LANGLIE MATTIX				
County	LEA COUNTY				
State	NEW MEXICO				
Country	USA				
Section	N/A	Township	N/A	Range	N/A

Elevations			
Kelly Bushing	N/A		
Drilling Floor	N/A		
Ground Level	3312.000		
Permanent Datum	GL	Permanent Datum Elevation	3312.000
Log Measured From	GL	Above Permanent Datum	N/A
Drilling Measured From	N/A	Above Permanent Datum	N/A

Casing Table							
Type	OD (in)	Weight (lb/ft)	Grade	Thread Type	ID (in)	Start Depth (ft)	Stop Depth (ft)
Liner	7.000	23.00	J55		6.366	-2.000	1575.000

11 Service Data

Service Information	
Service Order Number	N/A
Log Date	10/23/2022
Logged By	ROY COLLLINS
Witnessed By	RAY MESSELWHITE
Location	LANGLIE MATTIX, LEA COUNTY, NEW MEXICO, USA
Equipment Number	113

Logging Information	
Service	FLUXVIEW/CALIPER
Bottom Logged Interval	1566ft
Top Logged Interval	-8ft
Additional Services	N/A
Remarks	ANALYSIS REMARKS: DATA ACQUIRED BY NINE ENERGY SERVICE PROCESSED USING 7" 23# J55 CASING CHARACTERISTICS BURST PRESSURE CALCULATED USING BARLOW METHOD, WITHOUT A SAFETY FACTOR

12 Equipment Data

Equipment	
Tool Series No.	CIS-CA 107
Electronics Series No.	CIC-AA 117
Interface Panel Series No.	N/A
Calibration Reference No.	N/A
Acquisition Software	WLS 22.11.1632
Analysis Software	Prospect 2018.2 (rev:22885)

13 Feature List

Instances	Description
41	Casing Joints
40	Collars
9	Hardware
4	Metal Loss Features

14 Hardware Summary

Instances	Description
1	Well Head
8	Possible Hardware
9	**Total**

15 Pressure Calculations

Analysis Parameters	
Burst Pressure Calculation	Barlow
Interaction Criteria	N/A
Analysis Method	SecureView

16 Hardware Table

#	Top Depth (ft)	Length (ft)	Bottom Depth (ft)	Description
1	-8.000	6.728	-1.272	Well Head
2	630.249	0.710	630.959	Possible Hardware
3	788.180	0.798	788.978	Possible Hardware
4	942.306	0.584	942.890	Possible Hardware
5	1099.259	0.851	1100.110	Possible Hardware
6	1330.694	0.879	1331.573	Possible Hardware
7	1409.284	0.743	1410.027	Possible Hardware
8	1526.092	2.314	1528.406	Possible Hardware
9	1546.568	1.985	1548.554	Possible Hardware

17 FluxView™ Technology Overview

The FluxView measurement and subsequent interpretation enables quantification of internal and external corrosion. These defects can come from multiple sources; such as corrosion, handling and installation mistakes, perforations, manufacturing anomalies, etc…

The FluxView tool employs a powerful rare earth magnet to create a magnetic flux field, which temporarily saturates the inner most casing string. Sensitive Hall Effect Sensors mounted on deployment pads measure these subtle magnetic flux differences, creating a full 360° map of the casing. Proprietary analysis software and processing algorithms take these raw magnetic flux variations and quantify any internal or external defects identified. This processing also allows for size and shape of any detected defect to be quantified allowing for updated burst pressure calculations.

Weatherford's team of Well Integrity Experts take the internal & external defect information, and by utilizing advanced visualization software, generates results distinguishing between milling effects, internal vs. external corrosion, and general corrosion vs. single isolated pitting (SIP). This defect information is then summarized in a joint-by-joint format, allowing a detailed understanding of the condition of the downhole casing.

18 FluxView™ Specifications

18.1 Measurement Specifications

Data	% Penetration
Logging Speed	98 ft/min (30 m/min)
Sensor Sample Rate	122 per ft (400 per m)
Accuracy	± 10% at 3T*
Resolution	20% of 3T*
Borehole Fluids	OBM, WBM, Brine, Gas

18.2 Mechanical Specifications

	CIT-A	CIT-B	CIT-C	CIT-D
Outer Diameter	3.88 in. (98.6 mm)	4.11 in. (104.4 mm)	5.13 in. (130.3 mm)	7.00 in. (177.8 mm)
Length	18.70 ft (5.60 m)		18.30 ft (5.48 m)	18.70 ft (5.60 m)
Weight	429.20 lb (194.6 kg)	430.40 lb (195.2 kg)	582.80 lb (264.3 kg)	889.30 lb (403.4 kg)
Sensor Density (Sensors/Pads)	3/10	4/10	5/12	5/16
Casing Size Range (in.)	4.500 to 5.000	5.000 to 5.500	6.625 to 7.625	8.630 to 9.630
Temperature	320°F (160°C)			
Pressure	15000 psi (103.4 MPa)			



Memory Section
Significantly improves logging speeds by capturing high-resolution data downhole and limiting wireline bandwidth.

Centralizers
Always deployed and capable of supporting the weight of the sonde when horizontal.

Sensor Array
Active Hall effect sensors provide accurate defect measurement in casing joints and collars.

Magnet
Samarium-cobalt ($SmCo_5$) magnets saturates casing wall with magnetic flux, improving measurements sensitivity.

19 Appendix

Joint 20					
Top Depth | 708.659 ft					
Defect	Depth (ft)	Loss (%)	ID OD	Burst Pressure (psi)	Type
1	729.361	22.3	OD	3870	SIP
2	744.092	24.4	OD	3765	SIP
3	744.470	21.9	OD	3890	SIP
4	744.502	22.2	OD	3875	SIP

SONIC SURVEYS
CAVERN EXPERIENCE YOU CAN DEPEND ON

Job Number: 22-363
Company: Marathon Petroleum Co., LLC
Lease/Well: State LPG Storage Well #4
Location: Jal
Rig Name: Standard Rig #54
RKB: BHF
G.L. or M.S.L.: GL

State/Country: Lea County, New Mexico
Declination:
Grid:
File name: C:\WINSERVE\110622.SVY
Date/Time: 08-Nov-22 / 09:30
Curve Name:

SONIC SURVEYS
SURFACE RECORDING GYROSCOPIC MULTI-SHOT SURVEY
RUN INSIDE 3 1/3" DRILL PIPE FROM SURFACE TO 2,600' M.D.
SURVEYOR: WILL GUIDRY
6 NOVEMBER 2022

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane .00
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00
25.00	.94	305.80	25.00	.12	-.17	.21	305.80	3.76
50.00	.97	310.20	50.00	.38	-.49	.62	307.30	.32
75.00	.87	323.50	74.99	.67	-.77	1.02	310.89	.94
100.00	.64	320.80	99.99	.93	-.97	1.34	313.69	.93
125.00	.50	317.70	124.99	1.12	-1.13	1.59	314.59	.57
150.00	.43	300.10	149.99	1.24	-1.29	1.79	314.02	.63
175.00	.46	326.40	174.99	1.37	-1.42	1.98	313.99	.82
200.00	.26	320.60	199.99	1.50	-1.51	2.13	314.75	.81
225.00	.22	324.00	224.99	1.58	-1.58	2.24	315.09	.17
250.00	.28	256.90	249.99	1.61	-1.67	2.32	313.99	1.12
275.00	.44	290.80	274.99	1.63	-1.82	2.44	311.90	1.04
300.00	.41	255.60	299.99	1.64	-1.99	2.58	309.48	1.03
325.00	.19	293.40	324.98	1.64	-2.12	2.67	307.69	1.14
350.00	.15	269.80	349.98	1.65	-2.19	2.74	307.05	.32
375.00	.19	269.50	374.98	1.65	-2.26	2.80	306.13	.16
400.00	.19	277.10	399.98	1.66	-2.34	2.87	305.23	.10
425.00	.11	274.10	424.98	1.66	-2.41	2.93	304.61	.32
450.00	.12	217.60	449.98	1.64	-2.45	2.95	303.86	.44
475.00	.17	257.00	474.98	1.61	-2.50	2.98	302.84	.43
500.00	.17	273.90	499.98	1.61	-2.57	3.04	302.00	.20
525.00	.17	248.50	524.98	1.60	-2.65	3.09	301.12	.30

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
550.00	.17	273.60	549.98	1.59	-2.72	3.15	300.27	.30
575.00	.21	272.80	574.98	1.59	-2.80	3.22	299.60	.16
600.00	.29	282.20	599.98	1.61	-2.91	3.32	298.92	.36
625.00	.21	278.90	624.98	1.63	-3.01	3.43	298.35	.33
650.00	.34	285.00	649.98	1.65	-3.13	3.54	297.83	.53
675.00	.30	291.50	674.98	1.70	-3.26	3.68	297.46	.22
700.00	.30	304.80	699.98	1.76	-3.38	3.81	297.48	.28
725.00	.30	293.20	724.98	1.82	-3.49	3.94	297.53	.24
750.00	.34	309.30	749.98	1.89	-3.61	4.08	297.68	.39
775.00	.27	336.50	774.98	1.99	-3.69	4.20	298.38	.64
800.00	.31	331.80	799.98	2.11	-3.75	4.30	299.37	.19
825.00	.23	331.80	824.98	2.21	-3.80	4.40	300.19	.32
850.00	.25	337.10	849.98	2.31	-3.85	4.49	300.94	.12
875.00	.23	319.80	874.98	2.40	-3.90	4.58	301.55	.30
900.00	.20	307.90	899.98	2.46	-3.97	4.67	301.80	.21
925.00	.26	310.50	924.98	2.52	-4.05	4.77	301.96	.24
950.00	.20	273.20	949.98	2.56	-4.13	4.86	301.81	.63
975.00	.23	281.80	974.98	2.58	-4.22	4.95	301.37	.18
1000.00	.23	267.30	999.98	2.58	-4.32	5.04	300.86	.23
1025.00	.17	288.60	1024.98	2.59	-4.41	5.12	300.46	.38
1050.00	.19	296.40	1049.98	2.62	-4.48	5.19	300.34	.13
1075.00	.27	290.10	1074.98	2.66	-4.57	5.29	300.20	.34
1100.00	.27	285.90	1099.98	2.70	-4.69	5.41	299.94	.08
1125.00	.31	293.10	1124.98	2.74	-4.80	5.53	299.71	.22
1150.00	.33	279.90	1149.98	2.78	-4.94	5.67	299.38	.30
1175.00	.35	291.40	1174.98	2.82	-5.08	5.81	299.04	.28
1200.00	.46	284.10	1199.98	2.87	-5.25	5.98	298.69	.49
1225.00	.39	278.80	1224.98	2.91	-5.43	6.16	298.19	.32
1250.00	.38	284.00	1249.98	2.94	-5.59	6.32	297.75	.15
1275.00	.44	290.40	1274.97	3.00	-5.76	6.50	297.47	.30
1300.00	.46	301.70	1299.97	3.08	-5.94	6.69	297.43	.36
1325.00	.44	303.30	1324.97	3.19	-6.11	6.89	297.57	.09
1350.00	.49	315.90	1349.97	3.32	-6.26	7.09	297.92	.45
1375.00	.41	301.90	1374.97	3.44	-6.41	7.28	298.23	.54
1400.00	.43	303.70	1399.97	3.54	-6.56	7.46	298.34	.10
1425.00	.41	317.40	1424.97	3.66	-6.70	7.64	298.63	.41
1450.00	.38	320.80	1449.97	3.79	-6.82	7.80	299.07	.15
1475.00	.41	320.70	1474.97	3.92	-6.93	7.96	299.53	.12
1500.00	.42	314.10	1499.97	4.06	-7.05	8.13	299.92	.20
1525.00	.49	304.10	1524.97	4.18	-7.20	8.33	300.13	.42
1550.00	.34	300.60	1549.97	4.28	-7.35	8.51	300.18	.61
1575.00	.27	293.90	1574.97	4.34	-7.47	8.64	300.14	.31
1600.00	.29	291.40	1599.97	4.39	-7.58	8.76	300.04	.09
1625.00	.21	302.50	1624.97	4.43	-7.68	8.87	299.99	.37
1650.00	.17	302.70	1649.97	4.48	-7.75	8.95	300.01	.16

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
1675.00	.19	300.10	1674.97	4.52	-7.82	9.03	300.02	.09
1700.00	.24	300.50	1699.97	4.57	-7.90	9.12	300.03	.20
1725.00	.25	299.50	1724.97	4.62	-7.99	9.23	300.03	.04
1750.00	.31	293.80	1749.97	4.67	-8.10	9.35	299.98	.26
1775.00	.26	354.10	1774.97	4.76	-8.17	9.45	300.21	1.16
1800.00	.34	.20	1799.96	4.89	-8.18	9.53	300.87	.34
1825.00	.36	11.40	1824.96	5.04	-8.16	9.59	301.70	.28
1850.00	.38	26.60	1849.96	5.19	-8.11	9.63	302.63	.40
1875.00	.32	6.40	1874.96	5.33	-8.06	9.67	303.49	.54
1900.00	.33	1.60	1899.96	5.48	-8.05	9.74	304.21	.12
1925.00	.38	352.90	1924.96	5.63	-8.06	9.83	304.93	.29
1950.00	.49	351.20	1949.96	5.82	-8.09	9.96	305.73	.44
1975.00	1.01	347.70	1974.96	6.14	-8.15	10.20	306.98	2.09
2000.00	.97	338.10	1999.96	6.55	-8.28	10.55	308.36	.68
2025.00	.78	349.90	2024.95	6.91	-8.39	10.87	309.51	1.04
2050.00	.40	14.40	2049.95	7.17	-8.39	11.04	310.49	1.79
2075.00	.25	32.70	2074.95	7.30	-8.34	11.08	311.17	.72
2100.00	.34	33.60	2099.95	7.40	-8.27	11.10	311.83	.36
2125.00	.33	49.10	2124.95	7.51	-8.18	11.10	312.58	.36
2150.00	.38	43.90	2149.95	7.62	-8.06	11.09	313.38	.24
2175.00	.36	30.20	2174.95	7.75	-7.97	11.11	314.20	.36
2200.00	.58	42.60	2199.95	7.91	-7.84	11.14	315.24	.96
2225.00	.59	15.90	2224.95	8.13	-7.72	11.21	316.46	1.08
2250.00	1.17	349.10	2249.94	8.50	-7.73	11.49	317.70	2.78
2275.00	1.81	349.60	2274.94	9.14	-7.85	12.05	319.32	2.56
2300.00	2.14	346.60	2299.92	9.98	-8.03	12.81	321.17	1.38
2325.00	1.88	346.40	2324.91	10.83	-8.24	13.61	322.75	1.04
2350.00	1.25	344.60	2349.90	11.50	-8.41	14.24	323.82	2.53
2375.00	.64	357.30	2374.89	11.90	-8.49	14.61	324.50	2.57
2400.00	.17	354.40	2399.89	12.07	-8.50	14.76	324.87	1.88
2425.00	.05	71.50	2424.89	12.11	-8.49	14.79	324.98	.66
2450.00	.43	230.90	2449.89	12.06	-8.55	14.78	324.66	1.91
2475.00	1.22	225.00	2474.89	11.81	-8.81	14.74	323.27	3.17
2500.00	1.00	234.40	2499.88	11.50	-9.18	14.71	321.40	1.14
2525.00	.48	233.30	2524.88	11.31	-9.44	14.73	320.14	2.08
2550.00	.16	218.40	2549.88	11.22	-9.55	14.73	319.60	1.31
2575.00	.29	205.80	2574.88	11.13	-9.59	14.70	319.24	.55
2600.00	.28	205.40	2599.88	11.02	-9.65	14.65	318.80	.04

SONIC SURVEYS
CAVERN EXPERIENCE YOU CAN DEPEND ON

FLODIM
Challenging the limits

Sonar Survey Report
Marathon Petroleum
State LPG Well No. 4
Jal
Lea County, New Mexico
November 9, 2022



Survey Conducted by: Richard Lawrence
Company Representative: Mr. Ray Musselwhite

Serving the Storage Well Industry Since 1978

SONIC SURVEYS
CAVERN EXPERIENCE YOU CAN DEPEND ON

FLODIM
Challenging the limits

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SONIC SURVEYS
CAVERN EXPERIENCE YOU CAN DEPEND ON

FLODIM
Challenging the limits

Well Information

Company:	Marathon Petroleum
State:	New Mexico
County:	Lea
Field:	Jal
Well:	State LPG Well No. 4
API No.:	30-025-35956

Cemented Casing:	9-5/8” @ 1666’
Hanging String:	3-1/2” @ 2598’
Total Depth:	2609.3’

Permanent Datum:	BHF 0’
Depth Correction:	+10’

Total Volume BBL:	141,137.17
Total Volume Ft^3:	792,426.40

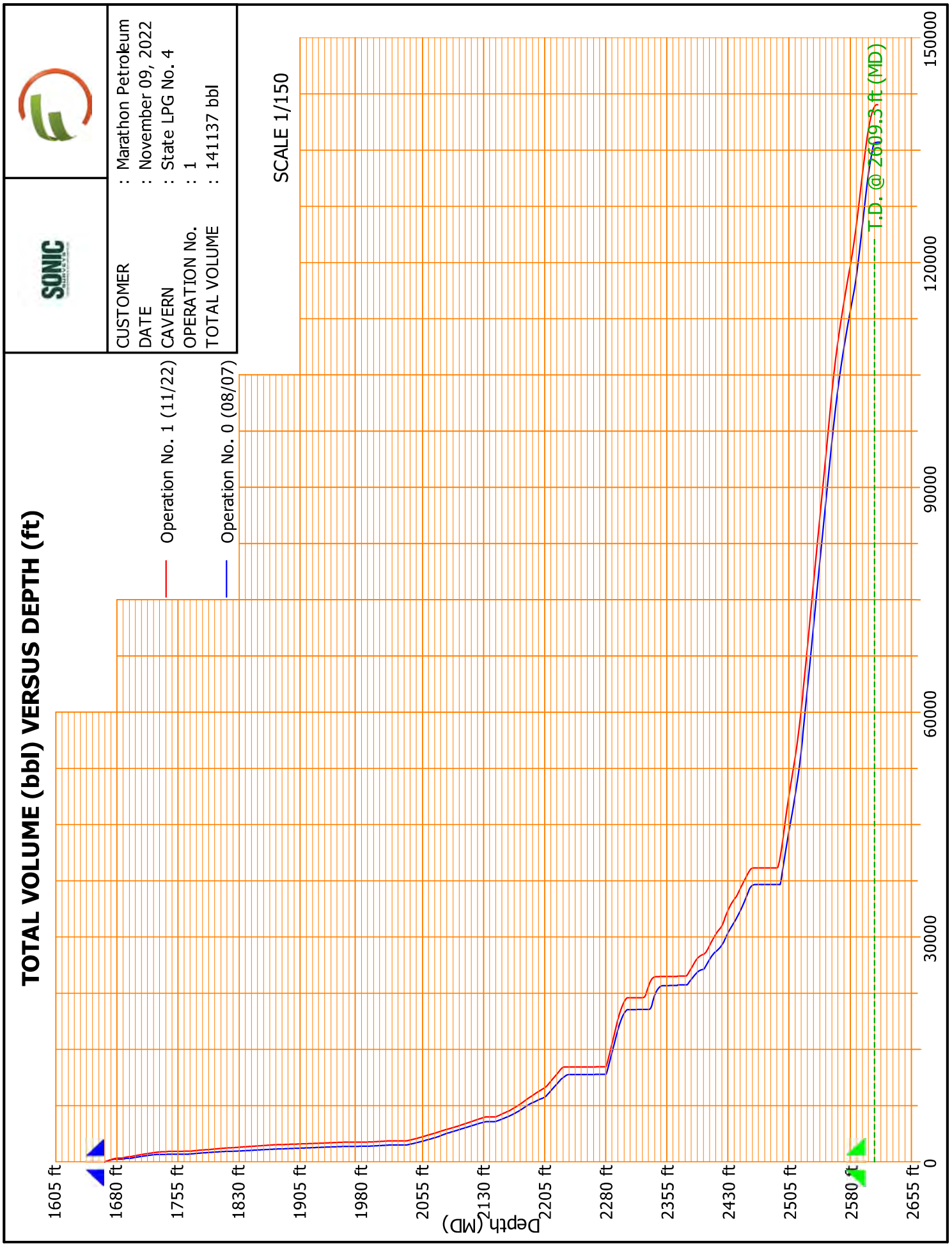
All Sections are orientated to Magnetic North.

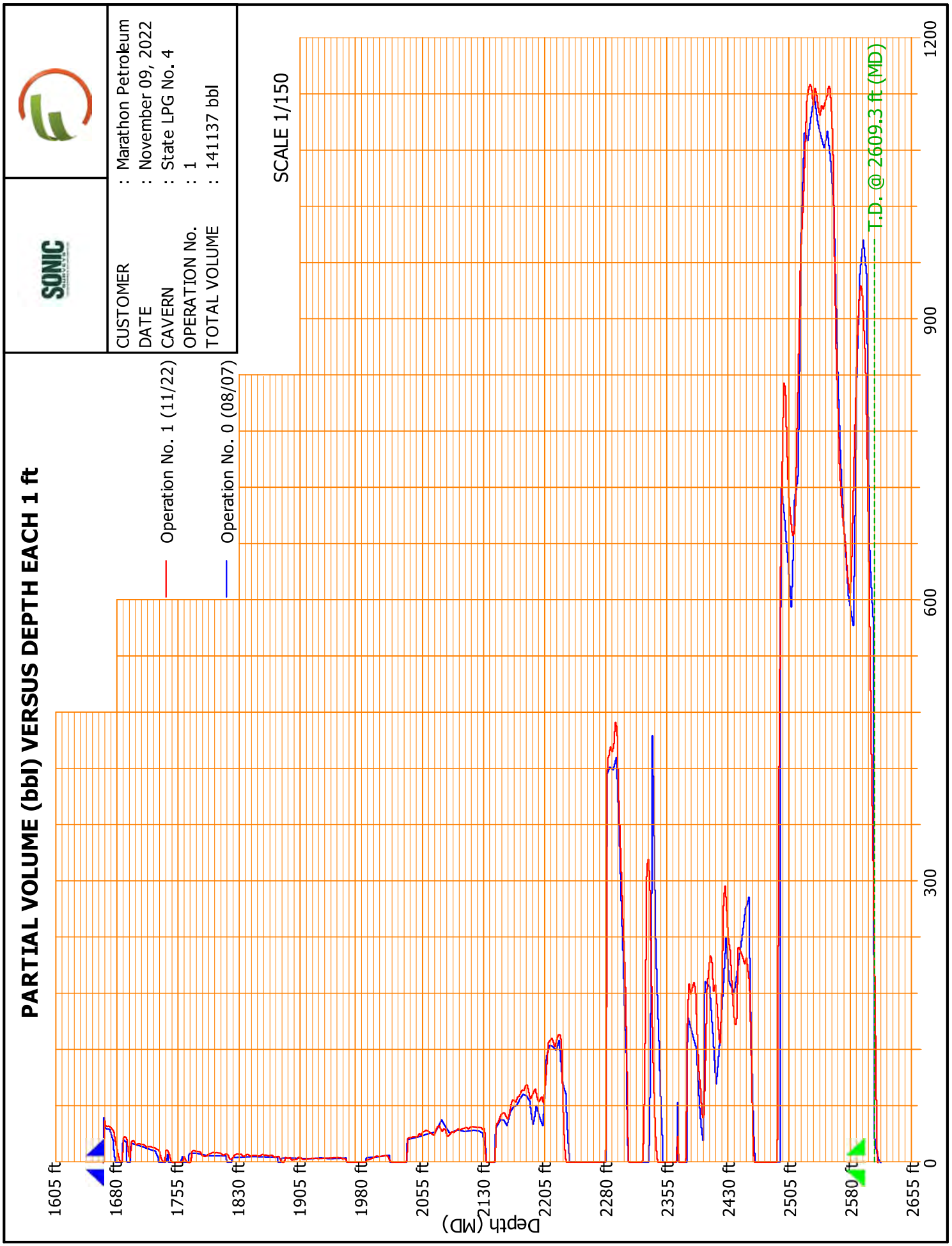
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CAVERN EXPERIENCE YOU CAN DEPEND ON

FLODIM
Challenging the limits

List of Acquired Measurements

- Oriented circular horizontal sections from 1666 ft to 2606 ft, with a step of 2 feet.
- Up-tilted orientated circular sections from 2600 ft 5°, 10°, 15°, 20°, 25°, 30°, 35°, 39°, 42°, 45°, 48°, 51°, 54°, 57°, 60°, 63°, 66°, 69°, 72°, 75°, 78°, 81°, 84°, 86° with respect to the horizontal.
- Down-tilted orientated circular sections from 2600 ft -5°, -10°, -15°, -20°, -25°, -30°, -35°, -40°, -45°, -48°, -51°, -54°, -57°, -60°, -63°, -66°, -69°, -72°, -75°, -78°, -81°, -84°, -86° with respect to the horizontal.
- 1 complimentary measurement to determine the cavity floor depth.

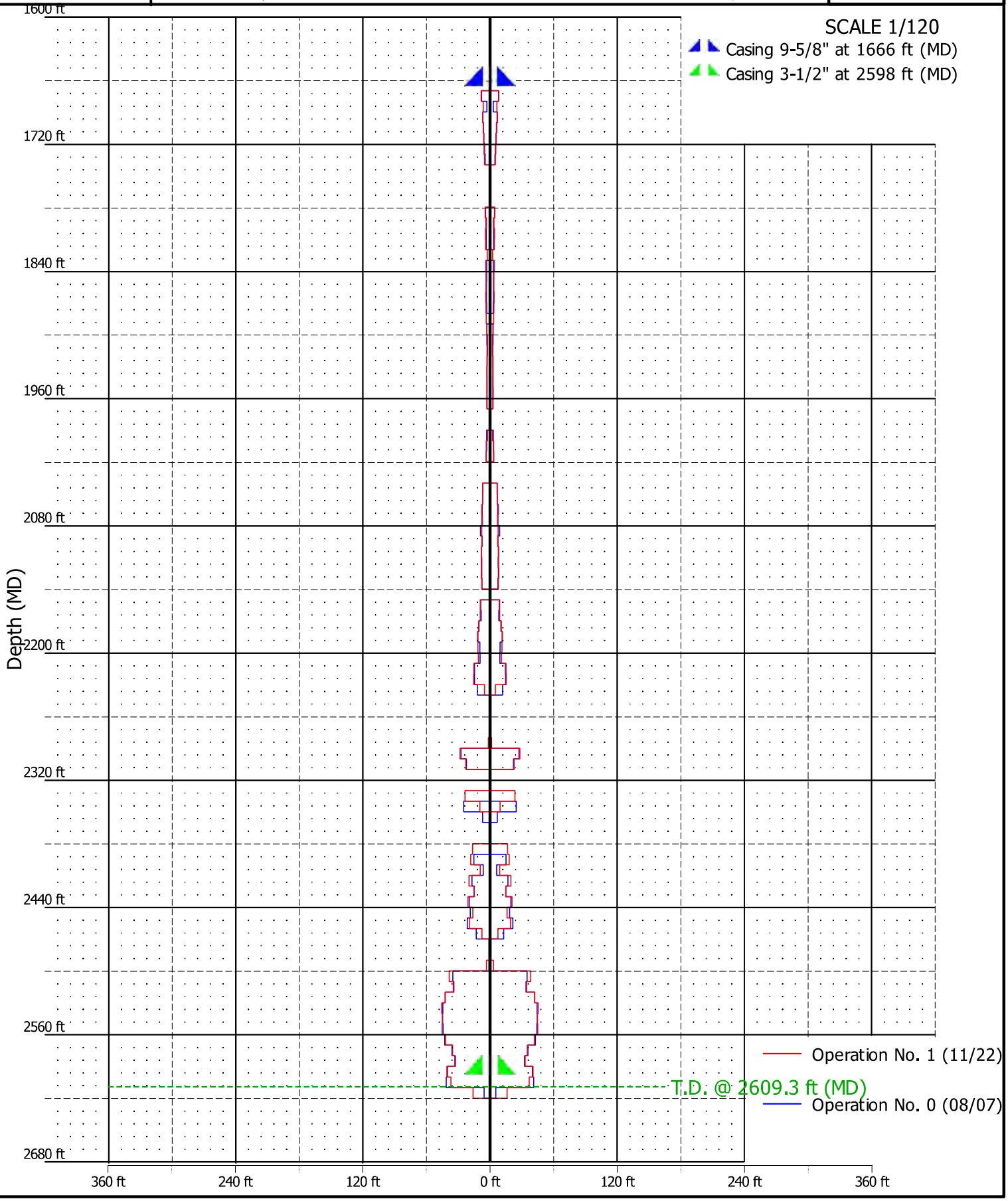

TOTAL VOLUME (bbl) VERSUS DEPTH (ft)
SONIC SURVEYS
CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN : State LPG No. 4
OPERATION No. : 1
TOTAL VOLUME : 141137 bbl
SCALE 1/150
Operation No. 1 (11/22)
Operation No. 0 (08/07)
T.D. @ 2609.3 ft (MD)
Depth (MD)
1605 ft
1680 ft
1755 ft
1830 ft
1905 ft
1980 ft
2055 ft
2130 ft
2205 ft
2280 ft
2355 ft
2430 ft
2505 ft
2580 ft
2655 ft
0
30000
60000
90000
120000
150000


PARTIAL VOLUME (bbl) VERSUS DEPTH EACH 1 ft
SONIC SURVEYS
CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN : State LPG No. 4
OPERATION No. : 1
TOTAL VOLUME : 141137 bbl
SCALE 1/150
Operation No. 1 (11/22)
Operation No. 0 (08/07)
T.D. @ 2609.3 ft (MD)
Depth (MD)
1605 ft
1680 ft
1755 ft
1830 ft
1905 ft
1980 ft
2055 ft
2130 ft
2205 ft
2280 ft
2355 ft
2430 ft
2505 ft
2580 ft
2655 ft
0
300
600
900
1200

SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

MEAN RADIUS



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SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN : State LPG No. 4
OPERATION No. : 1
1

MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
1666.00	25.45	25.45	-	-	-	-	-	-	-	-	-
1667.00	69.85	44.40	-	-	-	-	-	-	-	-	-
1668.00	108.98	39.13	-	-	-	-	-	-	-	-	-
1669.00	147.56	38.58	-	-	-	-	-	-	-	-	-
1670.00	**185.79**	**38.23**	**214.08**	**8.25**	**16.51**	**8.04**	**8.59**	**39.00**	**16.22**	**16.80**	**39.00**
1671.00	224.39	38.59	-	-	-	-	-	-	-	-	-
1672.00	263.18	38.79	-	-	-	-	-	-	-	-	-
1673.00	301.38	38.20	-	-	-	-	-	-	-	-	-
1674.00	338.86	37.48	-	-	-	-	-	-	-	-	-
1675.00	375.32	36.46	-	-	-	-	-	-	-	-	-
1676.00	410.73	35.41	-	-	-	-	-	-	-	-	-
1677.00	445.04	34.31	-	-	-	-	-	-	-	-	-
1678.00	477.38	32.34	-	-	-	-	-	-	-	-	-
1679.00	504.63	27.25	-	-	-	-	-	-	-	-	-
1680.00	**527.05**	**22.42**	**129.74**	**6.43**	**12.85**	**5.74**	**7.23**	**279.00**	**12.01**	**13.96**	**36.00**
1681.00	545.11	18.06	-	-	-	-	-	-	-	-	-
1682.00	559.10	13.99	-	-	-	-	-	-	-	-	-
1683.00	568.83	9.72	-	-	-	-	-	-	-	-	-
1684.00	574.75	5.93	-	-	-	-	-	-	-	-	-
1685.00	577.06	2.31	-	-	-	-	-	-	-	-	-
1686.00	577.61	0.55	-	-	-	-	-	-	-	-	-
1687.00	577.94	0.32	-	-	-	-	-	-	-	-	-
1688.00	579.04	1.10	-	-	-	-	-	-	-	-	-
1689.00	589.71	10.67	-	-	-	-	-	-	-	-	-
1690.00	**615.99**	**26.28**	**154.56**	**7.01**	**14.03**	**6.34**	**7.75**	**342.00**	**6.97**	**14.67**	**162.00**
1691.00	643.30	27.31	-	-	-	-	-	-	-	-	-
1692.00	670.34	27.03	-	-	-	-	-	-	-	-	-
1693.00	696.73	26.40	-	-	-	-	-	-	-	-	-
1694.00	721.06	24.33	-	-	-	-	-	-	-	-	-
1695.00	738.27	17.21	-	-	-	-	-	-	-	-	-
1696.00	749.40	11.13	-	-	-	-	-	-	-	-	-
1697.00	756.06	6.66	-	-	-	-	-	-	-	-	-
1698.00	761.09	5.03	-	-	-	-	-	-	-	-	-
1699.00	773.69	12.60	-	-	-	-	-	-	-	-	-
1700.00	**795.74**	**22.05**	**126.93**	**6.36**	**12.71**	**5.89**	**6.86**	**342.00**	**12.16**	**13.05**	**6.00**
1701.00	818.95	23.21	-	-	-	-	-	-	-	-	-

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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN : State LPG No. 4
OPERATION No. : 1
2

MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
1702.00	842.37	23.42	-	-	-	-	-	-	-	-	-
1703.00	864.79	22.42	-	-	-	-	-	-	-	-	-
1704.00	886.06	21.27	-	-	-	-	-	-	-	-	-
1705.00	905.84	19.78	-	-	-	-	-	-	-	-	-
1706.00	924.60	18.77	-	-	-	-	-	-	-	-	-
1707.00	944.02	19.42	-	-	-	-	-	-	-	-	-
1708.00	964.00	19.98	-	-	-	-	-	-	-	-	-
1709.00	983.82	19.82	-	-	-	-	-	-	-	-	-
1710.00	**1003.45**	**19.63**	**110.37**	**5.93**	**11.85**	**5.56**	**6.29**	**318.00**	**11.65**	**12.21**	**72.00**
1711.00	1022.90	19.45	-	-	-	-	-	-	-	-	-
1712.00	1042.20	19.30	-	-	-	-	-	-	-	-	-
1713.00	1061.52	19.32	-	-	-	-	-	-	-	-	-
1714.00	1080.75	19.23	-	-	-	-	-	-	-	-	-
1715.00	1099.46	18.72	-	-	-	-	-	-	-	-	-
1716.00	1117.55	18.09	-	-	-	-	-	-	-	-	-
1717.00	1134.73	17.18	-	-	-	-	-	-	-	-	-
1718.00	1151.21	16.48	-	-	-	-	-	-	-	-	-
1719.00	1167.76	16.55	-	-	-	-	-	-	-	-	-
1720.00	**1184.43**	**16.67**	**93.50**	**5.46**	**10.91**	**5.13**	**5.95**	**294.06**	**10.59**	**11.47**	**72.00**
1721.00	1201.23	16.80	-	-	-	-	-	-	-	-	-
1722.00	1218.10	16.87	-	-	-	-	-	-	-	-	-
1723.00	1234.83	16.73	-	-	-	-	-	-	-	-	-
1724.00	1251.35	16.51	-	-	-	-	-	-	-	-	-
1725.00	1267.39	16.05	-	-	-	-	-	-	-	-	-
1726.00	1283.11	15.71	-	-	-	-	-	-	-	-	-
1727.00	1298.98	15.87	-	-	-	-	-	-	-	-	-
1728.00	1314.83	15.85	-	-	-	-	-	-	-	-	-
1729.00	1329.82	14.99	-	-	-	-	-	-	-	-	-
1730.00	**1344.06**	**14.25**	**79.94**	**5.04**	**10.09**	**4.49**	**5.51**	**300.00**	**9.85**	**10.45**	**24.00**
1731.00	1358.13	14.07	-	-	-	-	-	-	-	-	-
1732.00	1371.92	13.79	-	-	-	-	-	-	-	-	-
1733.00	1384.92	13.00	-	-	-	-	-	-	-	-	-
1734.00	1396.35	11.43	-	-	-	-	-	-	-	-	-
1735.00	1403.93	7.58	-	-	-	-	-	-	-	-	-
1736.00	1408.49	4.56	-	-	-	-	-	-	-	-	-
1737.00	1411.13	2.64	-	-	-	-	-	-	-	-	-

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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN : State LPG No. 4
OPERATION No. : 1
3

MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
1738.00	1412.41	1.28	-	-	-	-	-	-	-	-	-
1739.00	1412.89	0.48	-	-	-	-	-	-	-	-	-
1740.00	**1413.52**	**0.63**	**0.92**	**0.54**	**1.08**	**0.53**	**0.55**	**54.00**	**1.07**	**1.09**	**84.00**
1741.00	1418.94	5.42	-	-	-	-	-	-	-	-	-
1742.00	1431.85	12.91	-	-	-	-	-	-	-	-	-
1743.00	1445.04	13.19	-	-	-	-	-	-	-	-	-
1744.00	1457.61	12.57	-	-	-	-	-	-	-	-	-
1745.00	1468.39	10.78	-	-	-	-	-	-	-	-	-
1746.00	1476.86	8.46	-	-	-	-	-	-	-	-	-
1747.00	1481.41	4.56	-	-	-	-	-	-	-	-	-
1748.00	1483.32	1.91	-	-	-	-	-	-	-	-	-
1749.00	1483.93	0.61	-	-	-	-	-	-	-	-	-
1750.00	**1484.01**	**0.08**	**0.37**	**0.35**	**0.69**	**0.35**	**0.35**	**24.00**	**0.35**	**0.69**	**156.00**
1751.00	1484.08	0.07	-	-	-	-	-	-	-	-	-
1752.00	1484.15	0.07	-	-	-	-	-	-	-	-	-
1753.00	1484.25	0.10	-	-	-	-	-	-	-	-	-
1754.00	1484.37	0.12	-	-	-	-	-	-	-	-	-
1755.00	1484.51	0.14	-	-	-	-	-	-	-	-	-
1756.00	1484.65	0.15	-	-	-	-	-	-	-	-	-
1757.00	1484.80	0.15	-	-	-	-	-	-	-	-	-
1758.00	1484.95	0.15	-	-	-	-	-	-	-	-	-
1759.00	1485.09	0.15	-	-	-	-	-	-	-	-	-
1760.00	**1485.24**	**0.15**	**0.82**	**0.51**	**1.02**	**0.51**	**0.51**	**12.00**	**0.51**	**1.03**	**102.00**
1761.00	1485.39	0.15	-	-	-	-	-	-	-	-	-
1762.00	1485.82	0.43	-	-	-	-	-	-	-	-	-
1763.00	1488.68	2.86	-	-	-	-	-	-	-	-	-
1764.00	1494.72	6.05	-	-	-	-	-	-	-	-	-
1765.00	1499.07	4.35	-	-	-	-	-	-	-	-	-
1766.00	1501.61	2.53	-	-	-	-	-	-	-	-	-
1767.00	1502.46	0.85	-	-	-	-	-	-	-	-	-
1768.00	1502.58	0.12	-	-	-	-	-	-	-	-	-
1769.00	1502.67	0.08	-	-	-	-	-	-	-	-	-
1770.00	**1502.73**	**0.07**	**0.37**	**0.35**	**0.69**	**0.35**	**0.35**	**12.00**	**0.35**	**0.69**	**168.00**
1771.00	1502.80	0.07	-	-	-	-	-	-	-	-	-
1772.00	1503.27	0.47	-	-	-	-	-	-	-	-	-
1773.00	1508.04	4.77	-	-	-	-	-	-	-	-	-

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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN : State LPG No. 4
OPERATION No. : 1
4

MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
1774.00	1519.86	11.83	-	-	-	-	-	-	-	-	-
1775.00	1532.42	12.56	-	-	-	-	-	-	-	-	-
1776.00	1545.05	12.63	-	-	-	-	-	-	-	-	-
1777.00	1557.30	12.25	-	-	-	-	-	-	-	-	-
1778.00	1569.22	11.92	-	-	-	-	-	-	-	-	-
1779.00	1581.07	11.85	-	-	-	-	-	-	-	-	-
1780.00	**1592.85**	**11.78**	**66.32**	**4.59**	**9.19**	**4.15**	**5.00**	**24.00**	**8.93**	**9.53**	**78.00**
1781.00	1604.48	11.63	-	-	-	-	-	-	-	-	-
1782.00	1615.98	11.50	-	-	-	-	-	-	-	-	-
1783.00	1627.43	11.45	-	-	-	-	-	-	-	-	-
1784.00	1638.40	10.97	-	-	-	-	-	-	-	-	-
1785.00	1647.38	8.98	-	-	-	-	-	-	-	-	-
1786.00	1654.82	7.45	-	-	-	-	-	-	-	-	-
1787.00	1661.90	7.08	-	-	-	-	-	-	-	-	-
1788.00	1668.65	6.75	-	-	-	-	-	-	-	-	-
1789.00	1675.08	6.43	-	-	-	-	-	-	-	-	-
1790.00	**1681.37**	**6.29**	**34.98**	**3.34**	**6.67**	**2.79**	**4.14**	**282.00**	**6.14**	**7.59**	**102.00**
1791.00	1688.04	6.67	-	-	-	-	-	-	-	-	-
1792.00	1695.21	7.17	-	-	-	-	-	-	-	-	-
1793.00	1703.20	7.98	-	-	-	-	-	-	-	-	-
1794.00	1711.95	8.75	-	-	-	-	-	-	-	-	-
1795.00	1721.02	9.07	-	-	-	-	-	-	-	-	-
1796.00	1730.40	9.37	-	-	-	-	-	-	-	-	-
1797.00	1740.09	9.69	-	-	-	-	-	-	-	-	-
1798.00	1750.12	10.04	-	-	-	-	-	-	-	-	-
1799.00	1760.54	10.42	-	-	-	-	-	-	-	-	-
1800.00	**1771.20**	**10.66**	**60.40**	**4.38**	**8.77**	**3.84**	**4.90**	**354.00**	**8.28**	**9.25**	**174.00**
1801.00	1781.49	10.29	-	-	-	-	-	-	-	-	-
1802.00	1791.50	10.01	-	-	-	-	-	-	-	-	-
1803.00	1801.74	10.24	-	-	-	-	-	-	-	-	-
1804.00	1812.15	10.41	-	-	-	-	-	-	-	-	-
1805.00	1822.35	10.19	-	-	-	-	-	-	-	-	-
1806.00	1832.36	10.02	-	-	-	-	-	-	-	-	-
1807.00	1842.39	10.03	-	-	-	-	-	-	-	-	-
1808.00	1852.35	9.96	-	-	-	-	-	-	-	-	-
1809.00	1861.92	9.56	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
1810.00	**1870.98**	**9.07**	**51.70**	**4.06**	**8.11**	**3.58**	**4.43**	**240.03**	**7.81**	**8.72**	**60.00**
1811.00	1879.27	8.28	-	-	-	-	-	-	-	-	-
1812.00	1887.02	7.75	-	-	-	-	-	-	-	-	-
1813.00	1895.13	8.11	-	-	-	-	-	-	-	-	-
1814.00	1903.64	8.51	-	-	-	-	-	-	-	-	-
1815.00	1912.41	8.77	-	-	-	-	-	-	-	-	-
1816.00	1921.30	8.89	-	-	-	-	-	-	-	-	-
1817.00	1929.80	8.50	-	-	-	-	-	-	-	-	-
1818.00	1937.45	7.65	-	-	-	-	-	-	-	-	-
1819.00	1942.83	5.38	-	-	-	-	-	-	-	-	-
1820.00	**1946.59**	**3.77**	**20.98**	**2.58**	**5.17**	**2.31**	**3.26**	**168.01**	**4.62**	**5.87**	**0.00**
1821.00	1950.05	3.46	-	-	-	-	-	-	-	-	-
1822.00	1953.51	3.46	-	-	-	-	-	-	-	-	-
1823.00	1957.77	4.26	-	-	-	-	-	-	-	-	-
1824.00	1963.05	5.28	-	-	-	-	-	-	-	-	-
1825.00	1969.67	6.62	-	-	-	-	-	-	-	-	-
1826.00	1977.57	7.90	-	-	-	-	-	-	-	-	-
1827.00	1985.95	8.38	-	-	-	-	-	-	-	-	-
1828.00	1994.71	8.76	-	-	-	-	-	-	-	-	-
1829.00	2003.61	8.90	-	-	-	-	-	-	-	-	-
1830.00	**2012.56**	**8.95**	**50.75**	**4.02**	**8.04**	**3.44**	**4.42**	**258.00**	**7.48**	**8.63**	**12.00**
1831.00	2021.14	8.58	-	-	-	-	-	-	-	-	-
1832.00	2029.49	8.35	-	-	-	-	-	-	-	-	-
1833.00	2038.18	8.69	-	-	-	-	-	-	-	-	-
1834.00	2046.95	8.77	-	-	-	-	-	-	-	-	-
1835.00	2054.67	7.72	-	-	-	-	-	-	-	-	-
1836.00	2061.48	6.80	-	-	-	-	-	-	-	-	-
1837.00	2067.91	6.43	-	-	-	-	-	-	-	-	-
1838.00	2074.27	6.36	-	-	-	-	-	-	-	-	-
1839.00	2081.48	7.21	-	-	-	-	-	-	-	-	-
1840.00	**2089.53**	**8.05**	**45.08**	**3.79**	**7.58**	**3.48**	**4.42**	**270.02**	**7.11**	**8.11**	**126.00**
1841.00	2097.99	8.46	-	-	-	-	-	-	-	-	-
1842.00	2106.62	8.63	-	-	-	-	-	-	-	-	-
1843.00	2114.63	8.01	-	-	-	-	-	-	-	-	-
1844.00	2122.01	7.38	-	-	-	-	-	-	-	-	-
1845.00	2128.84	6.83	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
1846.00	2135.38	6.55	-	-	-	-	-	-	-	-	-
1847.00	2142.43	7.05	-	-	-	-	-	-	-	-	-
1848.00	2149.94	7.51	-	-	-	-	-	-	-	-	-
1849.00	2157.46	7.52	-	-	-	-	-	-	-	-	-
1850.00	**2164.95**	**7.50**	**42.11**	**3.66**	**7.32**	**3.30**	**4.20**	**312.00**	**6.96**	**7.83**	**132.00**
1851.00	2172.44	7.49	-	-	-	-	-	-	-	-	-
1852.00	2179.88	7.44	-	-	-	-	-	-	-	-	-
1853.00	2187.16	7.27	-	-	-	-	-	-	-	-	-
1854.00	2194.23	7.08	-	-	-	-	-	-	-	-	-
1855.00	2200.96	6.73	-	-	-	-	-	-	-	-	-
1856.00	2207.51	6.55	-	-	-	-	-	-	-	-	-
1857.00	2214.53	7.02	-	-	-	-	-	-	-	-	-
1858.00	2222.09	7.57	-	-	-	-	-	-	-	-	-
1859.00	2230.22	8.13	-	-	-	-	-	-	-	-	-
1860.00	**2238.68**	**8.46**	**47.98**	**3.91**	**7.82**	**3.57**	**4.37**	**318.09**	**7.35**	**8.36**	**102.00**
1861.00	2246.66	7.98	-	-	-	-	-	-	-	-	-
1862.00	2254.31	7.65	-	-	-	-	-	-	-	-	-
1863.00	2262.08	7.78	-	-	-	-	-	-	-	-	-
1864.00	2269.92	7.84	-	-	-	-	-	-	-	-	-
1865.00	2277.48	7.56	-	-	-	-	-	-	-	-	-
1866.00	2284.77	7.29	-	-	-	-	-	-	-	-	-
1867.00	2291.90	7.13	-	-	-	-	-	-	-	-	-
1868.00	2298.97	7.07	-	-	-	-	-	-	-	-	-
1869.00	2306.34	7.36	-	-	-	-	-	-	-	-	-
1870.00	**2313.96**	**7.62**	**42.90**	**3.70**	**7.39**	**3.14**	**4.20**	**60.00**	**6.60**	**8.17**	**66.00**
1871.00	2321.56	7.61	-	-	-	-	-	-	-	-	-
1872.00	2328.93	7.37	-	-	-	-	-	-	-	-	-
1873.00	2335.29	6.36	-	-	-	-	-	-	-	-	-
1874.00	2340.94	5.65	-	-	-	-	-	-	-	-	-
1875.00	2346.87	5.93	-	-	-	-	-	-	-	-	-
1876.00	2353.06	6.18	-	-	-	-	-	-	-	-	-
1877.00	2359.10	6.04	-	-	-	-	-	-	-	-	-
1878.00	2365.11	6.00	-	-	-	-	-	-	-	-	-
1879.00	2371.45	6.34	-	-	-	-	-	-	-	-	-
1880.00	**2377.63**	**6.19**	**37.35**	**3.45**	**6.90**	**2.94**	**4.21**	**228.00**	**5.91**	**7.60**	**48.00**
1881.00	2381.91	4.27	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
1882.00	2384.43	2.52	-	-	-	-	-	-	-	-	-
1883.00	2385.29	0.87	-	-	-	-	-	-	-	-	-
1884.00	2385.43	0.14	-	-	-	-	-	-	-	-	-
1885.00	2385.55	0.11	-	-	-	-	-	-	-	-	-
1886.00	2385.81	0.27	-	-	-	-	-	-	-	-	-
1887.00	2387.89	2.07	-	-	-	-	-	-	-	-	-
1888.00	2393.05	5.16	-	-	-	-	-	-	-	-	-
1889.00	2398.18	5.13	-	-	-	-	-	-	-	-	-
1890.00	**2402.84**	**4.66**	**26.33**	**2.90**	**5.79**	**2.59**	**3.36**	**90.00**	**5.21**	**6.34**	**60.00**
1891.00	2407.26	4.42	-	-	-	-	-	-	-	-	-
1892.00	2411.61	4.35	-	-	-	-	-	-	-	-	-
1893.00	2416.47	4.86	-	-	-	-	-	-	-	-	-
1894.00	2421.47	5.00	-	-	-	-	-	-	-	-	-
1895.00	2425.01	3.54	-	-	-	-	-	-	-	-	-
1896.00	2427.52	2.50	-	-	-	-	-	-	-	-	-
1897.00	2430.10	2.58	-	-	-	-	-	-	-	-	-
1898.00	2432.84	2.74	-	-	-	-	-	-	-	-	-
1899.00	2435.75	2.91	-	-	-	-	-	-	-	-	-
1900.00	**2438.80**	**3.06**	**17.13**	**2.33**	**4.67**	**2.16**	**2.83**	**30.00**	**4.34**	**5.19**	**30.00**
1901.00	2441.93	3.12	-	-	-	-	-	-	-	-	-
1902.00	2445.31	3.38	-	-	-	-	-	-	-	-	-
1903.00	2449.66	4.35	-	-	-	-	-	-	-	-	-
1904.00	2454.94	5.28	-	-	-	-	-	-	-	-	-
1905.00	2460.45	5.51	-	-	-	-	-	-	-	-	-
1906.00	2465.96	5.51	-	-	-	-	-	-	-	-	-
1907.00	2470.73	4.78	-	-	-	-	-	-	-	-	-
1908.00	2474.80	4.07	-	-	-	-	-	-	-	-	-
1909.00	2478.23	3.42	-	-	-	-	-	-	-	-	-
1910.00	**2481.20**	**2.97**	**16.39**	**2.28**	**4.57**	**2.05**	**2.60**	**42.00**	**4.26**	**4.92**	**42.00**
1911.00	2484.27	3.07	-	-	-	-	-	-	-	-	-
1912.00	2487.48	3.21	-	-	-	-	-	-	-	-	-
1913.00	2490.82	3.35	-	-	-	-	-	-	-	-	-
1914.00	2494.31	3.49	-	-	-	-	-	-	-	-	-
1915.00	2497.95	3.64	-	-	-	-	-	-	-	-	-
1916.00	2501.74	3.79	-	-	-	-	-	-	-	-	-
1917.00	2505.68	3.94	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
1918.00	2509.78	4.10	-	-	-	-	-	-	-	-	-
1919.00	2514.04	4.26	-	-	-	-	-	-	-	-	-
1920.00	**2518.42**	**4.39**	**24.69**	**2.80**	**5.61**	**2.61**	**3.19**	**156.00**	**5.33**	**6.03**	**48.00**
1921.00	2522.80	4.38	-	-	-	-	-	-	-	-	-
1922.00	2527.17	4.37	-	-	-	-	-	-	-	-	-
1923.00	2531.52	4.35	-	-	-	-	-	-	-	-	-
1924.00	2535.87	4.34	-	-	-	-	-	-	-	-	-
1925.00	2540.21	4.35	-	-	-	-	-	-	-	-	-
1926.00	2544.52	4.31	-	-	-	-	-	-	-	-	-
1927.00	2548.61	4.09	-	-	-	-	-	-	-	-	-
1928.00	2552.56	3.94	-	-	-	-	-	-	-	-	-
1929.00	2556.58	4.02	-	-	-	-	-	-	-	-	-
1930.00	**2560.69**	**4.12**	**23.08**	**2.71**	**5.42**	**2.40**	**3.51**	**251.95**	**4.83**	**6.27**	**18.00**
1931.00	2564.86	4.16	-	-	-	-	-	-	-	-	-
1932.00	2569.07	4.21	-	-	-	-	-	-	-	-	-
1933.00	2573.32	4.25	-	-	-	-	-	-	-	-	-
1934.00	2577.62	4.30	-	-	-	-	-	-	-	-	-
1935.00	2581.97	4.35	-	-	-	-	-	-	-	-	-
1936.00	2586.36	4.39	-	-	-	-	-	-	-	-	-
1937.00	2590.80	4.44	-	-	-	-	-	-	-	-	-
1938.00	2595.28	4.49	-	-	-	-	-	-	-	-	-
1939.00	2599.82	4.53	-	-	-	-	-	-	-	-	-
1940.00	**2604.40**	**4.58**	**25.68**	**2.86**	**5.72**	**2.57**	**3.35**	**253.28**	**5.31**	**6.35**	**24.00**
1941.00	2609.03	4.63	-	-	-	-	-	-	-	-	-
1942.00	2613.71	4.68	-	-	-	-	-	-	-	-	-
1943.00	2618.44	4.73	-	-	-	-	-	-	-	-	-
1944.00	2623.22	4.78	-	-	-	-	-	-	-	-	-
1945.00	2628.04	4.83	-	-	-	-	-	-	-	-	-
1946.00	2632.92	4.88	-	-	-	-	-	-	-	-	-
1947.00	2637.85	4.93	-	-	-	-	-	-	-	-	-
1948.00	2642.83	4.98	-	-	-	-	-	-	-	-	-
1949.00	2647.87	5.03	-	-	-	-	-	-	-	-	-
1950.00	**2652.95**	**5.09**	**28.51**	**3.01**	**6.02**	**2.70**	**3.58**	**204.00**	**5.48**	**6.74**	**24.00**
1951.00	2658.09	5.14	-	-	-	-	-	-	-	-	-
1952.00	2663.24	5.15	-	-	-	-	-	-	-	-	-
1953.00	2668.21	4.98	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
1954.00	2673.06	4.85	-	-	-	-	-	-	-	-	-
1955.00	2678.00	4.94	-	-	-	-	-	-	-	-	-
1956.00	2682.87	4.87	-	-	-	-	-	-	-	-	-
1957.00	2687.02	4.15	-	-	-	-	-	-	-	-	-
1958.00	2690.66	3.64	-	-	-	-	-	-	-	-	-
1959.00	2694.59	3.94	-	-	-	-	-	-	-	-	-
1960.00	**2698.78**	**4.19**	**23.97**	**2.76**	**5.52**	**2.63**	**2.99**	**300.00**	**5.27**	**5.84**	**0.00**
1961.00	2702.71	3.92	-	-	-	-	-	-	-	-	-
1962.00	2705.87	3.16	-	-	-	-	-	-	-	-	-
1963.00	2707.04	1.17	-	-	-	-	-	-	-	-	-
1964.00	2707.27	0.23	-	-	-	-	-	-	-	-	-
1965.00	2707.46	0.19	-	-	-	-	-	-	-	-	-
1966.00	2707.66	0.20	-	-	-	-	-	-	-	-	-
1967.00	2707.88	0.22	-	-	-	-	-	-	-	-	-
1968.00	2708.12	0.24	-	-	-	-	-	-	-	-	-
1969.00	2708.35	0.24	-	-	-	-	-	-	-	-	-
1970.00	**2708.59**	**0.24**	**1.34**	**0.65**	**1.31**	**0.65**	**0.82**	**132.00**	**0.65**	**1.47**	**132.00**
1971.00	2708.83	0.24	-	-	-	-	-	-	-	-	-
1972.00	2709.07	0.24	-	-	-	-	-	-	-	-	-
1973.00	2709.31	0.24	-	-	-	-	-	-	-	-	-
1974.00	2709.55	0.24	-	-	-	-	-	-	-	-	-
1975.00	2709.79	0.24	-	-	-	-	-	-	-	-	-
1976.00	2710.03	0.24	-	-	-	-	-	-	-	-	-
1977.00	2710.27	0.24	-	-	-	-	-	-	-	-	-
1978.00	2710.50	0.24	-	-	-	-	-	-	-	-	-
1979.00	2710.74	0.24	-	-	-	-	-	-	-	-	-
1980.00	**2710.98**	**0.24**	**1.33**	**0.65**	**1.30**	**0.65**	**0.73**	**215.96**	**0.65**	**1.38**	**36.00**
1981.00	2711.22	0.24	-	-	-	-	-	-	-	-	-
1982.00	2711.46	0.24	-	-	-	-	-	-	-	-	-
1983.00	2711.69	0.24	-	-	-	-	-	-	-	-	-
1984.00	2711.93	0.24	-	-	-	-	-	-	-	-	-
1985.00	2712.17	0.24	-	-	-	-	-	-	-	-	-
1986.00	2712.56	0.39	-	-	-	-	-	-	-	-	-
1987.00	2714.01	1.45	-	-	-	-	-	-	-	-	-
1988.00	2716.86	2.85	-	-	-	-	-	-	-	-	-
1989.00	2719.74	2.88	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
1990.00	**2722.62**	**2.88**	**15.86**	**2.25**	**4.49**	**2.14**	**2.50**	**354.00**	**4.39**	**4.80**	**174.00**
1991.00	2725.82	3.20	-	-	-	-	-	-	-	-	-
1992.00	2729.37	3.55	-	-	-	-	-	-	-	-	-
1993.00	2733.29	3.92	-	-	-	-	-	-	-	-	-
1994.00	2737.59	4.30	-	-	-	-	-	-	-	-	-
1995.00	2742.29	4.70	-	-	-	-	-	-	-	-	-
1996.00	2747.41	5.12	-	-	-	-	-	-	-	-	-
1997.00	2752.97	5.56	-	-	-	-	-	-	-	-	-
1998.00	2758.98	6.01	-	-	-	-	-	-	-	-	-
1999.00	2765.47	6.49	-	-	-	-	-	-	-	-	-
2000.00	**2772.31**	**6.84**	**38.77**	**3.51**	**7.03**	**3.23**	**3.82**	**66.00**	**6.68**	**7.57**	**66.00**
2001.00	2778.86	6.55	-	-	-	-	-	-	-	-	-
2002.00	2785.12	6.27	-	-	-	-	-	-	-	-	-
2003.00	2791.36	6.24	-	-	-	-	-	-	-	-	-
2004.00	2797.63	6.27	-	-	-	-	-	-	-	-	-
2005.00	2804.01	6.38	-	-	-	-	-	-	-	-	-
2006.00	2810.53	6.52	-	-	-	-	-	-	-	-	-
2007.00	2817.27	6.74	-	-	-	-	-	-	-	-	-
2008.00	2824.21	6.94	-	-	-	-	-	-	-	-	-
2009.00	2831.26	7.04	-	-	-	-	-	-	-	-	-
2010.00	**2838.40**	**7.14**	**40.03**	**3.57**	**7.14**	**3.18**	**3.98**	**60.00**	**6.84**	**7.60**	**60.00**
2011.00	2845.64	7.24	-	-	-	-	-	-	-	-	-
2012.00	2852.85	7.21	-	-	-	-	-	-	-	-	-
2013.00	2859.56	6.71	-	-	-	-	-	-	-	-	-
2014.00	2865.35	5.78	-	-	-	-	-	-	-	-	-
2015.00	2868.87	3.52	-	-	-	-	-	-	-	-	-
2016.00	2870.69	1.82	-	-	-	-	-	-	-	-	-
2017.00	2871.49	0.80	-	-	-	-	-	-	-	-	-
2018.00	2871.76	0.27	-	-	-	-	-	-	-	-	-
2019.00	2872.01	0.24	-	-	-	-	-	-	-	-	-
2020.00	**2872.25**	**0.24**	**1.38**	**0.66**	**1.32**	**0.66**	**0.66**	**186.00**	**0.66**	**1.32**	**162.00**
2021.00	2872.50	0.24	-	-	-	-	-	-	-	-	-
2022.00	2872.74	0.25	-	-	-	-	-	-	-	-	-
2023.00	2872.99	0.25	-	-	-	-	-	-	-	-	-
2024.00	2873.23	0.25	-	-	-	-	-	-	-	-	-
2025.00	2873.48	0.25	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2026.00	2873.72	0.24	-	-	-	-	-	-	-	-	-
2027.00	2873.97	0.24	-	-	-	-	-	-	-	-	-
2028.00	2874.21	0.24	-	-	-	-	-	-	-	-	-
2029.00	2874.45	0.24	-	-	-	-	-	-	-	-	-
2030.00	**2874.69**	**0.24**	**1.36**	**0.66**	**1.32**	**0.66**	**0.66**	**12.00**	**0.66**	**1.32**	**66.00**
2031.00	2874.94	0.24	-	-	-	-	-	-	-	-	-
2032.00	2875.18	0.24	-	-	-	-	-	-	-	-	-
2033.00	2875.42	0.24	-	-	-	-	-	-	-	-	-
2034.00	2875.67	0.24	-	-	-	-	-	-	-	-	-
2035.00	2875.91	0.24	-	-	-	-	-	-	-	-	-
2036.00	2877.17	1.26	-	-	-	-	-	-	-	-	-
2037.00	2888.00	10.83	-	-	-	-	-	-	-	-	-
2038.00	2913.48	25.48	-	-	-	-	-	-	-	-	-
2039.00	2939.77	26.29	-	-	-	-	-	-	-	-	-
2040.00	**2966.12**	**26.35**	**147.82**	**6.86**	**13.72**	**6.41**	**7.39**	**348.00**	**13.21**	**14.34**	**138.00**
2041.00	2992.59	26.47	-	-	-	-	-	-	-	-	-
2042.00	3019.24	26.65	-	-	-	-	-	-	-	-	-
2043.00	3046.21	26.98	-	-	-	-	-	-	-	-	-
2044.00	3073.48	27.26	-	-	-	-	-	-	-	-	-
2045.00	3100.77	27.29	-	-	-	-	-	-	-	-	-
2046.00	3128.07	27.30	-	-	-	-	-	-	-	-	-
2047.00	3155.39	27.31	-	-	-	-	-	-	-	-	-
2048.00	3182.71	27.33	-	-	-	-	-	-	-	-	-
2049.00	3210.06	27.35	-	-	-	-	-	-	-	-	-
2050.00	**3237.81**	**27.75**	**153.84**	**7.00**	**14.00**	**6.50**	**7.78**	**348.00**	**13.55**	**14.66**	**168.00**
2051.00	3267.38	29.57	-	-	-	-	-	-	-	-	-
2052.00	3298.25	30.87	-	-	-	-	-	-	-	-	-
2053.00	3327.96	29.71	-	-	-	-	-	-	-	-	-
2054.00	3357.01	29.05	-	-	-	-	-	-	-	-	-
2055.00	3387.73	30.73	-	-	-	-	-	-	-	-	-
2056.00	3420.07	32.34	-	-	-	-	-	-	-	-	-
2057.00	3452.78	32.70	-	-	-	-	-	-	-	-	-
2058.00	3485.84	33.07	-	-	-	-	-	-	-	-	-
2059.00	3519.58	33.74	-	-	-	-	-	-	-	-	-
2060.00	**3553.83**	**34.24**	**192.82**	**7.83**	**15.67**	**7.20**	**8.59**	**354.00**	**14.93**	**16.65**	**174.00**
2061.00	3587.81	33.99	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2062.00	3621.49	33.68	-	-	-	-	-	-	-	-	-
2063.00	3654.52	33.03	-	-	-	-	-	-	-	-	-
2064.00	3686.83	32.31	-	-	-	-	-	-	-	-	-
2065.00	3718.47	31.64	-	-	-	-	-	-	-	-	-
2066.00	3749.45	30.98	-	-	-	-	-	-	-	-	-
2067.00	3779.79	30.33	-	-	-	-	-	-	-	-	-
2068.00	3809.49	29.70	-	-	-	-	-	-	-	-	-
2069.00	3838.56	29.07	-	-	-	-	-	-	-	-	-
2070.00	**3867.58**	**29.03**	**160.31**	**7.14**	**14.29**	**6.58**	**7.97**	**144.00**	**13.42**	**15.35**	**162.00**
2071.00	3898.85	31.26	-	-	-	-	-	-	-	-	-
2072.00	3932.59	33.74	-	-	-	-	-	-	-	-	-
2073.00	3968.68	36.09	-	-	-	-	-	-	-	-	-
2074.00	4006.80	38.12	-	-	-	-	-	-	-	-	-
2075.00	4045.52	38.72	-	-	-	-	-	-	-	-	-
2076.00	4084.33	38.81	-	-	-	-	-	-	-	-	-
2077.00	4121.54	37.21	-	-	-	-	-	-	-	-	-
2078.00	4157.10	35.56	-	-	-	-	-	-	-	-	-
2079.00	4191.06	33.96	-	-	-	-	-	-	-	-	-
2080.00	**4224.09**	**33.03**	**183.22**	**7.64**	**15.27**	**7.34**	**8.67**	**84.00**	**14.70**	**16.41**	**84.00**
2081.00	4258.62	34.53	-	-	-	-	-	-	-	-	-
2082.00	4294.44	35.82	-	-	-	-	-	-	-	-	-
2083.00	4329.91	35.47	-	-	-	-	-	-	-	-	-
2084.00	4364.38	34.47	-	-	-	-	-	-	-	-	-
2085.00	4395.36	30.98	-	-	-	-	-	-	-	-	-
2086.00	4423.43	28.07	-	-	-	-	-	-	-	-	-
2087.00	4451.57	28.14	-	-	-	-	-	-	-	-	-
2088.00	4480.20	28.63	-	-	-	-	-	-	-	-	-
2089.00	4509.65	29.44	-	-	-	-	-	-	-	-	-
2090.00	**4540.09**	**30.45**	**169.66**	**7.35**	**14.70**	**6.86**	**8.15**	**240.00**	**13.78**	**15.60**	**138.00**
2091.00	4571.94	31.85	-	-	-	-	-	-	-	-	-
2092.00	4604.83	32.89	-	-	-	-	-	-	-	-	-
2093.00	4637.19	32.35	-	-	-	-	-	-	-	-	-
2094.00	4669.16	31.97	-	-	-	-	-	-	-	-	-
2095.00	4701.64	32.48	-	-	-	-	-	-	-	-	-
2096.00	4734.75	33.11	-	-	-	-	-	-	-	-	-
2097.00	4768.67	33.92	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2098.00	4803.38	34.71	-	-	-	-	-	-	-	-	-
2099.00	4838.71	35.33	-	-	-	-	-	-	-	-	-
2100.00	**4874.48**	**35.76**	**201.44**	**8.01**	**16.02**	**7.52**	**8.65**	**186.00**	**15.59**	**16.68**	**126.00**
2101.00	4909.70	35.23	-	-	-	-	-	-	-	-	-
2102.00	4944.52	34.81	-	-	-	-	-	-	-	-	-
2103.00	4979.77	35.25	-	-	-	-	-	-	-	-	-
2104.00	5015.52	35.74	-	-	-	-	-	-	-	-	-
2105.00	5051.54	36.02	-	-	-	-	-	-	-	-	-
2106.00	5087.82	36.28	-	-	-	-	-	-	-	-	-
2107.00	5124.37	36.55	-	-	-	-	-	-	-	-	-
2108.00	5161.19	36.82	-	-	-	-	-	-	-	-	-
2109.00	5198.29	37.10	-	-	-	-	-	-	-	-	-
2110.00	**5235.43**	**37.13**	**209.59**	**8.17**	**16.34**	**7.36**	**8.61**	**174.02**	**15.44**	**17.11**	**66.00**
2111.00	5271.71	36.28	-	-	-	-	-	-	-	-	-
2112.00	5307.45	35.74	-	-	-	-	-	-	-	-	-
2113.00	5343.97	36.52	-	-	-	-	-	-	-	-	-
2114.00	5381.34	37.37	-	-	-	-	-	-	-	-	-
2115.00	5419.09	37.74	-	-	-	-	-	-	-	-	-
2116.00	5457.10	38.02	-	-	-	-	-	-	-	-	-
2117.00	5495.08	37.98	-	-	-	-	-	-	-	-	-
2118.00	5533.02	37.94	-	-	-	-	-	-	-	-	-
2119.00	5570.94	37.92	-	-	-	-	-	-	-	-	-
2120.00	**5608.81**	**37.87**	**212.96**	**8.23**	**16.47**	**7.22**	**9.55**	**240.00**	**15.43**	**17.16**	**78.00**
2121.00	5646.43	37.62	-	-	-	-	-	-	-	-	-
2122.00	5683.88	37.44	-	-	-	-	-	-	-	-	-
2123.00	5721.33	37.45	-	-	-	-	-	-	-	-	-
2124.00	5758.78	37.45	-	-	-	-	-	-	-	-	-
2125.00	5796.11	37.32	-	-	-	-	-	-	-	-	-
2126.00	5833.30	37.20	-	-	-	-	-	-	-	-	-
2127.00	5870.40	37.10	-	-	-	-	-	-	-	-	-
2128.00	5907.15	36.75	-	-	-	-	-	-	-	-	-
2129.00	5942.59	35.44	-	-	-	-	-	-	-	-	-
2130.00	**5977.29**	**34.70**	**192.66**	**7.83**	**15.66**	**6.92**	**8.82**	**252.00**	**15.13**	**16.31**	**72.00**
2131.00	6013.50	36.21	-	-	-	-	-	-	-	-	-
2132.00	6045.11	31.61	-	-	-	-	-	-	-	-	-
2133.00	6054.13	9.02	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2134.00	6054.55	0.42	-	-	-	-	-	-	-	-	-
2135.00	6054.80	0.26	-	-	-	-	-	-	-	-	-
2136.00	6055.06	0.26	-	-	-	-	-	-	-	-	-
2137.00	6055.32	0.26	-	-	-	-	-	-	-	-	-
2138.00	6055.58	0.26	-	-	-	-	-	-	-	-	-
2139.00	6055.84	0.26	-	-	-	-	-	-	-	-	-
2140.00	**6056.10**	**0.26**	**1.45**	**0.68**	**1.36**	**0.68**	**0.68**	**6.00**	**0.68**	**1.36**	**168.00**
2141.00	6056.36	0.26	-	-	-	-	-	-	-	-	-
2142.00	6056.61	0.26	-	-	-	-	-	-	-	-	-
2143.00	6056.87	0.26	-	-	-	-	-	-	-	-	-
2144.00	6058.25	1.37	-	-	-	-	-	-	-	-	-
2145.00	6073.70	15.45	-	-	-	-	-	-	-	-	-
2146.00	6113.26	39.56	-	-	-	-	-	-	-	-	-
2147.00	6154.84	41.59	-	-	-	-	-	-	-	-	-
2148.00	6197.03	42.19	-	-	-	-	-	-	-	-	-
2149.00	6241.43	44.40	-	-	-	-	-	-	-	-	-
2150.00	**6288.27**	**46.84**	**261.18**	**9.12**	**18.24**	**7.37**	**10.30**	**306.00**	**16.77**	**19.44**	**144.00**
2151.00	6337.43	49.16	-	-	-	-	-	-	-	-	-
2152.00	6388.60	51.18	-	-	-	-	-	-	-	-	-
2153.00	6440.48	51.88	-	-	-	-	-	-	-	-	-
2154.00	6492.99	52.51	-	-	-	-	-	-	-	-	-
2155.00	6545.86	52.87	-	-	-	-	-	-	-	-	-
2156.00	6598.60	52.74	-	-	-	-	-	-	-	-	-
2157.00	6649.42	50.82	-	-	-	-	-	-	-	-	-
2158.00	6698.46	49.04	-	-	-	-	-	-	-	-	-
2159.00	6745.84	47.39	-	-	-	-	-	-	-	-	-
2160.00	**6792.27**	**46.42**	**258.52**	**9.07**	**18.14**	**7.67**	**10.53**	**257.92**	**16.87**	**19.12**	**78.00**
2161.00	6840.48	48.22	-	-	-	-	-	-	-	-	-
2162.00	6891.54	51.06	-	-	-	-	-	-	-	-	-
2163.00	6947.98	56.44	-	-	-	-	-	-	-	-	-
2164.00	7009.68	61.69	-	-	-	-	-	-	-	-	-
2165.00	7074.30	64.62	-	-	-	-	-	-	-	-	-
2166.00	7140.92	66.62	-	-	-	-	-	-	-	-	-
2167.00	7207.36	66.44	-	-	-	-	-	-	-	-	-
2168.00	7273.36	66.00	-	-	-	-	-	-	-	-	-
2169.00	7338.25	64.89	-	-	-	-	-	-	-	-	-

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CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN : State LPG No. 4
OPERATION No. : 1
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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2170.00	**7402.84**	**64.59**	**359.38**	**10.70**	**21.39**	**9.25**	**12.40**	**264.00**	**19.83**	**22.19**	**138.00**
2171.00	7470.07	67.23	-	-	-	-	-	-	-	-	-
2172.00	7539.82	69.75	-	-	-	-	-	-	-	-	-
2173.00	7610.02	70.20	-	-	-	-	-	-	-	-	-
2174.00	7680.94	70.92	-	-	-	-	-	-	-	-	-
2175.00	7753.55	72.60	-	-	-	-	-	-	-	-	-
2176.00	7827.96	74.41	-	-	-	-	-	-	-	-	-
2177.00	7903.97	76.00	-	-	-	-	-	-	-	-	-
2178.00	7981.23	77.26	-	-	-	-	-	-	-	-	-
2179.00	8057.93	76.70	-	-	-	-	-	-	-	-	-
2180.00	**8134.69**	**76.76**	**427.86**	**11.67**	**23.34**	**9.95**	**13.29**	**234.00**	**21.15**	**25.06**	**150.00**
2181.00	8214.00	79.31	-	-	-	-	-	-	-	-	-
2182.00	8295.73	81.73	-	-	-	-	-	-	-	-	-
2183.00	8378.41	82.68	-	-	-	-	-	-	-	-	-
2184.00	8460.92	82.51	-	-	-	-	-	-	-	-	-
2185.00	8539.51	78.59	-	-	-	-	-	-	-	-	-
2186.00	8614.08	74.57	-	-	-	-	-	-	-	-	-
2187.00	8684.70	70.62	-	-	-	-	-	-	-	-	-
2188.00	8752.78	68.08	-	-	-	-	-	-	-	-	-
2189.00	8822.38	69.60	-	-	-	-	-	-	-	-	-
2190.00	**8893.82**	**71.45**	**399.56**	**11.28**	**22.56**	**9.67**	**13.21**	**180.97**	**20.75**	**24.19**	**0.00**
2191.00	8967.19	73.36	-	-	-	-	-	-	-	-	-
2192.00	9042.53	75.34	-	-	-	-	-	-	-	-	-
2193.00	9119.91	77.39	-	-	-	-	-	-	-	-	-
2194.00	9198.09	78.18	-	-	-	-	-	-	-	-	-
2195.00	9271.91	73.82	-	-	-	-	-	-	-	-	-
2196.00	9341.51	69.60	-	-	-	-	-	-	-	-	-
2197.00	9408.10	66.59	-	-	-	-	-	-	-	-	-
2198.00	9472.71	64.61	-	-	-	-	-	-	-	-	-
2199.00	9538.62	65.91	-	-	-	-	-	-	-	-	-
2200.00	**9606.19**	**67.57**	**377.93**	**10.97**	**21.94**	**9.92**	**12.57**	**132.00**	**21.04**	**23.04**	**132.00**
2201.00	9675.49	69.31	-	-	-	-	-	-	-	-	-
2202.00	9745.26	69.76	-	-	-	-	-	-	-	-	-
2203.00	9810.54	65.28	-	-	-	-	-	-	-	-	-
2204.00	9874.06	63.51	-	-	-	-	-	-	-	-	-
2205.00	9946.42	72.36	-	-	-	-	-	-	-	-	-

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DATE : November 09, 2022
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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2206.00	10028.93	82.51	-	-	-	-	-	-	-	-	-
2207.00	10122.29	93.36	-	-	-	-	-	-	-	-	-
2208.00	10227.21	104.92	-	-	-	-	-	-	-	-	-
2209.00	10344.40	117.19	-	-	-	-	-	-	-	-	-
2210.00	**10472.26**	**127.85**	**719.52**	**15.13**	**30.27**	**12.37**	**16.60**	**216.00**	**28.18**	**31.90**	**12.00**
2211.00	10601.68	129.42	-	-	-	-	-	-	-	-	-
2212.00	10732.07	130.39	-	-	-	-	-	-	-	-	-
2213.00	10863.82	131.74	-	-	-	-	-	-	-	-	-
2214.00	10996.33	132.51	-	-	-	-	-	-	-	-	-
2215.00	11126.82	130.49	-	-	-	-	-	-	-	-	-
2216.00	11254.96	128.14	-	-	-	-	-	-	-	-	-
2217.00	11380.03	125.07	-	-	-	-	-	-	-	-	-
2218.00	11503.51	123.48	-	-	-	-	-	-	-	-	-
2219.00	11630.68	127.17	-	-	-	-	-	-	-	-	-
2220.00	**11761.71**	**131.03**	**734.04**	**15.29**	**30.57**	**13.02**	**17.30**	**186.00**	**28.99**	**32.63**	**6.00**
2221.00	11895.40	133.69	-	-	-	-	-	-	-	-	-
2222.00	12031.30	135.90	-	-	-	-	-	-	-	-	-
2223.00	12167.76	136.45	-	-	-	-	-	-	-	-	-
2224.00	12303.73	135.97	-	-	-	-	-	-	-	-	-
2225.00	12435.58	131.85	-	-	-	-	-	-	-	-	-
2226.00	12556.05	120.48	-	-	-	-	-	-	-	-	-
2227.00	12640.50	84.45	-	-	-	-	-	-	-	-	-
2228.00	12693.95	53.45	-	-	-	-	-	-	-	-	-
2229.00	12723.55	29.60	-	-	-	-	-	-	-	-	-
2230.00	**12736.56**	**13.01**	**82.61**	**5.13**	**10.26**	**4.59**	**5.72**	**305.98**	**9.26**	**10.73**	**102.00**
2231.00	12740.11	3.55	-	-	-	-	-	-	-	-	-
2232.00	12740.35	0.24	-	-	-	-	-	-	-	-	-
2233.00	12740.55	0.20	-	-	-	-	-	-	-	-	-
2234.00	12740.75	0.20	-	-	-	-	-	-	-	-	-
2235.00	12740.94	0.20	-	-	-	-	-	-	-	-	-
2236.00	12741.14	0.20	-	-	-	-	-	-	-	-	-
2237.00	12741.33	0.19	-	-	-	-	-	-	-	-	-
2238.00	12741.53	0.19	-	-	-	-	-	-	-	-	-
2239.00	12741.72	0.19	-	-	-	-	-	-	-	-	-
2240.00	**12741.92**	**0.19**	**1.09**	**0.59**	**1.18**	**0.59**	**0.59**	**318.00**	**0.59**	**1.18**	**150.00**
2241.00	12742.11	0.19	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2242.00	12742.31	0.19	-	-	-	-	-	-	-	-	-
2243.00	12742.50	0.19	-	-	-	-	-	-	-	-	-
2244.00	12742.70	0.19	-	-	-	-	-	-	-	-	-
2245.00	12742.89	0.19	-	-	-	-	-	-	-	-	-
2246.00	12743.09	0.19	-	-	-	-	-	-	-	-	-
2247.00	12743.28	0.19	-	-	-	-	-	-	-	-	-
2248.00	12743.48	0.19	-	-	-	-	-	-	-	-	-
2249.00	12743.67	0.19	-	-	-	-	-	-	-	-	-
2250.00	**12743.87**	**0.19**	**1.09**	**0.59**	**1.18**	**0.59**	**0.59**	**330.00**	**0.59**	**1.18**	**174.00**
2251.00	12744.06	0.19	-	-	-	-	-	-	-	-	-
2252.00	12744.26	0.19	-	-	-	-	-	-	-	-	-
2253.00	12744.45	0.19	-	-	-	-	-	-	-	-	-
2254.00	12744.65	0.19	-	-	-	-	-	-	-	-	-
2255.00	12744.84	0.19	-	-	-	-	-	-	-	-	-
2256.00	12745.04	0.19	-	-	-	-	-	-	-	-	-
2257.00	12745.23	0.19	-	-	-	-	-	-	-	-	-
2258.00	12745.43	0.19	-	-	-	-	-	-	-	-	-
2259.00	12745.62	0.19	-	-	-	-	-	-	-	-	-
2260.00	**12745.82**	**0.19**	**1.09**	**0.59**	**1.18**	**0.59**	**0.59**	**318.00**	**0.59**	**1.18**	**174.00**
2261.00	12746.01	0.19	-	-	-	-	-	-	-	-	-
2262.00	12746.21	0.19	-	-	-	-	-	-	-	-	-
2263.00	12746.40	0.19	-	-	-	-	-	-	-	-	-
2264.00	12746.60	0.19	-	-	-	-	-	-	-	-	-
2265.00	12746.79	0.19	-	-	-	-	-	-	-	-	-
2266.00	12746.99	0.19	-	-	-	-	-	-	-	-	-
2267.00	12747.18	0.19	-	-	-	-	-	-	-	-	-
2268.00	12747.38	0.19	-	-	-	-	-	-	-	-	-
2269.00	12747.57	0.19	-	-	-	-	-	-	-	-	-
2270.00	**12747.77**	**0.19**	**1.09**	**0.59**	**1.18**	**0.59**	**0.59**	**330.00**	**0.59**	**1.18**	**120.00**
2271.00	12747.96	0.19	-	-	-	-	-	-	-	-	-
2272.00	12748.16	0.19	-	-	-	-	-	-	-	-	-
2273.00	12748.35	0.19	-	-	-	-	-	-	-	-	-
2274.00	12748.55	0.19	-	-	-	-	-	-	-	-	-
2275.00	12748.74	0.19	-	-	-	-	-	-	-	-	-
2276.00	12748.94	0.19	-	-	-	-	-	-	-	-	-
2277.00	12749.13	0.19	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2278.00	12749.33	0.19	-	-	-	-	-	-	-	-	-
2279.00	12749.52	0.19	-	-	-	-	-	-	-	-	-
2280.00	**12762.57**	**13.05**	**6.38**	**1.42**	**2.85**	**1.33**	**1.49**	**120.00**	**2.79**	**2.93**	**42.00**
2281.00	12928.48	165.91	-	-	-	-	-	-	-	-	-
2282.00	13347.72	419.24	-	-	-	-	-	-	-	-	-
2283.00	13779.89	432.17	-	-	-	-	-	-	-	-	-
2284.00	14214.30	434.41	-	-	-	-	-	-	-	-	-
2285.00	14654.41	440.11	-	-	-	-	-	-	-	-	-
2286.00	15098.00	443.59	-	-	-	-	-	-	-	-	-
2287.00	15538.00	440.00	-	-	-	-	-	-	-	-	-
2288.00	15976.44	438.44	-	-	-	-	-	-	-	-	-
2289.00	16418.23	441.79	-	-	-	-	-	-	-	-	-
2290.00	**16865.35**	**447.12**	**2496.76**	**28.19**	**56.38**	**24.95**	**30.73**	**150.00**	**54.71**	**58.35**	**24.00**
2291.00	17325.33	459.99	-	-	-	-	-	-	-	-	-
2292.00	17794.99	469.66	-	-	-	-	-	-	-	-	-
2293.00	18260.84	465.85	-	-	-	-	-	-	-	-	-
2294.00	18716.29	455.45	-	-	-	-	-	-	-	-	-
2295.00	19135.90	419.61	-	-	-	-	-	-	-	-	-
2296.00	19521.70	385.79	-	-	-	-	-	-	-	-	-
2297.00	19881.78	360.09	-	-	-	-	-	-	-	-	-
2298.00	20217.18	335.39	-	-	-	-	-	-	-	-	-
2299.00	20526.90	309.72	-	-	-	-	-	-	-	-	-
2300.00	**20811.58**	**284.68**	**1619.91**	**22.71**	**45.42**	**22.70**	**22.73**	**330.00**	**22.70**	**45.46**	**150.00**
2301.00	21071.51	259.93	-	-	-	-	-	-	-	-	-
2302.00	21307.72	236.22	-	-	-	-	-	-	-	-	-
2303.00	21521.23	213.51	-	-	-	-	-	-	-	-	-
2304.00	21708.20	186.97	-	-	-	-	-	-	-	-	-
2305.00	21853.30	145.10	-	-	-	-	-	-	-	-	-
2306.00	21949.82	96.52	-	-	-	-	-	-	-	-	-
2307.00	21976.25	26.43	-	-	-	-	-	-	-	-	-
2308.00	21977.13	0.89	-	-	-	-	-	-	-	-	-
2309.00	21977.45	0.32	-	-	-	-	-	-	-	-	-
2310.00	**21977.76**	**0.32**	**1.77**	**0.75**	**1.50**	**0.75**	**0.75**	**198.00**	**0.75**	**1.50**	**138.00**
2311.00	21978.08	0.32	-	-	-	-	-	-	-	-	-
2312.00	21978.38	0.30	-	-	-	-	-	-	-	-	-
2313.00	21978.63	0.25	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2314.00	21978.83	0.20	-	-	-	-	-	-	-	-	-
2315.00	21979.03	0.20	-	-	-	-	-	-	-	-	-
2316.00	21979.23	0.20	-	-	-	-	-	-	-	-	-
2317.00	21979.43	0.20	-	-	-	-	-	-	-	-	-
2318.00	21979.63	0.20	-	-	-	-	-	-	-	-	-
2319.00	21979.83	0.20	-	-	-	-	-	-	-	-	-
2320.00	**21980.02**	**0.20**	**1.12**	**0.60**	**1.19**	**0.60**	**0.60**	**120.00**	**0.60**	**1.19**	**168.00**
2321.00	21980.22	0.20	-	-	-	-	-	-	-	-	-
2322.00	21980.42	0.20	-	-	-	-	-	-	-	-	-
2323.00	21980.62	0.20	-	-	-	-	-	-	-	-	-
2324.00	21980.82	0.20	-	-	-	-	-	-	-	-	-
2325.00	21982.53	1.71	-	-	-	-	-	-	-	-	-
2326.00	22002.36	19.83	-	-	-	-	-	-	-	-	-
2327.00	22064.01	61.66	-	-	-	-	-	-	-	-	-
2328.00	22191.10	127.08	-	-	-	-	-	-	-	-	-
2329.00	22407.21	216.12	-	-	-	-	-	-	-	-	-
2330.00	**22712.40**	**305.18**	**1737.01**	**23.51**	**47.03**	**23.01**	**25.14**	**96.00**	**46.32**	**48.57**	**96.00**
2331.00	23031.53	319.14	-	-	-	-	-	-	-	-	-
2332.00	23354.77	323.24	-	-	-	-	-	-	-	-	-
2333.00	23666.07	311.30	-	-	-	-	-	-	-	-	-
2334.00	23956.34	290.27	-	-	-	-	-	-	-	-	-
2335.00	24193.85	237.50	-	-	-	-	-	-	-	-	-
2336.00	24381.80	187.95	-	-	-	-	-	-	-	-	-
2337.00	24525.99	144.19	-	-	-	-	-	-	-	-	-
2338.00	24632.22	106.23	-	-	-	-	-	-	-	-	-
2339.00	24706.29	74.07	-	-	-	-	-	-	-	-	-
2340.00	**24753.99**	**47.70**	**286.94**	**9.56**	**19.11**	**8.61**	**12.42**	**240.00**	**9.49**	**21.98**	**60.00**
2341.00	24781.12	27.13	-	-	-	-	-	-	-	-	-
2342.00	24793.48	12.35	-	-	-	-	-	-	-	-	-
2343.00	24796.85	3.37	-	-	-	-	-	-	-	-	-
2344.00	24797.08	0.24	-	-	-	-	-	-	-	-	-
2345.00	24797.31	0.23	-	-	-	-	-	-	-	-	-
2346.00	24797.57	0.25	-	-	-	-	-	-	-	-	-
2347.00	24797.82	0.25	-	-	-	-	-	-	-	-	-
2348.00	24798.07	0.25	-	-	-	-	-	-	-	-	-
2349.00	24798.33	0.25	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2350.00	**24798.58**	**0.25**	**1.43**	**0.67**	**1.35**	**0.67**	**0.67**	**48.00**	**0.67**	**1.35**	**168.00**
2351.00	24798.84	0.25	-	-	-	-	-	-	-	-	-
2352.00	24799.09	0.25	-	-	-	-	-	-	-	-	-
2353.00	24799.35	0.25	-	-	-	-	-	-	-	-	-
2354.00	24799.60	0.25	-	-	-	-	-	-	-	-	-
2355.00	24799.85	0.25	-	-	-	-	-	-	-	-	-
2356.00	24800.11	0.25	-	-	-	-	-	-	-	-	-
2357.00	24800.36	0.25	-	-	-	-	-	-	-	-	-
2358.00	24800.62	0.25	-	-	-	-	-	-	-	-	-
2359.00	24800.87	0.25	-	-	-	-	-	-	-	-	-
2360.00	**24801.12**	**0.25**	**1.43**	**0.67**	**1.35**	**0.67**	**0.67**	**36.00**	**0.67**	**1.35**	**132.00**
2361.00	24801.38	0.25	-	-	-	-	-	-	-	-	-
2362.00	24801.63	0.25	-	-	-	-	-	-	-	-	-
2363.00	24801.89	0.25	-	-	-	-	-	-	-	-	-
2364.00	24802.13	0.24	-	-	-	-	-	-	-	-	-
2365.00	24802.32	0.19	-	-	-	-	-	-	-	-	-
2366.00	24803.47	1.15	-	-	-	-	-	-	-	-	-
2367.00	24816.02	12.55	-	-	-	-	-	-	-	-	-
2368.00	24843.50	27.48	-	-	-	-	-	-	-	-	-
2369.00	24852.44	8.95	-	-	-	-	-	-	-	-	-
2370.00	**24852.90**	**0.46**	**1.86**	**0.77**	**1.54**	**0.74**	**0.86**	**222.00**	**1.48**	**1.62**	**66.00**
2371.00	24853.10	0.20	-	-	-	-	-	-	-	-	-
2372.00	24853.30	0.20	-	-	-	-	-	-	-	-	-
2373.00	24853.50	0.20	-	-	-	-	-	-	-	-	-
2374.00	24853.70	0.20	-	-	-	-	-	-	-	-	-
2375.00	24853.90	0.20	-	-	-	-	-	-	-	-	-
2376.00	24854.10	0.20	-	-	-	-	-	-	-	-	-
2377.00	24854.29	0.20	-	-	-	-	-	-	-	-	-
2378.00	24858.07	3.78	-	-	-	-	-	-	-	-	-
2379.00	24912.30	54.23	-	-	-	-	-	-	-	-	-
2380.00	**25060.42**	**148.12**	**850.59**	**16.45**	**32.91**	**6.64**	**21.69**	**204.00**	**25.18**	**40.18**	**54.00**
2381.00	25234.28	173.87	-	-	-	-	-	-	-	-	-
2382.00	25424.68	190.40	-	-	-	-	-	-	-	-	-
2383.00	25609.08	184.40	-	-	-	-	-	-	-	-	-
2384.00	25788.88	179.80	-	-	-	-	-	-	-	-	-
2385.00	25971.73	182.85	-	-	-	-	-	-	-	-	-

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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2386.00	26158.13	186.39	-	-	-	-	-	-	-	-	-
2387.00	26347.88	189.75	-	-	-	-	-	-	-	-	-
2388.00	26539.75	191.88	-	-	-	-	-	-	-	-	-
2389.00	26727.78	188.02	-	-	-	-	-	-	-	-	-
2390.00	**26907.94**	**180.17**	**1037.08**	**18.17**	**36.34**	**11.94**	**21.95**	**204.00**	**29.69**	**42.36**	**90.00**
2391.00	27066.23	158.29	-	-	-	-	-	-	-	-	-
2392.00	27202.89	136.65	-	-	-	-	-	-	-	-	-
2393.00	27317.69	114.80	-	-	-	-	-	-	-	-	-
2394.00	27414.82	97.13	-	-	-	-	-	-	-	-	-
2395.00	27502.92	88.10	-	-	-	-	-	-	-	-	-
2396.00	27581.54	78.62	-	-	-	-	-	-	-	-	-
2397.00	27644.64	63.10	-	-	-	-	-	-	-	-	-
2398.00	27695.85	51.21	-	-	-	-	-	-	-	-	-
2399.00	27743.56	47.71	-	-	-	-	-	-	-	-	-
2400.00	**27794.23**	**50.67**	**257.40**	**9.05**	**18.10**	**8.82**	**10.00**	**108.00**	**17.64**	**19.30**	**108.00**
2401.00	27870.31	76.08	-	-	-	-	-	-	-	-	-
2402.00	27979.23	108.91	-	-	-	-	-	-	-	-	-
2403.00	28127.22	147.99	-	-	-	-	-	-	-	-	-
2404.00	28312.46	185.25	-	-	-	-	-	-	-	-	-
2405.00	28508.51	196.04	-	-	-	-	-	-	-	-	-
2406.00	28713.63	205.12	-	-	-	-	-	-	-	-	-
2407.00	28926.91	213.29	-	-	-	-	-	-	-	-	-
2408.00	29147.30	220.38	-	-	-	-	-	-	-	-	-
2409.00	29366.00	218.71	-	-	-	-	-	-	-	-	-
2410.00	**29579.16**	**213.16**	**1217.04**	**19.68**	**39.36**	**13.34**	**24.03**	**108.01**	**35.98**	**44.03**	**48.00**
2411.00	29774.73	195.56	-	-	-	-	-	-	-	-	-
2412.00	29957.46	182.74	-	-	-	-	-	-	-	-	-
2413.00	30143.95	186.49	-	-	-	-	-	-	-	-	-
2414.00	30333.23	189.28	-	-	-	-	-	-	-	-	-
2415.00	30513.17	179.94	-	-	-	-	-	-	-	-	-
2416.00	30682.28	169.12	-	-	-	-	-	-	-	-	-
2417.00	30837.07	154.79	-	-	-	-	-	-	-	-	-
2418.00	30979.02	141.95	-	-	-	-	-	-	-	-	-
2419.00	31109.95	130.94	-	-	-	-	-	-	-	-	-
2420.00	**31237.71**	**127.75**	**690.72**	**14.83**	**29.66**	**10.24**	**23.02**	**264.00**	**22.25**	**36.21**	**84.00**
2421.00	31387.37	149.66	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2422.00	31566.84	179.47	-	-	-	-	-	-	-	-	-
2423.00	31792.90	226.06	-	-	-	-	-	-	-	-	-
2424.00	32066.71	273.81	-	-	-	-	-	-	-	-	-
2425.00	32354.44	287.72	-	-	-	-	-	-	-	-	-
2426.00	32649.42	294.98	-	-	-	-	-	-	-	-	-
2427.00	32932.81	283.39	-	-	-	-	-	-	-	-	-
2428.00	33201.77	268.96	-	-	-	-	-	-	-	-	-
2429.00	33452.60	250.83	-	-	-	-	-	-	-	-	-
2430.00	**33691.83**	**239.23**	**1349.18**	**20.72**	**41.45**	**16.74**	**24.81**	**321.00**	**37.42**	**45.08**	**162.00**
2431.00	33924.11	232.28	-	-	-	-	-	-	-	-	-
2432.00	34150.82	226.71	-	-	-	-	-	-	-	-	-
2433.00	34361.30	210.48	-	-	-	-	-	-	-	-	-
2434.00	34555.30	194.00	-	-	-	-	-	-	-	-	-
2435.00	34734.83	179.53	-	-	-	-	-	-	-	-	-
2436.00	34901.57	166.74	-	-	-	-	-	-	-	-	-
2437.00	35056.64	155.07	-	-	-	-	-	-	-	-	-
2438.00	35204.41	147.77	-	-	-	-	-	-	-	-	-
2439.00	35351.65	147.24	-	-	-	-	-	-	-	-	-
2440.00	**35505.07**	**153.43**	**824.93**	**16.20**	**32.41**	**9.45**	**21.33**	**192.00**	**29.70**	**32.41**	**135.00**
2441.00	35695.33	190.26	-	-	-	-	-	-	-	-	-
2442.00	35924.44	229.10	-	-	-	-	-	-	-	-	-
2443.00	36153.94	229.50	-	-	-	-	-	-	-	-	-
2444.00	36381.07	227.13	-	-	-	-	-	-	-	-	-
2445.00	36605.86	224.79	-	-	-	-	-	-	-	-	-
2446.00	36828.34	222.48	-	-	-	-	-	-	-	-	-
2447.00	37048.54	220.20	-	-	-	-	-	-	-	-	-
2448.00	37266.16	217.62	-	-	-	-	-	-	-	-	-
2449.00	37480.12	213.96	-	-	-	-	-	-	-	-	-
2450.00	**37692.13**	**212.01**	**1170.28**	**19.30**	**38.60**	**17.36**	**21.80**	**18.00**	**36.69**	**41.66**	**18.00**
2451.00	37907.93	215.80	-	-	-	-	-	-	-	-	-
2452.00	38126.16	218.23	-	-	-	-	-	-	-	-	-
2453.00	38337.50	211.34	-	-	-	-	-	-	-	-	-
2454.00	38541.22	203.71	-	-	-	-	-	-	-	-	-
2455.00	38737.64	196.43	-	-	-	-	-	-	-	-	-
2456.00	38920.93	183.29	-	-	-	-	-	-	-	-	-
2457.00	39071.09	150.16	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2458.00	39185.20	114.11	-	-	-	-	-	-	-	-	-
2459.00	39249.04	63.83	-	-	-	-	-	-	-	-	-
2460.00	**39276.93**	**27.89**	**180.13**	**7.57**	**15.14**	**5.67**	**10.91**	**204.00**	**11.61**	**17.21**	**84.00**
2461.00	39283.88	6.95	-	-	-	-	-	-	-	-	-
2462.00	39284.10	0.22	-	-	-	-	-	-	-	-	-
2463.00	39284.29	0.19	-	-	-	-	-	-	-	-	-
2464.00	39284.53	0.24	-	-	-	-	-	-	-	-	-
2465.00	39284.78	0.24	-	-	-	-	-	-	-	-	-
2466.00	39285.02	0.24	-	-	-	-	-	-	-	-	-
2467.00	39285.26	0.24	-	-	-	-	-	-	-	-	-
2468.00	39285.51	0.24	-	-	-	-	-	-	-	-	-
2469.00	39285.75	0.24	-	-	-	-	-	-	-	-	-
2470.00	**39285.99**	**0.24**	**1.36**	**0.66**	**1.32**	**0.66**	**0.66**	**288.00**	**0.66**	**1.32**	**108.00**
2471.00	39286.24	0.24	-	-	-	-	-	-	-	-	-
2472.00	39286.48	0.24	-	-	-	-	-	-	-	-	-
2473.00	39286.72	0.24	-	-	-	-	-	-	-	-	-
2474.00	39286.96	0.24	-	-	-	-	-	-	-	-	-
2475.00	39287.21	0.24	-	-	-	-	-	-	-	-	-
2476.00	39287.45	0.24	-	-	-	-	-	-	-	-	-
2477.00	39287.69	0.24	-	-	-	-	-	-	-	-	-
2478.00	39287.94	0.24	-	-	-	-	-	-	-	-	-
2479.00	39288.18	0.24	-	-	-	-	-	-	-	-	-
2480.00	**39288.42**	**0.24**	**1.36**	**0.66**	**1.32**	**0.66**	**0.66**	**18.00**	**0.66**	**1.32**	**162.00**
2481.00	39288.67	0.24	-	-	-	-	-	-	-	-	-
2482.00	39288.91	0.24	-	-	-	-	-	-	-	-	-
2483.00	39289.15	0.24	-	-	-	-	-	-	-	-	-
2484.00	39289.39	0.24	-	-	-	-	-	-	-	-	-
2485.00	39289.64	0.24	-	-	-	-	-	-	-	-	-
2486.00	39289.88	0.24	-	-	-	-	-	-	-	-	-
2487.00	39290.12	0.24	-	-	-	-	-	-	-	-	-
2488.00	39290.36	0.24	-	-	-	-	-	-	-	-	-
2489.00	39290.77	0.41	-	-	-	-	-	-	-	-	-
2490.00	**39315.09**	**24.32**	**35.74**	**3.37**	**6.75**	**0.60**	**42.35**	**174.00**	**0.60**	**42.96**	**174.00**
2491.00	39546.47	231.38	-	-	-	-	-	-	-	-	-
2492.00	39969.35	422.88	-	-	-	-	-	-	-	-	-
2493.00	40495.68	526.34	-	-	-	-	-	-	-	-	-

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2494.00	41131.52	635.83	-	-	-	-	-	-	-	-	-
2495.00	41834.29	702.77	-	-	-	-	-	-	-	-	-
2496.00	42582.41	748.12	-	-	-	-	-	-	-	-	-
2497.00	43377.62	795.21	-	-	-	-	-	-	-	-	-
2498.00	44209.44	831.82	-	-	-	-	-	-	-	-	-
2499.00	45038.38	828.94	-	-	-	-	-	-	-	-	-
2500.00	**45857.24**	**818.86**	**4641.16**	**38.44**	**76.87**	**30.16**	**47.44**	**198.00**	**69.25**	**81.05**	**150.00**
2501.00	46642.23	784.99	-	-	-	-	-	-	-	-	-
2502.00	47395.27	753.03	-	-	-	-	-	-	-	-	-
2503.00	48124.22	728.95	-	-	-	-	-	-	-	-	-
2504.00	48833.53	709.31	-	-	-	-	-	-	-	-	-
2505.00	49533.06	699.53	-	-	-	-	-	-	-	-	-
2506.00	50223.54	690.48	-	-	-	-	-	-	-	-	-
2507.00	50904.79	681.25	-	-	-	-	-	-	-	-	-
2508.00	51577.65	672.85	-	-	-	-	-	-	-	-	-
2509.00	52246.78	669.14	-	-	-	-	-	-	-	-	-
2510.00	**52917.65**	**670.87**	**3770.34**	**34.64**	**69.29**	**26.44**	**47.35**	**198.00**	**55.40**	**77.60**	**24.00**
2511.00	53596.87	679.22	-	-	-	-	-	-	-	-	-
2512.00	54297.71	700.84	-	-	-	-	-	-	-	-	-
2513.00	55039.45	741.75	-	-	-	-	-	-	-	-	-
2514.00	55823.01	783.56	-	-	-	-	-	-	-	-	-
2515.00	56644.62	821.61	-	-	-	-	-	-	-	-	-
2516.00	57507.63	863.01	-	-	-	-	-	-	-	-	-
2517.00	58408.30	900.67	-	-	-	-	-	-	-	-	-
2518.00	59360.13	951.82	-	-	-	-	-	-	-	-	-
2519.00	60340.26	980.13	-	-	-	-	-	-	-	-	-
2520.00	**61336.71**	**996.45**	**5583.48**	**42.16**	**84.32**	**30.64**	**54.03**	**165.00**	**66.27**	**90.16**	**168.00**
2521.00	62350.72	1014.01	-	-	-	-	-	-	-	-	-
2522.00	63387.45	1036.72	-	-	-	-	-	-	-	-	-
2523.00	64449.23	1061.78	-	-	-	-	-	-	-	-	-
2524.00	65538.74	1089.52	-	-	-	-	-	-	-	-	-
2525.00	66649.35	1110.61	-	-	-	-	-	-	-	-	-
2526.00	67781.84	1132.49	-	-	-	-	-	-	-	-	-
2527.00	68921.43	1139.58	-	-	-	-	-	-	-	-	-
2528.00	70066.43	1145.01	-	-	-	-	-	-	-	-	-
2529.00	71214.94	1148.51	-	-	-	-	-	-	-	-	-

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SONIC SURVEYS

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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2530.00	**72365.57**	**1150.63**	**6461.10**	**45.35**	**90.70**	**37.16**	**57.02**	**204.00**	**77.46**	**97.06**	**177.00**
2531.00	73514.46	1148.89	-	-	-	-	-	-	-	-	-
2532.00	74658.74	1144.27	-	-	-	-	-	-	-	-	-
2533.00	75794.02	1135.29	-	-	-	-	-	-	-	-	-
2534.00	76923.05	1129.03	-	-	-	-	-	-	-	-	-
2535.00	78060.55	1137.50	-	-	-	-	-	-	-	-	-
2536.00	79206.87	1146.32	-	-	-	-	-	-	-	-	-
2537.00	80350.01	1143.13	-	-	-	-	-	-	-	-	-
2538.00	81488.83	1138.82	-	-	-	-	-	-	-	-	-
2539.00	82620.80	1131.97	-	-	-	-	-	-	-	-	-
2540.00	**83746.05**	**1125.25**	**6320.29**	**44.85**	**89.71**	**37.03**	**56.67**	**183.00**	**76.64**	**96.27**	**156.00**
2541.00	84866.81	1120.76	-	-	-	-	-	-	-	-	-
2542.00	85984.62	1117.81	-	-	-	-	-	-	-	-	-
2543.00	87106.79	1122.17	-	-	-	-	-	-	-	-	-
2544.00	88234.79	1128.00	-	-	-	-	-	-	-	-	-
2545.00	89361.90	1127.12	-	-	-	-	-	-	-	-	-
2546.00	90486.46	1124.56	-	-	-	-	-	-	-	-	-
2547.00	91614.15	1127.68	-	-	-	-	-	-	-	-	-
2548.00	92744.97	1130.83	-	-	-	-	-	-	-	-	-
2549.00	93879.33	1134.36	-	-	-	-	-	-	-	-	-
2550.00	**95016.85**	**1137.51**	**6383.62**	**45.08**	**90.15**	**36.00**	**56.18**	**195.00**	**75.68**	**95.63**	**159.00**
2551.00	96155.88	1139.04	-	-	-	-	-	-	-	-	-
2552.00	97302.13	1146.25	-	-	-	-	-	-	-	-	-
2553.00	98450.94	1148.81	-	-	-	-	-	-	-	-	-
2554.00	99597.46	1146.52	-	-	-	-	-	-	-	-	-
2555.00	100734.20	1136.74	-	-	-	-	-	-	-	-	-
2556.00	101856.31	1122.11	-	-	-	-	-	-	-	-	-
2557.00	102959.85	1103.54	-	-	-	-	-	-	-	-	-
2558.00	104035.45	1075.60	-	-	-	-	-	-	-	-	-
2559.00	105056.50	1021.05	-	-	-	-	-	-	-	-	-
2560.00	**106023.28**	**966.78**	**5475.40**	**41.75**	**83.50**	**33.31**	**52.52**	**180.00**	**73.98**	**87.78**	**174.00**
2561.00	106937.99	914.70	-	-	-	-	-	-	-	-	-
2562.00	107806.27	868.28	-	-	-	-	-	-	-	-	-
2563.00	108642.00	835.74	-	-	-	-	-	-	-	-	-
2564.00	109446.93	804.92	-	-	-	-	-	-	-	-	-
2565.00	110220.80	773.87	-	-	-	-	-	-	-	-	-

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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN : State LPG No. 4
OPERATION No. : 1
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MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2566.00	110966.45	745.66	-	-	-	-	-	-	-	-	-
2567.00	111694.27	727.81	-	-	-	-	-	-	-	-	-
2568.00	112405.82	711.55	-	-	-	-	-	-	-	-	-
2569.00	113104.91	699.09	-	-	-	-	-	-	-	-	-
2570.00	**113793.26**	**688.36**	**3872.96**	**35.11**	**70.22**	**26.03**	**46.27**	**180.00**	**58.71**	**74.22**	**141.00**
2571.00	114472.54	679.28	-	-	-	-	-	-	-	-	-
2572.00	115143.73	671.19	-	-	-	-	-	-	-	-	-
2573.00	115806.26	662.52	-	-	-	-	-	-	-	-	-
2574.00	116457.90	651.65	-	-	-	-	-	-	-	-	-
2575.00	117095.39	637.48	-	-	-	-	-	-	-	-	-
2576.00	117719.59	624.21	-	-	-	-	-	-	-	-	-
2577.00	118337.06	617.46	-	-	-	-	-	-	-	-	-
2578.00	118948.61	611.56	-	-	-	-	-	-	-	-	-
2579.00	119556.36	607.75	-	-	-	-	-	-	-	-	-
2580.00	**120176.60**	**620.24**	**3464.96**	**33.21**	**66.42**	**21.60**	**47.57**	**201.00**	**51.89**	**71.36**	**18.00**
2581.00	120823.15	646.54	-	-	-	-	-	-	-	-	-
2582.00	121505.66	682.52	-	-	-	-	-	-	-	-	-
2583.00	122222.59	716.93	-	-	-	-	-	-	-	-	-
2584.00	122975.23	752.64	-	-	-	-	-	-	-	-	-
2585.00	123762.61	787.38	-	-	-	-	-	-	-	-	-
2586.00	124578.85	816.24	-	-	-	-	-	-	-	-	-
2587.00	125427.89	849.04	-	-	-	-	-	-	-	-	-
2588.00	126310.76	882.87	-	-	-	-	-	-	-	-	-
2589.00	127214.31	903.55	-	-	-	-	-	-	-	-	-
2590.00	**128134.66**	**920.35**	**5165.96**	**40.55**	**81.10**	**25.29**	**57.61**	**192.00**	**65.98**	**87.76**	**144.00**
2591.00	129065.50	930.84	-	-	-	-	-	-	-	-	-
2592.00	130001.10	935.60	-	-	-	-	-	-	-	-	-
2593.00	130934.10	933.00	-	-	-	-	-	-	-	-	-
2594.00	131859.12	925.01	-	-	-	-	-	-	-	-	-
2595.00	132767.95	908.84	-	-	-	-	-	-	-	-	-
2596.00	133655.67	887.72	-	-	-	-	-	-	-	-	-
2597.00	134524.58	868.91	-	-	-	-	-	-	-	-	-
2598.00	135367.21	842.63	-	-	-	-	-	-	-	-	-
2599.00	136165.61	798.40	-	-	-	-	-	-	-	-	-
2600.00	**136916.32**	**750.71**	**4279.46**	**36.91**	**73.82**	**17.60**	**50.08**	**180.00**	**56.20**	**79.13**	**84.00**
2601.00	137611.29	694.97	-	-	-	-	-	-	-	-	-

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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN : State LPG No. 4
OPERATION No. : 1
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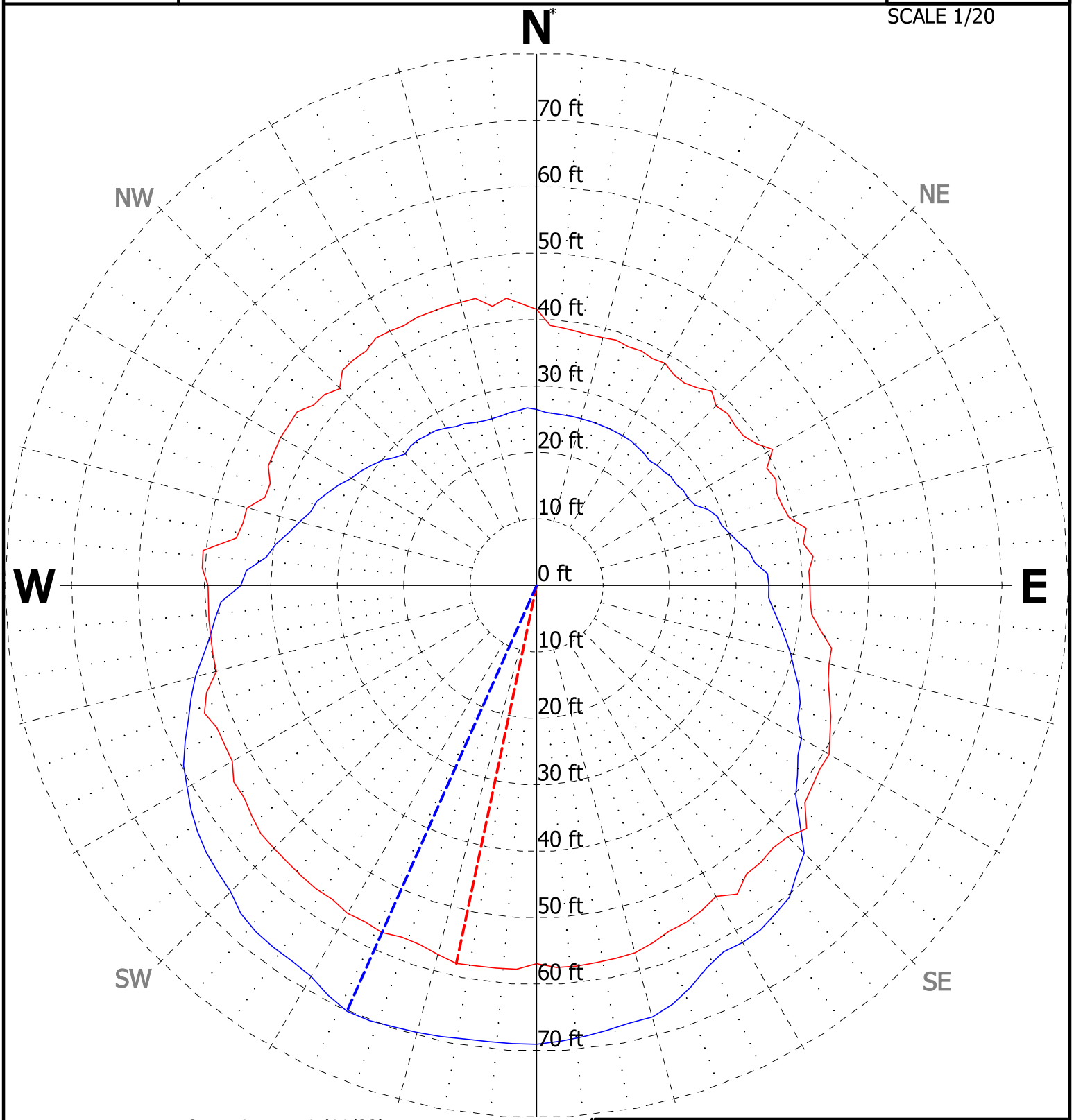
MAIN CHARACTERISTICS DATASHEET

Depth (ft)	Cumulated Volume (bbl)	Volume Section (bbl)	Section Area (ft²)	Mean Radius (ft)	Mean Diameter (ft)	Min Radius (ft)	Max Radius (ft)	Max Radius Orientation (°)	Min Diameter (ft)	Max Diameter (ft)	Max Diam. Orientation (°)
2602.00	138252.66	641.37	-	-	-	-	-	-	-	-	-
2603.00	138824.20	571.53	-	-	-	-	-	-	-	-	-
2604.00	139327.88	503.68	-	-	-	-	-	-	-	-	-
2605.00	139763.54	435.67	-	-	-	-	-	-	-	-	-
2606.00	140144.16	380.61	-	-	-	-	-	-	-	-	-
2607.00	140466.17	322.01	-	-	-	-	-	-	-	-	-
2608.00	140724.68	258.52	-	-	-	-	-	-	-	-	-
2609.00	140923.42	198.73	-	-	-	-	-	-	-	-	-
2610.00	**141058.48**	**135.07**	**806.98**	**16.03**	**32.05**	**7.88**	**37.68**	**246.00**	**-**	**-**	**-**
2611.00	141125.08	66.60	-	-	-	-	-	-	-	-	-
2612.00	141137.16	12.08	-	-	-	-	-	-	-	-	-
2613.00	141137.17	0.00	-	-	-	-	-	-	-	-	-

CUSTOMER	: Marathon Petroleum	CAVERN	:State LPG No. 4
DATE	: November 09, 2022	OPERATION No.	:1

MAXIMUM EXTENSION

SCALE 1/20



Maximum radius	: 58.13 ft
Orientation maxi. radius*	: N192
Depth maxi. radius (MD)	: 2593.99 ft
Surface	: 7213.11 ft²
Max distance between points	: 101.61 ft

*All sections are oriented to Magnetic North.

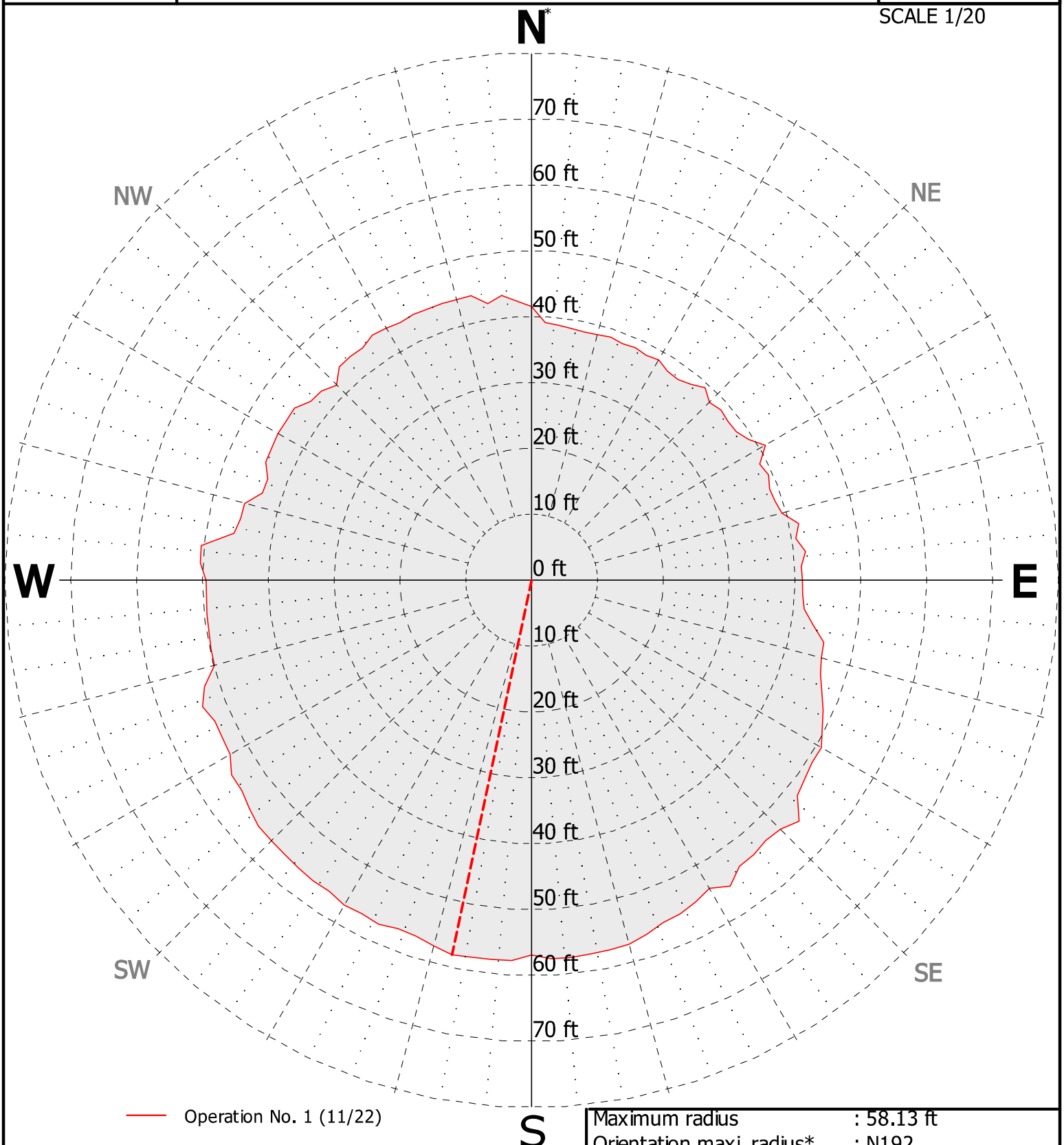
Magnetic Declination= 6,2°

Results shown in the present document have not been validated nor controlled and cannot be considered as definitive. they cannot be used for interpretation purposes and must be considered as indicative. SONIC disclaims any reponsabilities in case of use of those preliminary results.

CUSTOMER	: Marathon Petroleum	CAVERN	:State LPG No. 4
DATE	: November 09, 2022	OPERATION No.	:1

MAXIMUM EXTENSION

SCALE 1/20



Maximum radius	: 58.13 ft
Orientation maxi. radius*	: N192
Depth maxi. radius (MD)	: 2593.99 ft
Surface	: 7213.11 ft²
Max distance between points	: 101.61 ft

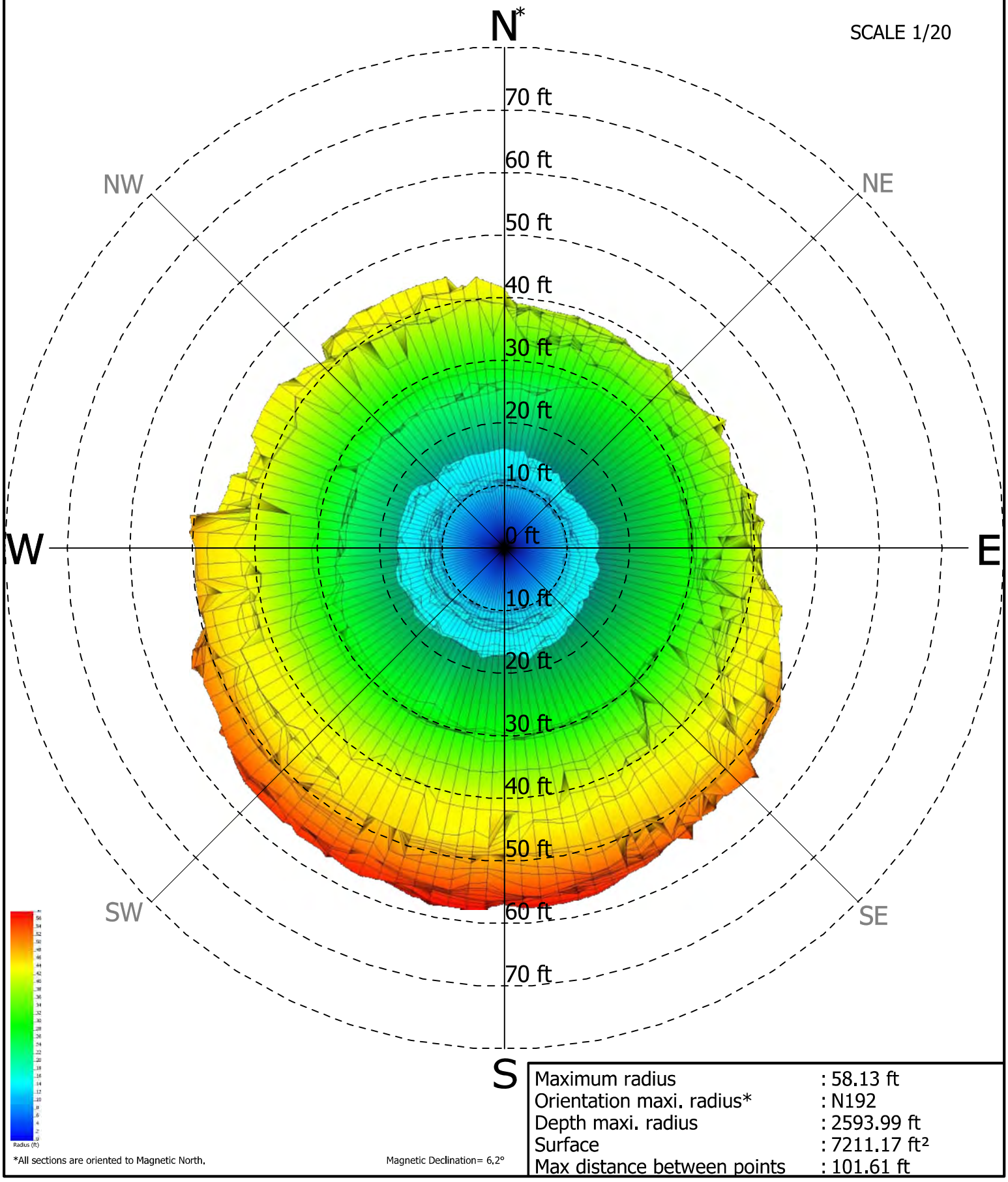
*All sections are oriented to Magnetic North.

Magnetic Declination= 6,2°

Results shown in the present document have not been validated nor controlled and cannot be considered as definitive. they cannot be used for interpretation processes and must be considered as indicative. SONIC disclaims any reponsabilities in case of use of those preliminary results.

CUSTOMER	: Marathon Petroleum	CAVERN	: State LPG No. 4
DATE	: November 09, 2022	OPERATION No.	: 1

VIEW FROM ABOVE



Maximum radius	: 58.13 ft
Orientation maxi. radius*	: N192
Depth maxi. radius	: 2593.99 ft
Surface	: 7211.17 ft²
Max distance between points	: 101.61 ft

*All sections are oriented to Magnetic North.

Magnetic Declination= 6,2°

Results shown in this present document have not been validated nor controlled and cannot be considered as definitive. they cannot be used for interpretation processes and must be considered as indicative. FLODIM disclaims any reponsabilities in case of use of those preliminary results.

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SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGE VS BEARING

Bearing	0.0	3.0	6.0	9.0
0	41.6: 2528.01	41.2: 2528.01	41.0: 2528.01	44.3: 2498
12	42.1: 2498	40.5: 2498	40.5: 2524.08	39.4: 2524.08
24	39.9: 2526.03	38.8: 2526.03	38.6: 2536.08	38.1: 2524.08
36	38.7: 2524.08	38.6: 2524.08	39.4: 2530	38.9: 2524.08
48	39.2: 2524.08	38.3: 2528.01	38.4: 2521.98	39.3: 2530
60	40.5: 2530	39.0: 2544	39.4: 2521.98	40.2: 2544
72	41.4: 2544	40.5: 2544	41.4: 2550.04	40.3: 2542.01
84	41.0: 2540.01	40.9: 2558	41.1: 2558	42.2: 2524.08
96	47.1: 2524.08	48.5: 2524.08	50.1: 2524.08	49.9: 2524.08
108	49.8: 2524.08	51.0: 2524.08	52.3: 2524.08	51.5: 2524.08
120	50.9: 2524.08	50.8: 2554.02	50.9: 2545.96	51.7: 2524.08
132	53.9: 2524.08	53.4: 2524.08	54.2: 2544	53.6: 2544
144	57.6: 2598	55.4: 2598	53.9: 2540.01	54.0: 2544
156	54.3: 2550.04	54.3: 2550.04	54.3: 2545.96	54.5: 2550.04
168	55.2: 2542.01	54.9: 2550.04	55.0: 2550.04	55.8: 2542.01
180	57.6: 2542.01	57.5: 2593.99	57.6: 2593.99	57.8: 2593.99
192	58.1: 2593.99	56.9: 2593.99	56.6: 2530	56.2: 2532.02
204	57.1: 2532.02	56.1: 2532.02	56.4: 2536.08	56.3: 2536.08
216	56.4: 2536.08	55.8: 2532.02	55.9: 2532.02	55.6: 2532.02
228	55.5: 2532.02	55.4: 2532.02	55.7: 2545.96	55.1: 2545.96
240	61.1: 2504.06	56.6: 2504.06	58.9: 2542.01	57.9: 2542.01
252	57.0: 2542.01	50.7: 2526.03	53.6: 2593.99	53.6: 2593.99
264	53.7: 2593.99	54.5: 2593.99	55.5: 2593.99	55.3: 2593.99
276	55.2: 2593.99	51.5: 2518.15	51.6: 2518.15	50.3: 2518.15
288	49.5: 2524.08	49.4: 2524.08	49.4: 2524.08	50.3: 2518.15
300	51.4: 2518.15	51.2: 2518.15	51.2: 2518.15	50.1: 2518.15
312	49.7: 2524.08	49.2: 2524.08	52.5: 2542.01	49.2: 2518.15
324	49.5: 2524.08	50.4: 2524.08	51.6: 2518.15	50.5: 2518.15
336	49.7: 2518.15	49.4: 2518.15	49.3: 2518.15	49.3: 2518.15
348	49.4: 2518.15	49.3: 2518.15	49.3: 2518.15	42.4: 2528.01

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
1666.0	0	9.95	9.42	9.99	10.18	10.33	10.18	10.04	9.90
1667.8	0	8.23	8.51	8.18	8.47	8.32	8.51	8.32	8.37
1670.0	0	8.47	8.27	8.23	8.13	8.18	8.32	8.37	8.13
1672.0	0	8.19	8.68	8.48	8.38	8.29	8.68	8.19	8.09
1674.0	0	8.19	8.09	8.29	8.48	8.38	8.58	8.19	7.99
1676.0	0	7.99	7.89	7.89	7.89	8.09	8.19	7.99	8.09
1678.0	0	8.35	7.76	7.76	8.06	7.76	7.62	7.18	7.91
1680.0	0	6.45	6.01	6.01	6.45	6.89	6.74	6.16	6.89
1682.0	0	5.41	4.94	5.48	4.43	5.17	4.96	5.13	5.02
1684.0	0	3.47	3.29	3.70	3.32	4.09	3.19	3.47	3.66
1686.0	0	0.98	0.98	0.98	0.98	0.98	0.98	0.98	1.07
1688.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
1690.0	0	7.03	6.96	7.30	6.85	7.15	6.93	7.27	6.94
1692.0	0	7.33	7.20	6.74	6.73	6.62	6.72	6.92	6.88
1694.0	0	7.03	6.91	6.74	6.49	6.50	6.67	7.33	6.94
1696.0	0	4.95	4.28	4.05	4.31	4.65	4.11	5.07	5.49
1698.0	0	3.22	2.55	2.38	2.55	2.98	2.52	2.80	2.50
1700.0	0	6.32	6.49	6.32	6.25	6.20	6.13	6.68	6.10
1702.0	0	6.92	6.75	6.38	6.49	6.20	6.10	6.62	6.43
1704.0	0	6.49	6.25	6.18	6.33	6.03	5.98	6.72	6.27
1706.0	0	5.87	5.84	5.87	4.98	5.21	5.35	5.75	5.90
1707.9	0	6.30	6.11	5.91	5.71	5.68	5.79	6.18	6.34
1710.0	0	2.61	2.45	2.65	2.49	2.42	2.61	2.90	2.48
1712.0	0	6.06	6.00	5.72	5.53	5.64	5.80	6.07	6.11
1714.0	0	5.99	6.15	6.07	5.61	5.60	5.69	6.03	5.88
1716.0	0	5.83	5.65	5.60	5.79	5.48	5.65	5.91	5.84
1718.0	0	5.64	5.69	5.52	5.17	5.06	5.07	5.60	5.57
1720.0	0	5.68	5.71	5.25	5.21	5.13	5.26	5.48	5.40
1722.0	0	5.79	5.63	5.72	5.30	5.25	5.59	5.45	5.53
1723.9	0	5.71	5.60	5.48	5.27	5.11	5.14	5.59	5.47
1726.0	0	5.55	5.42	5.07	5.01	4.90	5.08	5.63	5.54
1728.0	0	5.69	5.51	5.19	5.02	5.15	5.37	5.28	5.55
1730.0	0	5.38	5.15	5.05	4.91	4.65	4.81	5.15	5.00
1732.0	0	5.32	5.08	5.07	4.77	4.71	4.79	5.05	5.23
1734.0	0	4.98	4.38	4.50	4.50	4.54	4.66	4.92	4.82
1736.0	0	2.83	2.80	3.06	3.14	2.52	3.08	2.81	2.93
1738.0	0	1.68	1.46	1.45	1.43	1.73	1.52	1.39	1.54
1740.0	0	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45

SONIC

CUSTOMER : Marathon Petroleum
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Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
1742.0	0	5.07	5.22	4.94	4.56	4.52	4.86	5.09	4.94
1744.0	0	5.21	5.17	5.23	4.72	4.82	4.66	5.19	5.26
1746.0	0	3.62	3.81	4.34	4.43	4.42	4.19	3.69	3.97
1748.0	0	1.64	1.82	2.02	1.87	2.45	1.88	2.06	1.81
1750.0	0	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
1752.0	0	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
1754.0	0	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
1756.0	0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
1758.0	0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
1760.0	0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
1762.0	0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
1764.0	0	3.60	3.35	3.77	3.55	3.46	3.52	3.42	3.38
1766.0	0	2.45	2.32	2.77	1.96	1.98	2.36	2.29	2.29
1768.0	0	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
1770.0	0	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
1772.0	0	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
1774.0	0	4.92	4.84	4.50	4.13	4.59	4.80	4.98	4.86
1776.0	0	4.73	4.84	4.50	4.43	4.63	4.94	5.03	4.81
1778.0	0	4.84	4.70	4.69	4.34	4.15	4.62	4.77	4.64
1780.0	0	4.92	4.74	4.52	4.48	4.15	4.27	4.82	4.49
1782.0	0	4.90	4.65	4.50	4.23	4.13	4.51	4.46	4.49
1784.0	0	4.73	4.64	4.40	4.63	4.30	4.08	4.48	4.61
1785.9	0	3.75	3.43	3.60	3.47	3.23	3.75	3.83	3.72
1788.0	0	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
1789.9	0	3.54	3.72	3.52	3.04	2.81	2.97	3.21	3.08
1792.0	0	3.63	3.32	3.85	3.76	3.30	3.58	3.52	3.92
1794.0	0	4.23	4.03	3.83	3.59	3.05	3.72	4.42	4.37
1796.1	0	4.04	4.32	4.00	3.86	3.71	3.86	4.17	4.04
1798.0	0	4.41	4.31	3.98	3.92	3.86	4.38	4.39	4.49
1800.0	0	4.80	4.58	4.06	3.87	4.11	4.15	4.57	4.63
1802.0	0	4.48	4.20	4.02	3.78	4.00	4.15	4.48	4.42
1804.0	0	4.42	4.38	4.19	4.39	4.42	4.05	4.61	4.20
1806.0	0	4.52	4.39	4.02	3.87	3.92	4.30	4.40	4.72
1808.0	0	4.65	4.57	3.83	3.78	3.73	4.15	4.48	4.51
1810.0	0	4.27	3.99	3.77	3.79	3.73	4.04	4.04	4.21
1812.0	0	4.00	3.85	3.12	3.36	3.56	3.82	3.69	3.67
1814.0	0	3.92	3.95	3.59	3.54	3.55	3.97	4.17	4.08
1816.0	0	4.50	3.96	3.75	3.74	3.96	3.81	4.34	4.34

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
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Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
1818.0	0	3.86	3.87	3.54	3.56	3.65	3.98	4.04	4.06
1820.0	0	2.66	2.36	2.58	2.54	3.21	2.75	2.31	2.37
1822.0	0	2.46	2.47	2.31	2.37	2.37	2.43	2.50	2.41
1824.0	0	3.15	3.43	2.94	2.41	2.79	3.22	3.52	3.21
1826.0	0	4.06	3.99	3.54	3.28	3.63	3.51	4.21	3.89
1827.9	0	4.27	4.08	4.17	3.34	4.09	3.85	3.88	4.08
1830.0	0	4.00	4.11	3.58	3.64	4.09	4.08	4.02	4.18
1832.0	0	3.98	3.67	3.42	3.32	3.46	3.98	4.00	4.09
1834.0	0	4.04	3.99	3.58	3.62	3.75	4.07	4.15	4.15
1836.0	0	3.61	3.43	3.29	3.29	3.29	3.60	3.73	3.74
1838.0	0	3.67	3.82	3.63	3.21	2.89	2.95	3.10	3.35
1840.0	0	3.86	3.63	3.50	3.58	3.96	3.70	4.42	4.14
1842.0	0	4.02	4.20	3.92	3.96	3.88	4.24	3.86	4.10
1844.0	0	3.65	3.57	3.42	3.31	3.69	3.65	3.77	3.86
1845.9	0	3.29	3.37	3.24	3.44	3.73	3.49	3.31	3.39
1848.0	0	3.98	3.80	3.46	3.33	3.31	3.87	3.88	4.01
1854.1	0	3.96	3.76	3.27	3.90	3.17	3.14	3.27	3.71
1856.0	0	3.69	3.62	3.25	3.13	3.02	3.14	3.25	3.64
1858.0	0	3.98	3.48	3.46	3.43	3.44	3.65	3.48	4.08
1859.9	0	3.69	3.97	4.06	3.83	4.11	4.00	4.04	4.26
1862.0	0	3.69	3.57	3.31	3.33	3.46	3.90	4.00	3.84
1864.0	0	3.86	3.94	3.77	3.51	3.50	3.92	4.09	3.86
1866.0	0	3.50	3.84	3.33	3.21	3.46	3.76	3.79	4.31
1868.0	0	3.58	3.36	3.19	3.50	3.52	3.69	3.54	3.65
1870.0	0	4.09	3.84	3.15	3.39	3.25	3.62	3.44	3.87
1872.0	0	3.56	3.59	3.38	3.48	3.86	3.87	4.09	4.00
1874.0	0	3.54	3.33	3.02	3.10	3.02	3.08	3.17	3.19
1876.0	0	3.44	3.36	3.42	3.49	3.31	3.23	3.25	3.35
1877.9	0	3.19	3.18	3.21	3.14	3.23	3.21	3.52	3.28
1880.0	0	3.69	3.31	2.94	3.24	3.12	3.88	3.73	3.68
1882.0	0	2.44	1.64	2.43	2.18	2.39	2.47	2.26	2.19
1884.0	0	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
1886.1	0	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
1888.1	0	3.08	3.18	3.00	2.90	3.35	3.13	3.45	3.26
1890.0	0	2.58	3.27	3.37	2.97	2.79	3.03	2.92	2.68
1892.0	0	2.70	2.37	2.80	2.72	2.89	2.82	2.83	2.82
1894.0	0	3.34	3.12	2.92	2.88	3.00	3.06	3.36	3.15
1896.0	0	1.96	2.02	2.14	1.90	2.12	2.11	2.12	1.88

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Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
1897.9	0	2.17	2.32	2.17	2.17	2.18	2.28	2.17	2.16
1899.9	0	2.20	2.32	2.53	2.30	2.25	2.36	2.45	2.46
1902.0	0	2.21	2.24	2.11	2.16	2.11	3.04	2.63	2.14
1903.9	0	3.54	3.16	3.01	2.92	2.78	3.16	2.95	2.91
1905.9	0	3.50	2.99	2.99	3.21	2.98	3.26	3.16	2.98
1910.0	0	2.24	2.46	2.51	2.26	2.49	2.30	2.17	2.16
1920.0	0	2.76	2.92	2.80	2.76	2.67	2.93	2.61	2.71
1924.0	0	2.63	2.86	2.71	2.62	2.61	2.90	2.82	2.81
1926.1	0	3.19	3.05	2.97	2.54	3.00	2.47	2.48	2.77
1928.0	0	2.53	2.85	2.31	2.27	2.39	2.70	3.28	2.51
1930.0	0	2.68	2.49	3.00	2.55	2.42	2.91	2.70	2.44
1952.1	0	2.98	2.78	3.12	3.07	3.25	3.17	3.14	3.10
1954.0	0	2.84	3.00	2.66	2.85	3.40	3.02	2.99	3.04
1956.0	0	2.96	2.94	3.16	2.73	3.04	2.89	2.92	3.10
1958.0	0	2.27	2.38	2.49	2.55	2.69	2.73	2.68	2.48
1960.0	0	2.85	2.65	2.69	2.66	2.99	2.66	2.95	2.94
1962.0	0	2.51	2.67	2.53	2.67	2.56	2.56	2.51	2.51
1964.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
1966.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
1968.0	0	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
1970.0	0	0.65	0.65	0.65	0.72	0.65	0.65	0.65	0.65
1972.0	0	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
1974.0	0	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
1976.0	0	0.65	0.65	0.65	0.65	0.65	0.69	0.70	0.67
1978.1	0	0.65	0.65	0.70	0.65	0.65	0.65	0.65	0.65
1980.0	0	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
1982.0	0	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
1984.0	0	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.68
1986.0	0	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
1988.0	0	2.27	2.64	2.35	2.25	2.37	2.34	2.33	2.19
1989.9	0	2.13	2.31	2.29	2.26	2.26	2.14	2.35	2.13
2000.1	0	3.52	3.46	3.68	3.43	3.63	3.27	3.68	3.68
2002.0	0	3.35	3.39	3.36	3.27	3.47	3.29	3.34	3.24
2004.0	0	3.24	3.35	3.31	3.31	3.24	3.24	3.53	3.41
2006.0	0	3.54	3.45	3.61	3.66	3.43	3.32	3.27	3.18
2008.0	0	3.46	3.63	3.65	3.74	3.52	3.50	3.34	3.20
2010.0	0	3.52	3.52	3.65	3.62	3.79	3.58	3.30	3.28
2012.0	0	3.47	3.66	3.86	3.86	3.96	3.45	3.34	3.34

SONIC

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Wall Range versus Depth
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DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2014.0	0	3.45	3.21	3.21	3.20	3.27	3.37	3.65	3.32
2016.0	0	1.88	1.96	2.25	1.90	1.87	1.68	1.69	1.86
2018.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2020.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2022.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2024.0	0	0.66	0.66	0.66	0.67	0.66	0.66	0.66	0.66
2026.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2028.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2030.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2032.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2034.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2036.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2038.0	0	7.08	6.58	7.18	6.67	6.64	6.61	6.78	7.31
2040.0	0	6.99	6.49	6.69	6.87	6.57	6.78	6.91	7.29
2042.0	0	7.07	6.68	7.22	6.54	6.07	6.85	7.03	7.19
2044.0	0	7.26	7.22	6.68	6.85	6.95	7.01	7.22	7.21
2050.0	0	7.47	6.88	7.16	6.64	6.85	6.87	6.69	7.18
2052.0	0	7.93	7.59	7.58	7.15	6.89	7.36	7.39	7.51
2054.0	0	7.07	7.09	6.61	7.01	6.73	7.04	7.04	7.68
2056.0	0	7.62	6.79	8.01	7.47	7.58	7.51	7.74	8.25
2058.0	0	7.58	7.36	7.24	7.59	7.74	7.61	7.58	8.27
2060.0	0	8.36	7.74	7.51	7.67	8.17	7.95	7.82	8.04
2062.3	0	8.24	7.87	7.16	7.74	7.51	8.04	7.86	7.94
2064.0	0	8.01	7.26	7.23	7.61	7.82	7.42	7.62	7.75
2070.0	0	6.89	6.97	6.88	7.34	6.83	6.87	6.86	7.01
2072.0	0	7.51	7.61	7.35	7.34	7.51	7.63	8.32	8.12
2074.0	0	8.48	7.62	8.05	7.86	8.59	8.37	8.32	8.38
2076.0	0	8.24	8.85	7.82	8.56	7.89	8.54	8.32	8.60
2080.0	0	7.35	7.44	7.78	7.52	7.97	7.55	7.35	7.46
2082.0	0	8.40	8.00	7.58	8.04	7.86	7.55	7.66	8.07
2084.1	0	8.20	7.82	7.70	7.81	7.82	7.52	7.47	8.36
2086.1	0	7.16	6.94	7.16	6.96	6.89	6.72	6.68	7.92
2088.1	0	6.71	6.79	7.13	7.16	6.68	7.19	6.68	7.48
2090.0	0	7.31	7.12	6.92	7.44	7.01	7.70	6.86	7.59
2092.0	0	7.34	7.27	7.37	7.76	7.79	8.27	7.76	7.84
2094.0	0	7.25	7.15	7.07	7.85	7.55	8.01	7.61	7.88
2096.0	0	7.49	7.15	7.37	7.98	7.85	8.28	7.82	7.82
2098.0	0	7.67	7.25	7.43	8.21	8.41	8.38	7.61	7.66

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Wall Range versus Depth
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DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2100.1	0	7.82	7.73	7.94	8.12	8.21	7.99	7.76	8.22
2102.0	0	7.64	7.58	7.46	7.95	7.67	8.02	8.21	7.81
2104.1	0	7.67	7.49	7.76	8.54	8.54	8.22	8.68	7.60
2110.0	0	7.37	8.39	8.21	7.89	8.41	8.35	8.33	8.06
2112.1	0	7.22	7.21	7.31	8.34	8.28	8.29	8.59	8.49
2114.0	0	8.17	7.60	8.12	8.35	8.00	8.86	8.39	7.92
2116.0	0	7.64	7.43	8.48	8.58	8.71	8.97	8.30	7.76
2117.9	0	8.68	7.21	7.76	8.57	8.77	8.69	8.60	7.98
2120.0	0	7.84	7.52	7.61	8.66	8.71	9.18	8.61	7.94
2122.0	0	7.79	7.49	8.30	8.70	8.45	8.22	8.53	7.91
2124.1	0	7.73	7.48	8.15	8.36	8.33	8.66	8.36	7.81
2126.0	0	7.61	7.70	7.76	8.55	8.98	8.21	8.27	7.90
2128.0	0	7.40	7.53	8.53	8.72	9.02	8.26	8.42	7.55
2130.0	0	6.95	7.04	7.43	8.40	8.33	8.57	7.95	7.33
2132.0	0	7.01	7.43	8.80	8.78	8.77	8.82	8.98	7.34
2134.0	0	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
2136.0	0	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
2138.0	0	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
2140.0	0	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
2142.0	0	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
2144.0	0	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
2146.0	0	7.82	7.50	8.15	8.07	9.61	9.76	8.48	8.54
2148.0	0	8.12	7.87	7.82	7.79	8.06	8.68	9.70	9.50
2150.0	0	8.98	8.52	8.18	9.29	9.01	9.61	10.18	9.82
2152.0	0	9.04	8.85	8.92	9.23	10.66	10.38	10.00	9.95
2154.0	0	9.37	8.43	9.07	9.34	9.82	9.91	9.89	10.65
2156.0	0	9.85	9.40	9.73	9.30	9.28	9.84	9.58	10.80
2158.0	0	8.56	8.44	8.30	9.31	10.09	10.24	10.42	9.31
2160.1	0	8.53	8.31	8.95	9.06	10.30	10.01	9.28	8.36
2162.0	0	8.94	8.40	7.94	8.98	10.03	10.31	9.99	10.00
2164.0	0	10.26	8.83	9.18	10.33	11.31	11.55	10.96	10.51
2165.9	0	9.68	9.47	10.26	11.28	11.66	11.65	11.51	11.43
2167.9	0	9.72	9.63	9.88	10.95	11.89	11.74	11.74	11.16
2170.0	0	9.49	9.75	9.72	11.24	12.21	11.88	11.75	10.23
2172.0	0	9.53	10.17	11.51	12.36	11.12	12.26	12.04	10.65
2174.0	0	10.42	10.14	12.01	11.33	12.06	10.89	11.39	11.43
2176.0	0	9.99	10.55	10.79	10.15	12.83	12.01	12.52	12.64
2178.0	0	10.50	10.09	10.69	12.50	12.94	12.79	12.63	11.59

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Wall Range versus Depth
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DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2180.0	0	10.73	10.34	10.57	11.26	12.94	12.98	13.14	11.94
2182.0	0	10.96	10.42	10.85	12.94	12.87	12.97	13.41	12.47
2184.0	0	11.58	9.90	11.20	13.10	13.41	13.50	13.14	12.08
2186.0	0	10.65	9.53	10.23	12.75	12.87	12.54	12.75	11.37
2188.0	0	11.23	10.31	9.91	11.43	13.38	11.03	10.73	10.89
2192.0	0	6.15	7.54	7.24	6.65	5.99	6.28	6.03	6.04
2194.0	0	10.85	10.38	11.35	12.41	12.49	13.78	11.23	12.70
2196.0	0	10.81	10.25	10.85	11.53	10.96	11.82	12.16	11.36
2198.0	0	10.89	10.15	11.04	11.37	10.96	11.19	10.15	10.75
2202.0	0	11.43	11.12	13.18	12.17	10.42	11.46	10.89	10.01
2204.0	0	10.81	10.51	11.58	11.49	9.84	10.59	10.07	9.71
2210.0	0	16.01	12.74	15.20	15.13	15.63	15.77	15.63	14.89
2212.0	0	14.44	13.52	13.96	14.80	16.44	15.97	17.21	15.41
2214.0	0	15.15	13.50	14.58	15.42	16.94	15.68	16.63	15.58
2216.0	0	14.79	13.53	13.86	14.91	16.83	16.83	15.97	15.27
2218.0	0	13.38	13.68	13.86	15.87	17.26	15.63	16.68	14.92
2220.0	0	15.73	13.38	13.86	15.37	16.73	16.30	16.44	14.95
2222.0	0	14.91	13.58	13.72	15.49	17.02	16.87	17.06	15.75
2224.0	0	14.15	13.91	13.87	15.18	17.21	17.18	17.21	15.73
2226.0	0	12.93	13.74	13.49	13.01	16.92	17.52	16.62	14.96
2230.0	0	5.46	5.29	5.03	4.67	5.17	4.76	5.15	5.51
2231.9	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2236.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2237.9	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2240.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2242.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2244.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2246.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2248.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2250.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2255.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2260.1	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2265.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2269.9	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2275.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2278.0	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2279.9	0	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
2282.0	0	25.45	29.48	29.41	29.22	29.49	28.17	25.29	25.33

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2283.9	0	25.22	29.02	29.41	29.44	29.88	28.63	25.60	25.37
2285.9	0	26.72	28.75	29.88	29.80	30.73	29.91	25.84	25.53
2287.9	0	25.60	28.28	29.95	29.68	30.50	28.43	26.54	25.49
2290.0	0	25.84	27.89	30.11	30.03	30.42	29.29	26.54	25.79
2291.9	0	25.84	28.90	30.65	30.22	30.42	30.65	30.73	25.49
2294.0	0	28.59	28.67	28.56	28.55	28.79	29.31	28.71	28.71
2296.0	0	27.31	28.90	26.69	26.65	26.69	26.65	26.69	23.70
2298.0	0	24.59	24.60	24.67	24.56	24.67	24.56	24.67	24.60
2300.0	0	22.73	22.70	22.73	22.70	22.73	22.70	22.73	22.70
2302.0	0	20.71	20.68	20.71	20.72	20.71	20.68	20.71	20.68
2304.0	0	18.69	18.67	18.69	18.67	18.69	18.67	18.69	18.67
2306.0	0	13.02	14.48	13.99	14.61	14.44	13.80	14.44	13.96
2308.0	0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
2310.0	0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
2311.9	0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
2314.0	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2316.0	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2318.0	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2320.0	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2325.0	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2330.0	0	23.27	23.47	24.83	23.28	23.04	23.28	23.51	23.16
2332.0	0	24.21	25.03	24.36	24.87	23.27	23.01	23.82	24.86
2334.0	0	24.05	24.00	23.03	21.62	20.81	23.75	23.03	23.46
2343.9	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2346.0	0	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
2348.0	0	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
2349.9	0	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
2355.0	0	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
2360.0	0	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
2364.0	0	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
2366.0	0	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
2368.1	0	6.50	6.83	7.79	7.30	11.03	10.95	8.36	6.64
2370.0	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2372.0	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2374.0	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2376.0	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2378.0	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2380.0	0	20.56	18.77	19.08	18.67	21.73	21.02	20.40	21.10

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2382.0	0	14.81	16.75	20.79	20.40	20.87	20.80	20.50	14.98
2384.0	0	13.57	17.41	19.17	18.75	20.79	20.28	14.34	14.02
2386.0	0	13.80	17.97	20.77	20.41	21.25	20.11	18.18	13.97
2388.0	0	13.80	14.28	21.33	21.50	21.33	20.10	14.27	14.09
2390.0	0	13.26	14.82	21.33	20.26	21.79	20.06	21.03	13.78
2392.0	0	10.79	13.70	17.91	16.82	17.58	17.62	19.90	11.55
2394.0	0	9.18	9.63	15.33	14.67	16.01	15.56	12.36	9.83
2396.0	0	9.53	10.97	12.79	13.43	15.35	14.44	12.09	12.48
2398.0	0	8.52	8.46	8.21	8.51	14.21	11.72	9.22	8.50
2402.0	0	6.11	5.67	5.96	5.87	6.11	6.18	5.57	5.67
2404.0	0	11.16	12.58	13.48	13.48	10.93	9.61	9.53	9.51
2404.0	0	15.82	15.49	17.75	22.78	22.45	20.64	16.05	15.14
2406.1	0	16.52	15.76	16.75	23.40	23.04	21.07	15.51	15.30
2408.0	0	15.74	19.27	22.89	22.82	23.51	21.49	16.45	14.91
2410.0	0	13.65	22.35	23.51	22.97	23.12	21.50	15.74	13.55
2412.0	0	13.34	17.66	19.22	20.14	21.21	19.37	17.76	13.62
2414.0	0	15.90	19.06	19.70	19.36	20.59	18.43	17.01	19.10
2416.0	0	19.08	15.84	17.76	18.19	17.76	16.19	18.95	17.31
2420.0	0	12.90	10.48	10.46	12.68	12.33	11.88	11.94	12.02
2422.0	0	10.60	10.01	9.68	10.01	10.00	10.13	10.22	10.48
2424.0	0	24.08	23.54	27.01	24.06	23.67	23.32	25.30	25.52
2426.0	0	19.16	25.88	26.31	26.42	26.29	24.07	18.04	18.24
2428.0	0	17.45	24.68	23.98	24.39	23.04	23.83	17.69	16.96
2430.0	0	18.25	18.06	17.84	18.88	22.65	23.86	22.49	22.65
2430.0	0	17.61	17.97	16.75	17.04	21.72	23.18	23.82	24.26
2432.0	0	18.07	23.18	25.23	24.94	25.22	22.24	17.37	18.22
2432.1	0	21.18	25.99	19.65	19.03	21.59	18.02	15.27	17.88
2436.0	0	9.95	21.08	18.47	13.11	10.63	12.28	12.28	11.73
2437.9	0	11.87	11.05	11.46	10.91	10.77	9.86	10.36	10.50
2440.0	0	11.70	11.11	10.87	12.25	10.87	10.48	9.86	12.11
2442.0	0	20.10	20.26	19.94	19.78	20.48	20.24	20.48	20.64
2448.0	0	21.28	19.99	19.46	20.65	19.63	19.99	20.15	18.87
2450.0	0	18.82	27.94	19.42	19.17	20.81	20.58	18.47	18.14
2452.1	0	19.29	19.39	20.24	21.21	19.46	21.05	17.73	20.14
2456.0	0	17.12	16.96	17.44	18.33	18.07	16.79	16.69	18.56
2457.9	0	19.37	20.83	21.56	20.52	20.98	20.56	21.19	19.38
2460.0	0	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
2462.0	0	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49

SONIC

CUSTOMER : Marathon Petroleum
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CAVERN :State LPG No. 4
OPERATION No. :1

Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2464.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2466.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2470.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2475.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2480.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2485.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2488.0	0	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2490.1	0	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
2492.0	0	15.17	15.21	15.03	14.53	15.72	14.90	13.11	15.34
2497.9	0	39.63	32.85	32.49	40.94	43.34	43.69	43.07	40.54
2498.0	0	38.99	32.46	29.93	33.50	39.82	44.97	44.89	43.91
2500.0	0	32.90	32.45	32.49	32.92	39.39	45.07	39.50	41.59
2502.0	0	31.39	31.14	31.80	33.20	32.63	44.04	39.36	41.13
2504.1	0	31.39	30.04	26.72	32.17	39.91	43.29	35.79	32.24
2508.0	0	29.88	29.43	23.17	29.69	41.15	42.14	36.20	37.21
2510.0	0	30.98	27.37	26.99	26.89	27.13	45.90	28.64	37.70
2512.0	0	29.03	32.31	26.99	32.86	40.88	41.85	28.95	30.19
2514.0	0	35.10	33.38	31.39	35.69	40.19	45.60	33.87	35.79
2516.0	0	32.85	31.97	32.08	31.62	31.58	31.76	32.26	34.50
2518.1	0	32.49	33.98	34.96	43.98	47.06	50.14	49.26	49.12
2522.0	0	36.06	37.38	38.54	37.11	44.04	54.12	48.39	36.36
2524.1	0	40.74	38.90	38.26	53.43	45.00	53.65	49.40	49.21
2526.0	0	38.68	37.18	38.95	39.49	43.29	54.00	50.68	37.67
2528.0	0	41.56	38.14	38.13	38.28	51.95	53.65	44.86	38.20
2530.0	0	38.13	38.18	39.36	39.70	45.41	51.94	44.17	48.78
2532.0	0	39.50	37.52	39.50	49.47	52.97	55.61	44.31	45.40
2534.0	0	37.44	37.32	40.88	47.88	55.01	53.50	37.95	37.69
2536.1	0	38.54	37.39	40.60	48.09	55.99	54.67	43.07	37.26
2538.0	0	38.13	37.32	39.50	48.50	54.62	52.90	37.58	37.76
2540.0	0	38.95	37.71	39.05	46.26	53.31	53.53	37.58	45.89
2542.0	0	38.54	37.39	38.12	48.68	57.64	53.24	37.99	49.15
2544.0	0	39.91	36.63	40.46	51.69	55.03	52.83	40.60	39.43
2546.0	0	38.40	36.43	40.19	50.21	55.17	51.54	38.68	38.42
2548.0	0	37.99	36.97	39.09	37.19	36.75	38.64	40.60	36.50
2550.0	0	38.13	36.77	38.68	49.99	52.15	36.66	41.42	39.72
2552.0	0	36.89	37.44	36.61	37.64	37.95	38.03	42.25	43.52
2554.0	0	37.99	36.90	37.44	50.84	36.75	37.94	41.97	43.54
2558.0	0	36.61	36.49	41.09	50.79	37.18	37.36	39.23	41.90

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)

DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2562.0	0	31.80	30.81	38.71	30.94	35.10	48.00	31.94	32.01
2564.0	0	30.84	29.15	30.84	42.19	48.98	47.20	31.94	32.67
2566.0	0	27.68	28.46	32.22	43.50	48.57	45.27	29.47	32.83
2568.0	0	27.13	27.08	29.47	41.65	47.45	44.66	27.13	26.45
2571.9	0	26.99	25.51	28.09	26.00	45.14	44.35	28.64	26.41
2576.0	0	25.21	24.55	25.07	25.99	43.72	41.02	24.93	25.30
2578.0	0	24.24	22.98	23.69	30.47	44.31	31.84	25.98	25.08
2580.0	0	23.69	22.42	23.42	24.34	24.53	23.73	24.11	23.85
2582.0	0	22.73	20.71	20.67	21.12	23.26	23.73	24.52	22.98
2584.0	0	23.28	22.08	22.18	22.57	22.18	24.21	24.66	23.82
2586.0	0	22.59	21.79	22.04	22.01	22.59	22.22	22.67	21.61
2590.0	0	26.72	26.41	27.13	27.44	28.37	27.01	25.30	26.61
2592.0	0	26.86	26.61	27.13	26.72	26.31	26.33	27.68	27.09
2594.0	0	28.06	27.25	38.78	27.94	57.61	45.57	55.45	44.76
2598.0	0	26.31	29.43	31.12	38.55	50.36	49.76	43.55	32.34
2600.0	-85	9.17	9.03	8.27	8.60	9.40	9.40	9.28	9.32
2600.0	-80	7.89	7.65	7.42	8.49	9.17	9.19	9.17	8.33
2600.0	-75	7.85	7.28	7.07	8.22	9.17	9.54	9.05	8.21
2600.0	-70	7.96	7.18	6.88	7.55	9.21	9.48	9.01	5.71
2600.0	-65	8.08	7.22	6.95	7.55	9.28	9.69	9.05	5.28
2600.0	-60	8.47	7.38	6.84	7.71	9.44	7.52	6.18	5.34
2600.0	-55	8.70	7.36	6.72	7.78	9.75	7.65	6.56	5.65
2600.0	-50	9.09	7.32	6.72	7.99	10.22	9.54	7.07	5.98
2600.0	-45	9.80	7.60	6.74	8.48	10.71	9.95	7.94	6.40
2600.0	-42	6.69	7.83	6.74	9.90	17.16	10.27	8.13	6.66
2600.0	-39	6.94	8.10	7.01	14.24	17.46	11.36	8.32	6.87
2600.0	-36	6.67	8.61	7.22	15.41	18.28	12.55	8.38	7.41
2600.0	-33	6.80	8.58	7.28	18.92	20.00	13.47	10.45	7.62
2600.0	-30	7.83	8.92	7.42	21.35	21.44	14.29	10.65	8.27
2600.0	-27	8.11	9.16	7.70	22.44	24.19	14.85	13.16	9.34
2600.0	-24	8.52	9.59	8.04	23.06	27.21	23.66	24.26	9.57
2600.0	-21	9.10	10.16	8.06	23.41	32.32	28.82	31.97	10.73
2600.0	-18	11.09	10.45	9.19	21.45	34.57	29.81	33.45	16.45
2600.0	-15	12.05	11.06	9.04	26.70	37.22	35.12	36.36	16.80
2600.0	-12	12.05	11.28	9.36	26.96	40.45	37.97	38.51	22.61
2600.0	-9	14.31	23.15	23.02	25.68	42.17	40.06	38.83	22.93
2600.0	-4	13.45	24.10	25.28	25.51	45.61	43.54	47.33	29.88
2600.0	0	22.92	25.02	32.22	27.16	50.08	47.74	43.62	27.16

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

Wall Range versus Depth
(N, NE, E, SE, S, SW, W, NW)

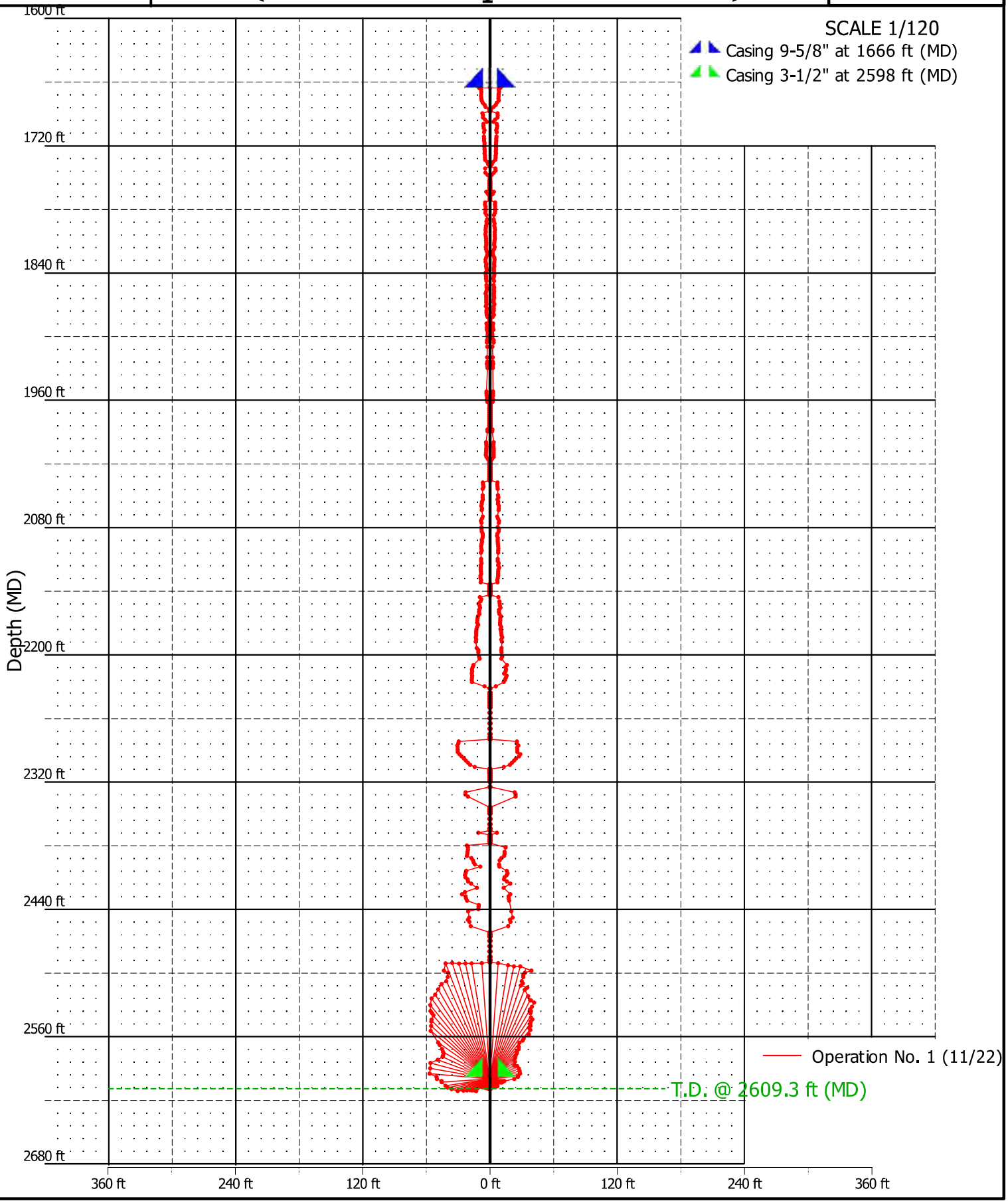
DEPTH	TILT	N	NE	E	SE	S	SW	W	NW
2600.0	5	26.47	27.36	36.12	29.47	57.09	54.52	16.27	26.49
2600.0	10	28.83	27.85	35.31	47.12	57.19	56.72	36.89	29.94
2600.0	15	28.86	27.33	35.59	48.08	58.04	55.73	36.64	30.01
2600.0	20	28.83	27.33	32.89	44.77	52.40	51.34	37.49	29.98
2600.0	25	28.26	27.11	32.57	42.31	49.11	46.70	31.30	29.29
2600.0	30	26.37	25.57	32.21	46.80	50.93	49.83	30.97	28.28
2600.0	35	28.32	25.24	32.47	51.45	59.58	54.89	34.11	28.11
2600.0	39	29.38	26.14	34.62	53.29	71.76	66.86	34.91	29.23
2600.0	42	30.46	27.57	39.18	70.22	74.49	71.00	39.58	29.62
2600.0	45	35.70	35.24	41.81	72.49	78.96	76.93	40.98	36.61
2600.0	48	40.53	39.51	60.63	75.20	85.81	76.98	56.72	42.14
2600.0	51	41.70	58.12	64.10	82.95	89.28	86.58	62.52	60.36
2600.0	54	63.90	62.04	72.53	84.14	93.63	91.47	67.35	62.52
2600.0	57	68.70	69.24	74.05	92.13	94.57	92.45	76.74	72.40
2600.0	60	75.62	73.96	82.82	96.29	97.42	100.58	82.38	78.68
2600.0	63	83.21	83.85	86.68	95.41	100.35	100.70	85.17	83.44
2600.0	66	82.33	89.63	84.83	98.42	119.30	99.19	90.70	89.68
2600.0	69	82.19	88.94	89.73	116.23	116.49	114.21	91.24	92.55
2600.0	72	92.10	94.30	110.30	114.09	114.86	114.31	110.52	92.69
2600.0	75	109.70	108.65	110.13	112.17	112.44	113.38	110.35	109.58
2600.0	78	108.38	107.99	109.70	111.29	111.24	111.40	108.60	108.98
2600.0	81	108.32	108.32	109.42	109.92	110.03	110.91	109.42	108.60
2600.0	86	109.15	109.15	109.15	109.15	109.26	109.64	109.70	109.20
2602.0	0	13.52	15.21	8.55	28.42	45.59	47.21	44.86	41.21
2604.0	0	5.32	14.67	6.79	6.48	28.90	26.15	43.83	10.73
2606.0	0	9.86	9.54	3.71	3.42	27.73	19.99	29.19	9.48

SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

TILTED SECTIONS POSITION

N180 ← 1 → N0

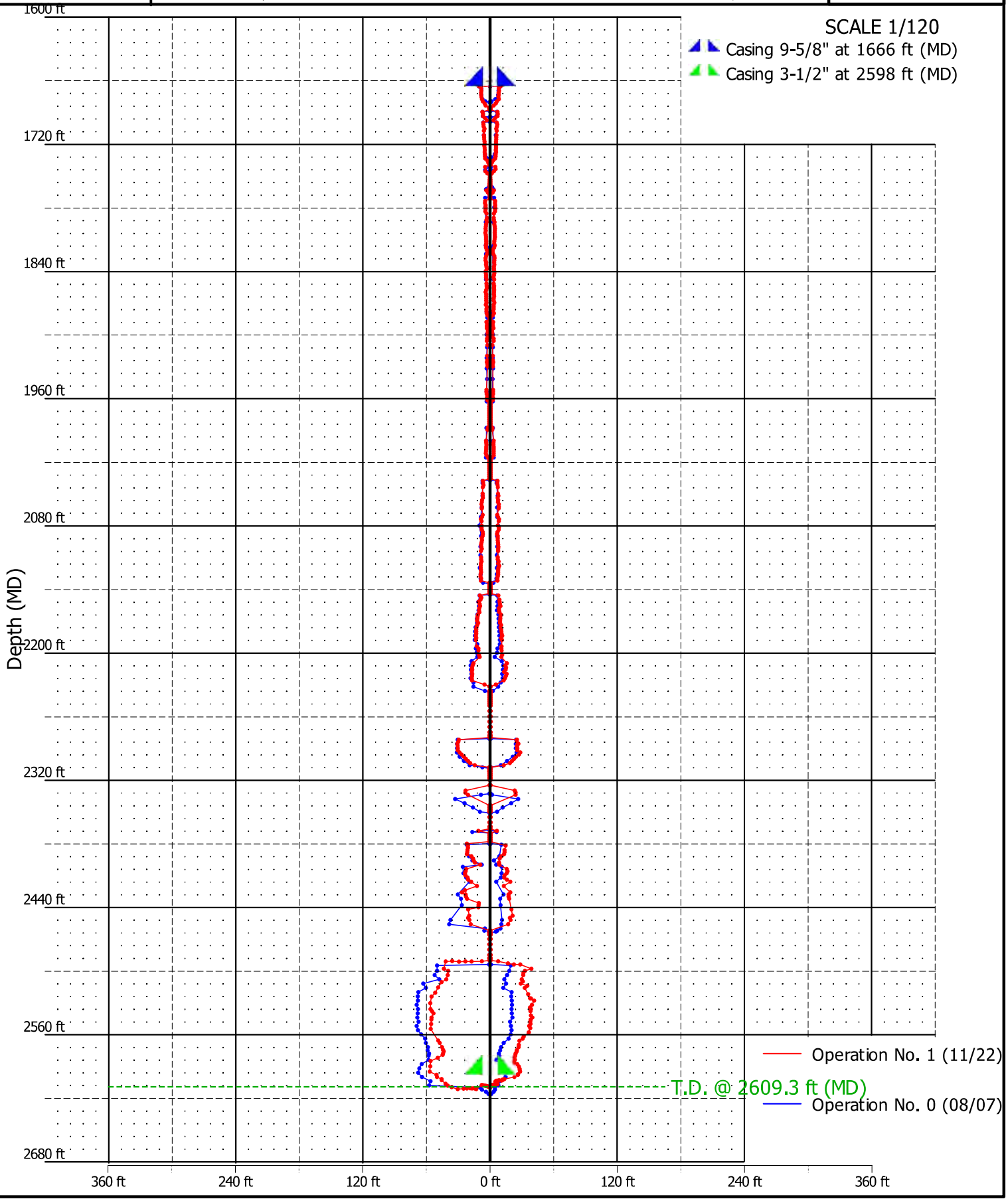


CUSTOMER	: Marathon Petroleum	CAVERN	:State LPG No. 4
DATE	: November 09, 2022	OPERATION No.	:1

VERTICAL SECTION

1

N180 ← → N0

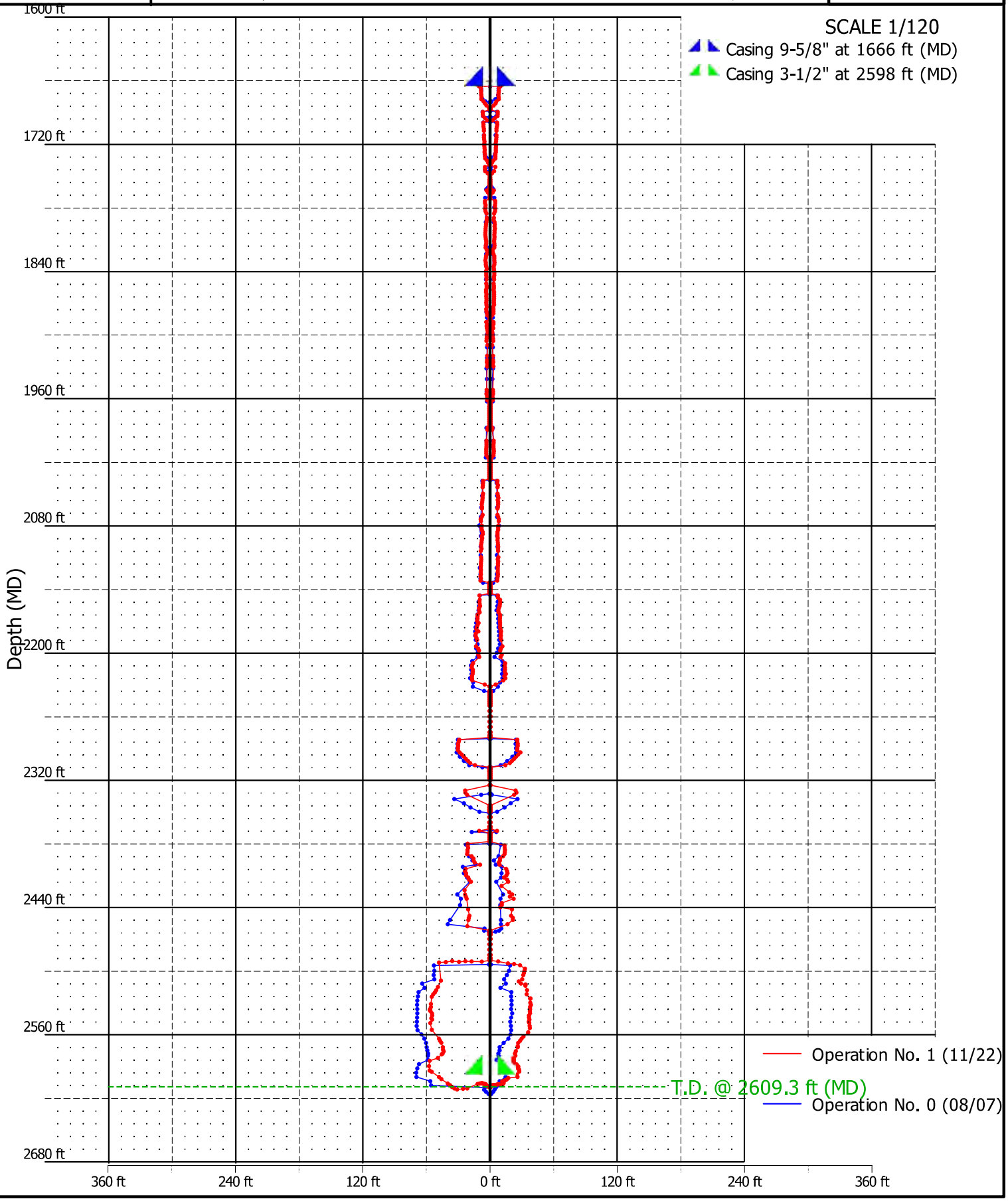


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CUSTOMER	: Marathon Petroleum	CAVERN	:State LPG No. 4
DATE	: November 09, 2022	OPERATION No.	:1

VERTICAL SECTION
2

N195 ← → N15



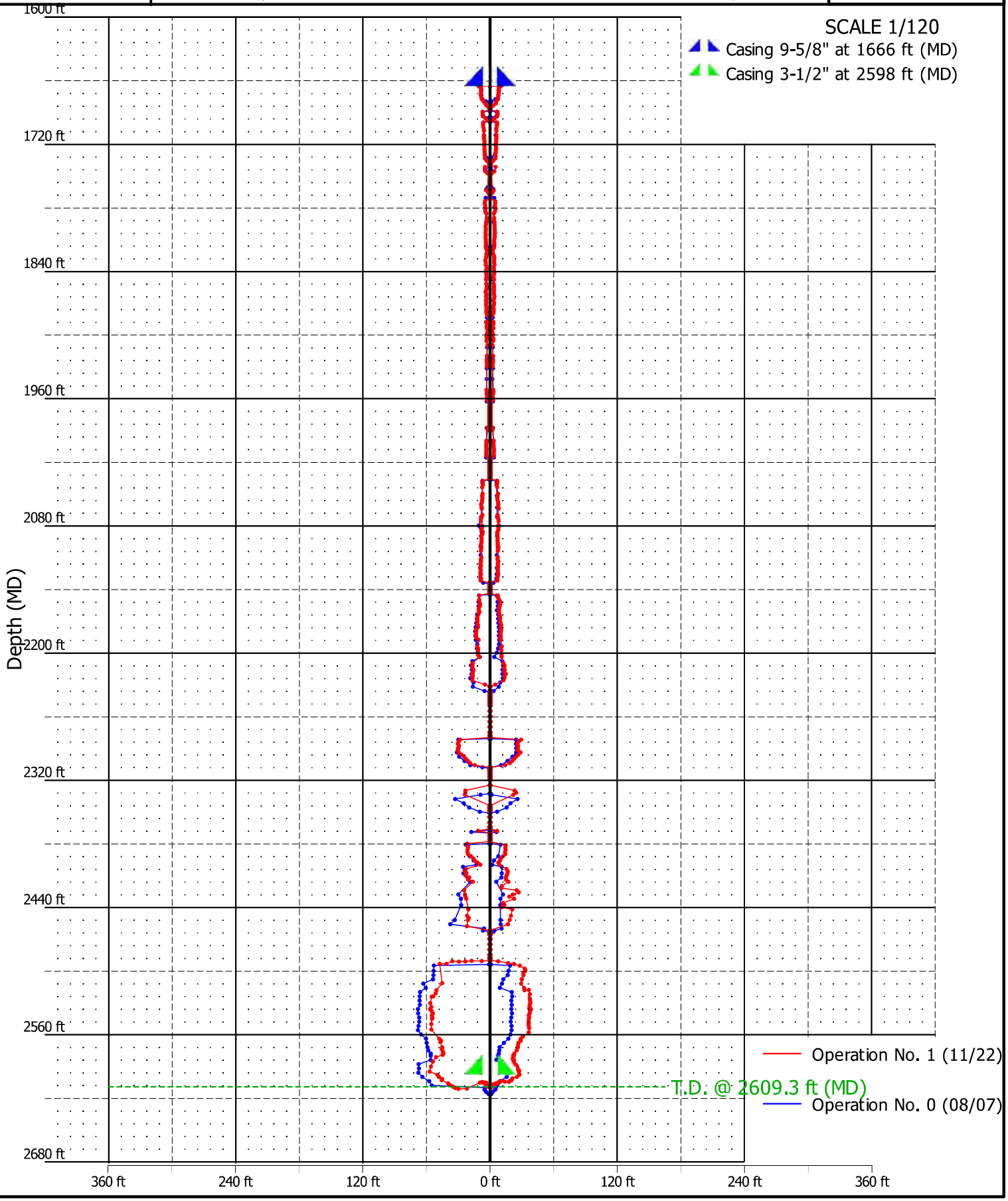
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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

VERTICAL SECTION

N210 ← 3 → N30



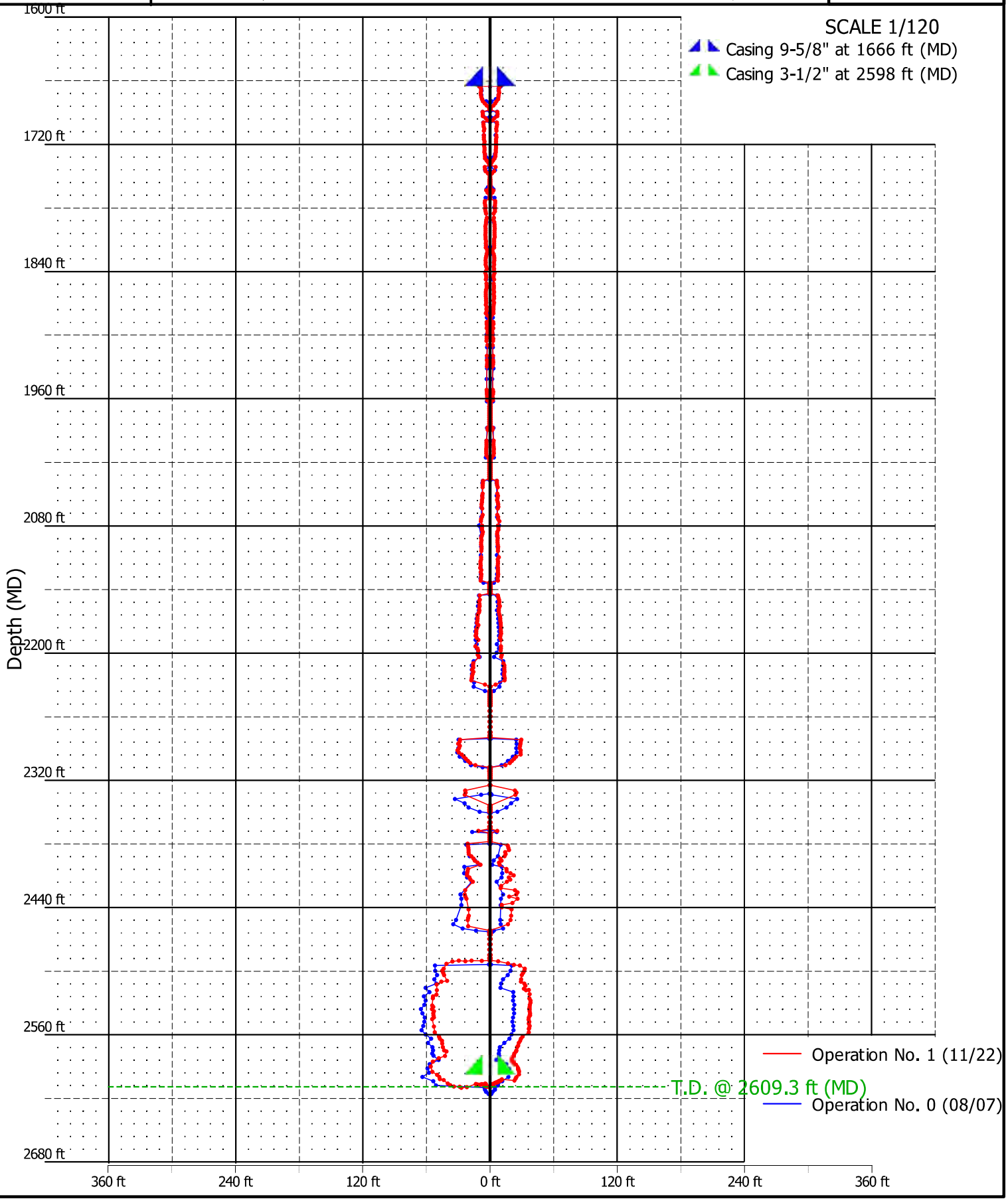
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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

VERTICAL SECTION

N225 ← 4 → N45



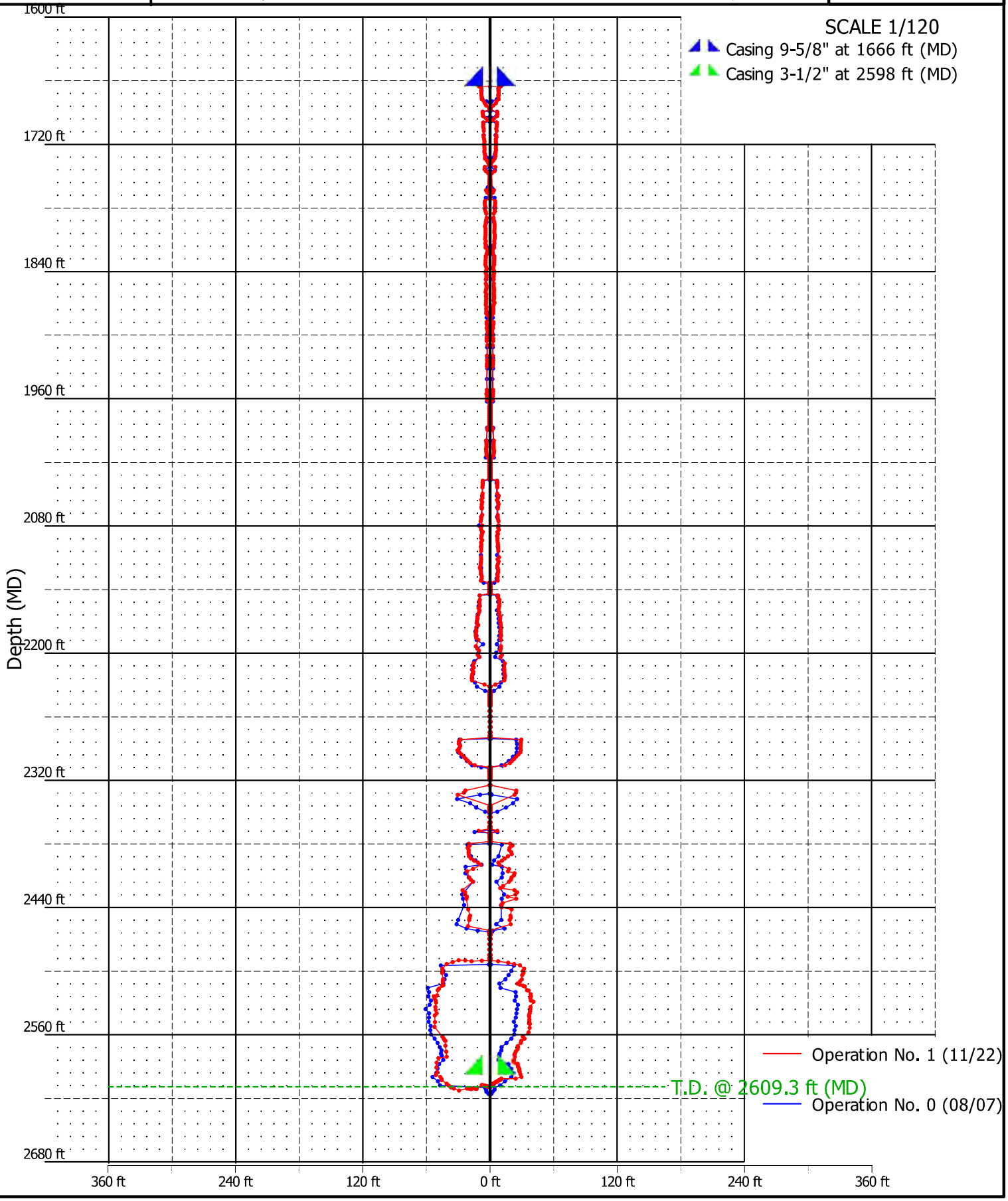
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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

VERTICAL SECTION

N240 — 5 — N60



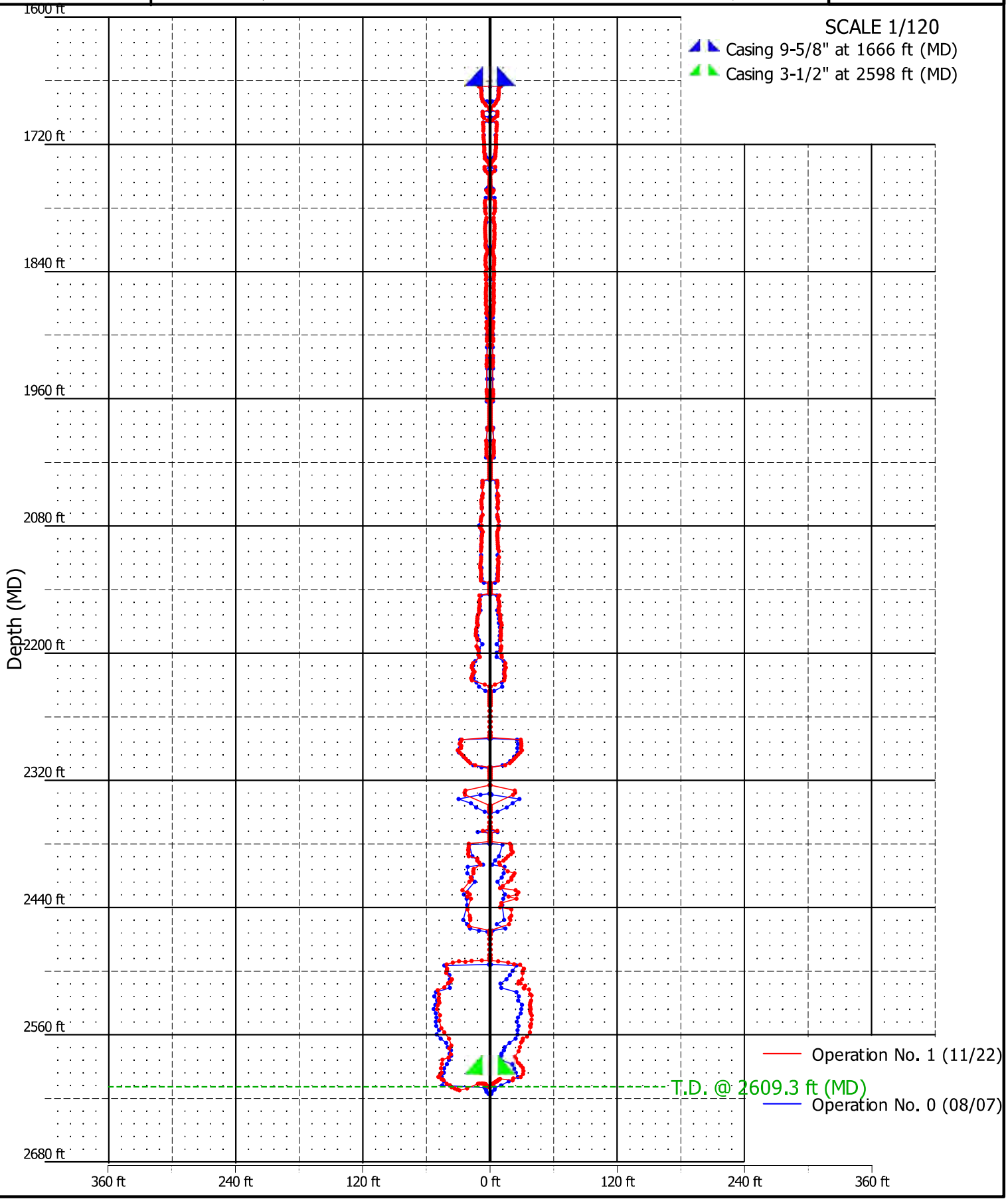
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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

VERTICAL SECTION

N255 ← **6** → N75



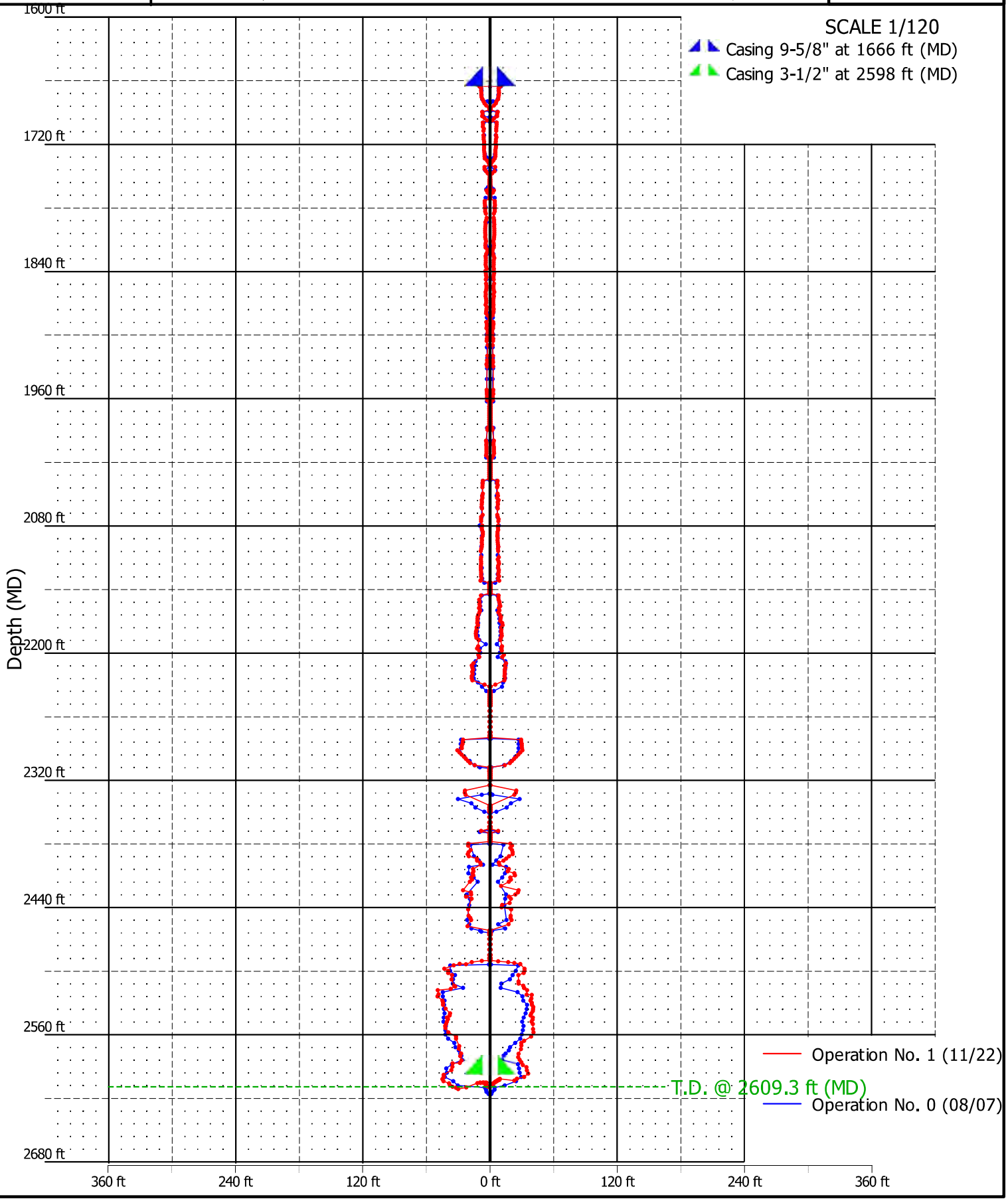
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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

VERTICAL SECTION

N270 ← 7 → N90



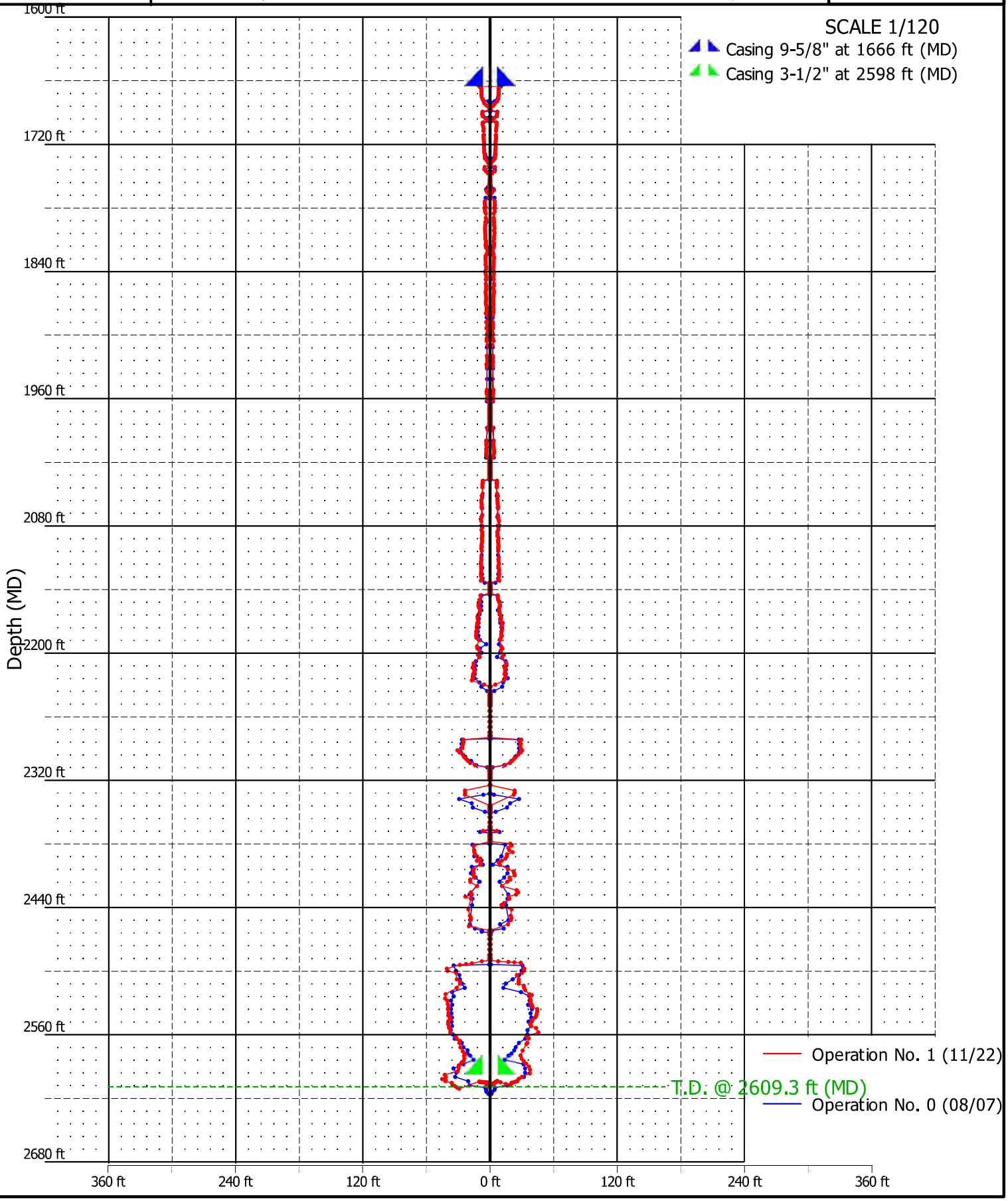
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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

VERTICAL SECTION

N285 ← 8 → N105



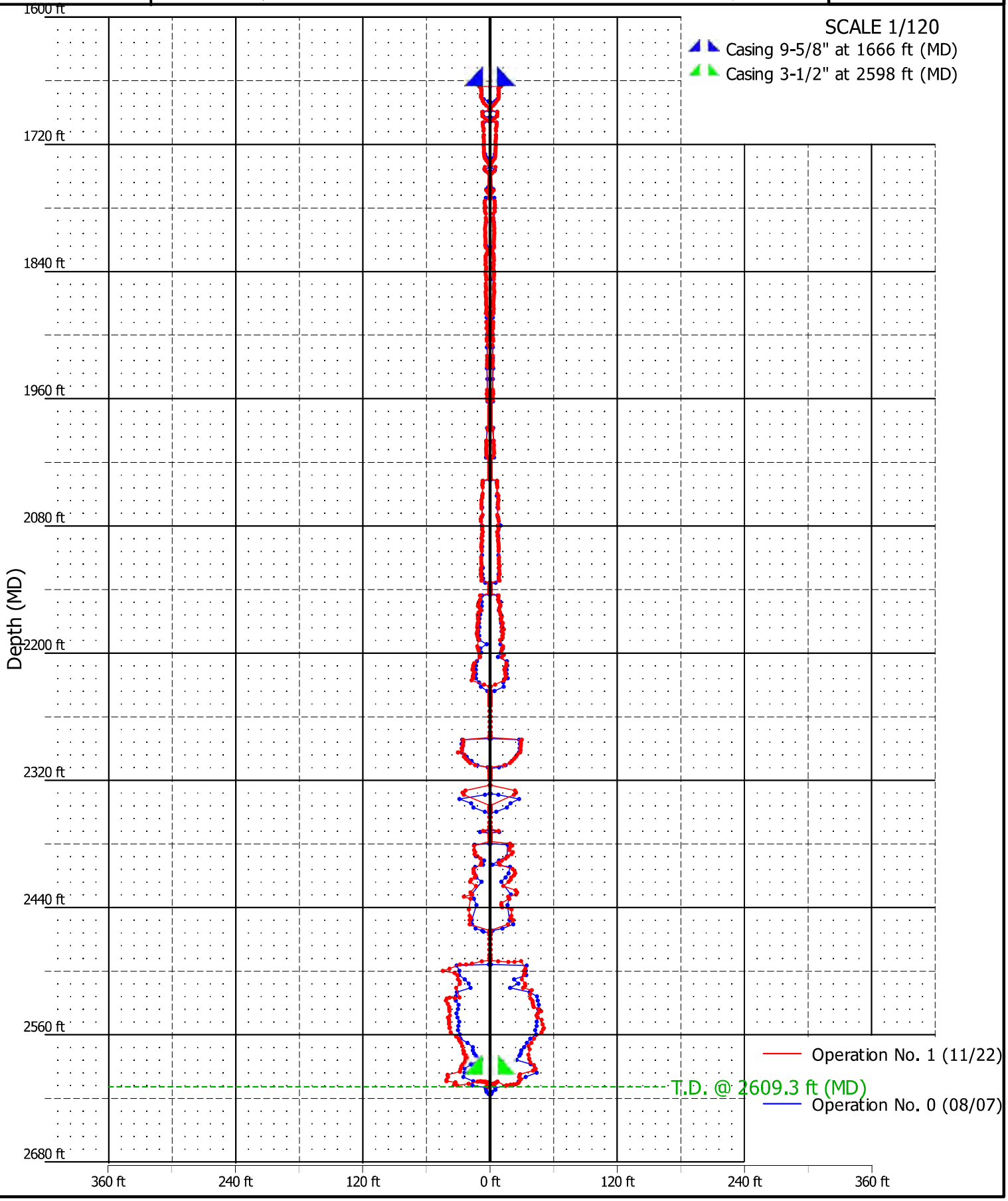
Results shown in the present document have not been validated nor controlled and cannot be considered as definitive. they cannot be used for interpretation processes and must be considered as indicative. SLOMM disclaims any reponsabilities in case of use of those preliminary results.

CUSTOMER	: Marathon Petroleum	CAVERN	:State LPG No. 4
DATE	: November 09, 2022	OPERATION No.	:1

VERTICAL SECTION

9

N300 ← → N120



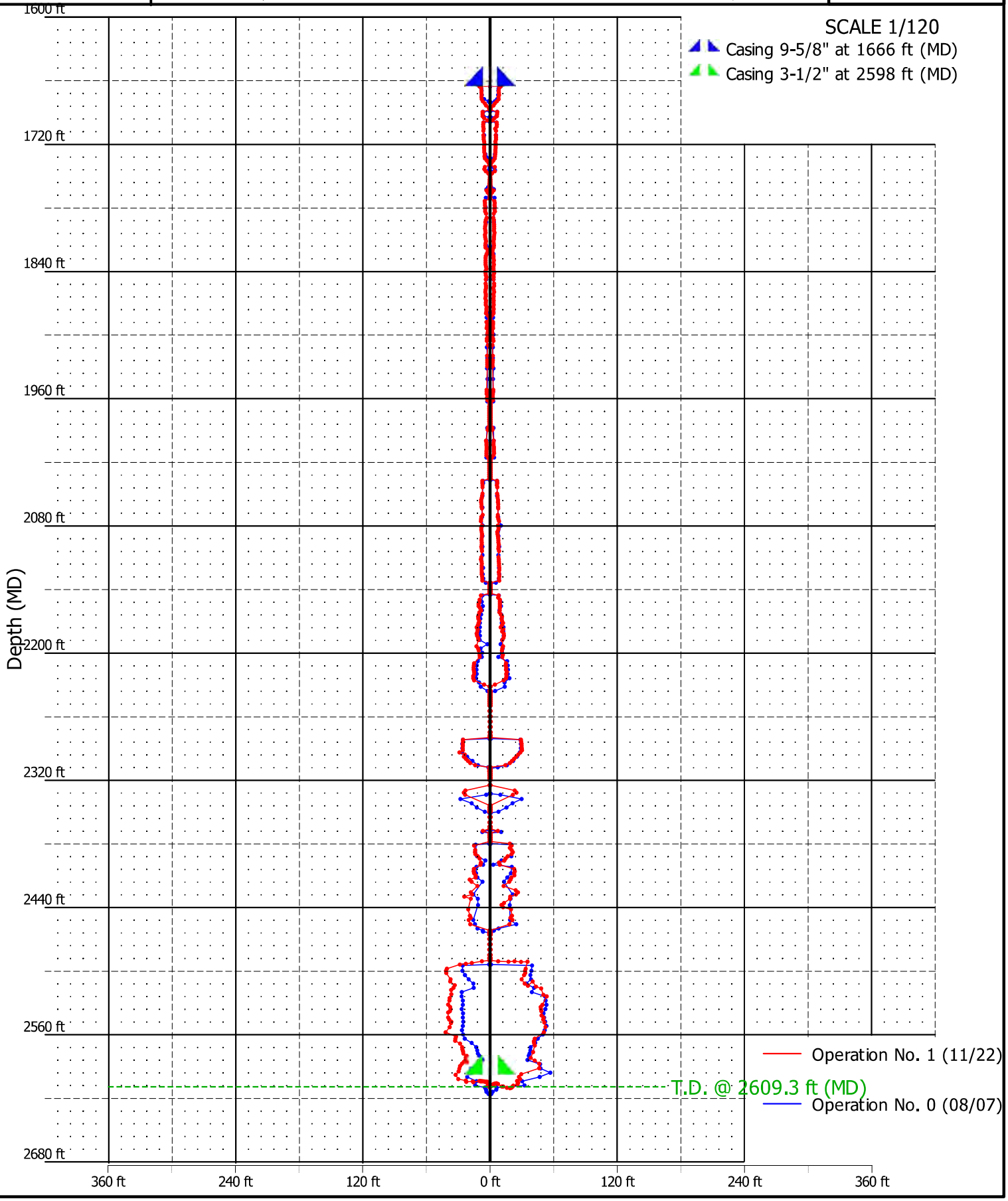
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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

VERTICAL SECTION

N315 ← 10 → N135



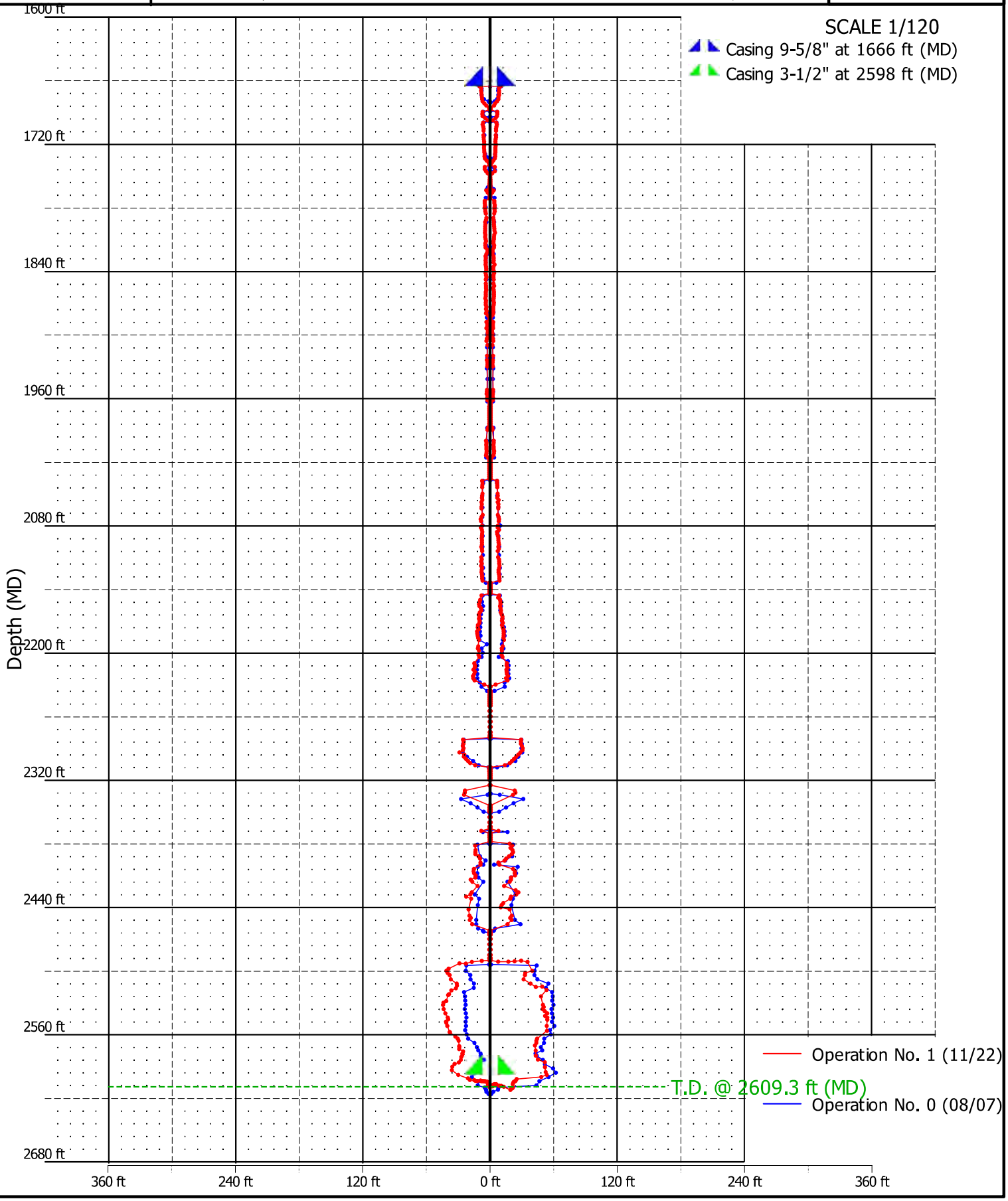
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SONIC SURVEYS

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

VERTICAL SECTION

N330 ← **11** → N150

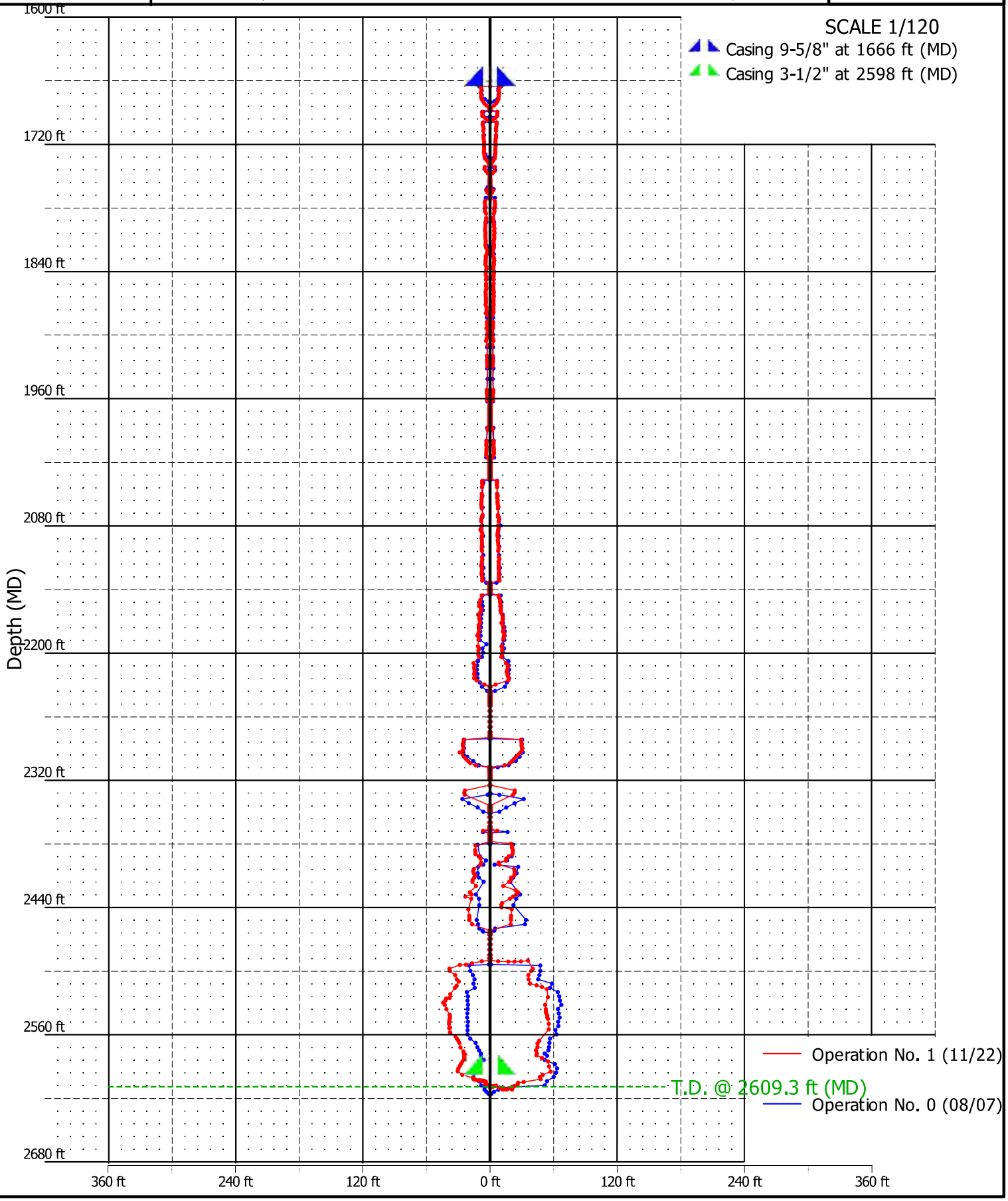


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CUSTOMER	: Marathon Petroleum	CAVERN	:State LPG No. 4
DATE	: November 09, 2022	OPERATION No.	:1

VERTICAL SECTION

N345 ← 12 → N165



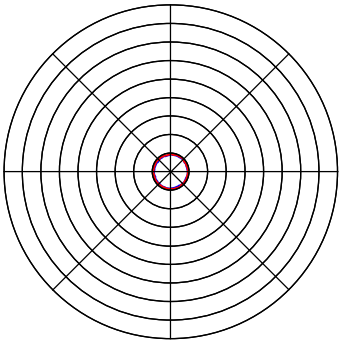
Results shown in the present document have not been validated nor controlled and cannot be considered as definitive. they cannot be used for interpretation processes and must be considered as indicative. SLB DWM disclaims any reponsabilities in case of use of those preliminary results.

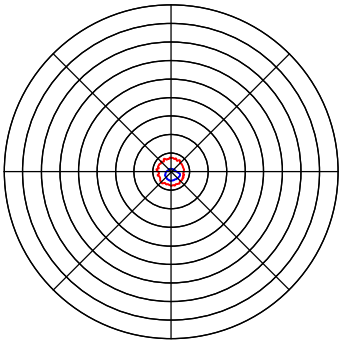
SONIC SURVEYS	CUSTOMER :Marathon Petroleum DATE :November 09, 2022	CAVERN : State LPG No. 4 OPERATION No.: 1

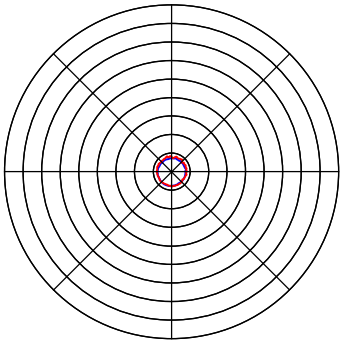
HORIZONTAL SECTIONS
between 1670 ft and 1780 ft

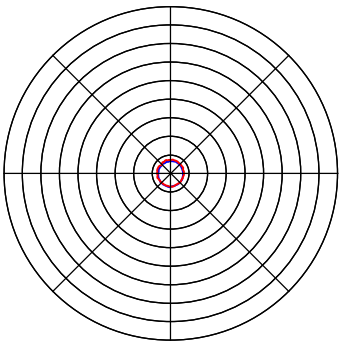
Operation No. 1 (11/22) Operation No. 0 (08/07)

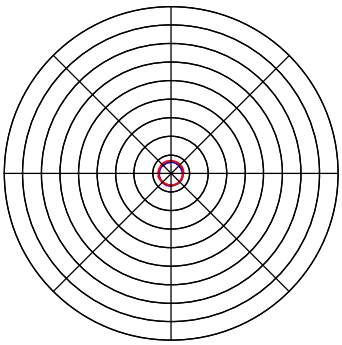
SCALE 10.0 ft per division

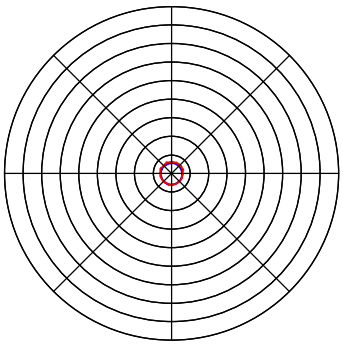

1670 ft / 214.08 ft²

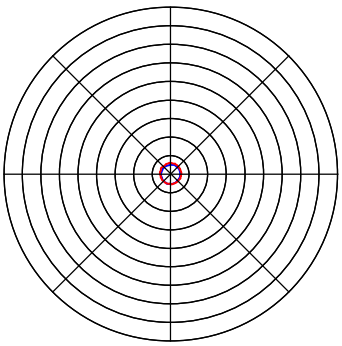

1680 ft / 129.74 ft²

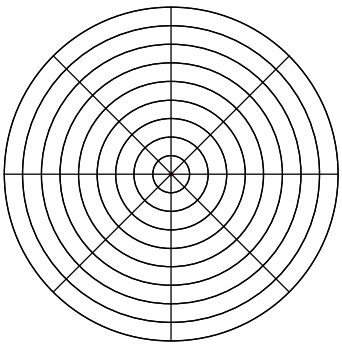

1690 ft / 154.56 ft²

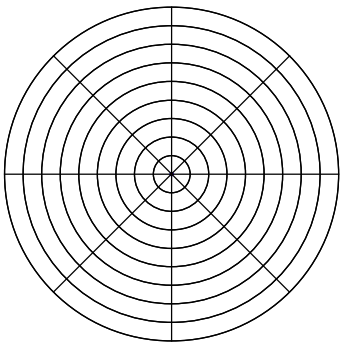

1700 ft / 126.93 ft²

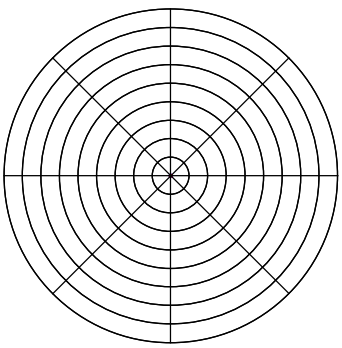

1710 ft / 110.37 ft²

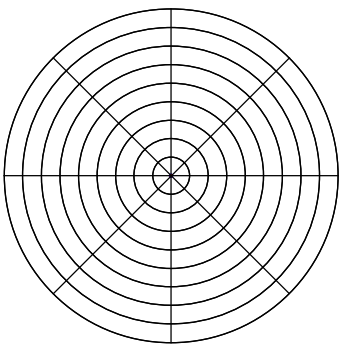

1720 ft / 93.50 ft²

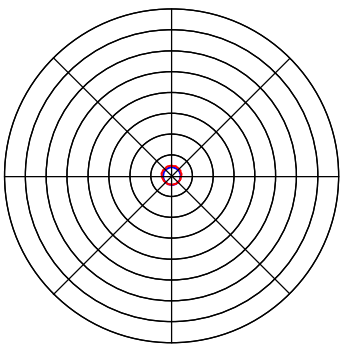

1730 ft / 79.94 ft²


1740 ft / 0.92 ft²


1750 ft / 0.37 ft²


1760 ft / 0.82 ft²


1770 ft / 0.37 ft²


1780 ft / 66.32 ft²

*All sections are oriented to Magnetic North. Magnetic Declination= 6.2°

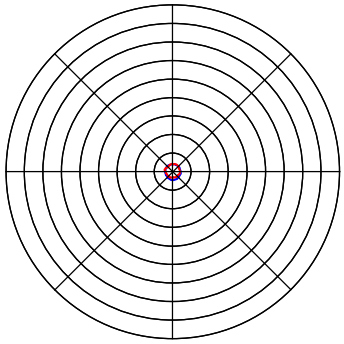
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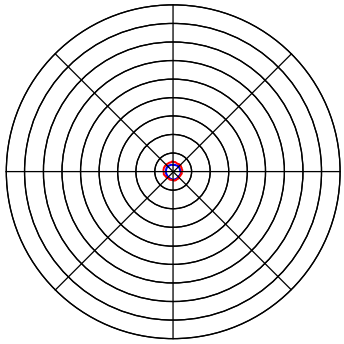
SONIC SURVEYS	CUSTOMER :Marathon Petroleum DATE :November 09, 2022	CAVERN : State LPG No. 4 OPERATION No.: 1

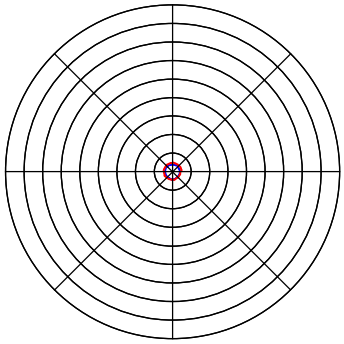
HORIZONTAL SECTIONS
between 1790 ft and 1900 ft

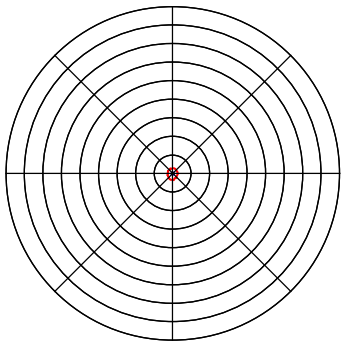
Operation No. 1 (11/22) Operation No. 0 (08/07)

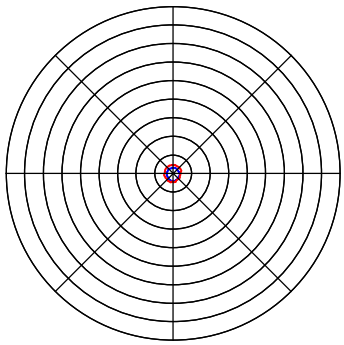
SCALE 10.0 ft per division

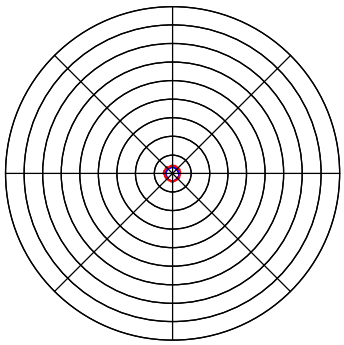

1790 ft / 34.98 ft²

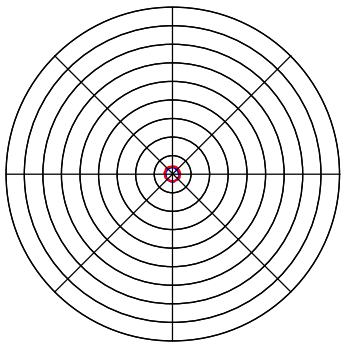

1800 ft / 60.40 ft²

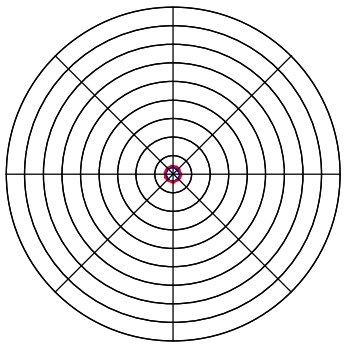

1810 ft / 51.70 ft²

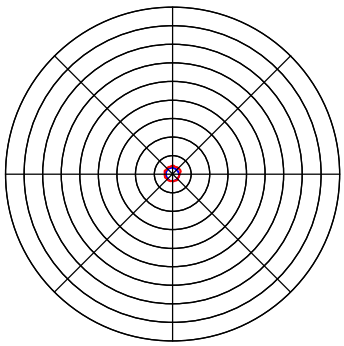

1820 ft / 20.98 ft²

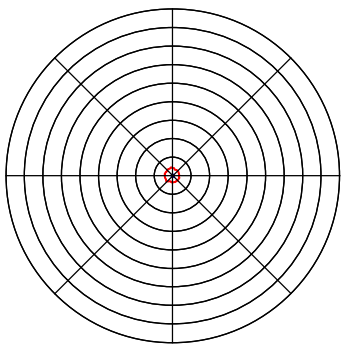

1830 ft / 50.75 ft²

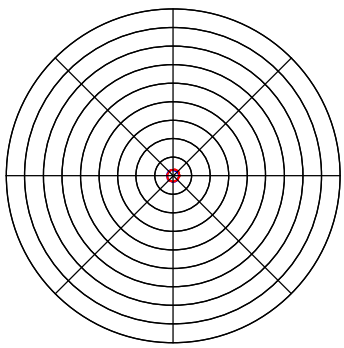

1840 ft / 45.08 ft²

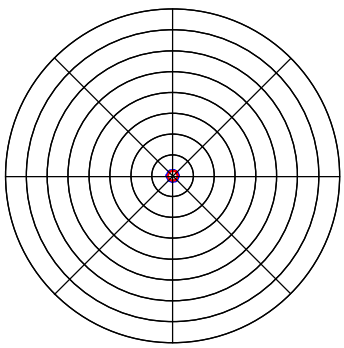

1850 ft / 42.11 ft²


1860 ft / 47.98 ft²


1870 ft / 42.90 ft²


1880 ft / 37.35 ft²


1890 ft / 26.33 ft²


1900 ft / 17.13 ft²

*All sections are oriented to Magnetic North. Magnetic Declination= 6.2°

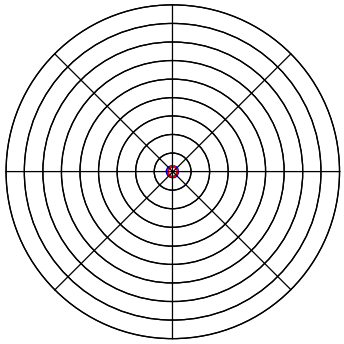
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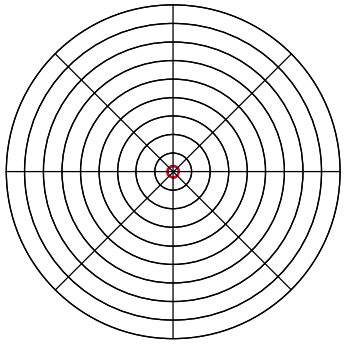
SONIC SURVEYS	CUSTOMER :Marathon Petroleum DATE :November 09, 2022	CAVERN : State LPG No. 4 OPERATION No.: 1

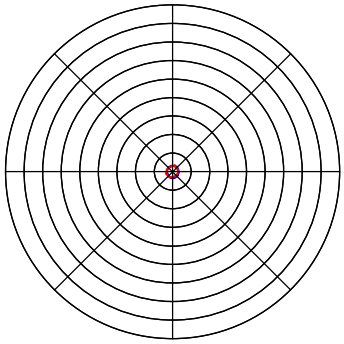
HORIZONTAL SECTIONS
between 1910 ft and 2020 ft

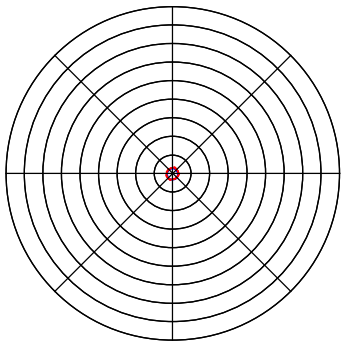
Operation No. 1 (11/22) Operation No. 0 (08/07)

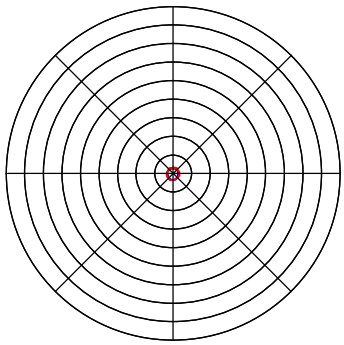
SCALE 10.0 ft per division

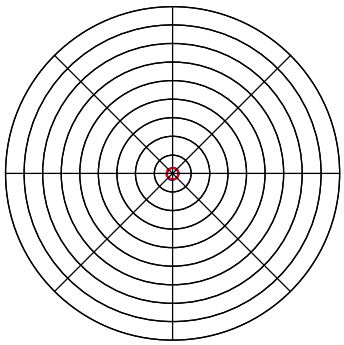

1910 ft / 16.39 ft²

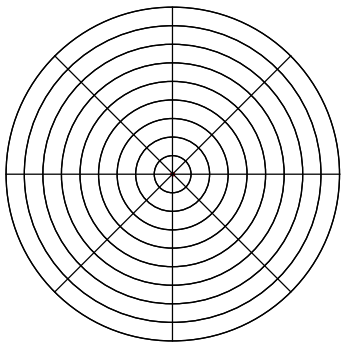

1920 ft / 24.69 ft²

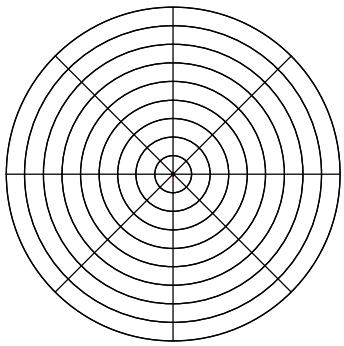

1930 ft / 23.08 ft²

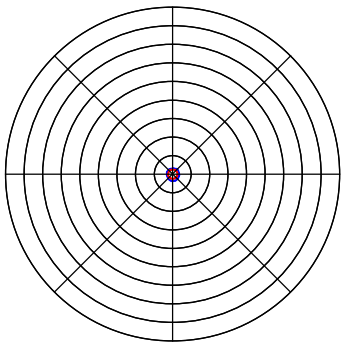

1940 ft / 25.68 ft²

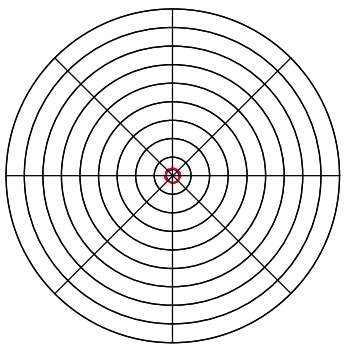

1950 ft / 28.51 ft²

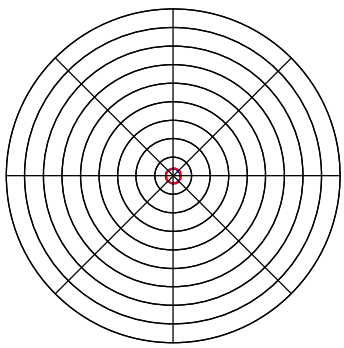

1960 ft / 23.97 ft²

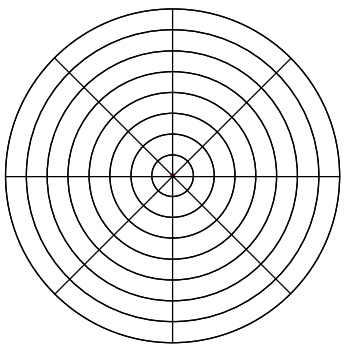

1970 ft / 1.34 ft²


1980 ft / 1.33 ft²


1990 ft / 15.86 ft²


2000 ft / 38.77 ft²


2010 ft / 40.03 ft²


2020 ft / 1.38 ft²

*All sections are oriented to Magnetic North. Magnetic Declination= 6.2°

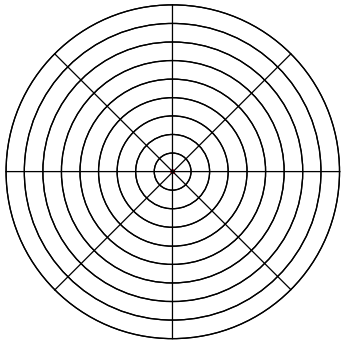
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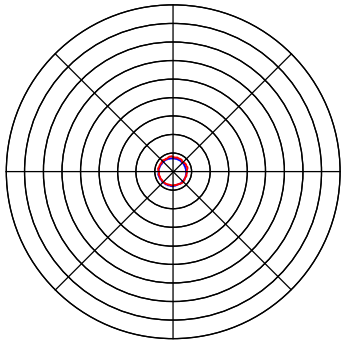
SONIC SURVEYS	CUSTOMER :Marathon Petroleum DATE :November 09, 2022	CAVERN : State LPG No. 4 OPERATION No.: 1

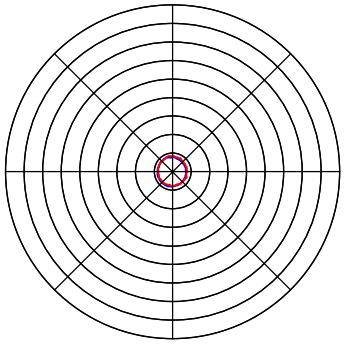
HORIZONTAL SECTIONS
between 2030 ft and 2140 ft

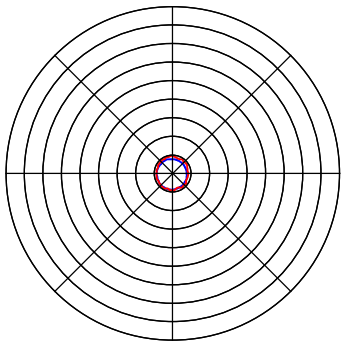
Operation No. 1 (11/22) Operation No. 0 (08/07)

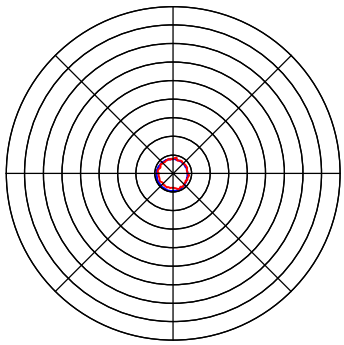
SCALE 10.0 ft per division

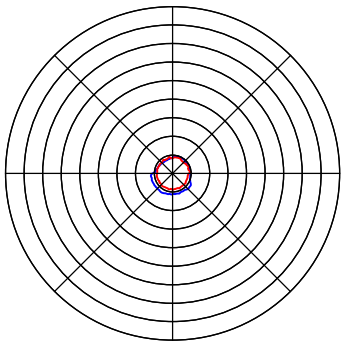

2030 ft / 1.36 ft²

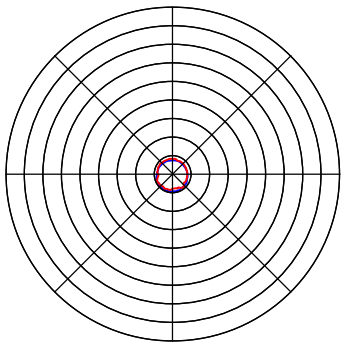

2040 ft / 147.82 ft²

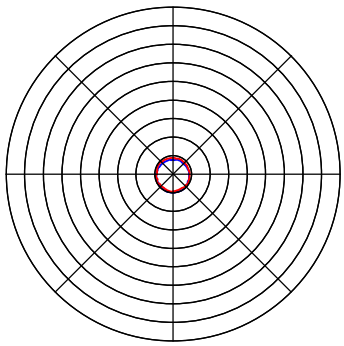

2050 ft / 153.84 ft²

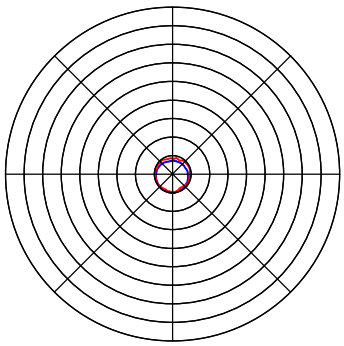

2060 ft / 192.82 ft²

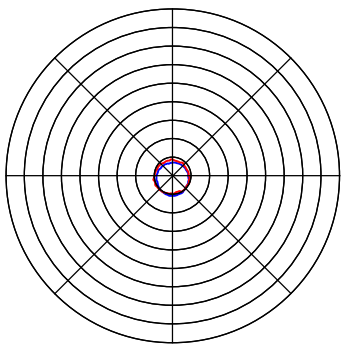

2070 ft / 160.31 ft²

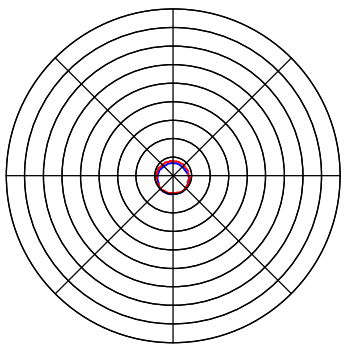

2080 ft / 183.22 ft²

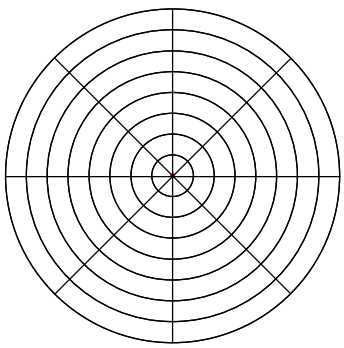

2090 ft / 169.66 ft²


2100 ft / 201.44 ft²


2110 ft / 209.59 ft²


2120 ft / 212.96 ft²


2130 ft / 192.66 ft²


2140 ft / 1.45 ft²

*All sections are oriented to Magnetic North. Magnetic Declination= 6.2°

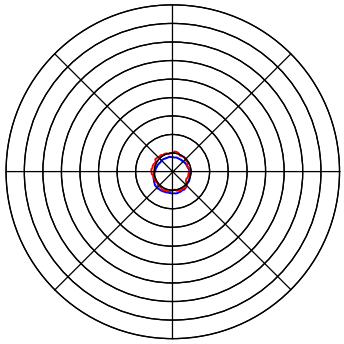
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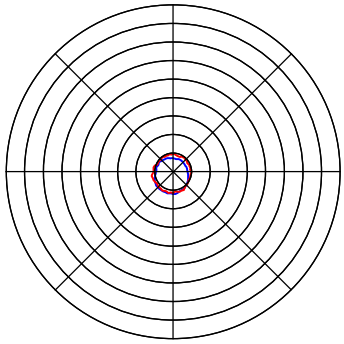
SONIC SURVEYS	CUSTOMER :Marathon Petroleum DATE :November 09, 2022	CAVERN : State LPG No. 4 OPERATION No.: 1

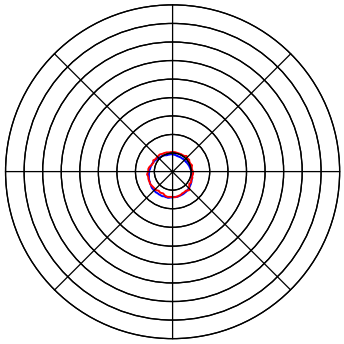
HORIZONTAL SECTIONS
between 2150 ft and 2260 ft

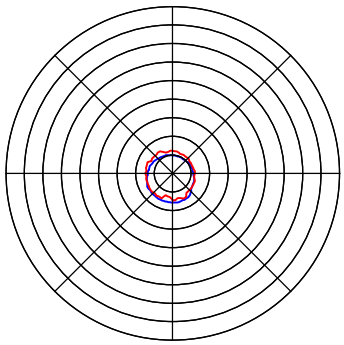
Operation No. 1 (11/22) — Operation No. 0 (08/07)

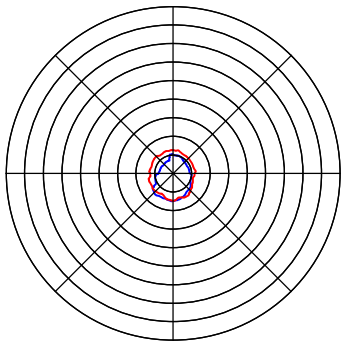
SCALE 10.0 ft per division

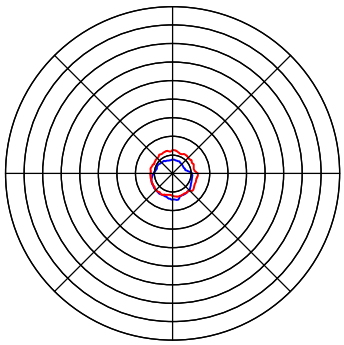

2150 ft / 261.18 ft²

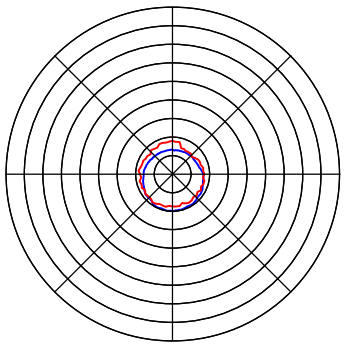

2160 ft / 258.52 ft²

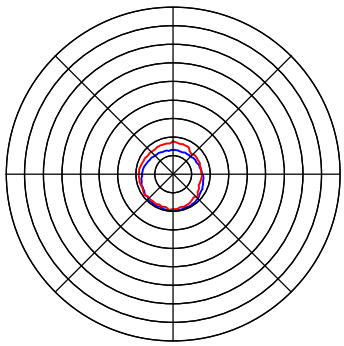

2170 ft / 359.38 ft²

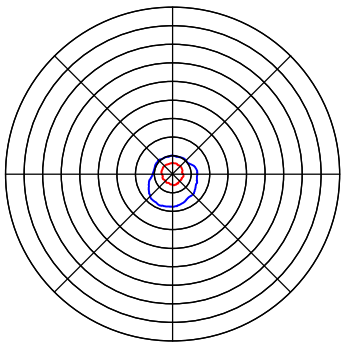

2180 ft / 427.86 ft²

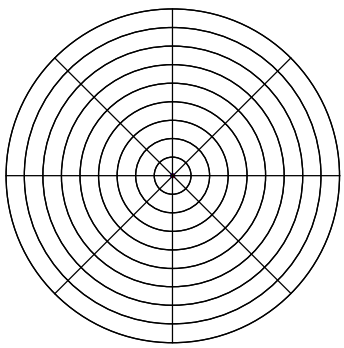

2190 ft / 399.56 ft²

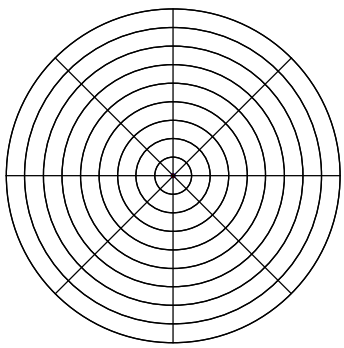

2200 ft / 377.93 ft²

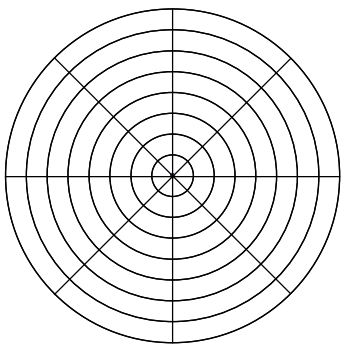

2210 ft / 719.52 ft²


2220 ft / 734.04 ft²


2230 ft / 82.61 ft²


2240 ft / 1.09 ft²


2250 ft / 1.09 ft²


2260 ft / 1.09 ft²

*All sections are oriented to Magnetic North. Magnetic Declination= 6,2°

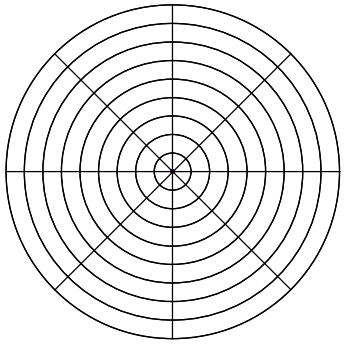
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SONIC SURVEYS	CUSTOMER :Marathon Petroleum DATE :November 09, 2022	CAVERN : State LPG No. 4 OPERATION No.: 1

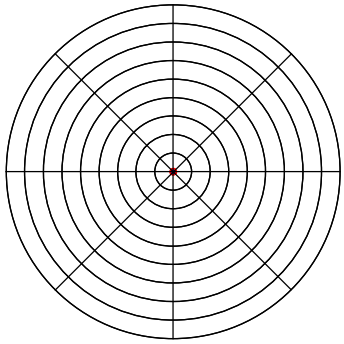
HORIZONTAL SECTIONS
between 2270 ft and 2380 ft

Operation No. 1 (11/22) Operation No. 0 (08/07)

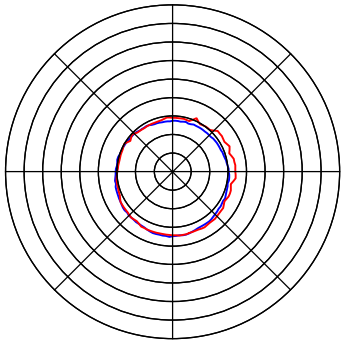
SCALE 10.0 ft per division



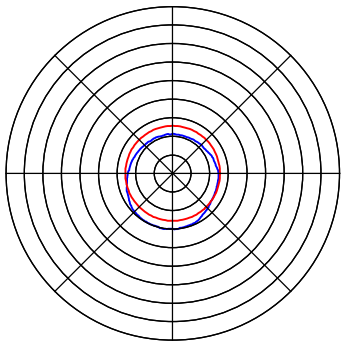
2270 ft / 1.09 ft²



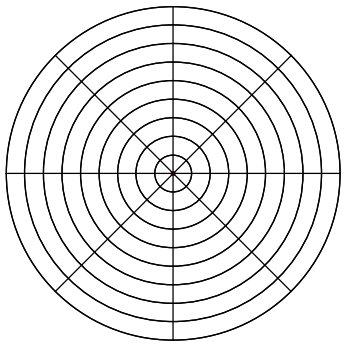
2280 ft / 6.38 ft²



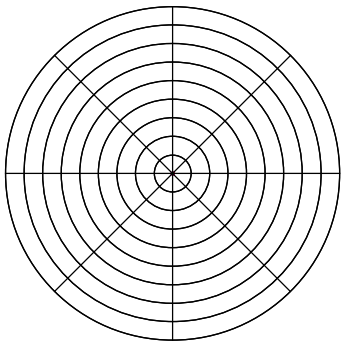
2290 ft / 2496.76 ft²



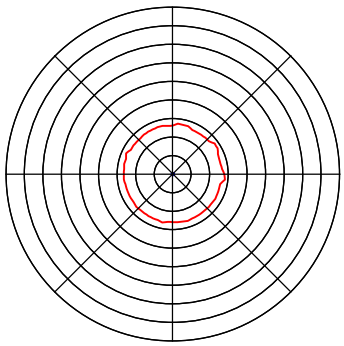
2300 ft / 1619.91 ft²



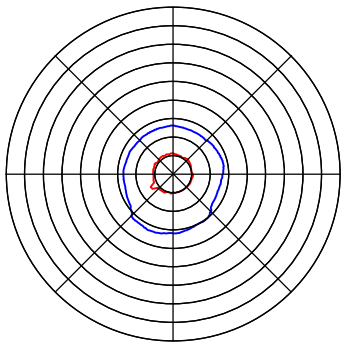
2310 ft / 1.77 ft²



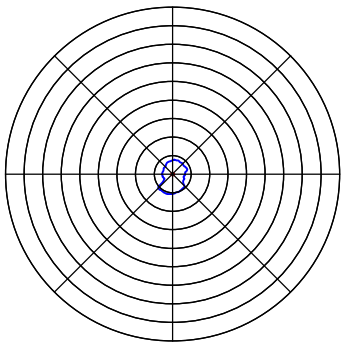
2320 ft / 1.12 ft²



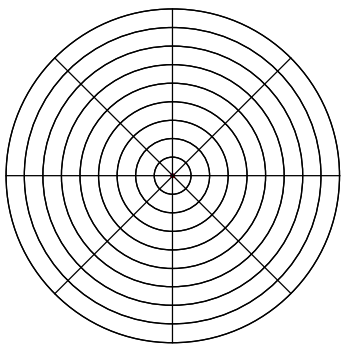
2330 ft / 1737.01 ft²



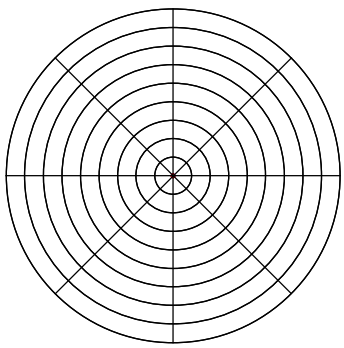
2340 ft / 286.94 ft²



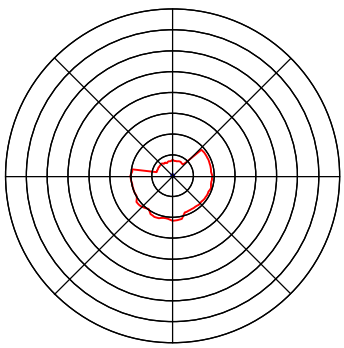
2350 ft / 1.43 ft²



2360 ft / 1.43 ft²



2370 ft / 1.86 ft²



2380 ft / 850.59 ft²

*All sections are oriented to Magnetic North. Magnetic Declination= 6.2°

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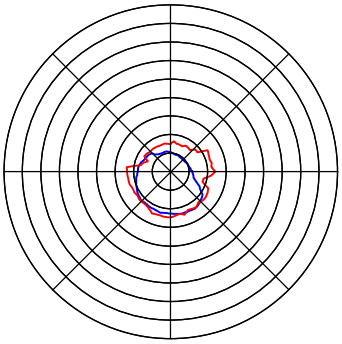
SONIC SURVEYS	CUSTOMER :Marathon Petroleum DATE :November 09, 2022	CAVERN : State LPG No. 4 OPERATION No.: 1

HORIZONTAL SECTIONS
between 2390 ft and 2500 ft

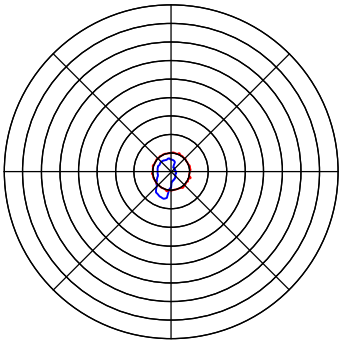
Operation No. 1 (11/22)

Operation No. 0 (08/07)

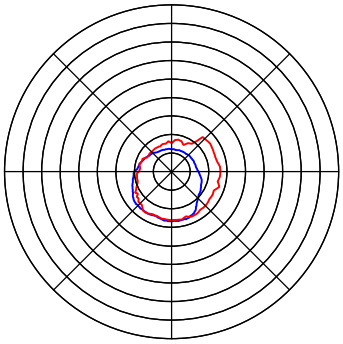
SCALE 10.0 ft per division



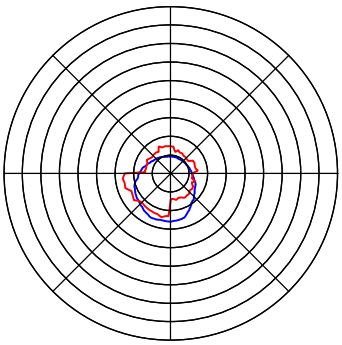
2390 ft / 1037.08 ft²



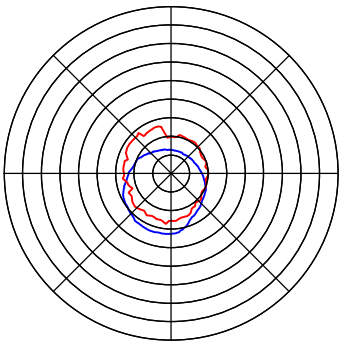
2400 ft / 257.40 ft²



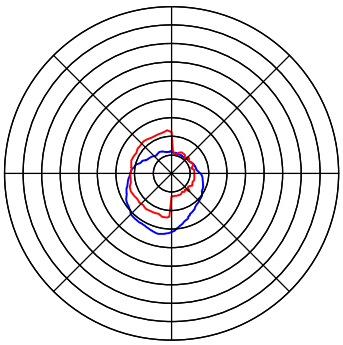
2410 ft / 1217.04 ft²



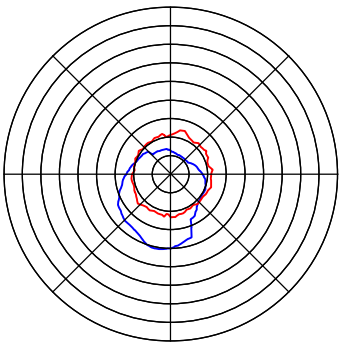
2420 ft / 690.72 ft²



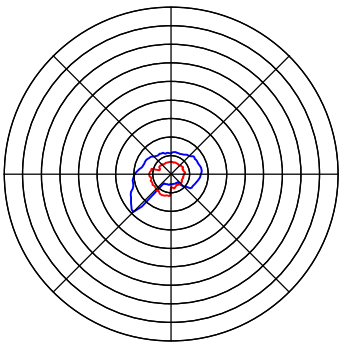
2430 ft / 1349.18 ft²



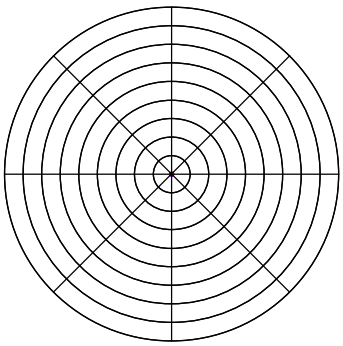
2440 ft / 824.93 ft²



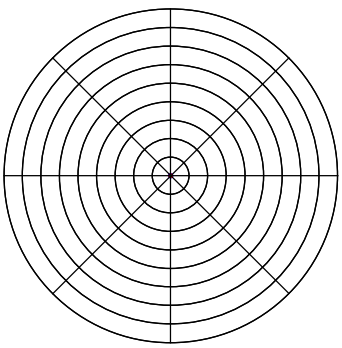
2450 ft / 1170.28 ft²



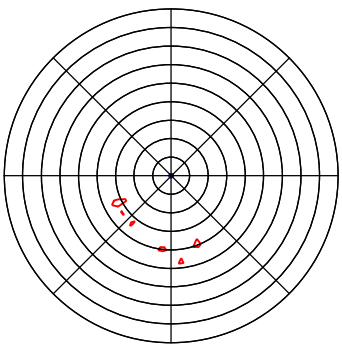
2460 ft / 180.13 ft²



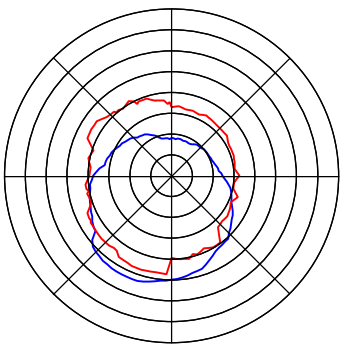
2470 ft / 1.36 ft²



2480 ft / 1.36 ft²



2490 ft / 35.74 ft²



2500 ft / 4641.16 ft²

*All sections are oriented to Magnetic North.

Magnetic Declination= 6.2°

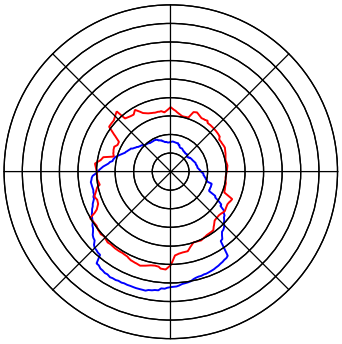
Results shown in the present document have not been validated nor controlled and cannot be considered as definitive. they cannot be used for interpretation processes and must be considered as indicative. LODIM disclaims any reponsabilities in case of use of those preliminary results.

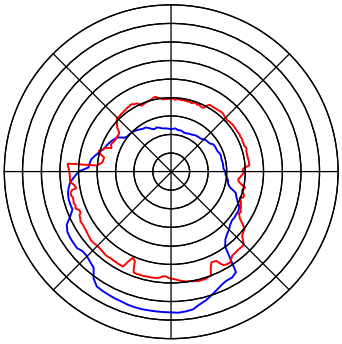
SONIC	CUSTOMER :Marathon Petroleum DATE :November 09, 2022	CAVERN : State LPG No. 4 OPERATION No.: 1

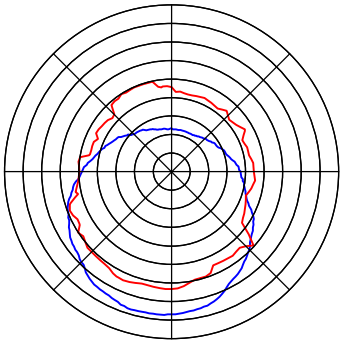
HORIZONTAL SECTIONS
between 2510 ft and 2610 ft

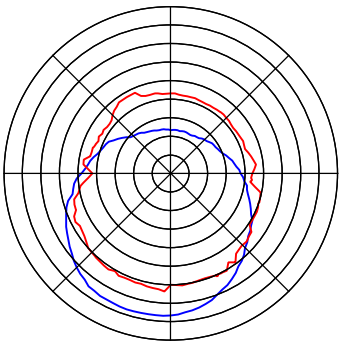
Operation No. 1 (11/22) Operation No. 0 (08/07)

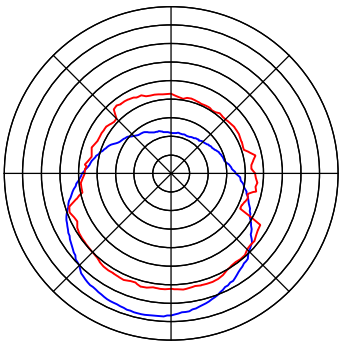
SCALE 10.0 ft per division

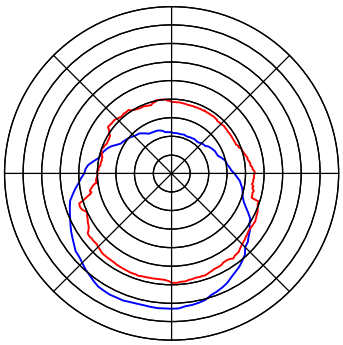

2510 ft / 3770.34 ft²

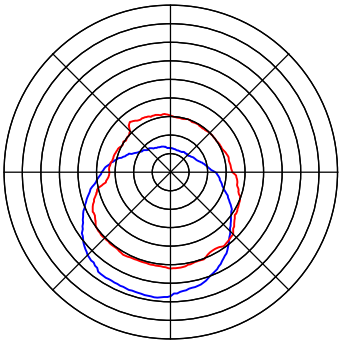

2520 ft / 5583.48 ft²

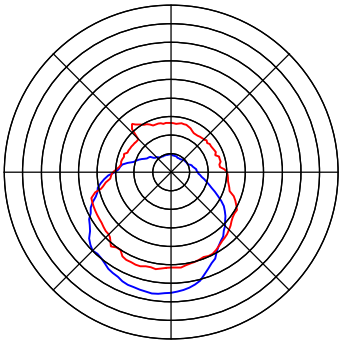

2530 ft / 6461.10 ft²

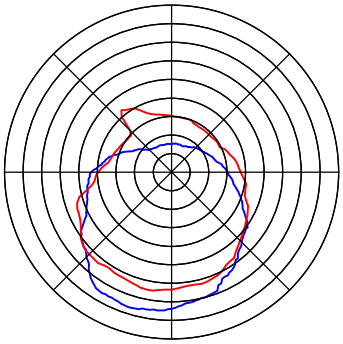

2540 ft / 6320.29 ft²

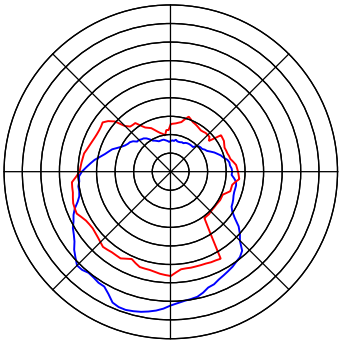

2550 ft / 6383.62 ft²

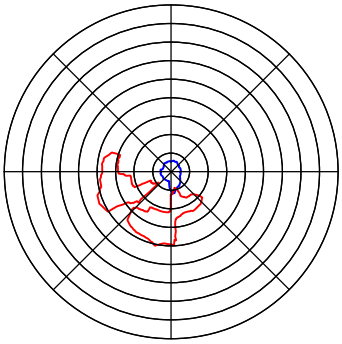

2560 ft / 5475.40 ft²


2570 ft / 3872.96 ft²


2580 ft / 3464.96 ft²


2590 ft / 5165.96 ft²


2600 ft / 4279.46 ft²


2610 ft / 806.98 ft²

*All sections are oriented to Magnetic North. Magnetic Declination= 6,2°

Results shown in the present document have not been validated nor controlled and cannot be considered as definitive. they cannot be used for interpretation processes and must be considered as indicative. LODIM disclaims any reponsabilities in case of use of those preliminary results.

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1666.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.9	9.7	9.6	9.7	9.8	9.8	9.8	9.9
24	9.9	9.8	9.6	9.7	9.7	9.7	9.6	9.4
48	9.6	9.7	9.5	9.5	9.6	9.8	9.8	9.7
72	9.7	9.8	9.7	9.7	9.7	9.8	10.0	10.0
96	9.9	9.6	9.6	9.7	10.0	10.1	10.0	10.0
120	10.1	10.1	10.1	10.0	10.0	10.2	10.0	10.0
144	10.1	10.1	10.2	10.2	10.2	9.9	9.8	9.8
168	9.7	9.7	9.8	10.0	10.3	10.2	10.1	10.2
192	10.3	10.3	10.3	10.2	9.9	9.8	9.8	9.9
216	10.0	9.8	9.9	10.2	10.2	10.2	10.1	10.2
240	10.4	10.2	10.0	10.1	10.2	10.5	10.1	9.8
264	9.9	10.0	10.0	10.0	10.0	10.0	9.9	9.9
288	10.1	10.1	10.0	9.9	9.9	10.0	10.1	9.9
312	9.8	9.9	10.0	10.0	10.0	9.9	9.8	9.7
336	9.7	9.7	9.5	9.3	9.3	9.4	9.9	10.0

DEPTH	1667.8		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.2	8.3	8.3	8.4	8.3	8.3	8.3	8.4
24	8.4	8.3	8.3	8.2	8.1	8.1	8.2	8.5
48	8.3	8.2	8.3	8.2	8.1	8.2	8.2	8.2
72	8.3	8.4	8.4	8.5	8.9	8.6	8.2	8.1
96	8.2	8.3	8.3	8.3	8.5	8.6	8.3	8.2
120	8.4	8.4	8.4	8.2	8.3	8.5	8.4	8.4
144	8.7	8.5	8.3	8.5	8.7	8.6	8.6	8.7
168	8.7	8.7	8.6	8.5	8.3	8.4	8.5	8.4
192	8.4	8.5	8.6	8.7	8.6	8.6	8.5	8.5
216	8.5	8.5	8.5	8.5	8.6	8.5	8.3	8.3
240	8.4	8.5	8.6	8.7	8.6	8.5	8.4	8.4
264	8.5	8.4	8.3	8.3	8.4	8.4	8.5	8.5
288	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.3
312	8.3	8.4	8.2	8.2	8.3	8.4	8.4	8.2
336	8.0	8.0	8.1	8.3	8.3	8.3	8.3	8.3

DEPTH	1670.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.5	8.4	8.3	8.2	8.2	8.3	8.4	8.4
24	8.3	8.4	8.4	8.4	8.4	8.6	8.5	8.3
48	8.2	8.2	8.1	8.1	8.2	8.1	8.1	8.1
72	8.1	8.2	8.3	8.3	8.3	8.3	8.2	8.2
96	8.3	8.3	8.3	8.1	8.2	8.2	8.3	8.3
120	8.3	8.2	8.2	8.3	8.2	8.1	8.1	8.2
144	8.3	8.4	8.5	8.4	8.4	8.4	8.3	8.3
168	8.4	8.5	8.3	8.2	8.2	8.2	8.3	8.3
192	8.3	8.3	8.2	8.2	8.3	8.3	8.3	8.2
216	8.2	8.2	8.3	8.3	8.3	8.3	8.3	8.3
240	8.3	8.3	8.3	8.1	8.1	8.2	8.1	8.1
264	8.3	8.3	8.4	8.3	8.3	8.2	8.2	8.3
288	8.2	8.2	8.2	8.2	8.3	8.3	8.3	8.3
312	8.2	8.1	8.1	8.1	8.3	8.3	8.3	8.2
336	8.1	8.2	8.2	8.0	8.1	8.1	8.2	8.3

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1672.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.2	8.4	8.6	8.6	8.4	8.2	8.2	8.2
24	8.3	8.3	8.1	8.1	8.2	8.3	8.4	8.7
48	8.4	8.3	8.3	8.2	8.2	8.4	8.5	8.4
72	8.4	8.4	8.3	8.3	8.3	8.4	8.5	8.4
96	8.4	8.3	8.2	8.2	8.5	8.7	8.4	8.3
120	8.4	8.4	8.5	8.5	8.4	8.4	8.3	8.3
144	8.4	8.5	8.6	8.5	8.5	8.4	8.4	8.5
168	8.7	8.7	8.5	8.4	8.3	8.5	8.6	8.7
192	8.5	8.3	8.4	8.4	8.2	8.3	8.6	8.6
216	8.6	8.6	8.6	8.7	8.3	8.1	8.2	8.2
240	8.1	8.2	8.2	8.1	8.1	8.2	8.2	8.2
264	8.4	8.4	8.2	8.2	8.3	8.2	8.1	8.1
288	8.5	8.6	8.3	8.1	8.0	8.2	8.3	8.3
312	8.2	8.1	8.1	8.2	8.2	8.2	8.2	8.2
336	8.2	8.2	8.4	8.8	8.5	8.2	8.1	8.1

DEPTH	1674.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.2	8.4	8.4	8.1	7.9	7.9	7.9	7.9
24	7.9	7.9	7.9	8.3	8.5	8.1	8.0	8.1
48	8.0	8.0	8.1	8.1	8.1	8.1	8.1	8.2
72	8.1	8.1	8.1	8.2	8.1	8.2	8.3	8.2
96	8.2	8.3	8.3	8.3	8.2	8.2	8.6	8.6
120	8.3	8.4	8.4	8.2	8.2	8.5	8.5	8.4
144	8.3	8.4	8.5	8.4	8.4	8.4	8.3	8.3
168	8.3	8.4	8.4	8.4	8.4	8.4	8.4	8.5
192	8.4	8.2	8.2	8.3	8.5	8.6	8.6	8.3
216	8.2	8.1	8.3	8.6	8.4	8.2	8.1	8.1
240	8.1	8.1	8.2	8.4	8.3	8.0	8.0	8.0
264	8.2	8.2	8.2	8.1	8.1	8.2	8.1	8.1
288	8.0	8.0	8.1	8.2	8.5	8.1	8.0	8.2
312	8.2	8.0	7.9	7.9	8.1	8.1	8.0	8.0
336	8.1	8.0	8.1	8.2	8.1	8.1	8.1	8.1

DEPTH	1676.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.0	8.3	8.3	7.8	7.8	8.1	7.8	7.7
24	7.8	7.7	7.7	7.7	7.7	7.6	7.7	7.9
48	7.8	7.7	7.9	7.9	7.9	7.9	7.8	7.7
72	7.8	7.9	8.0	8.0	7.8	7.8	7.9	7.8
96	7.8	7.9	7.8	7.8	8.1	8.4	8.4	8.3
120	8.3	8.2	8.0	7.9	7.9	7.9	7.9	8.0
144	8.2	8.2	8.0	8.3	8.5	8.3	8.2	8.2
168	8.2	8.2	8.1	8.1	8.1	8.1	8.1	8.1
192	8.0	7.9	8.0	8.0	7.9	8.0	8.2	8.2
216	8.2	8.2	8.2	8.2	8.1	8.0	8.0	7.9
240	7.7	7.9	7.9	7.7	7.8	8.0	7.8	7.7
264	7.7	7.8	8.0	8.0	8.0	8.0	7.9	7.9
288	7.9	7.9	8.0	8.2	8.5	8.1	8.0	8.4
312	8.3	8.1	7.9	7.8	7.7	7.7	7.7	7.8
336	7.8	7.7	8.0	8.4	7.9	7.7	7.9	8.0

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1678.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.3	8.1	7.9	8.0	8.2	8.3	7.9	7.6
24	7.7	7.6	7.5	7.4	7.5	7.9	7.9	7.8
48	7.6	7.6	7.9	8.1	8.2	8.3	8.2	7.7
72	7.6	7.6	7.8	7.9	8.0	7.9	7.8	7.8
96	7.7	7.6	7.6	7.6	7.7	7.8	7.9	7.8
120	7.8	7.8	7.8	8.0	8.0	8.1	8.0	8.0
144	7.8	7.8	7.9	7.9	7.8	7.7	7.7	7.9
168	7.6	7.5	7.7	7.8	7.8	7.9	8.0	7.7
192	7.8	8.2	7.8	7.7	8.0	7.9	7.8	7.7
216	7.6	7.4	7.4	7.6	7.5	7.5	7.6	7.7
240	7.8	7.9	7.9	7.5	7.3	7.3	7.1	7.1
264	7.1	7.2	7.2	7.3	7.3	7.2	7.2	7.2
288	7.4	7.6	7.6	7.6	7.6	7.7	7.8	8.0
312	8.0	7.9	7.7	7.6	7.6	7.6	7.6	7.5
336	7.5	7.6	7.7	7.8	7.6	7.6	7.9	8.2

DEPTH	1680.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.4	6.6	6.7	6.5	6.3	6.2	6.6	6.7
24	6.3	6.0	5.9	6.5	6.9	6.7	6.3	6.0
48	6.1	6.2	6.3	6.2	6.2	6.2	6.1	6.0
72	6.1	6.2	6.2	6.3	6.2	6.1	6.0	6.1
96	6.1	5.8	6.0	6.6	6.1	6.0	6.7	6.6
120	6.2	6.5	6.7	6.5	6.4	6.4	6.4	6.6
144	7.0	7.0	6.7	6.6	6.6	6.5	6.7	7.0
168	6.8	6.6	6.6	6.7	6.9	6.6	6.4	6.4
192	6.3	6.2	6.4	6.5	6.4	6.2	6.2	6.6
216	7.0	7.0	6.9	6.7	6.8	6.8	6.4	6.2
240	6.0	6.0	6.0	6.1	6.4	6.9	6.1	5.7
264	5.8	6.0	6.2	6.6	7.0	7.2	6.7	5.9
288	6.4	6.8	6.6	6.6	6.7	6.6	6.5	6.2
312	6.4	6.9	6.4	6.1	5.9	6.3	7.0	6.8
336	6.6	6.1	6.1	6.3	6.2	6.3	6.8	6.8

DEPTH	1682.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.4	5.4	5.4	5.4	5.3	5.4	5.4	5.2
24	4.9	5.2	5.5	5.4	5.3	5.0	4.9	4.9
48	5.0	5.1	5.3	5.3	5.4	5.4	5.4	5.3
72	5.3	5.3	5.4	5.4	5.5	5.5	5.5	5.4
96	5.4	5.0	4.7	4.6	4.6	4.6	4.7	4.7
120	4.7	4.5	4.3	4.4	4.5	4.4	4.4	4.7
144	5.1	4.9	4.7	4.7	4.7	5.2	5.8	5.8
168	5.7	5.8	5.9	5.5	5.2	4.8	4.6	4.8
192	5.1	4.8	4.6	4.8	5.2	4.8	4.6	4.5
216	4.6	4.7	4.8	5.0	5.1	5.1	5.2	5.1
240	5.0	4.8	4.6	4.7	4.9	4.9	4.9	5.0
264	5.2	5.1	5.1	5.3	5.5	5.6	5.6	5.4
288	5.2	5.2	5.3	5.4	5.5	5.2	4.9	5.0
312	5.1	5.0	5.0	5.1	5.2	5.2	5.3	5.5
336	5.7	5.4	5.1	5.4	5.8	5.6	5.5	5.4

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1684.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.5	3.5	3.5	3.6	3.8	3.5	3.3	3.3
24	3.3	3.2	3.2	3.1	3.1	3.1	3.1	3.3
48	3.5	3.3	3.2	3.2	3.2	3.2	3.2	3.5
72	3.8	3.7	3.5	3.4	3.2	3.4	3.7	3.6
96	3.5	3.3	3.1	3.1	3.1	3.1	3.2	3.1
120	3.1	3.2	3.4	3.5	3.6	3.3	3.1	3.4
144	3.9	3.8	3.9	4.0	4.2	4.2	4.2	3.8
168	3.4	3.6	3.9	4.0	4.1	3.6	3.2	3.1
192	3.1	3.3	3.5	3.3	3.2	3.2	3.2	3.6
216	4.2	3.7	3.3	3.2	3.1	3.1	3.2	3.4
240	3.5	3.6	3.6	3.6	3.6	3.7	3.8	3.7
264	3.6	3.5	3.5	3.6	3.7	3.5	3.2	3.1
288	3.1	3.1	3.2	3.3	3.5	3.4	3.3	3.5
312	3.7	3.7	3.6	3.7	3.7	3.6	3.5	3.5
336	3.5	3.5	3.5	3.3	3.1	3.1	3.2	3.3

DEPTH	1686.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
24	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
48	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
72	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
96	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
120	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
144	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
168	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
192	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
216	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
240	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
264	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
288	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
312	1.0	1.1	1.2	1.1	1.0	1.0	1.0	1.0
336	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

DEPTH	1688.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7
336	1.0	0.7	0.6	0.6	0.6	0.6	0.6	0.6

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WALL RANGES VS DEPTH

DEPTH	1690.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.0	6.7	6.4	6.7	7.1	7.3	7.6	7.3
24	7.1	7.2	7.2	7.2	7.3	7.5	7.7	7.0
48	6.4	6.8	7.3	7.1	7.0	7.2	7.4	7.2
72	7.1	7.2	7.3	7.2	7.1	7.2	7.3	7.1
96	6.9	7.1	7.3	7.1	7.0	6.9	6.9	6.9
120	6.9	6.6	6.3	6.6	6.8	6.8	6.9	6.9
144	7.0	6.9	6.9	6.9	7.0	6.9	6.9	6.9
168	7.0	6.9	6.9	7.0	7.2	7.0	6.9	6.8
192	6.9	6.8	6.7	6.7	6.7	6.7	6.7	6.8
216	6.9	6.8	6.9	6.9	7.0	7.0	7.0	6.9
240	6.9	6.8	6.8	6.9	7.0	6.9	6.9	7.0
264	7.0	7.1	7.3	7.1	7.0	7.0	7.1	7.2
288	7.3	7.1	7.0	7.1	7.3	7.1	7.0	6.9
312	6.9	6.9	7.0	7.0	7.0	7.0	7.0	7.1
336	7.1	7.4	7.8	7.3	6.9	7.2	7.5	7.3

DEPTH	1692.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.3	7.3	7.2	7.2	7.2	7.2	7.3	7.3
24	7.3	7.3	7.2	7.3	7.3	7.3	7.3	7.2
48	7.1	7.0	7.0	7.1	7.2	7.0	6.9	7.0
72	7.1	7.1	7.0	7.0	7.0	6.9	6.7	6.8
96	6.8	6.8	6.9	6.8	6.7	6.8	6.9	6.8
120	6.9	6.7	6.6	6.6	6.7	6.7	6.8	6.9
144	7.0	6.9	6.9	6.7	6.6	6.8	6.9	6.8
168	6.7	6.6	6.6	6.6	6.6	6.6	6.6	6.6
192	6.6	6.7	6.8	6.7	6.6	6.6	6.7	6.7
216	6.7	6.6	6.6	6.7	6.9	7.0	7.1	6.9
240	6.7	6.8	7.0	7.0	6.9	7.0	7.2	7.1
264	7.2	7.0	6.9	7.1	7.2	7.3	7.3	7.3
288	7.2	7.3	7.5	7.3	7.2	7.0	6.7	6.8
312	6.9	6.9	6.9	6.9	7.0	7.1	7.2	7.1
336	7.2	7.2	7.2	7.2	7.2	7.3	7.4	7.4

DEPTH	1694.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.0	7.0	6.9	7.0	7.0	7.0	7.0	7.1
24	7.1	7.0	6.9	6.9	7.0	7.0	7.0	6.9
48	6.9	6.8	6.8	6.8	6.7	6.7	6.7	6.9
72	7.2	7.0	6.8	6.8	6.7	6.7	6.7	6.7
96	6.7	6.6	6.5	6.5	6.5	6.5	6.6	6.7
120	6.7	6.6	6.5	6.5	6.5	6.5	6.5	6.5
144	6.4	6.5	6.5	6.4	6.4	6.5	6.6	6.6
168	6.6	6.6	6.6	6.5	6.5	6.5	6.5	6.5
192	6.4	6.4	6.4	6.5	6.7	6.7	6.7	6.7
216	6.8	6.8	6.7	6.7	6.6	6.5	6.5	6.5
240	6.5	6.5	6.6	6.8	7.0	7.0	7.0	7.0
264	7.0	7.1	7.3	7.2	7.1	7.0	6.9	7.0
288	7.1	7.1	7.0	7.1	7.1	7.0	6.9	6.9
312	7.0	6.9	6.9	6.9	6.9	6.9	6.9	7.0
336	7.1	7.2	7.2	7.2	7.2	7.1	7.1	7.1

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WALL RANGES VS DEPTH

DEPTH	1696.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.9	4.7	4.5	4.7	4.9	4.8	4.6	4.7
24	4.8	4.7	4.6	4.8	4.9	4.7	4.4	4.3
48	4.2	4.3	4.4	4.2	4.1	4.2	4.3	4.2
72	4.1	4.2	4.3	4.2	4.1	4.0	4.1	3.9
96	3.8	3.9	4.2	3.9	3.6	4.0	4.3	4.4
120	4.5	4.4	4.3	4.3	4.3	4.3	4.3	4.5
144	4.6	4.9	5.2	4.9	4.6	4.7	4.8	4.8
168	4.9	4.9	4.9	4.8	4.6	4.7	4.7	4.7
192	4.8	4.8	4.8	4.6	4.5	4.4	4.3	4.1
216	3.8	4.0	4.1	4.1	4.1	4.1	4.1	4.0
240	4.0	4.5	5.1	5.3	5.6	5.6	5.6	5.4
264	5.1	5.1	5.1	4.7	4.3	4.4	4.4	4.6
288	4.8	4.9	5.0	4.9	4.9	5.0	5.1	5.2
312	5.2	5.5	5.8	5.5	5.2	4.8	4.5	4.4
336	4.3	4.6	4.8	4.6	4.4	4.7	4.9	4.9

DEPTH	1698.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.2	2.9	2.7	2.7	2.7	2.5	2.4	2.6
24	3.0	3.0	3.0	2.8	2.6	2.6	2.6	2.6
48	2.5	2.5	2.4	2.5	2.6	2.5	2.4	2.4
72	2.4	2.4	2.4	2.5	2.6	2.5	2.4	2.4
96	2.4	2.4	2.4	2.4	2.5	2.6	2.8	2.6
120	2.4	2.5	2.6	2.6	2.7	2.6	2.4	2.4
144	2.4	2.5	2.7	2.6	2.5	2.4	2.4	2.4
168	2.5	2.5	2.6	2.7	3.0	2.9	2.9	3.1
192	3.2	2.7	2.4	2.4	2.4	2.4	2.4	2.4
216	2.4	2.5	2.7	2.5	2.4	2.5	2.7	2.5
240	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
264	2.4	2.6	2.8	2.7	2.6	2.5	2.4	2.4
288	2.4	2.7	3.2	2.8	2.5	2.5	2.5	2.5
312	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.6
336	2.8	2.8	2.7	2.6	2.4	2.5	2.5	2.8

DEPTH	1700.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.3	6.5	6.7	6.7	6.7	6.6	6.6	6.6
24	6.6	6.6	6.7	6.5	6.4	6.5	6.6	6.5
48	6.4	6.4	6.4	6.5	6.5	6.5	6.6	6.3
72	6.0	6.2	6.4	6.4	6.4	6.3	6.3	6.4
96	6.4	6.3	6.2	6.1	6.1	6.2	6.3	6.1
120	6.0	6.0	6.1	6.2	6.2	6.2	6.3	6.1
144	5.9	5.9	5.9	5.9	5.9	6.0	6.1	6.2
168	6.4	6.4	6.4	6.3	6.2	6.2	6.3	6.2
192	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
216	6.2	6.1	6.1	6.1	6.2	6.2	6.1	6.2
240	6.3	6.3	6.4	6.5	6.7	6.6	6.5	6.4
264	6.3	6.5	6.7	6.5	6.4	6.5	6.6	6.6
288	6.7	6.7	6.7	6.7	6.7	6.5	6.4	6.2
312	6.0	6.1	6.3	6.5	6.7	6.5	6.3	6.5
336	6.7	6.8	6.9	6.7	6.5	6.5	6.6	6.5

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WALL RANGES VS DEPTH

DEPTH	1702.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.9	6.8	6.7	6.8	6.8	6.8	6.9	6.8
24	6.7	6.7	6.7	6.7	6.7	6.8	6.9	6.8
48	6.6	6.6	6.6	6.5	6.5	6.5	6.6	6.5
72	6.5	6.5	6.6	6.5	6.5	6.4	6.4	6.4
96	6.4	6.4	6.4	6.2	6.1	6.3	6.5	6.4
120	6.3	6.2	6.2	6.3	6.4	6.5	6.6	6.4
144	6.3	6.4	6.6	6.5	6.4	6.2	6.1	6.2
168	6.3	6.2	6.2	6.2	6.2	6.2	6.2	6.2
192	6.1	6.2	6.2	6.2	6.3	6.3	6.4	6.4
216	6.4	6.2	6.1	6.1	6.1	6.2	6.3	6.3
240	6.3	6.5	6.7	6.5	6.4	6.5	6.6	6.4
264	6.3	6.5	6.6	6.7	6.9	6.7	6.6	6.8
288	7.1	6.9	6.7	6.7	6.8	6.6	6.4	6.4
312	6.5	6.4	6.4	6.5	6.6	6.7	6.9	6.7
336	6.5	6.7	7.0	6.8	6.7	6.7	6.7	6.8

DEPTH	1704.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.5	6.4	6.3	6.5	6.6	6.5	6.5	6.4
24	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.2
48	6.2	6.2	6.3	6.3	6.4	6.3	6.3	6.3
72	6.3	6.3	6.3	6.2	6.2	6.2	6.2	6.1
96	6.1	6.0	5.9	6.0	6.1	6.2	6.2	6.1
120	6.1	6.1	6.0	6.2	6.3	6.3	6.4	6.3
144	6.2	6.2	6.1	6.0	5.9	5.8	5.8	5.9
168	5.9	6.1	6.2	6.1	6.0	6.0	5.9	6.1
192	6.2	6.0	5.9	5.8	5.8	6.1	6.4	6.2
216	6.0	6.0	6.1	6.0	5.9	6.0	6.0	6.2
240	6.3	6.2	6.2	6.2	6.1	6.2	6.2	6.2
264	6.1	6.4	6.7	6.5	6.2	6.2	6.3	6.3
288	6.4	6.3	6.3	6.4	6.5	6.3	6.2	6.2
312	6.2	6.3	6.4	6.4	6.4	6.3	6.3	6.2
336	6.1	6.3	6.5	6.3	6.1	6.1	6.2	6.3

DEPTH	1706.0		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.9	5.7	5.6	5.9	6.1	6.0	5.9	6.0
24	6.0	5.9	5.8	5.8	5.9	5.9	5.9	5.8
48	5.8	5.6	5.4	5.6	5.9	5.8	5.8	5.8
72	5.8	6.0	6.3	6.1	5.9	5.9	5.9	5.9
96	5.9	5.9	6.0	5.8	5.7	5.7	5.6	5.6
120	5.5	5.6	5.7	5.5	5.3	5.0	4.7	4.9
144	5.1	5.4	5.7	5.6	5.4	5.5	5.6	5.6
168	5.6	5.2	4.9	5.0	5.2	5.2	5.2	5.4
192	5.7	5.8	5.9	5.7	5.6	5.7	5.8	5.8
216	5.8	5.7	5.6	5.3	5.1	5.4	5.8	5.8
240	5.9	5.9	5.9	6.0	6.2	6.1	6.1	6.0
264	5.9	5.8	5.8	5.8	5.9	6.0	6.1	6.0
288	5.9	6.0	6.1	6.0	5.9	6.0	6.2	5.9
312	5.7	5.9	6.1	6.0	5.9	5.9	5.9	5.7
336	5.6	5.7	5.9	6.0	6.1	6.1	6.2	6.0

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WALL RANGES VS DEPTH

DEPTH	1707.9		TILT	0		VOS	5967.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.3	6.2	6.2	6.2	6.2	6.1	6.1	6.1
24	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
48	6.1	6.1	6.1	6.2	6.2	6.1	6.0	6.1
72	6.1	6.1	6.1	6.0	6.0	5.9	5.9	5.8
96	5.8	5.7	5.7	5.7	5.7	5.7	5.7	5.7
120	5.7	5.7	5.8	5.7	5.7	5.7	5.8	5.8
144	5.8	5.7	5.7	5.7	5.7	5.7	5.7	5.7
168	5.8	5.7	5.6	5.6	5.7	5.6	5.6	5.6
192	5.8	5.6	5.6	5.6	5.6	5.6	5.6	5.6
216	5.6	5.7	5.8	5.8	5.8	5.8	5.9	5.9
240	5.8	6.0	6.3	6.3	6.2	6.3	6.3	6.1
264	5.9	6.1	6.2	6.2	6.1	6.1	6.1	6.2
288	6.3	6.3	6.2	6.2	6.2	6.3	6.4	6.3
312	6.4	6.3	6.4	6.3	6.4	6.3	6.2	6.2
336	6.2	6.3	6.3	6.3	6.2	6.2	6.2	6.3

DEPTH	1712.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.1	6.0	6.0	6.0	6.0	6.0	6.1	6.0
24	6.0	6.0	6.0	6.0	6.1	6.1	6.1	6.0
48	5.9	6.0	6.0	6.0	6.0	6.0	6.0	6.0
72	6.0	5.9	5.8	5.9	6.0	5.9	5.7	5.7
96	5.6	5.7	5.7	5.7	5.8	5.6	5.6	5.5
120	5.5	5.5	5.5	5.5	5.5	5.5	5.6	5.6
144	5.8	5.6	5.5	5.6	5.8	5.7	5.7	5.6
168	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
192	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
216	5.7	5.8	5.9	5.8	5.7	5.7	5.7	5.8
240	5.9	6.0	6.1	6.0	6.0	6.1	6.2	6.1
264	6.1	6.1	6.1	6.1	6.1	6.2	6.2	6.1
288	6.0	6.0	6.0	6.0	6.0	5.9	5.9	6.0
312	6.0	6.1	6.2	6.2	6.1	6.1	6.1	6.1
336	6.1	6.2	6.2	6.1	6.0	6.0	6.0	6.0

DEPTH	1714.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.0	6.0	6.1	6.0	5.9	6.0	6.1	6.0
24	5.9	6.0	6.2	6.2	6.2	6.2	6.1	6.2
48	6.2	6.2	6.1	6.1	6.0	6.0	6.0	5.9
72	5.8	5.8	5.8	5.8	5.8	5.9	6.1	5.9
96	5.8	5.7	5.7	5.7	5.8	5.7	5.7	5.7
120	5.7	5.7	5.7	5.7	5.7	5.6	5.5	5.5
144	5.6	5.6	5.6	5.6	5.6	5.7	5.7	5.7
168	5.6	5.6	5.7	5.6	5.6	5.6	5.6	5.7
192	5.7	5.7	5.7	5.7	5.7	5.7	5.8	5.7
216	5.7	5.7	5.7	5.7	5.7	5.8	5.9	5.9
240	5.9	5.9	5.9	6.0	6.1	6.1	6.1	6.0
264	5.9	6.0	6.0	6.0	6.1	6.1	6.1	6.0
288	6.0	6.0	5.9	6.0	6.1	6.1	6.0	5.9
312	5.9	5.9	5.9	6.0	6.1	6.0	5.9	6.0
336	6.0	6.0	6.1	6.0	6.0	5.9	5.9	5.9

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1716.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.8	5.9	5.9	5.8	5.7	5.8	5.9	5.9
24	5.9	5.9	5.8	5.7	5.7	5.7	5.8	5.6
48	5.5	5.6	5.6	5.6	5.6	5.6	5.7	5.7
72	5.8	5.7	5.6	5.6	5.6	5.6	5.6	5.6
96	5.6	5.6	5.7	5.6	5.6	5.6	5.7	5.6
120	5.5	5.5	5.5	5.6	5.8	5.8	5.8	5.6
144	5.5	5.4	5.3	5.3	5.3	5.4	5.4	5.4
168	5.3	5.4	5.4	5.5	5.5	5.4	5.4	5.4
192	5.4	5.5	5.6	5.7	5.8	5.7	5.6	5.6
216	5.7	5.6	5.6	5.7	5.7	5.8	5.9	5.7
240	5.5	5.8	6.1	6.0	5.9	5.9	6.0	5.9
264	5.8	5.9	5.9	5.8	5.8	5.8	5.9	5.9
288	5.8	5.8	5.8	5.8	5.8	6.0	6.1	6.0
312	5.9	5.8	5.8	5.9	6.1	6.0	5.9	5.8
336	5.8	5.8	5.9	5.9	5.8	5.8	5.8	5.8

DEPTH	1718.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.6	5.6	5.6	5.7	5.7	5.7	5.6	5.7
24	5.7	5.7	5.8	5.8	5.7	5.7	5.7	5.7
48	5.7	5.7	5.6	5.6	5.6	5.6	5.6	5.6
72	5.6	5.6	5.6	5.6	5.6	5.6	5.5	5.5
96	5.5	5.4	5.2	5.4	5.6	5.4	5.2	5.1
120	5.0	5.1	5.2	5.1	5.1	5.2	5.2	5.2
144	5.2	5.1	5.1	5.2	5.4	5.3	5.2	5.1
168	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
192	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
216	5.1	5.1	5.1	5.1	5.1	5.0	5.0	5.1
240	5.2	5.2	5.3	5.4	5.6	5.6	5.7	5.6
264	5.5	5.6	5.6	5.6	5.5	5.6	5.8	5.7
288	5.6	5.6	5.5	5.6	5.7	5.4	5.2	5.3
312	5.5	5.6	5.6	5.6	5.5	5.5	5.6	5.6
336	5.6	5.7	5.8	5.6	5.5	5.5	5.6	5.6

DEPTH	1720.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.7	5.6	5.6	5.5	5.3	5.4	5.5	5.6
24	5.8	5.7	5.6	5.7	5.7	5.7	5.6	5.7
48	5.8	5.8	5.8	5.7	5.6	5.7	5.8	5.8
72	5.9	5.7	5.5	5.4	5.3	5.2	5.3	5.3
96	5.3	5.2	5.2	5.2	5.3	5.3	5.3	5.3
120	5.3	5.3	5.3	5.3	5.3	5.2	5.2	5.2
144	5.3	5.2	5.2	5.3	5.4	5.4	5.4	5.3
168	5.3	5.4	5.5	5.3	5.1	5.2	5.4	5.4
192	5.4	5.4	5.3	5.3	5.3	5.3	5.3	5.3
216	5.3	5.3	5.3	5.3	5.3	5.3	5.4	5.4
240	5.3	5.3	5.4	5.5	5.6	5.5	5.5	5.5
264	5.4	5.5	5.5	5.5	5.5	5.5	5.5	5.6
288	5.6	5.8	5.9	5.8	5.7	5.5	5.3	5.3
312	5.4	5.4	5.4	5.5	5.6	5.5	5.5	5.7
336	5.9	5.7	5.5	5.5	5.6	5.5	5.5	5.6

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WALL RANGES VS DEPTH

DEPTH	1722.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.8	5.7	5.7	5.7	5.6	5.6	5.6	5.6
24	5.6	5.6	5.6	5.7	5.7	5.7	5.7	5.6
48	5.6	5.6	5.6	5.6	5.6	5.6	5.5	5.5
72	5.6	5.6	5.7	5.6	5.5	5.6	5.7	5.7
96	5.7	5.4	5.3	5.2	5.3	5.3	5.4	5.4
120	5.4	5.4	5.4	5.4	5.4	5.3	5.3	5.2
144	5.2	5.3	5.3	5.4	5.4	5.3	5.3	5.3
168	5.3	5.2	5.1	5.2	5.3	5.1	5.1	5.2
192	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.4
216	5.6	5.6	5.6	5.6	5.6	5.5	5.5	5.4
240	5.3	5.4	5.6	5.6	5.6	5.6	5.6	5.5
264	5.5	5.5	5.4	5.5	5.5	5.6	5.6	5.6
288	5.6	5.7	5.8	5.9	5.9	5.7	5.5	5.5
312	5.5	5.5	5.6	5.5	5.4	5.4	5.4	5.6
336	5.8	5.6	5.5	5.5	5.5	5.6	5.7	5.7

DEPTH	1723.9		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.7	5.7	5.7	5.7	5.6	5.6	5.6	5.7
24	5.8	5.7	5.7	5.6	5.6	5.6	5.6	5.6
48	5.7	5.7	5.7	5.6	5.5	5.6	5.7	5.7
72	5.6	5.6	5.6	5.5	5.4	5.5	5.5	5.4
96	5.4	5.3	5.2	5.3	5.4	5.3	5.2	5.2
120	5.3	5.2	5.2	5.2	5.3	5.3	5.3	5.4
144	5.5	5.3	5.2	5.2	5.2	5.2	5.2	5.2
168	5.1	5.1	5.1	5.1	5.1	5.2	5.2	5.2
192	5.2	5.2	5.3	5.2	5.1	5.1	5.2	5.2
216	5.3	5.2	5.1	5.1	5.2	5.2	5.1	5.1
240	5.1	5.2	5.4	5.3	5.3	5.3	5.4	5.6
264	5.7	5.7	5.6	5.6	5.6	5.6	5.7	5.7
288	5.8	5.8	5.8	5.8	5.8	5.7	5.7	5.6
312	5.7	5.5	5.3	5.4	5.4	5.6	5.7	5.7
336	5.6	5.6	5.6	5.6	5.6	5.7	5.8	5.8

DEPTH	1726.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
24	5.5	5.5	5.5	5.5	5.5	5.4	5.4	5.4
48	5.4	5.5	5.5	5.6	5.6	5.5	5.4	5.4
72	5.4	5.2	5.1	5.2	5.3	5.2	5.1	5.0
96	5.0	5.0	5.0	5.1	5.2	5.2	5.2	5.1
120	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
144	4.9	5.0	5.0	5.0	5.0	4.9	4.9	4.8
168	4.8	4.9	5.0	4.9	4.9	4.9	4.9	4.9
192	4.9	4.9	4.9	5.1	5.2	5.2	5.2	5.2
216	5.2	5.2	5.2	5.1	5.0	5.0	5.1	5.1
240	5.1	5.2	5.2	5.2	5.2	5.4	5.5	5.5
264	5.5	5.5	5.6	5.5	5.5	5.5	5.6	5.5
288	5.5	5.4	5.4	5.5	5.6	5.7	5.7	5.6
312	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
336	5.5	5.6	5.7	5.6	5.5	5.5	5.6	5.5

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WALL RANGES VS DEPTH

DEPTH	1728.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.7	5.5	5.4	5.4	5.4	5.5	5.7	5.7
24	5.8	5.6	5.5	5.5	5.6	5.5	5.4	5.5
48	5.7	5.6	5.5	5.4	5.3	5.3	5.3	5.3
72	5.4	5.3	5.3	5.3	5.3	5.2	5.2	5.2
96	5.1	5.1	5.0	5.0	5.0	5.1	5.3	5.1
120	5.0	5.0	5.1	5.0	5.0	5.0	5.0	5.0
144	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
168	5.1	5.1	5.1	5.1	5.1	5.2	5.3	5.2
192	5.1	5.1	5.1	5.1	5.0	5.0	5.0	5.1
216	5.1	5.2	5.3	5.4	5.4	5.4	5.4	5.4
240	5.3	5.4	5.5	5.6	5.8	5.6	5.4	5.4
264	5.5	5.4	5.3	5.4	5.7	5.7	5.7	5.7
288	5.8	5.7	5.6	5.7	5.7	5.6	5.5	5.6
312	5.7	5.5	5.4	5.3	5.3	5.2	5.2	5.4
336	5.5	5.6	5.7	5.7	5.8	5.8	5.8	5.7

DEPTH	1730.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.4	5.4	5.4	5.2	5.1	5.2	5.3	5.3
24	5.5	5.3	5.2	5.2	5.3	5.2	5.1	5.2
48	5.2	5.1	5.0	5.1	5.2	5.1	5.1	5.0
72	5.0	5.1	5.1	5.1	5.1	5.1	5.0	5.0
96	5.0	5.1	5.1	5.0	4.9	5.0	5.2	5.0
120	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
144	4.9	4.8	4.8	4.8	4.8	4.8	4.8	4.8
168	4.9	4.9	4.9	4.8	4.6	4.6	4.5	4.7
192	4.9	4.8	4.7	4.8	5.0	4.9	4.9	4.8
216	4.8	4.8	4.8	4.8	4.8	4.9	5.0	5.0
240	4.9	4.9	4.9	5.0	5.1	4.9	4.8	4.9
264	5.0	5.1	5.1	5.1	5.1	5.2	5.3	5.1
288	5.0	5.1	5.1	5.3	5.5	5.5	5.5	5.2
312	5.0	5.0	5.0	5.0	5.0	5.0	5.1	5.2
336	5.4	5.3	5.3	5.3	5.3	5.4	5.5	5.4

DEPTH	1732.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.3	5.3	5.3	5.2	5.2	5.2	5.2	5.2
24	5.3	5.3	5.3	5.3	5.3	5.2	5.1	5.1
48	5.1	5.0	4.9	5.0	5.0	5.0	5.0	5.1
72	5.1	5.1	5.0	5.0	5.0	5.0	5.1	5.1
96	5.1	5.0	5.0	5.0	4.9	4.8	4.8	4.8
120	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
144	4.8	4.8	4.9	4.8	4.7	4.7	4.8	4.8
168	4.8	4.8	5.0	4.8	4.7	4.8	5.0	4.9
192	4.8	4.7	4.6	4.6	4.6	4.6	4.6	4.7
216	4.8	4.7	4.6	4.8	5.0	4.8	4.7	4.6
240	4.6	4.7	4.9	4.9	4.9	4.9	4.9	5.0
264	5.2	5.1	5.0	5.1	5.1	5.2	5.2	5.1
288	5.1	5.3	5.4	5.3	5.3	5.2	5.2	5.2
312	5.2	5.2	5.3	5.2	5.2	5.2	5.3	5.2
336	5.0	5.0	5.1	5.1	5.2	5.2	5.2	5.2

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WALL RANGES VS DEPTH

DEPTH	1734.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.0	4.9	4.8	4.9	5.0	5.1	5.1	5.0
24	4.9	5.0	5.1	5.0	4.9	4.6	4.3	4.4
48	4.5	4.4	4.4	4.4	4.4	4.4	4.3	4.4
72	4.5	4.5	4.4	4.5	4.6	4.5	4.5	4.5
96	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
120	4.6	4.5	4.4	4.5	4.5	4.5	4.5	4.5
144	4.5	4.5	4.4	4.4	4.5	4.5	4.5	4.5
168	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.6
192	4.6	4.6	4.6	4.6	4.5	4.6	4.6	4.7
216	4.7	4.7	4.7	4.7	4.6	4.8	4.9	4.9
240	4.8	4.8	4.8	5.0	5.1	5.0	4.8	4.8
264	4.8	4.9	4.9	4.9	4.9	4.9	5.0	5.0
288	5.0	4.8	4.7	4.7	4.7	4.8	4.9	4.9
312	4.9	4.8	4.8	4.8	4.8	4.9	5.0	4.9
336	4.9	4.8	4.6	4.7	4.8	4.9	5.0	5.0

DEPTH	1736.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.8	2.8	2.9	2.9	3.0	3.0	3.0	3.0
24	2.9	3.0	3.0	2.9	2.8	2.8	2.8	2.8
48	2.8	2.9	3.0	3.0	3.0	3.1	3.1	3.1
72	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.0
96	2.9	2.9	2.9	3.0	3.0	3.0	3.1	3.0
120	2.9	2.9	2.9	3.1	3.2	3.1	3.1	3.0
144	2.9	3.0	3.0	3.1	3.1	3.1	3.1	3.1
168	3.1	2.9	2.8	2.6	2.5	2.6	2.7	2.7
192	2.7	2.8	3.0	3.0	2.9	3.1	3.2	3.2
216	3.2	3.2	3.2	3.1	3.0	3.0	3.1	3.0
240	3.0	2.9	2.9	3.0	3.1	3.0	3.0	3.1
264	3.1	3.0	2.8	2.8	2.8	2.8	2.9	2.9
288	2.9	2.9	3.0	3.1	3.3	3.3	3.2	3.1
312	2.9	2.9	2.9	3.0	3.1	3.1	3.0	3.0
336	2.9	2.8	2.8	2.8	2.9	2.9	2.9	2.9

DEPTH	1738.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	1.7	1.7	1.8	1.8	1.8	1.8	1.9	1.8
24	1.7	1.6	1.5	1.6	1.7	1.5	1.5	1.5
48	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.5
72	1.5	1.6	1.6	1.5	1.4	1.4	1.5	1.4
96	1.4	1.4	1.4	1.4	1.4	1.5	1.7	1.7
120	1.6	1.6	1.5	1.5	1.4	1.4	1.5	1.6
144	1.8	1.7	1.7	1.6	1.6	1.7	1.8	1.7
168	1.7	1.7	1.7	1.7	1.7	1.9	2.2	2.1
192	1.9	1.8	1.7	1.7	1.7	1.5	1.4	1.6
216	1.8	1.7	1.7	1.5	1.4	1.4	1.4	1.5
240	1.7	1.5	1.4	1.5	1.6	1.5	1.4	1.4
264	1.4	1.4	1.4	1.6	1.8	1.7	1.7	1.7
288	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.5
312	1.4	1.5	1.7	1.6	1.6	1.5	1.4	1.4
336	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5

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WALL RANGES VS DEPTH

DEPTH	1740.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
24	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
48	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
72	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
96	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
120	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
144	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
168	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
192	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
216	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
240	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
264	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
288	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
312	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
336	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4

DEPTH	1742.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.1	5.1	5.1	5.1	5.0	5.1	5.1	5.2
24	5.2	5.2	5.2	5.1	5.1	5.1	5.2	5.2
48	5.2	5.3	5.3	5.2	5.1	5.0	5.0	5.0
72	5.0	4.9	4.9	5.0	5.0	5.0	4.9	4.9
96	4.8	4.8	4.8	4.8	4.8	4.7	4.7	4.9
120	5.1	5.2	5.3	4.9	4.6	4.6	4.5	4.5
144	4.6	4.6	4.6	4.6	4.7	4.8	4.8	4.6
168	4.5	4.6	4.8	4.6	4.5	4.5	4.4	4.5
192	4.6	4.7	4.7	4.6	4.5	4.6	4.7	4.8
216	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
240	4.9	4.9	4.9	4.9	4.9	5.0	5.2	5.2
264	5.2	5.2	5.1	5.1	5.1	5.1	5.1	5.1
288	5.2	5.2	5.2	5.1	5.0	4.9	4.8	5.0
312	5.1	4.9	4.8	4.8	4.8	4.8	4.8	4.9
336	4.9	4.9	4.9	5.0	5.1	5.1	5.0	5.0

DEPTH	1744.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.2	4.4	5.2	4.4	5.3	4.5	5.2	4.5
24	5.1	4.6	5.1	4.5	5.2	4.5	5.2	4.5
48	5.1	4.7	5.0	4.8	5.0	4.8	5.2	4.6
72	5.2	4.5	5.1	4.6	5.1	4.6	5.2	4.6
96	4.8	4.6	5.3	4.7	5.3	4.5	5.3	4.5
120	4.7	4.7	4.7	4.6	4.7	4.5	4.8	4.5
144	4.6	4.5	4.7	4.6	4.8	4.6	4.8	4.5
168	4.8	4.5	4.7	4.5	4.8	4.8	4.8	4.7
192	4.7	4.8	4.9	4.8	4.7	4.6	4.6	4.6
216	4.6	4.6	4.7	4.7	4.6	4.7	4.8	5.0
240	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
264	5.2	5.2	5.2	5.2	5.1	5.2	5.3	5.2
288	5.2	5.2	5.2	5.3	5.3	5.3	5.3	5.3
312	5.4	5.3	5.1	5.1	5.1	5.1	5.1	5.1
336	5.0	5.1	5.2	5.2	5.1	5.2	5.3	5.3

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1746.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.6	3.7	3.7	3.8	3.8	3.9	4.0	3.9
24	3.8	4.0	4.1	4.0	3.9	3.8	3.8	3.8
48	3.9	4.0	4.3	4.3	4.4	4.5	4.6	4.3
72	4.1	4.2	4.3	4.3	4.3	4.3	4.3	4.3
96	4.2	4.4	4.6	4.5	4.5	4.3	4.1	4.1
120	4.0	4.1	4.2	4.3	4.3	4.4	4.6	4.5
144	4.4	4.4	4.5	4.6	4.7	4.5	4.4	4.4
168	4.3	4.3	4.3	4.3	4.4	4.4	4.5	4.5
192	4.4	4.5	4.5	4.4	4.3	4.3	4.3	4.3
216	4.3	4.2	4.2	4.2	4.2	4.2	4.2	4.0
240	3.8	3.9	4.0	4.0	3.9	3.9	4.0	3.9
264	3.9	3.8	3.7	3.8	3.8	3.8	3.8	3.8
288	3.8	3.8	3.9	3.8	3.8	3.8	3.9	3.9
312	4.0	4.0	4.0	3.9	3.9	3.8	3.8	3.7
336	3.7	3.6	3.5	3.5	3.5	3.6	3.7	3.7

DEPTH	1748.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	1.6	1.7	1.7	1.9	2.0	1.9	1.8	1.9
24	2.1	1.9	1.7	1.8	1.8	1.7	1.7	1.8
48	1.9	1.9	1.8	1.8	1.7	1.6	1.6	1.6
72	1.6	1.6	1.6	1.7	1.9	1.9	2.0	2.1
96	2.2	2.1	2.0	2.1	2.3	2.1	2.0	2.0
120	1.9	1.7	1.6	1.7	1.9	1.9	1.8	1.9
144	2.0	2.0	2.1	2.2	2.4	2.3	2.3	2.2
168	2.2	2.3	2.3	2.4	2.5	2.3	2.2	2.2
192	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.3
216	2.2	2.2	2.1	1.9	1.7	1.7	1.8	1.7
240	1.6	1.8	2.0	2.0	2.0	2.0	2.1	2.1
264	2.1	2.1	2.1	1.9	1.8	1.9	1.9	1.9
288	1.9	1.8	1.8	1.7	1.6	1.8	2.1	2.1
312	2.0	1.8	1.6	1.6	1.6	1.8	2.1	1.9
336	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.7

DEPTH	1750.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
24	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
48	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
72	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
96	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
120	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
144	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
168	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
192	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
216	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
240	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
264	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
288	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
312	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
336	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

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WALL RANGES VS DEPTH

DEPTH	1752.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
24	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
48	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
72	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
96	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
120	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
144	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
168	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
192	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
216	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
240	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
264	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
288	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
312	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
336	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

DEPTH	1754.0		TILT	0		VOS	5968.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
24	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
48	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
96	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
120	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
168	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
192	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
216	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
240	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
264	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
288	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
312	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
336	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

DEPTH	1756.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
24	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
48	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
96	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
120	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
168	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
192	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
216	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
240	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
264	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
288	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
312	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
336	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

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CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1758.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
24	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
48	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
96	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
120	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
168	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
192	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
216	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
240	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
264	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
288	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
312	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
336	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

DEPTH	1760.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
24	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
48	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
96	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
120	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
168	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
192	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
216	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
240	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
264	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
288	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
312	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
336	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

DEPTH	1762.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
24	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
48	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
96	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
120	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
168	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
192	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
216	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
240	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
264	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
288	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
312	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
336	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

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CUSTOMER : Marathon Petroleum
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CAVERN :State LPG No. 4
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WALL RANGES VS DEPTH

DEPTH	1764.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.6	3.6	3.7	3.6	3.5	3.6	3.7	3.5
24	3.4	3.4	3.5	3.4	3.4	3.3	3.2	3.3
48	3.6	3.6	3.7	3.7	3.8	3.7	3.6	3.5
72	3.5	3.5	3.5	3.6	3.7	3.7	3.8	3.6
96	3.4	3.5	3.6	3.7	3.8	3.6	3.4	3.4
120	3.5	3.5	3.5	3.5	3.6	3.5	3.5	3.5
144	3.4	3.5	3.5	3.5	3.4	3.1	2.9	2.9
168	2.9	3.0	3.1	3.3	3.5	3.4	3.3	3.2
192	3.2	3.3	3.5	3.6	3.7	3.6	3.5	3.6
216	3.6	3.5	3.5	3.5	3.6	3.5	3.4	3.5
240	3.7	3.7	3.7	3.5	3.4	3.5	3.5	3.4
264	3.3	3.4	3.4	3.3	3.3	3.3	3.3	3.5
288	3.7	3.7	3.7	3.7	3.6	3.5	3.4	3.4
312	3.3	3.4	3.5	3.5	3.5	3.5	3.5	3.4
336	3.3	3.3	3.3	3.5	3.8	3.7	3.6	3.6

DEPTH	1766.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.5	2.4	2.5	2.4	2.4	2.4	2.5	2.5
24	2.5	2.4	2.4	2.4	2.4	2.3	2.3	2.3
48	2.4	2.3	2.3	2.5	2.6	2.4	2.2	2.3
72	2.4	2.4	2.5	2.5	2.5	2.6	2.8	2.3
96	2.0	1.9	1.8	1.9	1.9	1.9	1.9	1.9
120	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.9
144	1.8	1.9	2.0	1.9	1.8	1.8	1.8	1.9
168	2.0	1.9	1.8	1.9	2.0	2.0	2.0	2.0
192	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9
216	2.1	2.2	2.3	2.4	2.4	2.4	2.4	2.4
240	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.4
264	2.6	2.4	2.3	2.3	2.3	2.4	2.5	2.4
288	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.3
312	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
336	2.3	2.4	2.6	2.6	2.6	2.5	2.5	2.5

DEPTH	1768.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
24	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
48	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
72	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
96	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
120	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
144	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
168	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
192	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
216	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
240	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
264	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
288	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
312	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
336	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1770.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
24	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
48	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
72	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
96	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
120	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
144	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
168	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
192	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
216	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
240	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
264	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
288	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
312	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
336	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

DEPTH	1772.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
24	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
48	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
72	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
96	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
120	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
144	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
168	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
192	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
216	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
240	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
264	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
288	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
312	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
336	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

DEPTH	1774.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
24	5.0	4.9	4.9	4.8	4.8	4.8	4.9	4.8
48	4.8	4.9	4.9	4.9	4.8	4.7	4.5	4.5
72	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.4
96	4.3	4.4	4.6	4.6	4.6	4.6	4.5	4.5
120	4.4	4.5	4.6	4.4	4.2	4.1	4.1	4.1
144	4.1	4.1	4.1	4.1	4.2	4.3	4.5	4.6
168	4.8	4.8	4.9	4.7	4.6	4.5	4.5	4.5
192	4.6	4.7	4.7	4.6	4.6	4.6	4.6	4.7
216	4.8	4.8	4.8	4.8	4.8	4.9	5.0	4.9
240	4.8	4.9	5.0	4.8	4.8	4.7	4.6	4.6
264	4.6	4.8	5.0	4.9	4.9	4.8	4.8	4.8
288	4.9	4.9	5.0	4.9	4.9	4.8	4.7	4.8
312	5.0	4.9	4.8	4.9	4.9	4.9	4.9	4.8
336	4.7	4.8	4.8	4.8	4.7	4.8	4.9	4.9

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1776.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.7	4.9	5.0	5.0	5.0	5.0	5.0	4.9
24	4.8	4.9	5.0	5.0	5.0	4.9	4.8	4.8
48	4.9	4.9	4.9	4.9	4.9	4.8	4.8	4.8
72	4.9	4.8	4.6	4.8	5.0	4.7	4.5	4.5
96	4.4	4.4	4.4	4.5	4.6	4.6	4.6	4.6
120	4.6	4.3	4.1	4.3	4.5	4.4	4.4	4.4
144	4.4	4.2	4.1	4.2	4.3	4.4	4.6	4.6
168	4.6	4.5	4.5	4.5	4.6	4.8	4.9	4.7
192	4.6	4.7	4.8	4.9	5.0	5.0	4.9	4.9
216	4.9	4.9	5.0	4.9	4.9	4.9	4.9	4.9
240	4.9	4.8	4.8	4.9	5.0	4.8	4.7	4.7
264	4.7	4.9	5.0	5.0	5.0	5.0	5.0	4.9
288	4.8	4.9	4.9	5.0	5.0	5.0	4.9	4.9
312	4.9	4.8	4.7	4.8	4.9	4.9	4.9	4.9
336	4.9	4.8	4.8	4.9	5.0	4.8	4.7	4.7

DEPTH	1778.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.8	4.8	4.8	4.8	4.8	4.7	4.7	4.7
24	4.6	4.7	4.8	4.7	4.7	4.7	4.6	4.7
48	4.8	4.6	4.5	4.6	4.6	4.7	4.8	4.6
72	4.5	4.5	4.5	4.5	4.5	4.6	4.7	4.5
96	4.4	4.4	4.5	4.7	4.9	4.9	4.9	4.8
120	4.7	4.7	4.8	4.5	4.3	4.3	4.4	4.4
144	4.5	4.5	4.4	4.6	4.7	4.6	4.5	4.6
168	4.7	4.7	4.7	4.4	4.1	4.2	4.3	4.2
192	4.2	4.2	4.1	4.1	4.1	4.3	4.5	4.6
216	4.7	4.7	4.6	4.6	4.6	4.7	4.8	4.7
240	4.7	4.7	4.6	4.6	4.5	4.6	4.6	4.7
264	4.7	4.7	4.8	4.7	4.6	4.7	4.8	4.8
288	4.7	4.8	4.8	4.8	4.8	4.6	4.5	4.5
312	4.5	4.6	4.8	4.7	4.7	4.7	4.7	4.7
336	4.8	4.7	4.6	4.6	4.5	4.6	4.8	4.8

DEPTH	1780.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.9	4.8	4.7	4.7	4.8	4.8	4.8	4.9
24	5.0	4.9	4.9	4.8	4.8	4.8	4.8	4.7
48	4.7	4.7	4.8	4.8	4.9	4.7	4.6	4.6
72	4.6	4.8	4.9	4.8	4.7	4.6	4.5	4.5
96	4.6	4.4	4.3	4.5	4.7	4.6	4.5	4.4
120	4.4	4.4	4.4	4.4	4.5	4.5	4.5	4.4
144	4.3	4.3	4.3	4.4	4.4	4.3	4.2	4.2
168	4.2	4.3	4.3	4.2	4.1	4.2	4.3	4.2
192	4.2	4.2	4.3	4.3	4.4	4.3	4.3	4.3
216	4.3	4.3	4.3	4.3	4.3	4.4	4.5	4.5
240	4.5	4.5	4.4	4.5	4.5	4.6	4.6	4.6
264	4.6	4.7	4.8	4.8	4.9	4.9	5.0	4.9
288	4.8	4.8	4.8	4.8	4.8	4.9	4.9	4.7
312	4.5	4.5	4.5	4.6	4.8	4.8	4.9	4.9
336	4.9	4.9	4.9	4.8	4.8	4.8	4.8	4.9

SONIC

CUSTOMER : Marathon Petroleum
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OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1782.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.9	4.9	4.9	4.8	4.8	4.9	5.0	4.9
24	4.8	4.9	5.0	4.8	4.6	4.6	4.7	4.7
48	4.6	4.6	4.5	4.5	4.5	4.6	4.6	4.5
72	4.4	4.5	4.5	4.5	4.4	4.5	4.5	4.6
96	4.7	4.5	4.3	4.3	4.3	4.2	4.2	4.2
120	4.2	4.3	4.5	4.3	4.2	4.2	4.2	4.2
144	4.2	4.2	4.2	4.2	4.1	4.1	4.1	4.1
168	4.1	4.1	4.2	4.1	4.1	4.1	4.1	4.3
192	4.5	4.5	4.5	4.6	4.6	4.5	4.4	4.4
216	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.6
240	4.7	4.6	4.6	4.7	4.8	4.6	4.5	4.4
264	4.4	4.4	4.5	4.6	4.9	4.8	4.7	4.8
288	4.9	4.9	4.8	4.7	4.7	4.8	4.9	4.7
312	4.5	4.5	4.5	4.5	4.4	4.4	4.4	4.6
336	4.9	4.8	4.7	4.8	4.8	4.8	4.8	4.8

DEPTH	1784.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.7	4.7	4.8	4.8	4.8	4.7	4.6	4.6
24	4.6	4.6	4.6	4.6	4.7	4.7	4.7	4.6
48	4.6	4.6	4.6	4.7	4.8	4.6	4.5	4.5
72	4.5	4.5	4.5	4.5	4.5	4.4	4.4	4.5
96	4.5	4.6	4.7	4.6	4.5	4.5	4.5	4.5
120	4.6	4.6	4.7	4.6	4.5	4.6	4.7	4.6
144	4.5	4.5	4.4	4.4	4.5	4.4	4.3	4.3
168	4.3	4.2	4.1	4.2	4.3	4.2	4.1	4.1
192	4.1	4.2	4.2	4.4	4.5	4.5	4.5	4.3
216	4.1	4.1	4.1	4.1	4.1	4.2	4.3	4.3
240	4.2	4.3	4.4	4.4	4.5	4.6	4.8	4.6
264	4.5	4.5	4.5	4.6	4.8	4.8	4.7	4.7
288	4.7	4.6	4.5	4.6	4.7	4.8	4.8	4.6
312	4.5	4.6	4.8	4.6	4.4	4.4	4.3	4.6
336	4.8	4.8	4.8	4.7	4.7	4.6	4.5	4.6

DEPTH	1785.9		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.8	3.7	3.7	3.8	4.0	3.9	3.9	4.0
24	4.0	3.8	3.7	3.6	3.6	3.5	3.4	3.4
48	3.4	3.5	3.6	3.6	3.6	3.6	3.6	3.7
72	3.9	3.7	3.5	3.6	3.8	3.7	3.6	3.5
96	3.5	3.5	3.6	3.5	3.5	3.6	3.8	3.4
120	3.1	3.1	3.1	3.3	3.5	3.5	3.4	3.6
144	3.7	3.8	3.9	3.8	3.7	3.7	3.7	3.7
168	3.7	3.6	3.4	3.3	3.2	3.3	3.4	3.3
192	3.3	3.3	3.2	3.3	3.3	3.3	3.4	3.5
216	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.7
240	3.6	3.7	3.7	3.7	3.8	3.9	4.0	3.8
264	3.7	3.8	3.8	3.9	3.9	3.9	4.0	3.8
288	3.7	3.8	3.9	3.9	3.9	3.8	3.7	3.7
312	3.6	3.7	3.8	3.8	3.8	3.8	3.9	3.9
336	3.8	3.8	3.8	3.7	3.7	3.8	3.9	3.8

SONIC

CUSTOMER : Marathon Petroleum
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OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1789.9		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.5	3.4	3.3	3.5	3.8	3.8	3.8	3.8
24	3.9	3.9	3.9	3.9	3.8	3.8	3.8	3.7
48	3.7	3.5	3.4	3.4	3.3	3.4	3.4	3.4
72	3.4	3.4	3.5	3.5	3.5	3.5	3.5	3.5
96	3.5	3.4	3.4	3.5	3.6	3.4	3.3	3.1
120	3.0	3.0	2.9	3.0	3.0	3.0	3.0	3.0
144	2.9	3.0	3.0	3.0	3.0	2.9	2.8	2.8
168	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8
192	2.8	2.9	3.0	3.1	3.2	3.1	3.0	3.0
216	2.9	3.0	3.1	3.0	2.8	2.9	3.0	3.1
240	3.1	3.0	2.9	3.0	3.2	3.2	3.3	3.3
264	3.2	3.2	3.2	3.4	3.7	3.9	4.2	4.0
288	3.8	3.8	3.8	3.8	3.9	3.5	3.2	3.1
312	3.1	3.1	3.1	3.2	3.4	3.3	3.2	3.4
336	3.6	3.6	3.5	3.6	3.6	3.7	3.9	3.7

DEPTH	1792.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.6	3.8	4.0	3.9	3.8	3.5	3.3	3.4
24	3.4	3.5	3.6	3.7	3.7	3.5	3.3	3.3
48	3.4	3.5	3.8	3.6	3.5	3.3	3.2	3.2
72	3.2	3.3	3.3	3.4	3.4	3.6	3.8	3.8
96	3.9	3.9	3.9	3.8	3.7	3.5	3.3	3.3
120	3.3	3.4	3.4	3.6	3.7	3.8	3.8	3.8
144	3.8	3.7	3.6	3.5	3.4	3.4	3.5	3.3
168	3.2	3.3	3.4	3.3	3.3	3.3	3.3	3.2
192	3.1	3.2	3.2	3.2	3.1	3.1	3.2	3.2
216	3.3	3.4	3.5	3.6	3.7	3.6	3.6	3.6
240	3.6	3.5	3.5	3.5	3.6	3.7	3.9	3.7
264	3.6	3.5	3.5	3.6	3.6	3.6	3.6	3.4
288	3.2	3.4	3.5	3.6	3.8	3.7	3.6	3.7
312	3.7	3.9	4.2	4.1	4.0	3.8	3.6	3.7
336	3.8	3.6	3.5	3.6	3.7	3.6	3.6	3.6

DEPTH	1794.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.2	4.3	4.4	4.3	4.3	4.3	4.3	4.3
24	4.3	4.3	4.4	4.3	4.2	4.1	4.1	4.0
48	4.0	3.9	3.9	4.0	4.0	4.0	4.0	3.9
72	3.8	3.8	3.8	3.9	4.0	3.9	3.8	3.8
96	3.7	3.6	3.5	3.7	3.8	3.8	3.7	3.6
120	3.5	3.6	3.8	3.6	3.4	3.6	3.8	3.9
144	3.9	3.8	3.6	3.4	3.2	3.2	3.2	3.1
168	3.1	3.2	3.3	3.1	3.0	3.2	3.3	3.3
192	3.3	3.4	3.6	3.6	3.7	3.5	3.3	3.4
216	3.6	3.6	3.7	3.7	3.8	4.0	4.2	4.1
240	4.0	4.2	4.4	4.3	4.3	4.2	4.2	4.3
264	4.3	4.4	4.4	4.3	4.3	4.3	4.4	4.4
288	4.4	4.3	4.3	4.1	4.0	4.1	4.2	4.2
312	4.3	4.4	4.4	4.4	4.4	4.4	4.5	4.5
336	4.5	4.4	4.3	4.3	4.4	4.4	4.5	4.3

SONIC

CUSTOMER : Marathon Petroleum
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OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1796.1		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.0	4.2	4.4	4.6	4.8	4.6	4.4	4.3
24	4.2	4.3	4.4	4.4	4.4	4.3	4.3	4.3
48	4.4	4.3	4.3	4.3	4.3	4.4	4.4	4.3
72	4.3	4.2	4.2	4.0	3.9	4.0	4.0	3.9
96	3.8	3.8	3.7	3.7	3.7	3.8	4.0	3.8
120	3.7	3.6	3.5	3.7	3.9	3.9	3.9	4.0
144	4.1	3.9	3.8	3.8	3.9	3.9	3.9	3.9
168	4.0	4.0	3.9	3.8	3.7	3.7	3.7	3.7
192	3.6	3.7	3.7	3.7	3.7	3.7	3.7	3.6
216	3.5	3.6	3.8	3.9	4.0	4.1	4.3	4.2
240	4.2	4.4	4.5	4.4	4.4	4.3	4.3	4.3
264	4.4	4.3	4.2	4.2	4.3	4.4	4.6	4.4
288	4.3	4.1	4.0	4.0	4.0	4.0	4.0	4.1
312	4.1	4.0	4.0	4.2	4.4	4.4	4.4	4.3
336	4.1	4.2	4.4	4.4	4.4	4.3	4.1	4.1

DEPTH	1798.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.4	4.4	4.5	4.4	4.3	4.4	4.5	4.4
24	4.4	4.4	4.4	4.3	4.1	4.2	4.3	4.3
48	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.2
72	4.2	4.2	4.3	4.1	4.0	4.0	4.0	3.9
96	3.9	4.1	4.3	4.1	3.9	3.9	3.9	3.8
120	3.7	3.8	4.0	4.0	4.1	3.9	3.8	3.7
144	3.8	3.8	3.8	3.9	4.0	3.9	3.8	3.8
168	3.8	3.8	3.9	3.9	3.9	3.9	3.9	3.9
192	3.9	3.9	3.9	4.0	4.1	4.1	4.2	4.2
216	4.3	4.4	4.6	4.4	4.2	4.2	4.1	4.4
240	4.7	4.7	4.7	4.6	4.5	4.5	4.5	4.5
264	4.4	4.4	4.4	4.5	4.6	4.6	4.5	4.6
288	4.6	4.4	4.1	4.2	4.3	4.2	4.1	4.3
312	4.5	4.5	4.5	4.5	4.6	4.5	4.5	4.5
336	4.6	4.5	4.4	4.3	4.1	4.3	4.4	4.4

DEPTH	1800.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.8	4.7	4.6	4.7	4.8	4.7	4.6	4.5
24	4.4	4.4	4.3	4.5	4.6	4.5	4.4	4.6
48	4.8	4.7	4.6	4.5	4.3	4.4	4.6	4.4
72	4.3	4.4	4.5	4.5	4.5	4.2	4.1	4.0
96	4.0	4.2	4.4	4.2	4.1	4.0	4.0	4.0
120	4.0	4.0	4.0	3.9	3.8	3.9	3.9	4.1
144	4.2	4.2	4.1	4.1	4.1	4.2	4.3	4.3
168	4.3	4.3	4.4	4.2	4.1	4.1	4.0	4.0
192	4.0	4.0	4.1	4.1	4.1	4.0	3.9	3.9
216	3.9	4.0	4.0	4.1	4.3	4.3	4.2	4.2
240	4.2	4.3	4.3	4.5	4.6	4.6	4.6	4.5
264	4.5	4.5	4.6	4.6	4.6	4.7	4.8	4.7
288	4.7	4.7	4.8	4.7	4.7	4.7	4.8	4.7
312	4.6	4.6	4.7	4.7	4.6	4.6	4.6	4.6
336	4.7	4.6	4.6	4.6	4.6	4.7	4.9	4.8

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1802.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.5	4.4	4.3	4.3	4.4	4.3	4.3	4.4
24	4.5	4.4	4.4	4.3	4.3	4.3	4.2	4.2
48	4.2	4.2	4.3	4.2	4.2	4.2	4.2	4.1
72	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.1
96	4.2	4.0	3.8	3.7	3.8	3.7	3.8	3.7
120	3.8	3.8	3.9	3.8	3.8	3.8	3.8	3.9
144	4.0	4.0	4.1	4.0	3.9	3.9	3.9	3.9
168	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.1
192	4.2	4.1	4.1	4.0	4.0	4.0	4.0	4.0
216	4.0	4.0	4.1	4.2	4.2	4.2	4.2	4.2
240	4.2	4.3	4.4	4.4	4.4	4.5	4.6	4.5
264	4.5	4.5	4.5	4.5	4.5	4.6	4.7	4.6
288	4.5	4.4	4.3	4.4	4.6	4.5	4.4	4.4
312	4.4	4.4	4.5	4.5	4.6	4.5	4.5	4.5
336	4.5	4.5	4.6	4.7	4.7	4.6	4.5	4.5

DEPTH	1804.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.4	4.3	4.3	4.3	4.4	4.4	4.4	4.2
24	4.1	4.4	4.7	4.6	4.5	4.5	4.5	4.4
48	4.2	4.3	4.3	4.2	4.2	4.2	4.3	4.2
72	4.1	4.4	4.7	4.6	4.5	4.3	4.2	4.3
96	4.4	4.3	4.3	4.3	4.4	4.2	4.0	4.1
120	4.2	4.1	4.0	4.2	4.4	4.4	4.4	4.6
144	4.8	4.8	4.8	4.5	4.3	4.2	4.2	4.3
168	4.4	4.2	4.1	4.3	4.4	4.3	4.2	4.2
192	4.2	4.3	4.3	4.2	4.1	4.1	4.1	4.1
216	4.1	4.1	4.0	4.0	4.1	4.1	4.0	4.1
240	4.1	4.2	4.3	4.4	4.6	4.6	4.6	4.6
264	4.6	4.6	4.6	4.6	4.5	4.4	4.3	4.5
288	4.7	4.5	4.4	4.3	4.3	4.3	4.4	4.3
312	4.2	4.2	4.3	4.3	4.3	4.5	4.8	4.6
336	4.5	4.3	4.1	4.2	4.3	4.2	4.1	4.2

DEPTH	1806.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.5	4.5	4.4	4.3	4.1	4.2	4.3	4.3
24	4.3	4.2	4.3	4.3	4.3	4.4	4.5	4.4
48	4.3	4.4	4.6	4.5	4.5	4.4	4.3	4.4
72	4.5	4.2	4.0	4.0	4.1	4.0	4.0	4.0
96	4.0	4.2	4.3	4.1	3.8	3.9	4.0	4.0
120	3.9	3.9	3.8	3.8	3.9	3.9	3.9	3.8
144	3.8	3.8	3.9	3.8	3.8	3.9	3.9	3.9
168	3.8	3.9	4.1	4.0	3.9	4.2	4.5	4.5
192	4.4	4.3	4.2	4.1	4.0	4.0	4.0	4.1
216	4.1	4.3	4.5	4.3	4.1	4.2	4.2	4.2
240	4.2	4.2	4.2	4.3	4.4	4.4	4.5	4.4
264	4.4	4.4	4.4	4.3	4.2	4.2	4.3	4.3
288	4.4	4.4	4.4	4.5	4.5	4.4	4.3	4.5
312	4.6	4.7	4.8	4.6	4.4	4.4	4.4	4.3
336	4.2	4.2	4.3	4.3	4.4	4.4	4.4	4.4

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1808.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.6	4.6	4.6	4.4	4.2	4.3	4.5	4.4
24	4.4	4.5	4.6	4.5	4.5	4.6	4.6	4.6
48	4.5	4.5	4.4	4.5	4.5	4.4	4.3	4.1
72	4.0	4.0	4.1	3.9	3.8	3.8	3.8	3.8
96	3.7	3.6	3.6	3.8	4.0	3.8	3.7	3.7
120	3.6	3.7	3.7	3.8	3.8	3.8	3.7	3.7
144	3.7	3.7	3.7	3.9	4.2	4.1	4.0	4.1
168	4.2	4.2	4.2	4.0	3.7	3.9	4.0	4.0
192	4.0	4.1	4.3	4.3	4.3	4.2	4.2	4.2
216	4.3	4.2	4.1	4.2	4.3	4.4	4.5	4.5
240	4.4	4.4	4.4	4.4	4.5	4.3	4.3	4.3
264	4.4	4.4	4.5	4.5	4.6	4.4	4.3	4.3
288	4.4	4.4	4.4	4.4	4.5	4.5	4.4	4.5
312	4.5	4.5	4.5	4.6	4.6	4.6	4.6	4.5
336	4.5	4.4	4.4	4.4	4.3	4.4	4.5	4.5

DEPTH	1810.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.3	4.3	4.4	4.2	4.1	4.1	4.2	4.2
24	4.1	4.1	4.1	4.2	4.2	4.1	4.0	4.0
48	3.9	4.1	4.3	4.3	4.3	4.3	4.3	4.2
72	4.2	4.2	4.3	4.3	4.3	4.0	3.8	3.7
96	3.7	3.6	3.6	3.7	3.8	3.8	3.8	3.7
120	3.7	3.7	3.7	3.7	3.8	3.8	3.8	3.7
144	3.6	3.7	3.8	3.7	3.6	3.7	3.8	3.9
168	4.1	4.0	3.9	3.8	3.7	3.9	4.1	4.0
192	4.0	3.9	3.8	3.9	4.0	4.0	4.0	4.0
216	4.0	4.0	4.1	4.0	4.0	4.1	4.2	4.3
240	4.4	4.4	4.3	4.2	4.1	4.1	4.2	4.2
264	4.2	4.1	4.0	4.2	4.4	4.3	4.3	4.3
288	4.3	4.2	4.2	4.2	4.2	4.2	4.3	4.2
312	4.1	4.2	4.4	4.3	4.2	4.2	4.1	4.1
336	4.2	4.2	4.1	4.2	4.2	4.2	4.2	4.2

DEPTH	1812.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.0	4.1	4.2	4.1	4.0	3.9	3.9	3.7
24	3.6	3.8	3.9	3.9	3.9	3.9	3.9	3.9
48	3.8	3.7	3.5	3.6	3.8	3.7	3.7	3.7
72	3.8	3.9	4.0	3.8	3.6	3.4	3.1	3.2
96	3.3	3.2	3.2	3.3	3.4	3.4	3.4	3.5
120	3.5	3.5	3.5	3.5	3.4	3.4	3.3	3.5
144	3.6	3.5	3.4	3.3	3.3	3.4	3.4	3.5
168	3.7	3.5	3.4	3.5	3.6	3.4	3.3	3.4
192	3.5	3.5	3.5	3.5	3.4	3.7	3.9	3.8
216	3.8	3.8	3.9	3.8	3.8	3.9	4.1	4.0
240	3.8	3.8	3.8	3.7	3.7	3.8	3.8	3.9
264	4.0	3.8	3.7	3.7	3.8	3.8	3.8	3.8
288	3.8	3.7	3.7	3.9	4.1	3.9	3.8	3.7
312	3.5	3.7	3.8	3.8	3.8	3.7	3.8	3.8
336	3.9	3.8	3.7	3.8	4.0	3.9	3.9	3.9

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WALL RANGES VS DEPTH

DEPTH	1814.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.9	4.0	4.0	4.0	4.1	4.2	4.3	4.1
24	4.0	4.0	4.1	4.0	3.9	3.9	3.9	4.0
48	4.0	3.9	3.8	3.9	4.0	3.9	3.8	3.8
72	3.9	3.8	3.8	3.9	4.0	3.8	3.6	3.7
96	3.8	3.9	4.0	4.0	4.0	3.6	3.3	3.4
120	3.5	3.5	3.5	3.5	3.4	3.5	3.7	3.6
144	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.4
168	3.4	3.5	3.7	3.6	3.5	3.5	3.5	3.6
192	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.8
216	4.1	4.1	4.0	4.0	3.9	4.0	4.1	4.2
240	4.3	4.1	4.0	4.0	4.0	4.1	4.3	4.2
264	4.2	4.2	4.2	4.2	4.2	4.1	4.0	4.0
288	3.9	4.1	4.3	4.2	4.1	4.0	4.0	4.1
312	4.2	4.1	4.0	4.0	4.0	4.2	4.4	4.3
336	4.2	4.2	4.2	4.0	3.9	4.0	4.1	4.0

DEPTH	1816.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.5	4.5	4.5	4.4	4.3	4.2	4.2	4.1
24	4.0	4.0	4.0	4.0	3.9	3.9	3.8	4.0
48	4.1	4.2	4.3	4.0	3.7	3.8	3.8	3.8
72	3.8	3.8	3.8	3.7	3.6	3.7	3.8	3.8
96	3.8	3.7	3.7	3.8	3.8	3.7	3.6	3.7
120	3.7	3.6	3.5	3.6	3.7	3.7	3.8	3.7
144	3.6	3.7	3.9	3.7	3.6	3.6	3.6	3.7
168	3.8	3.7	3.6	3.8	4.0	3.8	3.6	3.8
192	4.0	3.9	3.8	3.8	3.8	3.8	3.8	3.8
216	3.7	3.7	3.7	3.8	4.0	4.0	4.0	4.0
240	4.0	4.2	4.4	4.3	4.3	4.3	4.4	4.4
264	4.4	4.4	4.3	4.2	4.1	4.0	4.0	4.1
288	4.2	4.3	4.4	4.4	4.5	4.4	4.3	4.3
312	4.3	4.3	4.4	4.4	4.4	4.4	4.4	4.4
336	4.4	4.4	4.3	4.3	4.3	4.4	4.4	4.5

DEPTH	1818.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.9	3.9	4.0	4.1	4.2	4.2	4.2	3.9
24	3.7	3.8	3.9	3.8	3.8	3.8	3.9	3.9
48	3.8	3.8	3.8	3.8	3.8	3.7	3.6	3.6
72	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.6
96	3.6	3.6	3.5	3.5	3.4	3.5	3.5	3.6
120	3.7	3.6	3.6	3.5	3.5	3.6	3.6	3.5
144	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.7
168	3.8	3.7	3.6	3.6	3.6	3.7	3.7	3.8
192	3.9	4.0	4.1	3.9	3.8	3.8	3.9	4.0
216	4.2	4.2	4.1	4.0	3.8	3.9	4.1	4.1
240	4.1	4.1	4.1	4.0	4.0	3.9	3.8	3.8
264	3.8	3.9	4.0	4.0	4.0	3.8	3.7	3.7
288	3.8	3.8	3.9	3.9	4.0	3.9	3.9	4.0
312	4.1	4.1	4.1	4.0	4.0	4.0	4.1	4.1
336	4.1	4.0	3.9	3.8	3.8	3.8	3.8	3.8

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1820.0		TILT	0		VOS	5969.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.7	2.6	2.5	2.5	2.5	2.6	2.6	2.5
24	2.5	2.6	2.6	2.6	2.5	2.5	2.4	2.4
48	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4
72	2.4	2.4	2.5	2.4	2.3	2.4	2.6	2.5
96	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.3
120	2.4	2.3	2.4	2.3	2.3	2.5	2.8	2.9
144	2.9	2.7	2.4	2.4	2.5	2.5	2.5	2.8
168	3.3	3.2	3.2	3.2	3.2	3.1	3.1	3.1
192	3.1	3.1	3.2	3.1	3.0	3.1	3.1	2.9
216	2.7	2.9	3.0	2.7	2.6	2.5	2.5	2.6
240	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.5
264	2.3	2.3	2.3	2.3	2.3	2.4	2.5	2.4
288	2.3	2.5	2.6	2.5	2.4	2.5	2.6	2.5
312	2.4	2.4	2.3	2.4	2.4	2.5	2.6	2.7
336	2.9	2.6	2.3	2.3	2.3	2.3	2.3	2.5

DEPTH	1822.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.5	2.4	2.3	2.3	2.3	2.4	2.6	2.5
24	2.5	2.5	2.5	2.4	2.3	2.4	2.5	2.5
48	2.5	2.5	2.5	2.5	2.6	2.5	2.4	2.5
72	2.5	2.6	2.7	2.6	2.6	2.4	2.3	2.4
96	2.6	2.6	2.6	2.5	2.3	2.4	2.5	2.4
120	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.3
144	2.3	2.4	2.6	2.4	2.3	2.4	2.4	2.4
168	2.4	2.3	2.3	2.3	2.4	2.3	2.3	2.3
192	2.3	2.3	2.4	2.3	2.3	2.4	2.5	2.4
216	2.3	2.4	2.6	2.4	2.3	2.3	2.3	2.4
240	2.4	2.4	2.3	2.4	2.5	2.4	2.3	2.5
264	2.7	2.6	2.5	2.5	2.4	2.4	2.4	2.3
288	2.3	2.4	2.5	2.4	2.3	2.3	2.3	2.3
312	2.3	2.4	2.5	2.5	2.4	2.5	2.6	2.5
336	2.5	2.4	2.4	2.5	2.5	2.4	2.3	2.4

DEPTH	1824.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.1	3.2	3.3	3.2	3.2	3.2	3.3	3.3
24	3.3	3.2	3.1	3.2	3.3	3.4	3.5	3.4
48	3.4	3.2	3.1	2.8	2.7	2.8	2.9	2.9
72	2.9	2.8	2.8	2.7	2.6	2.8	2.9	2.7
96	2.5	2.5	2.4	2.5	2.6	2.5	2.5	2.6
120	2.7	2.8	2.9	2.7	2.5	2.4	2.4	2.4
144	2.4	2.3	2.3	2.3	2.4	2.3	2.2	2.4
168	2.6	2.8	2.9	2.8	2.8	2.7	2.6	2.7
192	2.7	2.7	2.6	2.6	2.6	2.8	3.1	3.1
216	3.1	3.2	3.3	3.2	3.2	3.1	3.1	3.1
240	3.1	3.3	3.5	3.3	3.2	3.3	3.5	3.4
264	3.4	3.4	3.5	3.4	3.3	3.2	3.2	3.2
288	3.3	3.1	2.9	3.1	3.3	3.1	3.1	3.1
312	3.2	3.2	3.3	3.3	3.4	3.3	3.3	3.4
336	3.5	3.3	3.1	3.1	3.0	3.1	3.3	3.2

SONIC

CUSTOMER : Marathon Petroleum
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OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1826.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.1	4.0	3.9	3.9	3.9	4.0	4.1	4.1
24	4.1	4.0	3.9	3.9	3.9	3.9	3.9	4.0
48	4.1	4.1	4.2	4.1	4.0	3.8	3.6	3.6
72	3.7	3.7	3.8	3.6	3.4	3.5	3.5	3.6
96	3.6	3.5	3.4	3.4	3.4	3.4	3.4	3.4
120	3.5	3.4	3.3	3.3	3.3	3.3	3.3	3.3
144	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.4
168	3.4	3.4	3.5	3.5	3.6	3.7	3.7	3.8
192	3.8	3.6	3.5	3.5	3.4	3.4	3.3	3.4
216	3.5	3.5	3.5	3.5	3.5	3.7	3.8	3.9
240	3.9	3.9	4.0	3.9	3.9	4.0	4.0	3.9
264	3.9	4.0	4.2	4.1	4.0	4.1	4.2	4.1
288	4.0	4.0	4.1	4.1	4.1	3.9	3.8	3.9
312	4.0	3.9	3.8	3.9	4.0	4.1	4.1	4.0
336	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.0

DEPTH	1827.9		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.3	4.2	4.1	4.1	4.0	4.2	4.3	4.3
24	4.3	4.2	4.1	4.0	4.0	4.1	4.1	4.1
48	4.0	4.1	4.1	4.1	4.2	4.2	4.3	4.1
72	4.0	4.2	4.4	4.2	4.1	4.1	4.2	4.0
96	3.8	3.9	3.9	3.9	3.9	3.6	3.4	3.4
120	3.5	3.4	3.4	3.4	3.4	3.3	3.3	3.4
144	3.5	3.5	3.5	3.5	3.4	3.5	3.5	3.7
168	4.0	4.0	4.1	4.1	4.1	4.0	4.0	4.1
192	4.1	3.8	3.6	3.6	3.6	3.6	3.7	3.7
216	3.7	3.8	3.9	3.9	3.9	4.0	4.1	4.1
240	4.0	3.9	3.9	4.0	4.0	4.1	4.1	4.1
264	4.0	3.9	3.9	3.9	4.0	4.0	4.0	4.1
288	4.2	4.2	4.3	4.2	4.1	4.1	4.1	4.1
312	4.1	4.1	4.1	4.1	4.0	4.0	4.0	4.0
336	3.9	3.9	4.0	4.0	4.0	4.1	4.2	4.2

DEPTH	1830.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.0	4.0	4.0	4.1	4.3	4.1	4.0	4.1
24	4.1	4.0	3.9	4.0	4.0	4.1	4.2	4.1
48	4.0	4.1	4.3	4.2	4.1	4.1	4.2	4.2
72	4.2	3.9	3.7	3.7	3.6	3.6	3.6	3.6
96	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.6
120	3.8	3.7	3.7	3.7	3.7	3.6	3.6	3.6
144	3.6	3.6	3.6	3.5	3.5	3.8	4.2	4.2
168	4.1	4.2	4.3	4.2	4.1	3.9	3.7	4.0
192	4.3	4.3	4.4	4.3	4.2	4.2	4.3	4.2
216	4.1	4.2	4.3	4.1	3.9	4.0	4.1	4.1
240	4.2	4.2	4.1	4.1	4.1	4.3	4.4	4.4
264	4.4	4.2	4.0	4.0	3.9	4.0	4.1	4.1
288	4.1	4.1	4.2	4.1	4.1	4.2	4.3	4.2
312	4.1	4.2	4.3	4.1	4.0	4.1	4.2	4.3
336	4.3	4.2	4.1	4.1	4.1	4.2	4.2	4.1

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1832.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.0	4.0	4.0	4.1	4.3	4.2	4.2	4.1
24	4.1	4.0	3.9	3.8	3.8	3.8	3.8	3.7
48	3.6	3.7	3.8	3.8	3.9	4.0	4.1	3.9
72	3.8	3.9	4.1	3.9	3.7	3.5	3.4	3.4
96	3.4	3.5	3.6	3.5	3.4	3.5	3.6	3.5
120	3.4	3.4	3.4	3.3	3.3	3.3	3.4	3.4
144	3.4	3.4	3.4	3.4	3.4	3.6	3.9	3.7
168	3.5	3.5	3.5	3.5	3.5	3.7	3.9	3.9
192	3.9	3.8	3.8	3.7	3.7	3.8	3.9	3.9
216	4.0	3.9	3.8	4.0	4.2	4.2	4.1	4.1
240	4.1	4.2	4.2	4.1	4.0	4.0	3.9	3.9
264	3.8	3.9	4.0	4.1	4.1	4.1	4.0	4.0
288	4.0	3.9	3.9	3.9	3.9	4.1	4.2	4.1
312	4.0	4.1	4.2	4.1	4.0	3.9	3.9	3.8
336	3.7	4.0	4.3	4.2	4.0	4.2	4.3	4.1

DEPTH	1834.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.0	4.2	4.3	4.3	4.3	4.2	4.1	4.0
24	4.0	4.1	4.3	4.1	4.0	4.0	3.9	4.0
48	4.1	4.0	3.9	3.9	3.9	3.9	4.0	3.9
72	3.8	3.8	3.9	3.8	3.8	3.7	3.6	3.7
96	3.8	3.7	3.6	3.6	3.5	3.7	3.9	3.7
120	3.5	3.6	3.8	3.8	3.8	3.6	3.5	3.7
144	4.0	4.1	4.3	4.0	3.8	3.8	3.7	3.8
168	3.9	3.8	3.8	3.7	3.8	3.8	3.8	3.9
192	3.9	3.9	3.9	3.9	3.9	3.9	4.0	3.9
216	3.8	3.8	3.8	4.1	4.4	4.1	3.9	4.1
240	4.3	4.4	4.6	4.6	4.5	4.4	4.3	4.2
264	4.2	4.2	4.1	4.2	4.2	4.3	4.4	4.2
288	4.0	4.2	4.3	4.3	4.3	4.2	4.0	4.0
312	4.0	4.2	4.3	4.1	3.9	4.0	4.2	4.2
336	4.3	4.2	4.1	4.2	4.4	4.4	4.4	4.2

DEPTH	1836.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.6	3.6	3.6	3.6	3.6	3.4	3.3	3.3
24	3.3	3.4	3.6	3.4	3.3	3.3	3.4	3.4
48	3.5	3.4	3.3	3.3	3.4	3.4	3.5	3.4
72	3.3	3.4	3.4	3.4	3.4	3.4	3.3	3.4
96	3.6	3.4	3.3	3.5	3.7	3.7	3.8	3.5
120	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.4
144	3.6	3.4	3.3	3.3	3.3	3.4	3.5	3.4
168	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.5
192	3.6	3.5	3.4	3.4	3.4	3.4	3.4	3.4
216	3.4	3.5	3.5	3.6	3.7	3.8	3.9	3.7
240	3.6	3.7	3.8	3.7	3.6	3.7	3.9	3.8
264	3.7	3.7	3.7	3.6	3.5	3.5	3.6	3.5
288	3.4	3.5	3.7	3.6	3.6	3.5	3.4	3.5
312	3.6	3.7	3.9	3.6	3.4	3.6	3.7	3.8
336	3.9	3.6	3.3	3.4	3.4	3.5	3.5	3.5

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1838.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.7	3.7	3.7	3.7	3.7	3.7	3.8	3.8
24	3.9	3.8	3.8	3.7	3.7	3.7	3.7	3.8
48	4.0	4.0	4.1	3.5	3.0	3.0	3.0	3.2
72	3.3	3.2	3.2	3.2	3.3	3.5	3.6	3.4
96	3.2	3.1	3.1	3.1	3.1	3.2	3.4	3.2
120	3.1	3.1	3.1	3.1	3.2	3.2	3.3	3.3
144	3.3	3.1	3.0	3.0	2.9	2.9	2.9	2.9
168	2.9	3.0	3.1	3.0	2.9	2.9	3.0	2.9
192	2.9	2.9	3.0	3.0	3.1	3.1	3.2	3.1
216	3.0	2.9	2.9	3.0	3.0	3.0	3.0	3.1
240	3.1	3.2	3.2	3.1	3.0	3.1	3.2	3.1
264	3.0	3.1	3.1	3.2	3.4	3.5	3.6	3.6
288	3.6	3.7	3.8	3.8	3.7	3.5	3.4	3.4
312	3.4	3.3	3.3	3.4	3.4	3.5	3.5	3.5
336	3.5	3.5	3.5	3.4	3.3	3.5	3.8	3.7

DEPTH	1840.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.9	3.7	3.6	3.8	3.9	3.9	3.9	3.8
24	3.7	3.8	3.8	3.7	3.6	3.7	3.8	3.6
48	3.5	3.5	3.5	3.7	4.0	3.8	3.6	3.6
72	3.7	3.7	3.8	3.6	3.5	3.5	3.5	3.5
96	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.6
120	3.7	3.8	3.8	3.7	3.6	3.6	3.6	3.5
144	3.5	3.5	3.6	3.6	3.6	3.5	3.5	3.6
168	3.7	3.7	3.8	3.9	4.0	4.0	4.0	3.9
192	3.8	3.6	3.5	3.5	3.6	3.7	3.8	3.8
216	3.8	3.7	3.6	3.7	3.8	3.9	4.0	3.9
240	3.8	3.9	4.0	3.7	3.5	3.8	4.2	4.0
264	3.8	4.1	4.4	4.4	4.4	4.3	4.3	4.3
288	4.4	4.2	4.0	4.0	3.9	4.1	4.3	4.2
312	4.1	4.1	4.1	3.9	3.8	3.6	3.5	3.6
336	3.7	3.7	3.8	3.7	3.6	3.8	3.9	3.9

DEPTH	1842.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.0	4.0	4.0	4.0	4.0	4.0	4.1	4.1
24	4.0	4.1	4.1	4.2	4.2	4.3	4.4	4.2
48	4.1	4.0	4.0	4.0	4.0	3.9	3.8	3.9
72	3.9	3.8	3.8	3.8	3.8	3.9	3.9	3.8
96	3.8	3.7	3.6	3.8	3.9	4.0	4.0	4.0
120	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.1
144	4.3	4.1	3.9	3.8	3.8	3.8	3.9	3.7
168	3.6	3.6	3.5	3.7	3.9	3.8	3.6	3.6
192	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.7
216	3.9	4.0	4.2	4.2	4.3	4.2	4.0	4.0
240	4.0	3.9	3.9	4.1	4.2	4.2	4.2	4.1
264	4.0	3.9	3.9	3.9	4.0	4.1	4.2	4.1
288	4.1	4.0	4.0	4.0	4.1	4.1	4.2	4.1
312	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.2
336	4.3	4.1	3.9	4.0	4.1	4.0	4.0	4.0

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1844.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.6	3.8	4.0	4.0	4.0	4.0	4.1	3.8
24	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
48	3.6	3.5	3.4	3.5	3.6	3.5	3.5	3.6
72	3.7	3.8	4.0	4.0	4.0	3.7	3.4	3.5
96	3.5	3.6	3.6	3.5	3.3	3.5	3.7	3.7
120	3.6	3.5	3.3	3.3	3.3	3.3	3.3	3.4
144	3.4	3.4	3.3	3.3	3.4	3.4	3.5	3.5
168	3.6	3.6	3.6	3.7	3.7	3.6	3.5	3.5
192	3.5	3.4	3.4	3.5	3.7	3.5	3.4	3.3
216	3.4	3.5	3.6	3.7	3.7	3.6	3.6	3.5
240	3.4	3.6	3.7	3.8	3.8	3.7	3.6	3.8
264	3.9	3.8	3.8	3.7	3.7	3.8	3.9	3.8
288	3.7	3.8	4.0	4.0	4.0	4.0	4.0	3.9
312	3.9	3.9	3.9	3.8	3.8	3.7	3.7	3.7
336	3.6	3.7	3.7	3.8	4.0	3.9	3.9	3.8

DEPTH	1845.9		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.3	3.4	3.6	3.7	3.9	3.6	3.5	3.4
24	3.3	3.3	3.3	3.4	3.5	3.5	3.4	3.4
48	3.4	3.3	3.3	3.4	3.5	3.4	3.3	3.3
72	3.4	3.4	3.4	3.4	3.3	3.3	3.2	3.3
96	3.3	3.3	3.3	3.4	3.5	3.4	3.3	3.4
120	3.5	3.5	3.5	3.4	3.4	3.4	3.5	3.5
144	3.4	3.4	3.3	3.4	3.5	3.4	3.3	3.3
168	3.3	3.3	3.3	3.5	3.7	3.5	3.3	3.3
192	3.3	3.3	3.3	3.4	3.5	3.4	3.4	3.4
216	3.3	3.5	3.7	3.5	3.3	3.3	3.4	3.3
240	3.3	3.3	3.4	3.4	3.4	3.3	3.3	3.4
264	3.5	3.4	3.3	3.3	3.3	3.3	3.3	3.3
288	3.3	3.4	3.5	3.5	3.5	3.5	3.5	3.4
312	3.4	3.4	3.4	3.3	3.3	3.3	3.3	3.3
336	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3

DEPTH	1848.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.0	4.1	4.2	4.0	3.8	3.9	4.0	4.0
24	4.0	4.0	4.0	4.0	4.0	4.0	4.1	3.8
48	3.6	3.4	3.3	3.4	3.5	3.4	3.4	3.5
72	3.7	3.6	3.5	3.4	3.3	3.4	3.5	3.5
96	3.5	3.5	3.5	3.4	3.4	3.4	3.4	3.4
120	3.4	3.3	3.3	3.3	3.3	3.3	3.4	3.3
144	3.4	3.4	3.4	3.5	3.5	3.4	3.3	3.4
168	3.5	3.4	3.3	3.3	3.3	3.3	3.3	3.3
192	3.3	3.4	3.4	3.3	3.3	3.3	3.3	3.3
216	3.3	3.5	3.8	3.9	3.9	3.9	3.9	3.9
240	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.0
264	4.0	3.9	3.9	4.0	4.0	3.9	3.8	3.9
288	3.9	3.9	3.9	3.7	3.5	3.6	3.8	3.9
312	4.1	4.0	4.0	4.0	4.0	4.0	4.0	3.8
336	3.7	3.7	3.7	3.7	3.8	3.8	3.9	3.9

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1852.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.5	3.4	3.4	3.3	3.3	3.4	3.6	3.6
24	3.6	3.5	3.5	3.6	3.6	3.6	3.5	3.4
48	3.4	3.6	3.8	3.7	3.6	3.6	3.7	3.6
72	3.5	3.7	4.0	3.8	3.7	3.7	3.8	3.7
96	3.5	3.5	3.6	3.7	3.8	4.0	4.1	4.0
120	4.0	4.0	4.0	4.0	4.0	3.9	3.8	3.7
144	3.6	3.4	3.3	3.3	3.4	3.4	3.5	3.5
168	3.5	3.5	3.4	3.4	3.4	3.3	3.3	3.4
192	3.5	3.5	3.6	3.5	3.4	3.4	3.4	3.4
216	3.3	3.3	3.3	3.3	3.4	3.4	3.5	3.7
240	3.9	3.8	3.7	3.6	3.6	3.5	3.4	3.5
264	3.6	3.6	3.7	3.7	3.7	3.9	4.1	3.9
288	3.9	3.9	3.9	4.0	4.0	4.1	4.3	4.3
312	4.3	4.1	4.0	3.9	3.8	3.9	3.9	3.9
336	3.9	3.7	3.6	3.7	3.7	3.6	3.5	3.5

DEPTH	1854.1		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.0	4.2	4.4	4.1	3.8	3.8	3.7	3.7
24	3.8	3.8	3.8	3.9	4.0	3.9	3.8	3.8
48	3.8	3.7	3.6	3.5	3.4	3.4	3.3	3.4
72	3.5	3.5	3.4	3.4	3.4	3.3	3.3	3.4
96	3.6	3.5	3.5	3.7	3.8	3.8	3.9	3.8
120	3.8	3.9	4.0	3.9	3.9	3.9	3.9	3.9
144	3.8	3.9	3.9	3.7	3.5	3.3	3.1	3.2
168	3.3	3.2	3.2	3.2	3.2	3.2	3.1	3.2
192	3.2	3.1	3.1	3.2	3.2	3.1	3.0	3.1
216	3.2	3.1	3.0	3.1	3.3	3.4	3.5	3.4
240	3.3	3.4	3.6	3.5	3.4	3.4	3.4	3.5
264	3.5	3.4	3.3	3.3	3.3	3.4	3.5	3.5
288	3.5	3.5	3.6	3.8	4.0	3.9	3.8	3.8
312	3.8	3.7	3.7	3.6	3.6	3.7	3.8	3.6
336	3.5	3.6	3.7	3.8	3.9	3.9	3.8	3.9

DEPTH	1856.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.7	3.7	3.7	3.7	3.7	3.8	3.8	3.7
24	3.6	3.6	3.6	3.7	3.7	3.7	3.8	3.6
48	3.5	3.5	3.6	3.6	3.7	3.5	3.3	3.3
72	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.2
96	3.2	3.2	3.1	3.2	3.3	3.5	3.7	3.6
120	3.6	3.3	3.0	3.0	3.0	3.1	3.2	3.1
144	3.0	3.1	3.1	3.1	3.2	3.1	3.1	3.1
168	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1
192	3.0	3.1	3.2	3.2	3.2	3.1	3.0	3.2
216	3.4	3.2	3.0	3.1	3.3	3.3	3.3	3.3
240	3.3	3.2	3.1	3.4	3.7	3.7	3.7	3.4
264	3.2	3.2	3.3	3.2	3.1	3.2	3.3	3.5
288	3.6	3.7	3.8	3.7	3.7	3.6	3.6	3.6
312	3.6	3.6	3.7	3.8	4.0	3.8	3.6	3.5
336	3.4	3.3	3.3	3.4	3.5	3.6	3.7	3.7

SONIC

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WALL RANGES VS DEPTH

DEPTH	1858.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.0	3.7	3.4	3.4	3.4	3.5	3.5	3.5
24	3.5	3.5	3.6	3.5	3.5	3.5	3.5	3.5
48	3.4	3.5	3.5	3.7	4.0	4.0	4.0	4.0
72	3.9	3.8	3.7	3.8	4.0	3.7	3.5	3.5
96	3.5	3.5	3.4	3.5	3.6	3.7	3.7	3.7
120	3.7	3.5	3.4	3.4	3.4	3.4	3.4	3.5
144	3.5	3.5	3.6	3.6	3.7	3.6	3.6	3.4
168	3.2	3.3	3.5	3.5	3.4	3.7	4.0	3.7
192	3.5	3.7	3.9	3.8	3.7	3.6	3.4	3.5
216	3.6	3.7	3.7	3.7	3.6	3.7	3.9	3.8
240	3.7	3.8	3.9	3.9	3.9	3.8	3.7	3.7
264	3.7	3.6	3.5	3.5	3.5	3.6	3.7	3.7
288	3.7	3.5	3.4	3.4	3.4	3.6	3.7	4.0
312	4.3	4.1	3.9	3.8	3.8	3.6	3.5	3.7
336	3.9	3.8	3.7	3.8	3.9	3.9	3.9	3.9

DEPTH	1859.9		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.7	3.8	4.0	3.9	3.8	3.8	3.8	4.0
24	4.1	3.9	3.6	3.7	3.8	3.9	4.0	4.0
48	3.9	3.9	3.9	3.7	3.6	3.6	3.6	3.6
72	3.6	3.6	3.6	3.7	3.8	3.9	4.1	4.0
96	3.9	4.0	4.1	3.8	3.6	3.7	3.8	4.0
120	4.1	3.9	3.6	3.7	3.7	3.8	3.9	3.8
144	3.6	3.7	3.7	3.7	3.6	3.6	3.6	3.7
168	3.9	4.0	4.2	4.2	4.1	4.1	4.1	4.0
192	4.0	3.8	3.6	3.7	3.8	3.9	4.1	4.0
216	4.0	4.0	4.1	4.0	3.9	4.0	4.0	4.1
240	4.1	4.2	4.2	4.2	4.2	4.0	3.8	3.8
264	3.9	4.0	4.0	4.0	4.0	4.1	4.3	4.1
288	3.9	3.8	3.8	3.9	4.1	4.0	4.0	4.1
312	4.1	4.3	4.4	4.2	4.0	4.0	3.9	3.9
336	3.9	4.0	4.0	4.1	4.2	4.0	3.8	3.8

DEPTH	1862.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.7	3.8	3.9	4.0	4.1	3.9	3.8	3.8
24	3.8	3.7	3.7	3.6	3.6	3.6	3.6	3.6
48	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.4
72	3.4	3.5	3.6	3.5	3.4	3.4	3.3	3.4
96	3.5	3.3	3.3	3.4	3.6	3.6	3.6	3.6
120	3.6	3.5	3.5	3.4	3.3	3.3	3.4	3.5
144	3.6	3.7	3.7	3.5	3.2	3.3	3.3	3.3
168	3.4	3.3	3.3	3.4	3.5	3.6	3.7	3.5
192	3.4	3.3	3.3	3.4	3.6	3.5	3.4	3.5
216	3.6	3.7	3.8	3.9	4.0	3.9	3.8	3.7
240	3.6	3.6	3.7	3.9	4.0	3.9	3.7	3.8
264	3.9	3.9	4.0	4.0	4.0	4.0	4.1	4.0
288	4.0	3.9	3.9	3.9	3.9	4.0	4.1	4.0
312	3.9	3.8	3.8	3.9	3.9	3.9	4.0	4.0
336	4.0	4.0	4.1	4.0	4.0	4.0	3.9	3.8

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WALL RANGES VS DEPTH

DEPTH	1864.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.9	3.9	3.9	3.9	4.0	4.0	4.0	3.9
24	3.8	4.1	4.4	4.1	4.0	4.0	4.1	3.9
48	3.8	3.6	3.5	3.7	3.9	3.6	3.4	3.6
72	3.9	3.7	3.6	3.7	3.8	3.8	3.8	3.6
96	3.5	3.4	3.4	3.4	3.5	3.4	3.4	3.5
120	3.5	3.6	3.6	3.5	3.4	3.5	3.7	3.6
144	3.6	3.7	3.7	3.9	4.1	3.9	3.7	3.7
168	3.7	3.7	3.6	3.6	3.5	3.5	3.5	3.6
192	3.6	3.6	3.5	3.5	3.5	3.6	3.8	3.6
216	3.5	3.8	4.0	3.9	3.8	3.9	3.9	3.8
240	3.7	3.8	4.0	3.9	3.9	3.7	3.6	3.7
264	3.8	3.9	4.1	3.8	3.6	3.7	3.8	3.8
288	3.7	3.8	3.9	3.9	3.9	3.9	3.9	3.9
312	3.9	3.9	3.9	3.8	3.8	3.9	4.0	4.0
336	4.0	4.1	4.2	4.0	3.9	3.9	3.9	3.9

DEPTH	1866.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.5	3.8	4.1	3.9	3.6	3.9	4.2	4.0
24	3.9	3.9	3.8	3.7	3.6	3.7	3.8	3.8
48	3.9	4.0	4.1	3.9	3.8	3.6	3.5	3.4
72	3.4	3.4	3.4	3.3	3.3	3.3	3.3	3.3
96	3.3	3.2	3.1	3.3	3.4	3.3	3.1	3.3
120	3.5	3.3	3.2	3.3	3.3	3.2	3.1	3.1
144	3.1	3.3	3.4	3.4	3.4	3.4	3.5	3.4
168	3.3	3.4	3.4	3.4	3.5	3.4	3.3	3.3
192	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.4
216	3.5	3.7	3.9	3.8	3.7	3.6	3.5	3.5
240	3.5	3.7	3.9	3.9	3.9	4.0	4.1	4.0
264	3.9	3.8	3.8	3.6	3.5	3.6	3.7	3.5
288	3.3	3.3	3.4	3.5	3.6	3.7	3.9	4.1
312	4.4	4.3	4.2	4.2	4.1	4.2	4.3	4.0
336	3.8	3.6	3.5	3.6	3.8	3.9	3.9	3.7

DEPTH	1868.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.6	3.6	3.7	3.7	3.6	3.6	3.6	3.5
24	3.4	3.4	3.4	3.3	3.2	3.3	3.4	3.4
48	3.3	3.5	3.7	3.6	3.5	3.5	3.5	3.4
72	3.4	3.3	3.3	3.3	3.2	3.2	3.2	3.3
96	3.4	3.3	3.3	3.3	3.3	3.3	3.4	3.3
120	3.3	3.4	3.6	3.5	3.5	3.5	3.6	3.5
144	3.5	3.3	3.2	3.3	3.5	3.4	3.3	3.3
168	3.3	3.5	3.6	3.6	3.5	3.5	3.4	3.4
192	3.3	3.4	3.5	3.6	3.6	3.7	3.7	3.7
216	3.7	3.7	3.7	3.7	3.7	3.7	3.8	3.7
240	3.7	3.6	3.5	3.5	3.5	3.6	3.8	3.7
264	3.7	3.6	3.5	3.6	3.6	3.7	3.8	3.8
288	3.9	4.0	4.1	3.9	3.6	3.6	3.5	3.5
312	3.5	3.6	3.8	3.8	3.8	3.7	3.7	3.6
336	3.5	3.6	3.6	3.7	3.7	3.8	3.9	3.7

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CUSTOMER : Marathon Petroleum
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OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1870.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	4.1	4.1	4.2	4.0	3.8	3.7	3.7	3.8
24	3.8	3.8	3.8	3.9	4.0	3.8	3.7	3.8
48	4.0	4.0	4.0	4.1	4.2	4.2	4.1	4.1
72	4.1	3.9	3.6	3.6	3.5	3.3	3.1	3.2
96	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.2
120	3.1	3.1	3.1	3.2	3.3	3.4	3.6	3.5
144	3.5	3.6	3.7	3.5	3.4	3.3	3.2	3.3
168	3.4	3.5	3.6	3.4	3.3	3.2	3.2	3.2
192	3.3	3.5	3.6	3.6	3.6	3.5	3.5	3.6
216	3.7	3.7	3.6	3.6	3.6	3.6	3.5	3.7
240	3.8	3.9	4.1	4.0	3.9	3.9	3.9	3.9
264	3.9	3.6	3.4	3.7	4.0	3.9	3.9	4.0
288	4.1	4.2	4.2	3.9	3.7	3.7	3.7	3.8
312	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
336	3.9	3.8	3.7	3.8	4.0	4.0	4.0	4.0

DEPTH	1872.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.6	3.8	4.0	4.0	4.0	4.0	4.0	3.9
24	3.9	3.8	3.7	3.6	3.5	3.5	3.6	3.6
48	3.6	3.6	3.6	3.5	3.5	3.6	3.7	3.5
72	3.4	3.4	3.3	3.3	3.3	3.3	3.4	3.4
96	3.4	3.4	3.3	3.3	3.4	3.5	3.6	3.4
120	3.3	3.3	3.3	3.3	3.3	3.5	3.7	3.5
144	3.4	3.4	3.5	3.4	3.3	3.4	3.5	3.4
168	3.4	3.4	3.3	3.6	3.9	3.6	3.4	3.3
192	3.3	3.3	3.4	3.6	3.7	3.7	3.7	3.7
216	3.7	3.7	3.8	3.9	4.0	3.9	3.9	3.9
240	4.0	4.0	3.9	3.9	3.9	3.9	3.9	4.1
264	4.4	4.3	4.1	3.9	3.8	3.8	3.7	3.7
288	3.8	3.8	3.9	3.8	3.6	3.8	4.0	4.0
312	4.0	4.0	4.0	3.9	3.9	3.9	3.9	3.8
336	3.7	3.9	4.1	4.1	4.1	4.0	4.0	3.7

DEPTH	1874.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.5	3.3	3.0	3.1	3.2	3.1	3.0	3.1
24	3.1	3.1	3.0	3.0	3.0	3.2	3.3	3.3
48	3.4	3.3	3.2	3.1	3.1	3.0	3.0	3.0
72	3.0	3.1	3.3	3.2	3.1	3.1	3.0	3.0
96	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.2
120	3.4	3.3	3.2	3.2	3.2	3.1	3.0	3.1
144	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
168	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.1
192	3.0	3.0	3.0	3.1	3.3	3.2	3.3	3.2
216	3.1	3.1	3.0	3.1	3.1	3.2	3.3	3.3
240	3.3	3.3	3.2	3.1	3.0	3.1	3.3	3.3
264	3.2	3.2	3.2	3.2	3.3	3.1	3.0	3.1
288	3.1	3.2	3.2	3.2	3.2	3.2	3.3	3.3
312	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.1
336	3.0	3.1	3.3	3.2	3.2	3.3	3.4	3.5

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WALL RANGES VS DEPTH

DEPTH	1876.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.4	3.3	3.3	3.3	3.4	3.3	3.3	3.2
24	3.2	3.3	3.5	3.7	3.9	3.7	3.5	3.4
48	3.2	3.2	3.1	3.2	3.2	3.2	3.3	3.3
72	3.4	3.3	3.1	3.2	3.3	3.3	3.4	3.3
96	3.2	3.2	3.2	3.2	3.3	3.4	3.5	3.5
120	3.4	3.4	3.3	3.4	3.4	3.5	3.6	3.4
144	3.2	3.2	3.1	3.3	3.5	3.4	3.3	3.2
168	3.1	3.3	3.4	3.3	3.3	3.3	3.3	3.5
192	3.6	3.6	3.5	3.3	3.2	3.2	3.3	3.3
216	3.2	3.2	3.2	3.2	3.3	3.2	3.1	3.3
240	3.6	3.5	3.4	3.5	3.6	3.3	3.1	3.1
264	3.1	3.2	3.3	3.2	3.2	3.2	3.2	3.2
288	3.1	3.3	3.4	3.3	3.3	3.3	3.5	3.3
312	3.2	3.3	3.5	3.5	3.5	3.6	3.7	3.7
336	3.8	3.5	3.3	3.2	3.2	3.2	3.2	3.3

DEPTH	1877.9		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.2	3.3	3.4	3.3	3.1	3.3	3.4	3.3
24	3.1	3.3	3.5	3.5	3.5	3.3	3.1	3.2
48	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.2
72	3.3	3.2	3.1	3.1	3.1	3.2	3.2	3.2
96	3.3	3.2	3.2	3.3	3.4	3.5	3.5	3.3
120	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.2
144	3.3	3.2	3.2	3.2	3.1	3.1	3.1	3.2
168	3.2	3.2	3.3	3.2	3.2	3.2	3.1	3.2
192	3.4	3.3	3.3	3.2	3.1	3.3	3.4	3.3
216	3.1	3.2	3.2	3.2	3.2	3.3	3.4	3.3
240	3.3	3.2	3.2	3.2	3.1	3.1	3.1	3.1
264	3.1	3.3	3.5	3.4	3.4	3.3	3.1	3.1
288	3.1	3.4	3.6	3.5	3.4	3.4	3.5	3.4
312	3.4	3.3	3.1	3.2	3.3	3.2	3.2	3.3
336	3.4	3.3	3.1	3.1	3.1	3.2	3.4	3.3

DEPTH	1880.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.7	3.7	3.8	3.7	3.7	3.4	3.1	3.0
24	3.0	3.1	3.3	3.4	3.5	3.4	3.2	3.3
48	3.4	3.4	3.4	3.3	3.2	3.2	3.3	3.2
72	3.2	3.2	3.1	3.1	3.1	3.0	2.9	3.0
96	3.0	3.0	3.0	3.2	3.4	3.3	3.3	3.2
120	3.2	3.2	3.3	3.2	3.2	3.2	3.3	3.1
144	2.9	3.0	3.1	3.2	3.4	3.3	3.2	3.2
168	3.1	3.2	3.2	3.1	3.1	3.3	3.4	3.2
192	2.9	2.9	3.0	2.9	2.9	3.0	3.0	3.2
216	3.3	3.5	3.6	3.9	4.2	4.0	3.9	3.7
240	3.6	3.6	3.6	3.7	3.8	3.8	3.7	3.8
264	3.9	3.8	3.7	3.8	3.8	3.9	4.0	3.9
288	3.9	3.8	3.7	3.8	3.8	3.6	3.4	3.5
312	3.6	3.7	3.8	3.8	3.9	3.8	3.7	3.7
336	3.7	3.7	3.8	3.9	4.2	4.0	3.9	3.8

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1882.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.4	2.2	2.0	2.1	2.1	2.0	2.0	2.0
24	2.0	1.9	1.7	1.7	1.6	1.7	1.7	1.6
48	1.6	1.6	1.6	1.7	1.9	1.9	1.9	2.1
72	2.3	2.3	2.3	2.4	2.5	2.5	2.4	2.5
96	2.6	2.6	2.6	2.5	2.3	2.2	2.2	2.1
120	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3
144	2.4	2.3	2.2	2.3	2.4	2.4	2.3	2.4
168	2.4	2.3	2.3	2.3	2.4	2.3	2.2	2.3
192	2.5	2.6	2.7	2.6	2.6	2.5	2.5	2.5
216	2.6	2.6	2.7	2.5	2.3	2.3	2.3	2.3
240	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3
264	2.3	2.3	2.3	2.3	2.4	2.5	2.5	2.5
288	2.4	2.3	2.3	2.3	2.2	2.1	2.1	2.2
312	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0
336	2.0	2.0	2.1	2.2	2.3	2.3	2.3	2.4

DEPTH	1884.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
24	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
48	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
72	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
96	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
120	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
144	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
168	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
192	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
216	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
240	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
264	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
288	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
312	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
336	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4

DEPTH	1886.1		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
24	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
48	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
72	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
96	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
120	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
144	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
168	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
192	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
216	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
240	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
264	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
288	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
312	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
336	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1888.1		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.1	3.3	3.5	3.4	3.3	3.2	3.2	3.2
24	3.2	3.3	3.3	3.4	3.4	3.3	3.2	3.2
48	3.2	3.1	2.9	3.1	3.3	3.1	3.0	3.1
72	3.3	3.2	3.2	3.2	3.2	3.1	3.0	2.9
96	2.9	2.8	2.8	2.8	2.8	2.9	3.0	3.0
120	3.1	3.0	2.8	2.9	3.0	2.9	2.9	2.8
144	2.8	2.9	3.0	2.9	2.8	2.9	3.0	3.1
168	3.2	3.0	2.9	3.1	3.4	3.3	3.2	3.3
192	3.5	3.5	3.5	3.5	3.5	3.6	3.7	3.5
216	3.3	3.2	3.1	3.1	3.1	3.0	3.0	3.1
240	3.2	3.3	3.4	3.3	3.2	3.3	3.4	3.4
264	3.4	3.4	3.4	3.4	3.4	3.4	3.5	3.5
288	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.2
312	3.1	3.3	3.5	3.4	3.4	3.4	3.4	3.3
336	3.3	3.1	2.9	2.9	3.0	3.0	3.0	3.0

DEPTH	1890.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.6	2.7	2.8	3.0	3.3	3.3	3.3	3.1
24	3.0	3.1	3.3	3.2	3.2	3.2	3.2	3.3
48	3.3	3.3	3.2	3.3	3.3	3.2	3.1	3.0
72	2.9	2.9	2.9	3.1	3.2	3.3	3.4	3.2
96	3.1	3.0	3.0	2.9	2.7	2.6	2.6	2.7
120	2.9	2.8	2.6	2.8	3.1	3.0	2.9	2.8
144	2.7	2.7	2.7	2.7	2.6	2.7	2.7	2.8
168	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.7
192	2.7	2.8	2.9	2.8	2.7	2.7	2.7	2.9
216	3.1	3.1	3.1	3.0	3.0	2.9	2.8	2.9
240	3.0	3.0	2.9	2.8	2.7	2.7	2.6	2.7
264	2.7	2.8	2.9	2.9	2.8	2.8	2.8	2.7
288	2.7	2.6	2.6	2.7	2.8	2.7	2.6	2.7
312	2.7	2.7	2.7	2.7	2.6	2.7	2.7	2.8
336	2.9	2.9	2.9	2.8	2.8	2.7	2.7	2.6

DEPTH	1892.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6
24	2.6	2.5	2.4	2.4	2.3	2.4	2.5	2.4
48	2.3	2.4	2.7	2.7	2.7	2.7	2.6	2.6
72	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.8
96	2.8	2.8	2.7	2.7	2.7	2.8	2.8	2.8
120	2.8	2.8	2.8	2.7	2.7	2.7	2.8	2.7
144	2.7	2.7	2.7	2.7	2.8	2.8	2.9	2.9
168	2.9	2.9	3.0	2.9	2.9	2.9	3.0	3.1
192	3.3	3.2	3.1	3.1	3.0	3.1	3.1	3.2
216	3.2	3.1	3.0	2.8	2.6	2.6	2.6	2.7
240	2.8	2.8	2.9	2.9	2.8	2.8	2.8	2.7
264	2.7	2.7	2.8	2.7	2.6	2.6	2.6	2.6
288	2.6	2.6	2.6	2.7	2.8	2.8	2.8	2.8
312	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7
336	2.7	2.6	2.6	2.6	2.6	2.7	2.9	2.8

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1894.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.3	3.3	3.2	3.2	3.1	3.2	3.2	3.2
24	3.3	3.2	3.3	3.3	3.3	3.2	3.2	3.1
48	3.1	3.1	3.1	3.0	2.9	3.0	3.1	3.1
72	3.0	3.0	2.9	2.9	3.0	2.9	2.9	2.9
96	3.0	3.0	3.1	3.0	2.9	2.9	2.9	2.8
120	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9
144	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8
168	2.8	2.8	2.8	2.9	3.0	3.0	3.0	2.9
192	2.8	2.9	3.0	3.0	3.0	3.0	3.0	3.0
216	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.1
240	3.1	3.1	3.2	3.3	3.5	3.5	3.5	3.3
264	3.1	3.2	3.4	3.4	3.4	3.4	3.4	3.4
288	3.3	3.4	3.4	3.4	3.3	3.2	3.1	3.1
312	3.1	3.2	3.3	3.2	3.1	3.2	3.3	3.4
336	3.4	3.3	3.2	3.3	3.3	3.4	3.5	3.4

DEPTH	1896.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
24	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
48	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1
72	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1
96	2.2	2.1	2.1	2.0	1.9	2.0	2.1	2.1
120	2.1	2.1	2.1	2.0	1.9	1.9	1.9	2.0
144	2.1	2.0	1.9	2.0	2.1	2.1	2.0	2.1
168	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.1
192	2.1	2.2	2.4	2.3	2.2	2.2	2.1	2.2
216	2.2	2.1	2.0	2.1	2.2	2.2	2.1	2.2
240	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1
264	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1
288	2.2	2.0	1.9	1.9	2.0	2.0	2.0	1.9
312	1.9	1.9	1.9	2.0	2.2	2.2	2.2	2.2
336	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0

DEPTH	1897.9		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3
24	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
48	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2
72	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
96	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.2
120	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2
144	2.1	2.1	2.1	2.1	2.2	2.1	2.0	2.1
168	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2
192	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3
216	2.2	2.2	2.2	2.3	2.4	2.3	2.2	2.2
240	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.2
264	2.2	2.2	2.2	2.3	2.4	2.3	2.2	2.2
288	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
312	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
336	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1899.9		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3
24	2.2	2.5	2.9	2.7	2.6	2.5	2.4	2.3
48	2.2	2.3	2.4	2.4	2.3	2.3	2.4	2.3
72	2.3	2.4	2.4	2.3	2.3	2.4	2.5	2.3
96	2.2	2.3	2.3	2.2	2.2	2.3	2.5	2.5
120	2.4	2.4	2.4	2.4	2.4	2.3	2.2	2.3
144	2.4	2.5	2.6	2.6	2.5	2.5	2.5	2.3
168	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.4
192	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.4
216	2.4	2.5	2.5	2.4	2.2	2.3	2.4	2.3
240	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.5
264	2.5	2.5	2.5	2.3	2.2	2.2	2.2	2.2
288	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
312	2.4	2.5	2.5	2.3	2.2	2.2	2.2	2.2
336	2.2	2.2	2.2	2.4	2.5	2.4	2.4	2.3

DEPTH	1902.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.2	2.3	2.4	2.4	2.4	2.4	2.5	2.4
24	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.2
48	2.4	2.4	2.3	2.3	2.2	2.2	2.3	2.2
72	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.3
96	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.2
120	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2
144	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
168	2.2	2.2	2.1	2.1	2.1	2.3	2.4	2.7
192	3.0	3.0	3.0	3.1	3.2	3.2	3.2	3.1
216	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0
240	3.0	2.9	2.8	2.7	2.5	2.5	2.5	2.6
264	2.7	2.6	2.6	2.6	2.5	2.3	2.2	2.2
288	2.3	2.3	2.3	2.3	2.3	2.2	2.1	2.1
312	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1
336	2.2	2.2	2.3	2.3	2.3	2.2	2.1	2.2

DEPTH	1903.9		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.5	3.4	3.3	3.0	2.8	2.8	2.9	2.8
24	2.8	3.0	3.4	3.3	3.2	3.2	3.2	3.2
48	3.2	3.2	3.2	3.1	3.1	3.2	3.4	3.2
72	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.1
96	3.1	3.0	2.8	2.8	2.8	2.8	2.9	2.9
120	3.0	3.0	2.9	3.0	3.0	2.9	2.9	2.9
144	2.9	2.9	2.9	3.0	3.2	3.0	2.9	2.9
168	2.9	2.9	2.9	2.8	2.8	2.9	3.1	3.2
192	3.2	3.2	3.1	3.2	3.3	3.1	3.0	3.1
216	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.1
240	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
264	3.1	3.0	3.0	2.9	2.8	3.0	3.2	3.2
288	3.2	3.3	3.4	3.3	3.1	3.0	3.0	3.0
312	2.9	2.9	2.9	2.8	2.8	2.9	2.9	3.0
336	3.0	3.1	3.2	3.1	3.1	3.3	3.4	3.5

SONIC

CUSTOMER : Marathon Petroleum
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OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	1905.9		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.5	3.2	3.0	3.0	3.0	3.1	3.2	3.3
24	3.4	3.2	3.1	3.0	3.0	3.0	2.9	3.0
48	3.0	3.1	3.1	3.1	3.1	3.1	3.2	3.2
72	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.2
96	3.4	3.5	3.5	3.5	3.5	3.3	3.1	3.0
120	3.0	3.0	3.0	3.0	3.1	3.2	3.4	3.5
144	3.5	3.3	3.2	3.3	3.4	3.3	3.2	3.3
168	3.4	3.3	3.1	3.1	3.0	3.0	3.0	3.1
192	3.3	3.3	3.4	3.3	3.3	3.3	3.3	3.4
216	3.4	3.4	3.4	3.3	3.2	3.1	3.0	3.0
240	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0
264	3.1	3.1	3.2	3.1	3.0	3.0	3.0	3.0
288	3.0	3.1	3.1	3.0	3.0	3.0	3.0	3.0
312	2.9	3.0	3.0	3.1	3.1	3.2	3.4	3.5
336	3.7	3.6	3.6	3.7	3.8	3.6	3.5	3.5

DEPTH	1910.0		TILT	0		VOS	5970.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.2	2.2	2.2	2.2	2.1	2.2	2.3	2.3
24	2.2	2.3	2.3	2.3	2.4	2.5	2.6	2.5
48	2.3	2.3	2.2	2.3	2.5	2.4	2.4	2.3
72	2.1	2.2	2.2	2.2	2.3	2.4	2.5	2.3
96	2.1	2.1	2.1	2.2	2.3	2.2	2.2	2.2
120	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.4
144	2.4	2.3	2.3	2.3	2.4	2.4	2.3	2.3
168	2.3	2.4	2.5	2.5	2.5	2.5	2.6	2.4
192	2.2	2.3	2.4	2.3	2.3	2.3	2.4	2.4
216	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3
240	2.3	2.2	2.1	2.2	2.2	2.2	2.2	2.2
264	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.3
288	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2
312	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.3
336	2.3	2.3	2.2	2.2	2.2	2.3	2.4	2.3

DEPTH	1920.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.8	2.8	2.9	2.8	2.8	2.9	3.0	2.9
24	2.8	2.9	2.9	2.9	2.9	2.9	2.8	2.9
48	3.1	3.0	2.9	2.9	2.9	2.8	2.8	2.9
72	3.0	2.9	2.8	2.7	2.7	2.7	2.8	2.7
96	2.6	2.6	2.7	2.7	2.8	2.8	2.8	2.8
120	2.7	2.7	2.6	2.7	2.7	2.8	2.9	2.8
144	2.7	2.8	2.9	3.1	3.2	3.0	2.9	2.7
168	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.7
192	2.7	2.6	2.6	2.7	2.7	2.8	2.9	2.8
216	2.8	2.9	2.9	2.9	3.0	2.9	2.9	2.9
240	2.9	2.9	3.0	2.9	2.9	2.9	2.8	2.7
264	2.6	2.6	2.6	2.7	2.7	2.8	2.9	2.9
288	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8
312	2.8	2.7	2.6	2.6	2.7	2.7	2.7	2.7
336	2.8	2.8	2.9	2.9	2.9	2.8	2.8	2.8

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WALL RANGES VS DEPTH

DEPTH	1924.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.6	2.7	2.8	2.7	2.7	2.8	3.0	3.0
24	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
48	2.9	2.8	2.7	2.9	3.1	3.0	2.9	2.8
72	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7
96	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.7
120	2.6	2.7	2.8	2.7	2.6	2.6	2.6	2.7
144	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8
168	2.9	2.8	2.7	2.6	2.6	2.6	2.6	2.7
192	2.8	2.8	2.7	2.8	2.9	3.0	3.1	3.1
216	3.0	3.0	2.9	2.9	2.9	2.9	2.8	2.8
240	2.8	2.8	2.9	2.9	2.9	2.9	2.8	2.8
264	2.7	2.8	2.8	2.8	2.8	2.7	2.6	2.7
288	2.8	2.8	2.8	2.7	2.7	2.7	2.6	2.7
312	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.8
336	2.8	2.8	2.8	2.8	2.7	2.7	2.6	2.6

DEPTH	1926.1		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.2	3.3	3.3	3.3	3.2	3.1	3.0	3.0
24	3.0	2.9	2.9	2.9	3.0	3.0	3.1	3.1
48	3.1	3.0	2.9	2.9	3.0	2.9	2.9	2.9
72	2.8	2.9	3.0	3.0	3.0	3.0	3.0	2.9
96	2.9	2.8	2.8	2.8	2.9	2.8	2.7	2.6
120	2.5	2.6	2.6	2.6	2.6	2.5	2.5	2.5
144	2.6	2.6	2.5	2.7	2.8	2.8	2.8	2.8
168	2.9	2.8	2.8	2.9	3.0	3.0	2.9	3.0
192	3.1	2.9	2.8	2.9	3.0	2.9	2.8	2.7
216	2.7	2.5	2.4	2.5	2.5	2.5	2.6	2.6
240	2.6	2.6	2.5	2.6	2.7	2.7	2.6	2.7
264	2.8	2.6	2.5	2.5	2.6	2.6	2.6	2.6
288	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.6
312	2.7	2.8	2.8	2.8	2.9	2.7	2.5	2.6
336	2.7	2.7	2.7	2.8	2.8	3.0	3.2	3.2

DEPTH	1928.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.5	2.7	2.9	2.6	2.4	2.4	2.5	2.5
24	2.4	2.3	2.3	2.3	2.3	2.5	2.8	2.9
48	3.0	2.9	2.8	2.8	2.9	2.7	2.6	2.5
72	2.5	2.5	2.5	2.3	2.3	2.3	2.3	2.3
96	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
120	2.3	2.2	2.3	2.2	2.2	2.3	2.3	2.5
144	2.6	2.5	2.4	2.4	2.4	2.4	2.4	2.4
168	2.4	2.4	2.5	2.4	2.4	2.6	2.8	2.6
192	2.5	2.4	2.3	2.4	2.5	2.6	2.8	2.8
216	2.9	2.8	2.7	2.7	2.7	2.9	3.0	3.0
240	3.0	3.0	3.1	3.3	3.4	3.4	3.3	3.2
264	3.2	3.2	3.3	3.3	3.2	3.3	3.4	3.3
288	3.2	3.1	3.1	3.0	2.8	2.8	2.8	2.6
312	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.5
336	2.7	2.7	2.6	2.5	2.3	2.3	2.4	2.4

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WALL RANGES VS DEPTH

DEPTH	1930.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.7	2.7	2.7	2.9	3.1	3.2	3.4	3.2
24	3.1	2.8	2.5	2.5	2.4	2.4	2.4	2.5
48	2.6	2.5	2.5	2.5	2.6	2.7	2.8	2.6
72	2.5	2.4	2.4	2.4	2.4	2.7	3.0	2.9
96	2.8	2.7	2.6	2.7	2.7	2.6	2.6	2.5
120	2.4	2.5	2.5	2.5	2.5	2.6	2.6	2.6
144	2.5	2.6	2.6	2.5	2.4	2.4	2.4	2.4
168	2.5	2.4	2.4	2.4	2.4	2.5	2.5	2.6
192	2.7	2.8	2.9	2.9	2.9	2.9	3.0	3.0
216	3.1	3.0	2.9	2.9	2.9	3.0	3.2	3.1
240	3.0	3.1	3.2	3.3	3.5	3.2	2.9	2.9
264	2.9	2.8	2.7	2.7	2.7	2.8	3.1	3.0
288	3.0	2.8	2.7	2.7	2.8	2.7	2.6	2.5
312	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5
336	2.5	2.4	2.4	2.6	2.8	2.7	2.6	2.6

DEPTH	1952.1		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.0	3.0	3.0	2.8	2.7	2.8	2.8	3.0
24	3.2	3.1	3.0	3.1	3.3	3.0	2.8	2.8
48	2.8	2.8	2.9	2.9	2.9	2.9	3.0	2.9
72	2.8	3.0	3.1	3.1	3.2	3.1	3.1	3.1
96	3.1	3.2	3.3	3.2	3.2	3.2	3.1	2.9
120	2.8	2.9	3.1	3.1	3.1	3.1	3.0	2.9
144	2.7	2.8	2.9	3.0	3.2	3.2	3.2	3.2
168	3.1	3.1	3.0	3.1	3.3	3.2	3.1	3.2
192	3.3	3.2	3.1	3.4	3.6	3.5	3.3	3.3
216	3.4	3.4	3.3	3.2	3.0	3.1	3.2	3.1
240	3.0	3.2	3.4	3.2	3.1	3.2	3.2	3.2
264	3.1	3.1	3.1	3.0	2.9	3.0	3.1	3.0
288	2.9	2.8	2.8	2.7	2.7	2.8	2.9	2.9
312	3.1	3.1	3.2	3.2	3.3	3.0	2.8	2.8
336	2.8	2.9	3.0	2.9	2.7	2.7	2.7	2.8

DEPTH	1954.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.8	2.9	3.0	2.9	2.8	3.0	3.1	3.2
24	3.2	3.3	3.3	3.1	2.9	2.9	2.9	3.0
48	3.1	3.1	3.1	3.0	2.9	2.8	2.8	2.8
72	2.7	2.8	2.8	2.8	2.8	2.7	2.7	2.8
96	2.9	2.8	2.7	2.8	2.9	2.9	3.0	2.9
120	2.9	2.9	2.9	2.8	2.8	2.9	2.9	2.8
144	2.8	2.8	2.8	2.8	2.9	3.0	3.0	3.0
168	3.0	3.1	3.2	3.3	3.4	3.3	3.1	2.9
192	2.7	2.7	2.8	2.9	3.0	2.9	2.8	2.8
216	2.8	2.9	3.0	3.0	3.0	3.0	3.0	2.9
240	2.8	2.8	2.8	2.9	3.1	3.0	3.0	3.0
264	3.1	3.0	3.0	3.0	3.0	2.9	2.8	2.8
288	2.9	2.9	2.9	2.9	2.8	2.9	3.0	3.1
312	3.2	3.0	2.9	2.9	2.9	3.0	3.0	3.0
336	3.0	3.0	2.9	2.8	2.8	2.9	2.9	2.9

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WALL RANGES VS DEPTH

DEPTH	1956.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.0	2.9	2.8	2.9	3.0	2.9	2.9	3.0
24	3.1	3.0	2.9	2.9	3.0	2.9	2.9	2.9
48	3.0	3.0	3.0	2.9	2.8	2.8	2.8	2.9
72	2.9	3.1	3.3	3.3	3.3	3.2	3.2	3.1
96	3.1	3.1	3.1	3.0	2.9	3.0	3.1	3.1
120	3.1	3.0	2.9	2.8	2.8	2.7	2.7	2.7
144	2.7	2.7	2.7	2.7	2.7	2.8	2.9	2.9
168	2.9	2.9	3.0	3.0	3.0	3.2	3.3	3.4
192	3.4	3.4	3.3	3.3	3.4	3.3	3.2	3.1
216	3.1	3.0	2.9	2.9	2.9	3.0	3.1	3.1
240	3.2	3.2	3.3	3.1	3.0	2.8	2.7	2.8
264	2.9	2.9	2.9	2.9	2.9	3.0	3.0	2.9
288	2.8	2.8	2.9	2.9	3.0	3.0	3.0	3.1
312	3.2	3.1	3.0	3.2	3.3	3.2	3.1	3.0
336	3.0	2.9	2.9	2.9	2.9	2.8	2.8	2.9

DEPTH	1958.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
24	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.4
48	2.4	2.5	2.5	2.6	2.6	2.6	2.6	2.7
72	2.9	2.8	2.8	2.8	2.7	2.6	2.5	2.5
96	2.6	2.5	2.4	2.5	2.6	2.4	2.3	2.3
120	2.3	2.4	2.5	2.5	2.4	2.5	2.7	2.7
144	2.7	2.6	2.5	2.6	2.7	2.6	2.5	2.6
168	2.6	2.5	2.4	2.5	2.7	2.6	2.6	2.7
192	2.7	2.7	2.7	2.7	2.6	2.7	2.7	2.8
216	2.8	2.7	2.7	2.7	2.8	2.7	2.7	2.6
240	2.6	2.6	2.5	2.5	2.5	2.4	2.4	2.4
264	2.4	2.6	2.7	2.6	2.5	2.4	2.3	2.3
288	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
312	2.3	2.5	2.7	2.5	2.4	2.4	2.5	2.4
336	2.4	2.4	2.4	2.5	2.7	2.5	2.4	2.3

DEPTH	1960.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.8	2.7	2.6	2.7	2.8	2.7	2.7	2.7
24	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6
48	2.6	2.7	2.9	2.7	2.6	2.6	2.6	2.6
72	2.6	2.6	2.6	2.7	2.8	2.7	2.7	2.7
96	2.6	2.7	2.7	2.8	3.0	2.8	2.6	2.6
120	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.8
144	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
168	2.9	2.9	2.9	2.9	3.0	2.8	2.6	2.6
192	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.8
216	2.9	2.8	2.7	2.7	2.6	2.6	2.7	2.8
240	2.9	2.9	2.9	2.9	3.0	3.0	3.0	2.9
264	2.9	2.9	3.0	3.0	3.0	2.8	2.6	2.6
288	2.6	2.8	2.9	3.0	3.0	2.9	2.9	2.9
312	2.9	2.9	3.0	2.8	2.7	2.7	2.7	2.7
336	2.7	2.7	2.6	2.6	2.6	2.6	2.7	2.7

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WALL RANGES VS DEPTH

DEPTH	1962.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.5	2.5	2.5	2.5	2.6	2.5	2.5	2.5
24	2.4	2.5	2.7	2.7	2.7	2.6	2.5	2.7
48	2.8	2.7	2.6	2.5	2.5	2.6	2.7	2.6
72	2.5	2.5	2.5	2.6	2.6	2.6	2.5	2.5
96	2.5	2.5	2.6	2.6	2.7	2.6	2.6	2.5
120	2.5	2.6	2.8	2.7	2.7	2.7	2.7	2.6
144	2.5	2.5	2.5	2.5	2.4	2.5	2.5	2.6
168	2.8	2.8	2.7	2.6	2.6	2.6	2.6	2.6
192	2.5	2.5	2.5	2.4	2.3	2.4	2.5	2.6
216	2.7	2.6	2.6	2.6	2.5	2.5	2.5	2.5
240	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5
264	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
288	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
312	2.5	2.5	2.5	2.4	2.4	2.5	2.6	2.5
336	2.5	2.5	2.5	2.7	2.8	2.8	2.9	2.7

DEPTH	1964.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	1966.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1968.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
24	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
48	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
72	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
96	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7
120	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
144	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6
168	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
192	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
216	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
240	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
264	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
288	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
312	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
336	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6

DEPTH	1970.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
24	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.6
48	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
72	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
96	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
120	0.7	0.6	0.7	0.7	0.8	0.7	0.7	0.6
144	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
168	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
192	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
216	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
240	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
264	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
288	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
312	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
336	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6

DEPTH	1972.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
24	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
48	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
72	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
96	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.7
120	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.6
144	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
168	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
192	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
216	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
240	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
264	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
288	0.7	0.6	0.7	0.6	0.7	0.7	0.9	0.7
312	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
336	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1974.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
24	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
48	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
72	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6
96	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
120	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6
168	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
192	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6
216	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
240	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
264	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.6
288	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
312	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
336	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6

DEPTH	1976.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
24	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
48	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.6
72	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
96	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
120	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6
144	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7
168	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
192	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6
240	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
264	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6
288	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
312	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6
336	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6

DEPTH	1978.1		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
24	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
48	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
72	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7
96	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6
144	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
168	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
192	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
216	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
240	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
264	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
288	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
312	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
336	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6

SONIC

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WALL RANGES VS DEPTH

DEPTH	1980.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
24	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
48	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
72	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
96	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
120	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
144	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
168	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
192	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.7
216	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.6
240	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.7
264	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.6
288	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.6
312	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.7
336	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.6

DEPTH	1982.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
24	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
48	0.7	0.6	0.7	0.6	0.7	0.7	0.8	0.7
72	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
96	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
120	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
144	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
168	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
192	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
216	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
240	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
264	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7
288	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
312	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7
336	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6

DEPTH	1984.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
24	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
48	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
72	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
96	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
120	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
144	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
168	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7
192	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7
216	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7
240	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
264	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
288	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6
336	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	1986.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
24	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
48	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
72	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
96	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
120	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
144	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
168	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
192	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
216	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
240	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
264	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
288	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
312	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6
336	0.7	0.6	0.7	0.6	0.7	0.6	0.7	0.6

DEPTH	1988.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4
24	2.4	2.4	2.3	2.5	2.6	2.6	2.6	2.6
48	2.7	2.5	2.3	2.3	2.3	2.3	2.3	2.2
72	2.2	2.2	2.3	2.2	2.2	2.3	2.3	2.3
96	2.3	2.4	2.5	2.4	2.3	2.3	2.3	2.3
120	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2
144	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3
168	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.3
192	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4
216	2.4	2.4	2.3	2.3	2.4	2.4	2.4	2.3
240	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
264	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
288	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2
312	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
336	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

DEPTH	1989.9		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3
24	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
48	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
72	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
96	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
120	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2
144	2.2	2.3	2.4	2.3	2.3	2.2	2.2	2.2
168	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
192	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1
216	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3
240	2.3	2.3	2.3	2.3	2.4	2.2	2.1	2.1
264	2.1	2.2	2.4	2.2	2.1	2.1	2.1	2.1
288	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2
312	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.2
336	2.1	2.1	2.1	2.1	2.1	2.3	2.5	2.3

SONIC

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WALL RANGES VS DEPTH

DEPTH	2000.1		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.5	3.5	3.5	3.5	3.5	3.5	3.6	3.5
24	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.5
48	3.5	3.5	3.6	3.6	3.6	3.7	3.8	3.7
72	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
96	3.8	3.6	3.5	3.5	3.5	3.5	3.4	3.5
120	3.5	3.5	3.5	3.4	3.4	3.4	3.4	3.5
144	3.5	3.5	3.6	3.5	3.4	3.4	3.4	3.4
168	3.3	3.5	3.6	3.6	3.6	3.5	3.4	3.4
192	3.4	3.3	3.2	3.2	3.2	3.2	3.3	3.3
216	3.3	3.3	3.3	3.3	3.3	3.5	3.7	3.7
240	3.6	3.7	3.8	3.7	3.6	3.6	3.7	3.7
264	3.7	3.7	3.7	3.5	3.3	3.4	3.4	3.4
288	3.5	3.5	3.5	3.5	3.5	3.7	3.8	3.7
312	3.6	3.7	3.8	3.7	3.7	3.7	3.7	3.6
336	3.5	3.5	3.4	3.4	3.4	3.5	3.5	3.5

DEPTH	2002.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.3	3.3	3.3	3.4	3.5	3.4	3.4	3.4
24	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4
48	3.4	3.4	3.4	3.4	3.5	3.4	3.3	3.3
72	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
96	3.5	3.4	3.3	3.3	3.3	3.3	3.3	3.3
120	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
144	3.2	3.4	3.5	3.4	3.3	3.3	3.3	3.4
168	3.6	3.4	3.3	3.4	3.5	3.4	3.4	3.4
192	3.3	3.3	3.3	3.2	3.2	3.2	3.3	3.2
216	3.2	3.2	3.2	3.3	3.3	3.3	3.2	3.2
240	3.3	3.3	3.4	3.3	3.2	3.2	3.3	3.2
264	3.3	3.3	3.3	3.3	3.2	3.3	3.4	3.4
288	3.4	3.4	3.4	3.5	3.6	3.4	3.3	3.2
312	3.2	3.2	3.2	3.3	3.4	3.3	3.3	3.2
336	3.2	3.3	3.4	3.4	3.4	3.4	3.3	3.3

DEPTH	2004.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.2	3.2	3.3	3.3	3.3	3.2	3.2	3.2
24	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
48	3.4	3.4	3.3	3.4	3.4	3.4	3.4	3.4
72	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.4
96	3.4	3.3	3.3	3.3	3.3	3.3	3.4	3.5
120	3.7	3.5	3.4	3.4	3.3	3.3	3.3	3.3
144	3.4	3.3	3.2	3.2	3.2	3.3	3.3	3.3
168	3.3	3.3	3.2	3.2	3.2	3.2	3.2	3.2
192	3.2	3.2	3.2	3.2	3.2	3.4	3.6	3.5
216	3.4	3.3	3.2	3.2	3.2	3.2	3.3	3.3
240	3.3	3.3	3.4	3.3	3.3	3.4	3.6	3.5
264	3.4	3.5	3.5	3.4	3.2	3.3	3.3	3.5
288	3.6	3.5	3.3	3.3	3.3	3.3	3.3	3.3
312	3.3	3.4	3.6	3.5	3.4	3.5	3.6	3.4
336	3.2	3.3	3.3	3.5	3.6	3.5	3.3	3.3

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WALL RANGES VS DEPTH

DEPTH	2006.0		TILT	0		VOS	5971.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.5	3.5	3.5	3.4	3.4	3.4	3.4	3.4
24	3.4	3.4	3.4	3.4	3.5	3.4	3.4	3.5
48	3.5	3.5	3.5	3.5	3.4	3.5	3.6	3.6
72	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
96	3.6	3.6	3.6	3.5	3.4	3.4	3.5	3.5
120	3.5	3.5	3.5	3.5	3.6	3.7	3.8	3.7
144	3.6	3.5	3.4	3.4	3.4	3.4	3.4	3.5
168	3.6	3.5	3.4	3.4	3.4	3.5	3.5	3.4
192	3.3	3.3	3.3	3.2	3.2	3.4	3.5	3.4
216	3.3	3.4	3.4	3.3	3.2	3.2	3.2	3.2
240	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.2
264	3.2	3.2	3.3	3.3	3.3	3.2	3.2	3.2
288	3.2	3.3	3.3	3.4	3.5	3.5	3.5	3.4
312	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
336	3.3	3.2	3.2	3.2	3.2	3.4	3.5	3.5

DEPTH	2008.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.5	3.5	3.5	3.5	3.5	3.4	3.4	3.4
24	3.4	3.6	3.7	3.6	3.6	3.6	3.7	3.6
48	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
72	3.6	3.6	3.6	3.6	3.7	3.7	3.6	3.7
96	3.7	3.7	3.7	3.6	3.6	3.6	3.6	3.5
120	3.5	3.5	3.6	3.7	3.8	3.7	3.7	3.7
144	3.7	3.6	3.5	3.6	3.8	3.7	3.6	3.6
168	3.6	3.6	3.5	3.5	3.5	3.5	3.5	3.5
192	3.5	3.5	3.5	3.4	3.4	3.3	3.3	3.3
216	3.4	3.4	3.4	3.5	3.7	3.6	3.5	3.6
240	3.7	3.7	3.6	3.5	3.5	3.6	3.7	3.5
264	3.3	3.3	3.3	3.3	3.3	3.4	3.6	3.5
288	3.4	3.5	3.6	3.6	3.6	3.7	3.7	3.4
312	3.2	3.2	3.2	3.2	3.2	3.3	3.4	3.4
336	3.4	3.3	3.2	3.3	3.5	3.4	3.4	3.4

DEPTH	2010.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.5	3.6	3.6	3.6	3.6	3.7	3.7	3.6
24	3.5	3.6	3.7	3.7	3.7	3.6	3.5	3.5
48	3.5	3.6	3.6	3.8	4.0	3.9	3.8	3.8
72	3.8	3.8	3.8	3.8	3.7	3.7	3.6	3.7
96	3.8	3.7	3.7	3.8	3.9	3.8	3.8	3.8
120	3.8	3.7	3.7	3.7	3.6	3.6	3.7	3.7
144	3.7	3.8	3.9	3.9	3.9	3.9	3.8	3.7
168	3.6	3.7	3.7	3.8	3.8	3.7	3.7	3.6
192	3.6	3.5	3.5	3.5	3.6	3.6	3.5	3.5
216	3.5	3.5	3.6	3.6	3.6	3.5	3.5	3.5
240	3.6	3.5	3.4	3.4	3.3	3.2	3.2	3.3
264	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.3
288	3.3	3.3	3.3	3.4	3.5	3.4	3.3	3.3
312	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.2
336	3.3	3.3	3.3	3.3	3.3	3.4	3.5	3.5

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WALL RANGES VS DEPTH

DEPTH	2012.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.5	3.5	3.6	3.5	3.5	3.5	3.4	3.5
24	3.6	3.6	3.5	3.6	3.8	3.7	3.7	3.7
48	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.7
72	3.8	3.7	3.7	3.8	4.0	3.9	3.9	3.9
96	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
120	4.0	4.1	4.1	4.0	3.9	3.9	3.8	3.8
144	3.8	3.8	3.8	3.7	3.6	3.7	3.9	3.9
168	3.8	3.9	4.0	4.0	4.0	3.8	3.6	3.6
192	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5
216	3.6	3.5	3.5	3.4	3.4	3.5	3.5	3.4
240	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.4
264	3.5	3.4	3.3	3.3	3.3	3.3	3.4	3.5
288	3.6	3.6	3.5	3.5	3.5	3.4	3.3	3.3
312	3.4	3.3	3.3	3.4	3.5	3.4	3.3	3.3
336	3.3	3.3	3.4	3.5	3.6	3.6	3.5	3.5

DEPTH	2014.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	3.4	3.3	3.1	3.2	3.3	3.3	3.3	3.3
24	3.2	3.4	3.6	3.4	3.3	3.2	3.2	3.2
48	3.2	3.1	3.1	3.1	3.2	3.2	3.3	3.3
72	3.3	3.3	3.3	3.2	3.2	3.2	3.2	3.3
96	3.4	3.3	3.2	3.4	3.5	3.5	3.4	3.3
120	3.2	3.4	3.6	3.4	3.2	3.2	3.2	3.2
144	3.3	3.3	3.2	3.2	3.2	3.2	3.3	3.3
168	3.3	3.3	3.4	3.3	3.3	3.2	3.2	3.3
192	3.3	3.4	3.5	3.5	3.5	3.5	3.5	3.3
216	3.2	3.2	3.3	3.4	3.5	3.5	3.5	3.3
240	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.4
264	3.5	3.5	3.6	3.6	3.6	3.6	3.5	3.5
288	3.5	3.5	3.4	3.4	3.4	3.5	3.6	3.4
312	3.3	3.3	3.3	3.3	3.3	3.5	3.8	3.7
336	3.6	3.6	3.5	3.5	3.5	3.4	3.4	3.4

DEPTH	2016.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	1.9	1.9	1.9	1.8	1.7	1.7	1.7	1.8
24	1.9	1.8	1.8	1.7	1.7	1.8	1.9	2.0
48	2.1	2.1	2.2	2.1	2.0	2.0	2.1	2.2
72	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.1
96	1.9	2.0	2.0	2.0	2.0	1.8	1.7	1.7
120	1.7	1.7	1.7	1.8	1.9	1.9	1.9	1.9
144	1.9	1.8	1.7	1.7	1.7	1.9	2.1	2.1
168	2.1	2.1	2.0	1.9	1.9	1.8	1.7	1.7
192	1.7	1.8	1.9	1.8	1.7	1.8	1.8	1.8
216	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7
240	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7
264	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8
288	1.9	1.8	1.8	1.9	2.0	2.0	2.0	2.0
312	2.0	1.9	1.8	1.7	1.7	1.8	1.9	1.9
336	2.0	2.0	2.0	2.0	2.1	1.9	1.8	1.8

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WALL RANGES VS DEPTH

DEPTH	2018.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2020.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2022.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

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WALL RANGES VS DEPTH

DEPTH	2024.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2026.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2028.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2030.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2032.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2034.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2036.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2038.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.1	7.0	7.0	6.9	6.9	7.0	7.2	7.1
24	7.0	6.9	6.8	6.9	7.0	6.7	6.4	6.6
48	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.7
72	6.6	6.9	7.3	7.2	7.1	7.1	7.2	6.8
96	6.5	6.5	6.6	6.5	6.5	6.6	6.7	6.6
120	6.6	6.6	6.6	6.5	6.5	6.7	6.8	6.8
144	6.8	6.7	6.7	6.7	6.8	6.7	6.7	6.6
168	6.6	6.5	6.6	6.6	6.6	6.6	6.6	6.6
192	6.6	6.6	6.5	6.7	6.8	6.8	6.7	6.6
216	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
240	6.7	6.8	6.8	6.8	6.9	7.0	7.2	7.0
264	6.8	6.8	6.8	6.9	7.0	6.9	6.8	6.9
288	7.0	7.0	7.0	7.0	6.9	7.1	7.3	7.4
312	7.5	7.3	7.2	7.2	7.3	7.4	7.5	7.4
336	7.3	7.3	7.3	7.3	7.2	7.0	6.8	6.9

DEPTH	2040.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.0	6.9	6.8	6.9	6.9	7.0	7.1	7.0
24	6.9	6.9	6.9	7.0	7.1	6.7	6.4	6.5
48	6.6	6.7	6.9	7.0	7.1	7.0	6.9	7.0
72	7.2	7.1	7.0	6.8	6.6	6.6	6.7	6.6
96	6.6	6.6	6.5	6.6	6.7	6.6	6.5	6.5
120	6.5	6.6	6.8	6.8	6.8	6.9	7.0	6.9
144	6.9	6.8	6.7	6.6	6.5	6.5	6.6	6.6
168	6.6	6.5	6.5	6.5	6.6	6.6	6.6	6.6
192	6.6	6.6	6.6	6.6	6.6	6.7	6.7	6.7
216	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9
240	7.0	6.9	6.8	6.8	6.9	6.9	7.0	6.9
264	6.8	6.9	6.9	7.0	7.1	7.2	7.4	7.1
288	7.0	7.0	7.1	7.1	7.2	7.0	6.9	7.1
312	7.2	7.3	7.4	7.1	6.9	6.9	7.0	7.0
336	6.9	7.1	7.2	7.3	7.4	7.4	7.4	7.2

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2042.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.1	7.0	6.9	7.2	7.6	7.4	7.2	7.0
24	6.8	6.6	6.4	6.5	6.7	6.7	6.7	6.7
48	6.7	6.7	6.7	6.8	6.8	6.8	6.8	6.9
72	7.1	7.0	7.0	7.2	7.5	7.3	7.2	6.9
96	6.6	6.6	6.5	6.5	6.6	6.4	6.4	6.5
120	6.6	6.6	6.6	6.4	6.3	6.5	6.8	6.6
144	6.5	6.7	7.0	6.9	6.8	6.7	6.6	6.5
168	6.5	6.5	6.4	6.2	6.1	6.2	6.4	6.5
192	6.6	6.7	6.9	6.8	6.8	6.8	6.8	6.8
216	6.8	6.8	6.8	6.8	6.9	7.1	7.4	7.1
240	6.9	7.0	7.1	6.9	6.8	7.0	7.3	7.4
264	7.5	7.2	7.0	6.9	6.8	6.9	7.0	7.1
288	7.1	7.2	7.3	7.3	7.2	7.1	7.0	7.2
312	7.4	7.2	7.0	7.1	7.3	7.3	7.3	7.3
336	7.3	7.2	7.2	7.1	7.0	7.0	7.1	7.1

DEPTH	2044.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.3	7.3	7.3	7.2	7.1	7.1	7.1	7.0
24	6.8	6.8	6.8	6.9	7.0	7.1	7.3	7.2
48	7.1	7.0	6.9	6.9	6.9	6.8	6.7	6.8
72	6.8	6.7	6.5	6.6	6.6	6.6	6.7	6.6
96	6.6	6.3	6.1	6.4	6.7	6.6	6.6	6.8
120	7.0	6.8	6.6	6.7	6.8	6.8	6.9	6.8
144	6.7	6.8	6.9	6.7	6.6	6.7	6.8	6.8
168	6.7	6.8	7.0	7.0	7.0	6.8	6.6	6.8
192	7.1	6.9	6.8	6.9	7.1	7.2	7.3	7.1
216	6.9	7.0	7.1	7.0	6.9	7.0	7.0	7.0
240	7.1	7.1	7.1	7.1	7.1	7.3	7.4	7.3
264	7.2	7.2	7.2	7.0	6.9	7.0	7.2	7.0
288	6.9	7.0	7.2	7.1	7.0	7.1	7.2	7.2
312	7.2	7.2	7.2	7.3	7.3	7.3	7.2	7.3
336	7.3	7.4	7.5	7.4	7.4	7.5	7.6	7.4

DEPTH	2050.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.5	7.5	7.5	7.2	7.0	7.1	7.2	7.1
24	6.9	7.2	7.5	7.3	7.1	7.0	6.9	6.9
48	6.9	6.9	6.9	6.9	7.0	6.9	6.8	6.9
72	7.0	7.0	7.0	6.9	6.7	6.9	7.2	6.9
96	6.7	6.7	6.7	6.8	6.9	7.1	7.4	7.1
120	6.8	6.9	7.0	6.9	6.7	6.6	6.6	6.7
144	6.9	7.0	7.1	6.9	6.7	6.6	6.5	6.7
168	6.9	6.8	6.7	6.8	6.8	6.9	6.9	6.7
192	6.5	6.6	6.7	6.7	6.7	6.8	6.9	7.0
216	7.0	7.0	7.0	6.9	6.8	6.8	6.8	6.8
240	6.9	7.0	7.2	7.0	6.8	6.8	6.8	6.9
264	7.0	6.8	6.7	6.9	7.0	7.1	7.2	7.0
288	6.8	7.0	7.2	7.1	7.0	7.2	7.5	7.4
312	7.4	7.2	7.0	7.0	7.1	7.1	7.2	7.3
336	7.5	7.5	7.5	7.6	7.8	7.6	7.5	7.5

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2052.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.9	7.7	7.4	7.5	7.5	7.5	7.6	7.5
24	7.4	7.2	7.1	7.1	7.0	7.3	7.6	7.6
48	7.6	7.7	7.9	8.0	8.1	8.0	7.9	7.8
72	7.8	7.9	8.0	7.9	8.0	7.8	7.6	7.7
96	7.8	7.6	7.5	7.5	7.6	7.7	7.9	7.9
120	7.9	7.8	7.7	7.3	7.1	7.1	7.2	7.1
144	6.9	7.1	7.2	7.4	7.7	7.5	7.4	7.4
168	7.4	7.5	7.6	7.2	6.9	7.0	7.0	7.0
192	7.0	7.0	7.0	7.0	7.0	7.1	7.3	7.2
216	7.2	7.4	7.5	7.4	7.2	7.1	7.1	7.1
240	7.2	7.3	7.5	7.3	7.1	7.4	7.6	7.4
264	7.2	7.3	7.4	7.6	7.7	7.7	7.7	7.6
288	7.6	7.6	7.7	7.5	7.3	7.5	7.7	7.5
312	7.4	7.5	7.7	7.8	7.9	7.7	7.5	7.6
336	7.7	7.6	7.4	7.5	7.6	7.3	7.1	7.5

DEPTH	2054.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.1	7.2	7.4	7.7	8.0	7.8	7.7	7.2
24	6.8	6.8	6.8	6.8	6.9	7.0	7.2	7.1
48	7.0	7.0	7.0	7.2	7.5	7.4	7.3	7.1
72	7.0	6.9	6.8	6.7	6.6	6.6	6.6	6.7
96	6.9	6.8	6.8	6.9	7.1	7.0	6.8	7.1
120	7.4	7.3	7.2	7.1	7.0	7.0	7.0	7.0
144	7.0	7.0	7.0	6.8	6.7	6.8	6.9	6.8
168	6.7	6.7	6.7	6.7	6.7	6.8	6.8	6.9
192	6.9	7.0	7.1	7.0	7.0	7.0	7.0	7.1
216	7.1	7.0	7.0	7.0	7.1	7.0	6.9	7.0
240	7.1	7.1	7.2	7.1	7.0	7.1	7.3	7.2
264	7.1	7.1	7.0	7.1	7.3	7.3	7.4	7.6
288	7.8	7.5	7.3	7.3	7.4	7.5	7.6	7.7
312	7.7	7.7	7.7	7.7	7.7	7.6	7.5	7.6
336	7.8	7.7	7.7	7.7	7.6	7.7	7.8	7.4

DEPTH	2056.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.6	7.6	7.6	7.5	7.4	7.3	7.3	7.3
24	7.4	7.2	7.0	7.1	7.2	6.8	6.5	6.8
48	7.1	7.2	7.3	7.0	6.7	6.7	6.8	7.0
72	7.3	7.3	7.4	7.2	7.0	7.4	8.0	7.7
96	7.5	7.2	6.9	7.0	7.2	7.5	8.0	8.0
120	8.1	8.0	7.9	7.9	7.9	7.5	7.1	7.6
144	8.2	8.1	8.1	7.9	7.7	7.4	7.2	7.3
168	7.4	7.7	8.1	7.8	7.6	7.6	7.5	7.4
192	7.2	7.2	7.2	7.4	7.7	7.5	7.4	7.5
216	7.7	7.5	7.3	7.5	7.7	7.7	7.6	7.9
240	8.2	8.3	8.4	8.4	8.5	8.1	7.8	7.7
264	7.6	7.7	7.7	7.7	7.7	7.9	8.2	8.1
288	8.0	7.9	7.9	8.0	8.0	8.1	8.2	8.2
312	8.3	8.3	8.2	7.9	7.6	7.5	7.3	7.6
336	8.0	8.2	8.5	8.0	7.6	7.5	7.5	7.5

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2058.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.6	7.7	7.9	7.9	7.9	7.8	7.7	7.7
24	7.7	7.7	7.7	7.7	7.7	7.5	7.4	7.4
48	7.4	7.4	7.5	7.5	7.5	7.7	8.0	7.7
72	7.5	7.7	7.9	7.8	7.6	7.4	7.2	7.2
96	7.1	7.1	7.1	7.2	7.3	7.4	7.4	7.5
120	7.6	7.4	7.2	7.4	7.6	7.6	7.6	7.7
144	7.8	7.6	7.4	7.3	7.2	7.1	7.1	7.1
168	7.0	7.2	7.3	7.5	7.7	7.5	7.2	7.2
192	7.2	7.4	7.6	7.8	8.1	7.8	7.5	7.4
216	7.4	7.5	7.6	7.6	7.6	7.6	7.5	7.4
240	7.4	7.6	7.7	7.9	8.1	8.2	8.3	8.2
264	8.2	7.9	7.6	7.6	7.5	7.8	8.0	8.1
288	8.1	8.0	7.9	7.9	8.0	8.0	8.1	8.2
312	8.4	8.3	8.1	8.1	8.1	8.1	8.1	8.2
336	8.4	8.1	7.9	8.0	8.1	8.1	8.0	7.8

DEPTH	2060.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.4	8.3	8.2	8.0	7.9	7.7	7.6	7.6
24	7.6	7.7	7.9	8.1	8.3	7.9	7.6	7.7
48	7.9	7.9	8.0	8.0	8.0	7.8	7.6	7.5
72	7.4	7.3	7.2	7.3	7.4	7.4	7.5	7.5
96	7.4	7.4	7.4	7.4	7.4	7.3	7.3	7.3
120	7.4	7.7	8.1	7.9	7.7	7.7	7.7	7.9
144	8.1	8.0	7.9	7.5	7.3	7.2	7.2	7.3
168	7.4	7.7	8.1	8.1	8.2	8.1	8.0	8.0
192	8.0	7.8	7.5	7.7	7.9	8.1	8.4	8.2
216	8.0	8.1	8.2	8.0	7.7	7.8	7.9	7.8
240	7.7	7.8	7.9	7.9	8.0	7.9	7.8	7.8
264	7.8	7.8	7.8	7.8	7.7	7.8	7.9	7.8
288	7.7	7.7	7.6	7.9	8.2	8.1	8.0	8.0
312	8.0	8.0	8.0	8.2	8.3	8.1	7.8	8.0
336	8.2	8.3	8.4	8.3	8.2	8.4	8.6	8.5

DEPTH	2062.3		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.2	7.9	7.6	7.6	7.7	7.6	7.5	7.6
24	7.7	7.7	7.8	7.6	7.5	7.5	7.6	7.9
48	8.2	7.9	7.7	7.6	7.5	7.4	7.4	7.3
72	7.3	7.2	7.1	7.3	7.6	7.4	7.2	7.2
96	7.3	7.6	7.9	7.7	7.5	7.4	7.3	7.3
120	7.4	7.4	7.4	7.5	7.5	7.7	8.0	8.0
144	8.0	7.9	7.9	7.6	7.4	7.6	7.9	7.9
168	8.0	7.8	7.6	7.6	7.5	7.7	7.9	7.7
192	7.5	7.5	7.5	7.6	7.7	7.8	7.9	7.8
216	7.7	7.9	8.0	8.0	8.1	8.2	8.3	8.1
240	7.9	7.9	7.9	7.9	8.0	7.8	7.7	7.7
264	7.8	7.8	7.9	7.8	7.8	7.7	7.7	7.9
288	8.1	8.0	7.8	7.8	7.9	7.9	8.0	7.9
312	7.8	7.9	8.1	8.2	8.4	8.1	7.9	7.8
336	7.7	7.9	8.1	8.0	7.9	8.1	8.3	8.3

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2064.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.0	7.8	7.6	7.3	7.1	7.1	7.1	7.6
24	8.2	8.3	8.3	7.8	7.4	7.3	7.2	7.3
48	7.3	7.3	7.3	7.3	7.4	7.2	7.0	7.3
72	7.6	7.5	7.4	7.6	7.9	7.5	7.2	7.2
96	7.2	7.2	7.3	7.5	7.6	7.5	7.5	7.6
120	7.7	7.7	7.7	7.7	7.6	7.6	7.6	7.6
144	7.5	7.6	7.7	7.4	7.1	7.2	7.3	7.5
168	7.6	7.7	7.7	7.8	7.8	7.7	7.7	7.6
192	7.6	7.6	7.6	7.6	7.5	7.6	7.7	7.6
216	7.6	7.4	7.3	7.4	7.6	7.7	7.9	7.7
240	7.7	7.7	7.7	7.7	7.7	7.7	7.8	7.8
264	7.9	7.7	7.6	7.6	7.5	7.5	7.5	7.6
288	7.7	7.9	8.0	8.0	7.9	7.8	7.6	7.9
312	8.1	7.8	7.4	7.7	8.0	7.9	7.9	7.8
336	7.9	7.7	7.5	7.7	7.8	7.9	8.0	8.0

DEPTH	2070.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.9	7.2	7.5	7.6	7.9	7.1	6.6	6.7
24	6.8	7.0	7.2	7.2	7.3	7.1	6.9	7.0
48	7.1	7.2	7.3	7.2	7.2	7.3	7.3	7.2
72	7.1	6.9	6.6	6.8	7.0	6.9	6.9	7.3
96	7.8	7.6	7.4	7.3	7.2	7.4	7.6	7.2
120	6.9	7.1	7.4	7.3	7.2	7.3	7.5	7.7
144	8.0	7.6	7.2	7.5	7.8	7.9	8.0	7.6
168	7.3	7.1	7.0	6.9	6.8	6.8	6.8	7.0
192	7.1	7.0	6.8	7.0	7.2	7.2	7.2	7.0
216	6.9	7.0	7.2	6.9	6.6	6.7	6.8	7.1
240	7.4	7.2	7.1	7.0	6.9	6.9	6.9	7.0
264	7.0	6.9	6.9	7.2	7.5	7.5	7.4	7.3
288	7.2	6.9	6.7	6.8	6.9	7.2	7.7	7.3
312	7.0	7.0	7.1	6.9	6.8	6.9	7.0	7.0
336	7.0	7.2	7.4	7.0	6.7	6.9	7.2	7.0

DEPTH	2072.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.5	7.5	7.5	7.7	7.9	7.7	7.5	7.4
24	7.2	7.3	7.5	7.5	7.6	7.7	7.8	7.6
48	7.4	7.4	7.4	7.4	7.4	7.5	7.6	7.5
72	7.4	7.4	7.5	7.4	7.4	7.4	7.4	7.4
96	7.4	7.7	8.0	7.7	7.4	7.6	7.9	7.7
120	7.5	7.6	7.8	7.6	7.5	7.3	7.2	7.4
144	7.7	7.9	8.0	7.7	7.4	7.3	7.3	7.4
168	7.6	7.6	7.5	7.5	7.5	7.5	7.5	7.6
192	7.6	7.6	7.7	7.8	7.9	7.8	7.8	7.8
216	7.9	7.8	7.8	7.6	7.5	7.8	8.0	8.1
240	8.2	7.9	7.6	7.8	8.1	8.1	8.1	8.2
264	8.4	8.3	8.3	8.2	8.1	8.0	7.9	8.0
288	8.0	7.8	7.6	7.9	8.2	8.1	8.1	8.1
312	8.1	8.1	8.2	8.2	8.3	8.1	7.9	7.8
336	7.8	7.8	7.9	7.7	7.5	7.6	7.6	7.5

SONIC

CUSTOMER : Marathon Petroleum
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OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2074.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.5	8.1	7.7	7.9	8.1	8.2	8.4	8.1
24	7.7	7.8	7.9	7.9	7.8	7.9	7.9	7.6
48	7.4	7.4	7.5	7.6	7.6	7.6	7.7	7.6
72	7.6	7.6	7.6	7.7	7.7	7.9	8.0	8.1
96	8.2	8.0	7.9	7.9	7.9	7.9	8.0	8.0
120	8.0	7.8	7.7	7.7	7.7	7.9	8.0	8.1
144	8.3	8.4	8.6	8.3	8.2	8.4	8.6	8.8
168	9.0	8.8	8.7	8.6	8.6	8.5	8.4	8.6
192	8.8	8.7	8.7	8.9	9.1	8.8	8.6	8.5
216	8.4	8.4	8.4	8.4	8.4	8.5	8.6	8.4
240	8.3	8.4	8.6	8.5	8.4	8.5	8.6	8.5
264	8.6	8.4	8.3	8.3	8.4	8.6	8.8	8.7
288	8.6	8.7	8.8	8.7	8.7	8.6	8.6	8.5
312	8.5	8.4	8.3	8.2	8.0	8.4	8.7	8.7
336	8.6	8.3	8.1	8.2	8.2	8.2	8.2	8.3

DEPTH	2076.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.2	8.3	8.4	8.3	8.2	8.3	8.3	8.2
24	8.1	8.1	8.1	8.1	8.0	8.3	8.6	8.9
48	9.1	8.5	8.0	8.0	8.0	8.4	8.9	8.8
72	8.8	8.2	7.7	7.7	7.7	7.7	7.8	7.8
96	7.7	8.0	8.2	8.5	8.9	8.5	8.1	8.2
120	8.2	8.2	8.1	8.4	8.6	8.6	8.5	8.5
144	8.5	8.4	8.3	8.5	8.7	8.4	8.2	8.1
168	7.9	8.0	8.2	8.0	7.9	8.0	8.1	8.3
192	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.7
216	8.9	8.7	8.5	8.5	8.6	9.0	9.5	9.1
240	8.7	8.7	8.7	8.8	8.8	8.7	8.6	8.6
264	8.6	8.5	8.3	8.2	8.2	8.1	8.1	8.1
288	8.2	8.2	8.2	8.3	8.5	8.4	8.2	8.4
312	8.7	8.6	8.6	8.5	8.6	8.4	8.4	8.2
336	8.0	8.2	8.4	8.4	8.4	8.4	8.4	8.3

DEPTH	2080.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.4	7.6	7.9	7.8	7.9	7.9	7.9	8.0
24	8.0	7.9	7.8	7.6	7.5	7.5	7.5	7.4
48	7.4	7.6	7.9	7.8	7.9	8.1	8.5	8.1
72	7.8	7.8	7.9	8.2	8.7	8.2	7.8	7.5
96	7.4	7.3	7.4	7.4	7.4	7.4	7.4	7.4
120	7.4	7.5	7.7	7.6	7.5	7.5	7.5	7.5
144	7.5	7.5	7.5	7.6	7.8	7.5	7.4	7.4
168	7.5	7.5	7.4	7.7	8.0	7.7	7.4	7.6
192	7.7	7.7	7.6	7.6	7.5	7.5	7.5	7.6
216	7.8	7.7	7.7	7.6	7.4	7.6	7.7	7.5
240	7.4	7.5	7.7	7.7	7.7	7.7	7.7	7.7
264	7.7	7.5	7.4	7.4	7.5	7.5	7.5	7.6
288	7.7	7.7	7.6	7.5	7.4	7.5	7.7	7.6
312	7.5	7.5	7.4	7.7	8.0	7.7	7.4	7.5
336	7.5	7.5	7.4	7.8	8.3	7.8	7.4	7.3

SONIC

CUSTOMER : Marathon Petroleum
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OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2082.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.4	8.0	7.6	7.7	7.7	7.7	7.8	7.7
24	7.7	7.8	8.0	8.0	8.0	8.1	8.2	8.0
48	7.9	7.7	7.6	7.7	7.7	8.0	8.4	8.3
72	8.4	8.2	8.0	8.5	9.0	8.2	7.6	7.8
96	8.0	8.0	8.0	8.0	7.9	7.9	7.9	7.9
120	7.9	8.0	8.0	8.2	8.5	8.0	7.7	7.5
144	7.4	7.4	7.4	7.6	7.9	8.1	8.3	8.2
168	8.1	8.0	7.9	7.8	7.9	7.9	7.9	7.9
192	7.9	7.9	7.9	7.8	7.7	7.6	7.5	7.4
216	7.4	7.3	7.4	7.5	7.8	8.2	8.6	8.6
240	8.6	8.0	7.4	8.3	9.3	9.3	9.3	8.2
264	7.4	7.5	7.7	8.3	9.1	8.2	7.4	7.4
288	7.4	7.4	7.4	7.3	7.4	8.0	8.7	8.9
312	9.0	8.1	7.4	7.9	8.6	8.5	8.6	9.2
336	10.0	8.7	7.8	8.1	8.4	8.4	8.4	8.4

DEPTH	2084.1		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.2	7.9	7.5	7.7	7.9	7.7	7.5	7.5
24	7.5	7.7	8.0	7.8	7.6	7.6	7.6	7.8
48	8.1	8.1	8.2	8.2	8.2	8.2	8.2	7.9
72	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
96	7.7	7.7	7.7	7.7	7.7	7.7	7.8	7.8
120	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.9
144	8.0	8.2	8.5	8.2	8.0	7.9	7.8	7.8
168	7.8	7.7	7.7	7.8	7.8	7.8	7.8	7.8
192	7.8	7.8	7.8	7.7	7.5	7.7	8.0	8.0
216	8.1	7.8	7.5	7.5	7.5	7.8	8.0	8.2
240	8.3	8.3	8.3	8.1	7.9	7.7	7.5	7.5
264	7.5	7.5	7.5	7.8	8.1	8.0	7.9	8.2
288	8.5	7.9	7.5	7.5	7.5	7.9	8.4	8.9
312	9.5	8.4	7.5	7.8	8.1	7.9	7.7	7.7
336	7.7	8.4	9.2	9.0	8.8	8.8	8.7	8.5

DEPTH	2086.1		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.2	7.2	7.3	7.3	7.3	7.1	7.0	6.9
24	6.8	6.9	7.0	6.9	6.9	7.0	7.1	6.9
48	6.8	6.8	6.8	6.9	7.1	7.1	7.1	6.9
72	6.8	6.8	6.8	6.8	6.9	7.0	7.2	7.0
96	7.0	6.9	6.8	6.9	7.0	7.1	7.3	7.0
120	6.8	6.8	6.8	7.0	7.2	7.0	6.8	6.7
144	6.7	6.7	6.7	7.2	7.8	7.5	7.2	7.4
168	7.7	7.5	7.4	7.1	6.9	6.9	6.9	6.9
192	7.0	6.9	6.9	6.8	6.7	6.7	6.7	6.7
216	6.7	6.7	6.8	6.7	6.7	6.7	6.7	6.7
240	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
264	6.7	6.7	6.7	6.7	6.7	7.4	8.4	7.4
288	6.7	6.7	6.7	6.7	6.8	6.8	6.8	7.3
312	8.0	7.9	7.8	7.9	8.0	7.6	7.3	7.3
336	7.3	7.3	7.3	7.7	8.2	7.9	7.6	7.4

SONIC

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WALL RANGES VS DEPTH

DEPTH	2088.1		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.7	6.8	6.9	7.0	7.1	7.1	7.1	7.1
24	7.0	7.0	7.0	6.9	6.8	6.9	6.9	6.8
48	6.7	7.1	7.5	7.5	7.5	7.5	7.5	7.1
72	6.7	6.9	7.1	7.1	7.2	7.1	7.1	7.1
96	7.1	6.9	6.8	7.1	7.4	7.4	7.4	7.4
120	7.3	7.5	7.7	7.7	7.7	7.2	6.7	6.7
144	6.7	6.7	6.8	6.8	6.8	6.7	6.7	7.0
168	7.4	7.4	7.4	7.0	6.7	6.7	6.7	6.8
192	6.9	6.8	6.7	6.7	6.7	6.8	7.0	6.9
216	6.9	7.0	7.2	7.2	7.2	7.3	7.3	7.4
240	7.5	7.4	7.4	7.6	7.9	7.5	7.1	7.1
264	7.1	6.9	6.7	6.7	6.7	7.0	7.3	7.3
288	7.3	7.3	7.4	7.5	7.6	7.7	7.8	7.8
312	7.8	7.5	7.2	7.4	7.6	7.6	7.6	7.2
336	6.9	7.0	7.1	7.2	7.4	7.3	7.2	7.0

DEPTH	2090.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.3	7.3	7.4	7.4	7.4	7.1	6.9	6.9
24	6.9	7.0	7.0	7.0	7.0	7.1	7.2	7.1
48	7.1	7.1	7.1	7.0	7.0	7.0	7.1	7.0
72	6.9	6.9	7.0	7.0	7.0	6.9	6.9	6.9
96	7.0	7.0	7.0	7.0	7.1	7.1	7.1	7.1
120	7.2	7.0	6.9	6.9	6.9	7.4	8.1	8.1
144	8.1	7.8	7.6	7.3	7.0	7.1	7.2	7.0
168	6.9	6.9	7.0	7.0	7.0	7.2	7.5	7.6
192	7.7	7.7	7.7	7.7	7.7	7.9	8.1	7.8
216	7.5	7.6	7.6	7.7	7.8	7.8	7.9	8.0
240	8.1	8.1	8.1	7.9	7.8	7.5	7.3	7.1
264	6.9	6.9	6.9	7.2	7.5	7.4	7.3	7.4
288	7.5	7.6	7.6	7.6	7.6	7.7	7.8	7.7
312	7.8	7.6	7.5	7.5	7.5	7.5	7.5	7.4
336	7.4	7.4	7.5	7.5	7.5	7.4	7.3	7.3

DEPTH	2092.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
24	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
48	7.2	7.2	7.2	7.2	7.1	7.1	7.1	7.1
72	7.1	7.1	7.2	7.2	7.3	7.3	7.4	7.4
96	7.4	7.8	8.4	8.0	7.7	7.7	7.7	7.8
120	7.8	7.8	7.8	7.7	7.7	7.8	7.8	7.9
144	7.9	7.9	7.9	7.8	7.6	7.6	7.7	7.9
168	8.3	8.2	8.2	8.0	7.8	7.3	7.0	6.9
192	6.9	7.4	7.9	7.9	7.9	7.9	8.0	8.0
216	8.0	8.1	8.3	8.3	8.3	8.3	8.3	8.3
240	8.3	8.2	8.1	8.0	7.9	7.9	7.8	7.9
264	8.0	7.9	7.8	7.7	7.7	7.7	7.8	7.7
288	7.7	7.7	7.7	7.9	8.1	8.0	7.9	7.9
312	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.7
336	7.7	7.8	8.0	8.0	8.0	7.5	7.2	7.3

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2094.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.2	7.4	7.5	7.4	7.2	7.2	7.2	7.2
24	7.2	7.2	7.2	7.2	7.3	7.2	7.2	7.2
48	7.2	7.1	7.1	7.1	7.1	7.1	7.1	7.1
72	7.1	7.2	7.3	7.2	7.2	7.1	7.1	7.0
96	7.0	7.2	7.4	7.5	7.6	7.6	7.5	7.5
120	7.5	7.6	7.7	7.8	7.9	7.9	7.8	7.9
144	7.9	7.9	8.0	7.7	7.5	7.4	7.4	7.4
168	7.4	7.5	7.6	7.6	7.5	7.5	7.5	7.5
192	7.6	7.7	7.8	7.9	7.9	7.9	8.0	8.0
216	8.0	8.0	8.0	8.0	8.1	8.1	8.1	7.7
240	7.4	7.4	7.4	7.6	7.7	8.0	8.4	8.5
264	8.6	8.1	7.6	7.7	7.8	7.6	7.4	7.4
288	7.4	7.4	7.4	7.4	7.4	7.3	7.2	7.5
312	7.8	7.9	7.9	7.7	7.5	7.5	7.5	7.5
336	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.4

DEPTH	2096.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.5	7.5	7.5	7.4	7.4	7.4	7.4	7.3
24	7.3	7.3	7.3	7.2	7.1	7.1	7.1	7.1
48	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.1
72	7.1	7.3	7.5	7.4	7.3	7.3	7.4	7.5
96	7.6	7.6	7.6	7.6	7.7	7.7	7.8	7.8
120	7.8	7.9	8.0	8.0	8.0	8.0	8.0	8.0
144	8.0	8.0	8.0	7.8	7.6	7.6	7.6	7.6
168	7.7	7.7	7.8	7.8	7.8	7.9	7.9	7.9
192	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
216	8.1	8.1	8.3	8.3	8.3	8.4	8.4	8.4
240	8.4	7.9	7.5	7.5	7.5	7.7	7.8	7.7
264	7.7	7.8	7.8	7.6	7.5	7.5	7.6	7.6
288	7.6	7.6	7.6	7.7	7.8	7.8	7.9	7.8
312	7.8	7.8	7.9	7.9	8.0	7.8	7.6	7.5
336	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5

DEPTH	2098.0		TILT	0		VOS	5972.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.7	7.6	7.5	7.5	7.5	7.4	7.3	7.3
24	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
48	7.2	7.4	7.6	7.5	7.5	7.5	7.5	7.4
72	7.3	7.3	7.3	7.3	7.4	7.4	7.4	7.5
96	7.5	7.6	7.6	7.9	8.2	8.1	8.1	8.1
120	8.1	8.1	8.2	8.2	8.2	8.2	8.2	8.2
144	8.2	8.3	8.4	8.1	7.8	7.8	7.8	7.8
168	7.8	8.0	8.1	8.3	8.4	8.4	8.4	8.4
192	8.4	8.3	8.2	8.3	8.4	8.4	8.4	8.4
216	8.4	8.5	8.7	8.4	8.1	8.1	8.1	8.1
240	8.1	7.9	7.8	8.3	8.7	8.4	8.2	7.9
264	7.6	7.6	7.6	7.6	7.6	7.6	7.6	8.0
288	8.5	8.3	8.2	8.2	8.2	8.0	7.8	7.7
312	7.7	7.7	7.7	7.6	7.6	7.6	7.6	7.6
336	7.7	7.7	7.6	7.6	7.6	7.6	7.7	7.7

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2100.1		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.8	7.8	7.8	7.6	7.5	7.7	7.9	7.9
24	7.9	7.9	7.9	7.8	7.7	7.7	7.7	7.7
48	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
72	7.8	7.7	7.8	7.9	8.0	8.0	7.9	7.9
96	7.9	8.0	8.0	8.0	8.0	8.1	8.2	8.2
120	8.2	8.3	8.4	8.2	8.0	8.1	8.3	8.2
144	8.1	8.0	7.9	7.9	7.9	8.0	8.1	8.0
168	8.0	8.1	8.2	8.2	8.2	8.4	8.7	8.5
192	8.3	8.3	8.3	8.2	8.1	8.1	8.1	8.0
216	7.9	8.0	8.0	8.0	8.0	7.9	7.9	8.2
240	8.5	8.5	8.6	8.2	7.8	8.0	8.2	8.3
264	8.4	8.0	7.8	7.7	7.8	7.8	7.8	7.9
288	8.1	8.1	8.1	8.2	8.4	8.3	8.3	8.3
312	8.4	8.2	8.1	8.0	7.9	8.0	8.1	8.0
336	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8

DEPTH	2102.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.6	7.6	7.7	7.6	7.5	7.6	7.7	7.7
24	7.7	7.7	7.7	7.7	7.8	7.7	7.7	7.6
48	7.5	7.5	7.6	7.6	7.6	7.5	7.3	7.3
72	7.4	7.5	7.6	7.6	7.5	7.5	7.5	7.7
96	7.9	7.6	7.3	7.6	8.0	7.9	7.8	8.1
120	8.4	8.0	7.7	7.7	7.7	7.9	8.3	8.3
144	8.3	8.3	8.3	8.2	8.2	8.3	8.4	8.0
168	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
192	7.6	7.9	8.3	8.3	8.3	8.3	8.3	8.2
216	8.1	8.1	8.1	8.0	8.0	8.1	8.2	8.2
240	8.2	8.2	8.3	8.3	8.3	8.3	8.3	8.1
264	8.0	8.1	8.2	8.2	8.2	8.1	8.0	8.1
288	8.1	8.2	8.2	8.0	7.9	7.9	7.9	7.9
312	7.8	7.8	7.8	7.8	7.8	7.7	7.6	7.6
336	7.6	7.6	7.7	7.7	7.7	7.6	7.6	7.6

DEPTH	2104.1		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.7	7.8	8.0	8.0	8.0	7.6	7.3	7.3
24	7.4	7.3	7.3	7.4	7.5	7.5	7.5	7.5
48	7.5	7.3	7.2	7.5	7.8	8.1	8.5	8.4
72	8.4	8.5	8.7	8.1	7.7	7.7	7.8	7.7
96	7.6	7.5	7.4	7.7	8.1	8.1	8.1	8.1
120	8.1	8.0	8.0	8.3	8.7	8.5	8.4	8.4
144	8.4	7.8	7.4	7.4	7.4	7.7	8.0	7.7
168	7.5	7.9	8.5	8.5	8.5	8.6	8.7	8.6
192	8.7	8.6	8.7	8.7	8.8	8.7	8.5	8.5
216	8.4	8.3	8.2	8.2	8.3	8.2	8.2	8.2
240	8.3	8.3	8.4	8.4	8.5	8.5	8.5	8.4
264	8.3	8.5	8.7	8.7	8.7	8.2	7.8	7.8
288	7.8	7.8	7.8	7.7	7.7	7.6	7.6	7.6
312	7.5	7.6	7.7	7.6	7.6	7.5	7.3	7.6
336	7.9	7.8	7.7	7.6	7.4	7.4	7.4	7.5

SONIC

CUSTOMER : Marathon Petroleum
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CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2110.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.4	7.4	7.4	7.6	7.9	7.8	7.8	7.6
24	7.4	7.4	7.4	7.8	8.2	8.4	8.5	8.4
48	8.3	8.3	8.3	8.3	8.4	8.5	8.6	8.5
72	8.6	8.6	8.6	8.4	8.2	8.2	8.2	8.2
96	8.2	8.2	8.2	8.3	8.4	8.4	8.4	8.5
120	8.6	8.4	8.2	8.2	8.2	7.9	7.7	7.7
144	7.7	7.6	7.5	7.6	7.7	8.0	8.3	8.4
168	8.4	8.5	8.6	8.5	8.4	8.5	8.6	8.5
192	8.4	8.4	8.4	8.2	8.1	8.1	8.2	8.2
216	8.2	8.2	8.3	8.4	8.4	8.5	8.5	8.6
240	8.6	8.6	8.6	8.5	8.4	8.3	8.3	8.3
264	8.2	8.3	8.3	8.4	8.4	8.4	8.4	8.2
288	8.1	8.0	8.0	8.2	8.4	8.3	8.3	8.1
312	7.9	8.1	8.3	8.4	8.6	8.3	8.1	7.9
336	7.8	7.7	7.6	7.6	7.6	7.6	7.7	7.5

DEPTH	2112.1		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.2	7.3	7.4	7.3	7.2	7.3	7.5	7.2
24	7.0	7.1	7.2	7.3	7.4	7.3	7.3	7.2
48	7.2	7.3	7.4	7.3	7.2	7.2	7.2	7.2
72	7.3	7.3	7.3	7.3	7.4	7.3	7.3	7.4
96	7.5	7.7	7.8	7.8	7.8	7.8	7.9	8.1
120	8.2	8.2	8.2	8.2	8.3	8.3	8.4	8.4
144	8.5	8.5	8.6	8.5	8.4	8.6	8.8	8.8
168	8.9	8.7	8.4	8.3	8.3	8.4	8.4	8.4
192	8.5	8.2	8.0	8.2	8.4	8.5	8.6	8.5
216	8.5	8.4	8.3	8.3	8.3	8.3	8.4	8.4
240	8.4	8.3	8.3	8.4	8.5	8.4	8.4	8.2
264	8.0	8.3	8.6	8.4	8.3	8.3	8.4	8.2
288	8.0	8.1	8.3	8.3	8.2	8.3	8.5	8.4
312	8.4	8.5	8.6	8.4	8.4	8.0	7.8	7.5
336	7.2	7.1	7.0	7.1	7.2	7.3	7.3	7.3

DEPTH	2114.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.2	7.8	7.5	7.6	7.8	7.8	7.8	7.9
24	8.1	8.0	7.9	8.0	8.2	7.7	7.3	7.6
48	7.9	8.0	8.1	8.1	8.1	8.1	8.2	8.2
72	8.3	8.0	7.7	7.7	7.8	7.9	8.1	7.9
96	7.8	7.8	7.8	8.1	8.4	8.3	8.2	8.3
120	8.4	8.5	8.5	8.4	8.3	8.4	8.4	8.3
144	8.3	8.4	8.6	8.2	7.8	7.8	7.8	8.1
168	8.4	8.0	7.7	7.8	8.0	8.1	8.2	8.3
192	8.4	8.4	8.4	8.4	8.5	8.5	8.4	8.7
216	9.0	9.1	9.2	8.9	8.6	8.5	8.4	8.5
240	8.6	8.4	8.1	8.2	8.4	8.6	8.9	8.8
264	8.6	8.5	8.4	8.4	8.4	8.4	8.4	8.3
288	8.2	8.2	8.1	8.2	8.2	8.1	8.0	7.8
312	7.7	7.9	8.2	8.2	8.3	8.3	8.3	8.3
336	8.3	8.0	7.8	7.6	7.5	7.5	7.5	7.8

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2116.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.6	7.7	7.8	7.6	7.5	7.4	7.4	7.4
24	7.3	7.4	7.4	7.4	7.5	7.4	7.3	7.4
48	7.5	7.5	7.5	7.4	7.4	7.5	7.6	7.5
72	7.5	7.9	8.4	8.4	8.5	8.5	8.5	8.5
96	8.5	8.5	8.5	8.5	8.5	8.4	8.4	8.4
120	8.4	8.5	8.7	8.7	8.7	8.6	8.5	8.6
144	8.8	8.8	8.8	8.6	8.4	8.4	8.4	8.3
168	8.1	8.4	8.7	8.7	8.7	8.5	8.3	8.3
192	8.4	8.6	8.8	8.8	8.9	8.9	9.0	8.9
216	8.9	8.9	8.9	9.0	9.0	9.0	9.0	8.8
240	8.7	8.6	8.6	8.8	9.0	8.9	8.9	8.7
264	8.5	8.4	8.3	8.5	8.8	8.8	8.9	8.8
288	8.8	8.5	8.2	8.1	8.1	7.9	7.8	7.8
312	7.8	7.8	7.8	7.7	7.7	7.7	7.7	7.7
336	7.8	7.7	7.7	7.7	7.7	7.7	7.8	7.7

DEPTH	2117.9		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.7	8.3	8.1	7.9	7.7	7.5	7.3	7.3
24	7.3	7.4	7.6	7.5	7.5	7.5	7.5	7.2
48	6.9	6.9	6.9	6.9	6.9	6.9	6.9	7.3
72	7.8	7.5	7.2	7.4	7.7	7.7	7.8	7.9
96	8.1	7.8	7.6	8.0	8.4	8.4	8.5	8.8
120	9.1	8.9	8.8	8.7	8.7	8.6	8.5	8.6
144	8.8	8.8	8.9	8.7	8.5	8.4	8.4	8.4
168	8.4	8.3	8.1	8.4	8.8	8.8	8.9	8.6
192	8.4	8.5	8.6	8.6	8.6	8.6	8.5	8.6
216	8.7	8.7	8.7	8.7	8.7	8.7	8.6	8.8
240	9.0	8.9	8.8	8.8	8.8	9.1	9.5	9.0
264	8.6	8.6	8.6	8.5	8.4	8.4	8.4	8.4
288	8.5	8.3	8.1	7.9	7.8	7.7	7.6	7.7
312	7.8	8.0	8.2	8.3	8.4	8.3	8.2	8.5
336	8.7	8.5	8.3	8.3	8.3	8.4	8.5	8.6

DEPTH	2120.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.8	7.6	7.5	7.4	7.3	7.3	7.3	7.3
24	7.3	7.3	7.2	7.5	7.8	7.8	7.8	7.5
48	7.3	7.4	7.5	7.4	7.3	7.4	7.4	7.5
72	7.7	7.7	7.7	7.7	7.7	7.6	7.6	8.0
96	8.4	8.2	8.1	8.1	8.1	8.4	8.8	8.5
120	8.4	8.3	8.3	8.4	8.6	8.7	8.7	8.7
144	8.7	8.7	8.8	8.3	8.0	8.0	8.1	8.0
168	8.0	8.3	8.6	8.6	8.7	8.6	8.5	8.6
192	8.7	8.7	8.7	8.8	8.9	9.0	9.2	9.1
216	9.0	9.1	9.2	9.2	9.2	9.2	9.2	9.4
240	9.6	9.4	9.2	9.1	9.0	9.2	9.5	9.3
264	9.1	8.8	8.6	8.6	8.6	8.5	8.4	8.4
288	8.4	8.2	8.0	8.1	8.3	8.2	8.1	8.0
312	8.0	7.9	7.9	7.7	7.5	7.5	7.5	7.6
336	7.7	7.6	7.6	7.5	7.4	7.6	7.9	7.8

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2122.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.8	7.5	7.3	7.4	7.5	7.4	7.3	7.3
24	7.3	7.3	7.3	7.5	7.7	7.6	7.5	7.5
48	7.5	7.6	7.6	7.7	7.8	7.6	7.5	7.5
72	7.5	7.6	7.7	8.0	8.4	8.3	8.3	8.6
96	8.9	8.9	8.9	8.8	8.7	8.7	8.7	8.6
120	8.6	8.6	8.6	8.6	8.6	8.7	8.8	8.7
144	8.6	8.4	8.2	8.1	8.1	8.3	8.5	8.4
168	8.4	8.4	8.4	8.4	8.4	8.6	8.7	8.7
192	8.8	8.5	8.3	8.4	8.6	8.7	8.7	8.7
216	8.7	8.4	8.2	8.2	8.2	8.2	8.1	8.4
240	8.7	8.4	8.2	8.5	8.7	8.6	8.4	8.4
264	8.4	8.5	8.5	8.5	8.4	8.3	8.2	8.3
288	8.4	8.3	8.3	8.5	8.7	8.4	8.2	8.0
312	7.8	7.9	8.0	7.9	7.8	7.8	7.9	7.8
336	7.7	7.7	7.7	7.6	7.6	7.6	7.6	7.7

DEPTH	2124.1		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.7	7.5	7.3	7.3	7.3	7.3	7.3	7.3
24	7.3	7.4	7.5	7.6	7.6	7.5	7.5	7.5
48	7.5	7.6	7.8	7.7	7.7	7.6	7.5	7.5
72	7.4	7.6	7.7	7.7	7.7	7.9	8.1	8.5
96	8.8	8.7	8.6	8.4	8.3	8.5	8.7	8.7
120	8.7	8.7	8.8	8.7	8.6	8.4	8.1	8.4
144	8.7	8.4	8.1	8.1	8.1	8.2	8.3	8.5
168	8.7	8.5	8.3	8.3	8.3	8.3	8.2	8.5
192	8.8	8.7	8.7	8.8	9.0	8.9	8.9	8.9
216	8.9	8.8	8.6	8.7	8.7	8.6	8.6	8.5
240	8.4	8.4	8.4	8.4	8.3	8.4	8.6	8.5
264	8.4	8.3	8.4	8.7	9.1	8.7	8.4	8.3
288	8.2	8.2	8.2	8.3	8.4	8.2	7.9	7.9
312	7.8	7.8	7.8	7.9	8.1	8.0	7.9	8.1
336	8.4	8.2	7.9	7.8	7.7	7.7	7.7	7.7

DEPTH	2126.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.6	7.6	7.6	7.5	7.5	7.5	7.5	7.4
24	7.4	7.6	7.8	7.6	7.5	7.5	7.5	7.7
48	7.9	7.7	7.5	7.3	7.1	7.3	7.4	7.4
72	7.5	7.5	7.5	7.7	7.9	7.8	7.8	8.1
96	8.4	8.6	8.7	8.7	8.7	8.6	8.5	8.8
120	9.0	8.7	8.5	8.5	8.5	8.5	8.6	8.7
144	8.7	8.6	8.6	8.4	8.1	8.1	8.1	8.3
168	8.6	8.5	8.5	8.7	9.0	8.9	8.8	8.7
192	8.7	8.6	8.5	8.6	8.7	8.6	8.5	8.6
216	8.8	8.6	8.4	8.2	8.1	8.3	8.5	8.5
240	8.4	8.4	8.3	8.3	8.4	8.3	8.3	8.2
264	8.2	8.2	8.3	8.3	8.3	8.5	8.7	8.5
288	8.2	8.3	8.3	8.5	8.7	8.2	7.8	7.9
312	8.0	7.9	7.8	7.8	7.8	7.8	7.8	7.7
336	7.6	7.8	8.0	8.0	8.0	7.7	7.5	7.6

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2128.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.4	7.4	7.4	7.4	7.5	7.4	7.3	7.4
24	7.4	7.3	7.3	7.2	7.2	7.5	7.8	7.5
48	7.3	7.3	7.3	7.3	7.4	7.6	7.8	7.7
72	7.5	7.5	7.5	7.8	8.1	8.3	8.5	8.6
96	8.6	8.6	8.6	8.5	8.4	8.3	8.4	8.4
120	8.4	8.7	9.0	8.8	8.6	8.7	8.8	8.7
144	8.7	8.7	8.7	8.6	8.4	8.4	8.4	8.5
168	8.7	8.7	8.8	8.9	9.0	8.8	8.7	8.8
192	8.9	9.0	9.1	8.9	8.7	8.8	9.0	8.8
216	8.6	8.6	8.6	8.3	7.9	7.9	7.8	7.8
240	7.8	8.0	8.3	8.5	8.7	8.6	8.5	8.7
264	9.0	8.7	8.4	8.6	8.7	8.7	8.7	8.3
288	7.9	8.1	8.2	8.2	8.3	7.9	7.5	7.5
312	7.5	7.6	7.6	7.6	7.5	7.5	7.5	7.7
336	7.8	7.6	7.3	7.3	7.3	7.3	7.3	7.3

DEPTH	2130.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.0	6.9	6.9	7.0	7.1	7.0	6.9	7.0
24	7.2	7.0	6.9	7.0	7.1	7.2	7.2	7.0
48	6.9	7.0	7.1	7.1	7.1	7.2	7.3	7.4
72	7.5	7.3	7.2	7.2	7.3	7.3	7.4	7.8
96	8.2	7.9	7.7	7.6	7.5	7.5	7.5	7.9
120	8.4	8.2	8.1	8.2	8.4	8.4	8.4	8.5
144	8.7	8.7	8.6	8.6	8.6	8.5	8.4	8.4
168	8.4	8.4	8.4	8.3	8.3	8.3	8.4	8.4
192	8.5	8.5	8.5	8.5	8.4	8.4	8.4	8.4
216	8.5	8.6	8.7	8.6	8.5	8.5	8.5	8.2
240	8.0	8.3	8.6	8.7	8.8	8.7	8.7	8.4
264	8.1	8.0	7.9	7.9	7.9	7.9	7.9	7.9
288	7.9	7.9	7.9	7.8	7.8	7.6	7.4	7.3
312	7.3	7.3	7.4	7.4	7.3	7.4	7.5	7.2
336	7.0	7.0	7.0	7.1	7.2	7.1	7.1	7.0

DEPTH	2132.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.0	7.1	7.3	7.1	6.9	6.9	6.9	6.9
24	7.0	6.9	6.9	7.1	7.3	7.2	7.2	7.4
48	7.7	7.4	7.2	7.2	7.2	7.4	7.5	7.5
72	7.4	7.6	7.8	7.8	7.9	8.3	8.8	8.9
96	8.9	8.9	8.9	8.7	8.6	8.6	8.7	8.8
120	8.9	8.9	8.9	8.9	8.9	8.8	8.7	8.8
144	8.9	8.9	8.8	9.0	9.2	9.0	8.9	8.9
168	9.0	8.8	8.6	8.7	8.8	8.8	8.8	8.9
192	9.0	8.9	8.8	8.7	8.7	8.7	8.8	8.9
216	9.1	9.0	8.9	8.8	8.8	8.7	8.6	8.6
240	8.5	8.5	8.5	8.6	8.7	8.6	8.5	8.4
264	8.3	8.6	9.0	8.8	8.6	8.4	8.4	8.8
288	9.3	8.9	8.7	8.3	8.1	8.0	8.0	7.6
312	7.3	7.3	7.5	7.6	7.8	7.5	7.2	7.2
336	7.3	7.2	7.2	7.3	7.3	7.1	6.9	7.0

SONIC

CUSTOMER : Marathon Petroleum
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OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2134.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2136.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2138.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2140.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2142.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2144.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2146.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.8	7.7	7.5	7.6	7.6	7.5	7.4	7.5
24	7.6	7.5	7.4	7.3	7.3	7.3	7.3	7.5
48	7.7	7.9	8.1	7.8	7.6	8.1	8.6	8.8
72	9.2	8.9	8.7	8.4	8.1	8.1	8.1	8.2
96	8.2	7.8	7.4	7.4	7.4	7.5	7.7	7.8
120	8.0	8.1	8.1	8.2	8.2	8.1	8.0	8.0
144	8.1	8.4	8.7	8.6	8.6	8.3	8.1	8.1
168	8.1	8.1	8.1	8.8	9.6	9.8	10.0	9.9
192	9.9	10.0	10.1	10.1	10.0	10.0	10.0	10.0
216	10.0	9.8	9.7	9.8	9.8	9.8	9.8	9.7
240	9.6	9.7	9.9	10.0	10.1	10.0	10.0	10.0
264	10.0	9.2	8.5	8.5	8.6	8.5	8.5	8.9
288	9.4	9.1	8.9	9.1	9.3	9.1	9.0	8.7
312	8.5	8.5	8.6	8.2	7.9	8.0	8.0	8.1
336	8.3	8.1	7.9	7.8	7.7	7.5	7.4	7.6

DEPTH	2148.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.1	7.9	7.7	7.5	7.4	7.5	7.7	7.7
24	7.8	7.7	7.7	7.7	7.8	7.9	7.9	7.9
48	7.8	7.8	7.8	7.7	7.5	7.8	8.1	7.8
72	7.5	7.6	7.8	7.9	8.0	7.9	7.8	7.7
96	7.7	7.6	7.5	7.4	7.3	7.5	7.8	7.8
120	7.8	7.9	8.0	8.0	8.0	7.8	7.6	7.6
144	7.6	7.7	7.8	7.9	8.0	8.2	8.5	8.6
168	8.6	8.7	8.8	8.4	8.1	9.5	7.9	9.7
192	7.7	9.8	9.4	9.8	9.9	9.9	9.7	9.9
216	9.1	9.7	9.4	9.7	8.1	9.5	8.3	9.5
240	8.8	9.6	8.7	9.7	9.0	9.8	9.7	9.9
264	9.7	9.7	9.7	9.4	9.1	9.3	9.1	9.4
288	9.2	9.4	9.0	9.3	9.6	9.5	9.3	9.4
312	9.7	9.2	9.3	9.0	9.3	8.7	9.1	8.7
336	8.4	8.7	8.2	8.4	7.9	8.2	8.0	8.3

DEPTH	2150.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.0	9.4	9.8	9.7	9.6	9.4	9.3	8.9
24	8.5	8.5	8.6	8.7	8.8	8.7	8.7	8.5
48	8.4	8.3	8.3	8.5	8.8	8.1	7.6	7.5
72	7.4	7.7	8.1	8.2	8.4	8.3	8.2	7.8
96	7.5	7.6	7.7	7.7	7.7	7.6	7.6	7.5
120	7.4	7.6	7.8	8.3	8.9	9.3	9.8	9.7
144	9.6	9.5	9.5	9.6	9.8	9.6	9.4	9.4
168	9.5	9.0	8.7	8.8	9.0	9.1	9.3	9.5
192	9.7	9.6	9.6	9.6	9.6	9.8	10.1	9.7
216	9.4	9.5	9.7	9.6	9.6	9.3	9.0	9.3
240	9.5	9.4	9.3	9.5	9.6	9.6	9.6	9.9
264	10.2	10.2	10.2	10.2	10.3	10.0	9.8	9.9
288	9.9	9.7	9.6	9.4	9.3	9.8	10.3	10.1
312	10.0	9.8	9.7	9.7	9.8	9.5	9.2	9.3
336	9.4	9.3	9.2	8.9	8.7	8.8	9.0	9.0

SONIC

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WALL RANGES VS DEPTH

DEPTH	2152.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.0	9.4	9.8	9.7	9.7	9.7	9.7	9.5
24	9.3	9.5	9.7	9.2	8.8	8.9	9.0	8.9
48	8.8	8.7	8.7	8.7	8.7	8.7	8.8	8.8
72	8.9	8.8	8.8	8.8	8.9	8.9	8.9	8.5
96	8.1	8.2	8.4	8.4	8.4	8.4	8.4	8.3
120	8.3	8.6	8.8	8.9	9.0	9.2	9.5	9.7
144	9.9	9.9	9.9	9.5	9.2	9.4	9.6	9.6
168	9.6	9.9	10.2	10.4	10.7	10.4	10.2	10.1
192	10.1	9.9	9.8	10.0	10.1	10.1	10.2	10.3
216	10.5	10.4	10.3	10.4	10.5	10.4	10.2	10.2
240	10.1	10.2	10.2	10.2	10.2	10.5	10.8	10.5
264	10.2	10.1	10.0	9.7	9.4	9.8	10.2	10.0
288	9.8	9.8	9.9	10.1	10.4	10.1	9.8	9.8
312	9.9	10.0	10.0	10.0	10.0	9.9	9.8	9.5
336	9.3	9.4	9.5	9.3	9.1	9.1	9.1	9.0

DEPTH	2154.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.4	9.3	9.3	9.2	9.1	9.4	9.8	9.6
24	9.4	9.5	9.7	9.2	8.9	8.5	8.2	8.4
48	8.7	8.8	8.9	8.9	9.0	8.8	8.7	8.6
72	8.5	8.6	8.8	9.0	9.3	9.1	9.1	9.0
96	9.0	9.2	9.4	9.2	9.1	9.1	9.3	9.5
120	9.8	9.5	9.3	9.3	9.3	9.3	9.5	9.5
144	9.5	9.7	9.9	9.7	9.5	9.7	9.9	9.9
168	10.0	9.9	9.9	9.9	9.8	9.9	9.9	9.8
192	9.8	9.6	9.6	9.7	9.9	9.6	9.3	9.4
216	9.6	9.7	9.9	9.9	10.0	9.9	9.9	9.9
240	9.8	9.8	9.8	9.7	9.7	9.5	9.3	9.2
264	9.2	9.5	9.9	10.1	10.3	10.6	10.9	10.8
288	10.7	10.9	11.1	11.1	11.1	10.9	10.7	10.9
312	11.0	10.7	10.3	10.2	10.0	10.1	10.3	10.6
336	11.0	10.7	10.4	10.0	9.7	9.7	9.8	9.6

DEPTH	2156.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.8	9.7	9.6	9.3	9.1	9.1	9.1	9.1
24	9.2	9.2	9.2	9.2	9.3	9.6	9.8	9.4
48	9.0	9.1	9.3	9.0	8.8	9.1	9.6	9.3
72	9.0	9.0	9.0	9.1	9.2	9.4	9.7	9.5
96	9.4	9.4	9.4	9.5	9.6	9.5	9.4	9.6
120	9.8	9.5	9.4	9.4	9.4	9.3	9.2	9.5
144	9.8	9.6	9.5	9.3	9.2	9.5	9.9	9.7
168	9.6	9.7	10.0	9.6	9.3	9.1	9.0	9.0
192	9.0	9.3	9.7	10.0	10.3	9.9	9.6	9.8
216	10.1	9.8	9.5	9.8	10.2	9.9	9.7	9.6
240	9.5	9.5	9.6	10.1	10.6	10.0	9.5	9.2
264	9.0	9.2	9.6	9.8	10.1	10.4	10.7	10.8
288	11.0	11.0	11.0	11.2	11.4	11.4	11.3	11.1
312	10.8	10.8	10.8	10.7	10.5	10.2	9.9	9.8
336	9.8	9.7	9.6	10.3	11.0	10.7	10.4	10.1

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2158.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.6	8.6	8.6	8.5	8.4	8.4	8.4	8.2
24	8.1	8.3	8.7	8.6	8.5	8.6	8.8	8.4
48	8.1	8.0	7.8	8.0	8.3	8.3	8.3	8.2
72	8.0	8.2	8.4	8.6	8.9	8.6	8.3	8.4
96	8.5	8.7	8.9	8.6	8.4	8.6	8.8	8.8
120	8.8	8.8	8.8	9.0	9.2	9.3	9.5	9.4
144	9.3	9.6	10.0	10.1	10.2	10.3	10.4	10.3
168	10.2	10.4	10.7	10.3	10.1	10.1	10.2	10.2
192	10.2	10.3	10.5	10.5	10.5	10.5	10.4	10.1
216	9.9	9.9	10.0	10.2	10.6	10.6	10.7	10.7
240	10.7	10.5	10.4	10.4	10.5	10.4	10.4	10.3
264	10.2	10.3	10.4	10.4	10.4	10.3	10.3	10.2
288	10.1	10.0	9.8	9.8	9.8	9.8	9.8	9.5
312	9.3	9.3	9.4	9.0	8.6	8.6	8.6	8.6
336	8.5	8.5	8.5	8.6	8.7	8.4	8.2	8.4

DEPTH	2160.1		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.5	8.4	8.3	8.1	8.0	7.8	7.7	7.7
24	7.7	8.0	8.4	8.4	8.4	8.4	8.5	8.3
48	8.2	8.2	8.3	8.0	7.8	8.1	8.4	8.3
72	8.3	8.4	8.6	8.4	8.2	8.6	9.0	8.7
96	8.5	8.4	8.4	8.5	8.5	8.5	8.5	8.5
120	8.5	8.7	8.9	9.0	9.1	9.1	9.1	9.3
144	9.6	9.9	10.2	10.1	9.9	10.0	10.1	10.0
168	9.8	9.7	9.5	9.9	10.3	10.1	10.0	10.3
192	10.5	10.2	10.0	10.0	10.1	10.2	10.5	10.2
216	10.0	10.1	10.1	10.0	9.9	9.7	9.6	9.7
240	9.9	10.1	10.3	10.2	10.1	10.3	10.5	10.2
264	9.9	9.6	9.3	9.3	9.3	9.4	9.5	9.4
288	9.3	8.7	8.3	8.3	8.4	8.4	8.4	8.4
312	8.4	8.4	8.4	8.6	8.8	8.4	8.1	8.2
336	8.3	8.2	8.1	8.3	8.6	8.4	8.3	8.4

DEPTH	2162.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.9	8.7	8.6	8.4	8.4	8.2	8.0	7.9
24	7.9	8.2	8.5	8.3	8.2	8.2	8.2	8.4
48	8.6	8.6	8.6	8.7	8.8	8.5	8.2	8.2
72	8.2	8.1	8.0	8.0	8.0	7.9	7.9	8.3
96	8.6	8.9	9.2	9.2	9.1	9.1	9.1	9.2
120	9.4	9.3	9.3	9.0	8.7	9.0	9.3	10.1
144	11.2	10.6	10.2	10.2	10.3	10.4	10.5	10.4
168	10.3	10.1	10.0	10.0	10.0	10.1	10.2	10.1
192	10.1	9.7	9.3	9.7	10.1	10.1	10.0	10.2
216	10.5	10.4	10.3	10.3	10.3	10.2	10.1	10.2
240	10.3	10.2	10.2	10.2	10.3	10.2	10.1	10.1
264	10.1	10.0	10.0	10.3	10.6	10.4	10.3	9.8
288	9.4	9.5	9.7	10.2	10.7	10.5	10.3	10.2
312	10.1	10.0	10.0	9.7	9.5	9.5	9.6	9.3
336	9.0	9.0	9.1	9.1	9.3	9.0	8.9	8.9

SONIC

CUSTOMER : Marathon Petroleum
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OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2164.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	10.3	10.0	9.8	9.4	9.1	9.4	9.8	9.7
24	9.6	9.3	8.9	9.2	9.4	9.0	8.7	8.8
48	9.0	9.0	8.9	8.9	8.9	8.9	8.9	9.4
72	10.0	9.7	9.4	9.0	8.7	8.9	9.2	9.4
96	9.6	9.7	9.9	9.4	9.1	9.4	9.7	9.8
120	9.8	10.1	10.3	10.3	10.4	10.3	10.3	10.7
144	11.2	11.1	11.1	11.0	11.0	11.2	11.5	11.4
168	11.4	11.3	11.2	11.2	11.3	11.2	11.2	11.3
192	11.4	11.6	11.7	11.4	11.2	11.2	11.2	11.1
216	11.1	11.2	11.4	11.6	11.7	11.5	11.3	11.2
240	11.2	11.3	11.3	11.2	11.1	11.2	11.4	11.3
264	11.4	11.1	11.0	11.0	11.2	10.9	10.8	10.9
288	11.2	11.1	11.1	11.3	11.5	11.1	10.7	10.6
312	10.5	10.5	10.6	10.5	10.5	10.5	10.5	10.7
336	11.0	11.1	11.3	11.1	10.9	10.7	10.6	10.4

DEPTH	2165.9		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.7	9.8	10.0	9.9	9.7	9.5	9.4	9.5
24	9.6	9.6	9.6	9.5	9.5	9.5	9.5	9.5
48	9.5	9.5	9.6	9.6	9.6	9.7	9.9	9.6
72	9.4	9.6	9.9	9.9	10.0	10.1	10.3	10.4
96	10.6	10.5	10.4	10.6	10.8	10.8	10.7	10.9
120	11.2	11.1	11.1	11.1	11.2	11.3	11.4	11.5
144	11.6	11.6	11.7	11.7	11.7	11.7	11.8	12.0
168	12.3	11.9	11.6	11.6	11.7	11.7	11.8	11.7
192	11.6	11.7	11.9	11.7	11.6	11.7	11.7	11.6
216	11.4	11.5	11.6	11.6	11.7	11.7	11.7	11.7
240	11.7	11.7	11.8	11.9	12.0	11.8	11.6	11.7
264	11.9	11.7	11.5	11.5	11.5	11.8	12.2	11.8
288	11.5	11.5	11.5	11.4	11.3	11.1	10.9	11.1
312	11.4	11.4	11.5	10.9	10.3	10.2	10.1	10.4
336	10.7	10.2	9.8	9.9	10.0	10.0	10.0	9.8

DEPTH	2167.9		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.7	9.6	9.6	9.5	9.4	9.4	9.4	9.4
24	9.4	9.5	9.5	9.5	9.4	9.5	9.6	9.6
48	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.7
72	9.8	9.7	9.7	9.7	9.8	9.8	9.9	9.9
96	9.9	10.1	10.3	10.3	10.4	10.4	10.4	10.5
120	10.6	10.7	10.7	10.8	10.8	10.9	11.1	11.1
144	11.1	11.4	11.8	11.8	11.9	11.8	11.8	11.9
168	11.9	11.9	11.9	11.9	11.9	11.8	11.8	11.8
192	11.8	11.8	11.8	11.9	12.1	12.0	11.9	11.7
216	11.6	11.6	11.7	11.7	11.9	11.8	11.9	11.8
240	11.8	11.8	11.9	11.9	11.9	11.9	11.9	11.9
264	11.9	11.8	11.7	11.7	11.8	11.8	11.8	11.7
288	11.7	11.7	11.7	11.7	11.6	11.3	11.1	11.2
312	11.3	11.2	11.1	10.7	10.4	10.5	10.6	10.5
336	10.4	10.2	10.1	10.1	10.1	10.0	10.0	9.9

SONIC

CUSTOMER : Marathon Petroleum
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OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2170.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.5	9.4	9.4	9.3	9.3	9.3	9.3	9.3
24	9.3	9.3	9.3	9.3	9.4	9.7	10.1	9.8
48	9.4	9.6	9.8	9.5	9.3	9.3	9.3	9.5
72	9.8	9.5	9.4	9.4	9.4	9.5	9.7	9.8
96	9.9	9.7	9.5	9.7	10.0	9.8	9.7	10.0
120	10.3	10.1	9.8	10.2	10.6	11.2	12.0	11.6
144	11.2	11.2	11.3	11.3	11.4	11.6	11.9	12.0
168	12.0	12.1	12.3	12.2	12.2	12.2	12.2	12.2
192	12.3	12.2	12.1	11.7	11.4	11.6	11.7	11.5
216	11.3	11.6	11.9	11.9	11.9	12.0	12.1	12.2
240	12.3	12.2	12.1	12.1	12.2	12.1	12.0	12.2
264	12.4	12.0	11.7	11.7	11.7	11.5	11.4	11.0
288	10.6	10.3	10.1	10.5	10.8	10.5	10.2	10.2
312	10.3	10.2	10.2	10.2	10.3	10.0	9.8	9.8
336	9.8	9.7	9.6	9.5	9.4	9.4	9.4	9.4

DEPTH	2172.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.5	9.6	9.8	9.6	9.4	9.5	9.7	9.5
24	9.4	9.6	9.9	9.8	9.8	10.2	10.7	10.2
48	9.8	9.7	9.6	9.8	10.0	10.4	11.0	10.9
72	10.8	10.8	10.7	10.7	10.7	11.0	11.5	11.9
96	12.3	12.2	12.2	12.2	12.2	12.1	12.0	12.0
120	12.1	12.1	12.2	12.3	12.3	12.4	12.4	12.3
144	12.3	12.2	12.2	11.7	11.3	10.9	10.5	10.8
168	11.1	11.3	11.5	11.3	11.1	10.7	10.4	10.5
192	10.6	10.8	11.0	11.0	11.0	11.5	12.1	12.2
216	12.3	12.3	12.4	12.3	12.2	12.1	12.0	12.1
240	12.3	12.3	12.3	12.3	12.4	12.3	12.2	12.2
264	12.2	12.1	12.0	12.0	12.0	12.1	12.3	11.9
288	11.6	11.9	12.3	11.9	11.5	11.3	11.1	10.7
312	10.5	10.7	10.9	10.6	10.3	10.2	10.0	10.2
336	10.4	9.9	9.4	9.3	9.2	9.4	9.5	9.5

DEPTH	2174.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	10.4	10.5	10.7	10.0	9.5	9.6	9.8	9.6
24	9.6	10.1	10.7	10.8	10.9	10.8	10.8	10.1
48	9.6	9.8	10.0	10.1	10.2	10.7	11.3	11.3
72	11.4	11.1	10.8	11.1	11.6	11.8	12.0	11.2
96	10.5	10.9	11.3	11.3	11.3	11.1	11.0	11.1
120	11.3	10.9	10.6	10.9	11.4	11.3	11.3	11.4
144	11.4	11.4	11.4	11.7	12.0	12.0	12.0	12.1
168	12.2	12.0	11.8	11.9	12.1	12.0	12.1	11.9
192	11.7	11.8	12.0	11.9	11.9	11.7	11.4	11.0
216	10.7	11.0	11.4	10.9	10.5	10.7	11.0	11.1
240	11.1	11.2	11.3	11.4	11.4	11.4	11.4	11.4
264	11.4	11.4	11.4	11.7	12.1	12.1	12.1	12.1
288	12.2	12.3	12.3	12.0	11.8	11.9	12.0	11.8
312	11.7	11.4	11.2	11.5	11.9	11.7	11.4	11.6
336	11.8	11.4	11.1	10.7	10.3	10.3	10.4	10.4

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CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2176.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	10.0	10.2	10.3	9.8	9.4	9.5	9.7	9.5
24	9.4	9.7	10.1	9.9	9.8	10.0	10.3	10.5
48	10.8	10.7	10.7	10.6	10.6	10.2	9.8	10.0
72	10.1	10.5	11.0	10.8	10.7	10.7	10.8	11.3
96	11.8	11.7	11.6	11.1	10.7	10.5	10.2	10.6
120	11.0	11.0	11.1	10.6	10.1	10.2	10.2	10.7
144	11.3	11.6	11.9	12.4	13.0	12.7	12.4	12.4
168	12.5	12.5	12.6	12.7	12.8	12.7	12.6	12.5
192	12.5	12.6	12.7	12.6	12.5	11.9	11.4	11.6
216	11.9	11.7	11.7	12.0	12.4	12.4	12.4	12.5
240	12.6	12.7	12.7	12.6	12.6	12.5	12.5	12.6
264	12.7	12.6	12.5	12.6	12.7	12.6	12.6	12.6
288	12.6	12.6	12.7	12.3	12.1	12.1	12.3	12.3
312	12.5	12.6	12.9	12.8	12.7	12.1	11.6	10.9
336	10.3	10.2	10.2	10.5	10.8	10.9	10.9	10.4

DEPTH	2178.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	10.5	10.9	11.3	10.7	10.2	10.0	9.8	9.8
24	9.8	10.1	10.6	10.6	10.6	10.4	10.3	10.1
48	10.0	10.3	10.7	10.4	10.2	10.1	10.1	10.3
72	10.5	10.4	10.3	10.4	10.5	10.6	10.7	10.8
96	11.0	11.1	11.1	11.6	12.1	12.2	12.4	12.7
120	13.1	12.9	12.8	12.7	12.7	12.5	12.3	12.5
144	12.7	12.8	12.8	12.4	12.1	12.4	12.7	12.7
168	12.6	12.7	12.7	12.8	12.9	12.9	12.8	12.7
192	12.7	12.8	13.0	12.7	12.4	12.8	13.2	13.0
216	12.8	12.8	12.8	12.8	12.8	12.8	12.9	12.9
240	12.9	13.1	13.3	13.4	13.6	13.1	12.6	12.6
264	12.7	12.7	12.6	12.9	13.1	13.0	12.9	12.0
288	11.4	11.4	11.4	11.4	11.4	11.5	11.6	11.6
312	11.6	11.6	11.6	11.3	11.1	10.8	10.7	10.6
336	10.5	10.5	10.5	10.4	10.4	10.4	10.4	10.4

DEPTH	2180.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	10.7	10.6	10.6	10.6	10.6	10.4	10.3	10.2
24	10.1	10.2	10.4	10.3	10.2	10.2	10.3	10.3
48	10.4	10.2	10.0	10.0	10.1	10.0	10.0	10.0
72	10.1	10.2	10.3	10.4	10.7	10.6	10.6	10.5
96	10.5	10.5	10.6	10.9	11.2	11.2	11.2	11.2
120	11.2	11.2	11.3	11.3	11.3	11.3	11.3	11.3
144	11.3	12.1	13.0	13.0	13.1	12.7	12.3	12.1
168	12.0	12.4	12.9	12.9	12.9	12.1	11.5	11.3
192	11.2	11.0	10.9	11.8	13.0	12.9	12.9	13.0
216	13.1	13.0	12.8	13.0	13.2	13.2	13.3	13.1
240	13.0	12.9	12.9	12.9	12.9	12.9	12.9	12.8
264	12.7	12.9	13.1	12.9	12.6	12.9	13.2	13.0
288	12.9	13.1	13.3	12.5	11.9	12.1	12.2	12.1
312	12.0	11.9	11.9	12.0	12.2	12.1	12.1	11.6
336	11.2	10.8	10.4	10.4	10.5	10.7	10.8	10.8

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2182.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	11.0	11.0	11.1	10.6	10.1	10.1	10.1	10.1
24	10.0	10.0	10.0	10.2	10.6	10.5	10.5	10.4
48	10.4	10.3	10.2	10.1	10.0	10.2	10.4	10.3
72	10.2	10.3	10.4	10.6	10.7	10.8	10.8	10.7
96	10.7	10.6	10.6	10.5	10.4	11.0	11.7	12.0
120	12.2	12.2	12.2	12.6	13.1	12.9	12.9	12.9
144	12.9	12.9	13.0	13.1	13.3	13.3	13.4	13.3
168	13.2	13.2	13.3	13.1	12.9	13.0	13.2	13.2
192	13.3	13.3	13.4	13.3	13.3	13.2	13.2	13.2
216	13.2	12.8	12.6	13.0	13.5	13.5	13.6	13.4
240	13.3	13.4	13.5	13.4	13.3	13.4	13.5	13.6
264	13.7	13.5	13.4	13.3	13.3	13.1	12.9	12.8
288	12.9	12.7	12.6	12.6	12.6	12.6	12.6	12.5
312	12.4	12.5	12.6	12.1	11.6	11.7	11.9	11.7
336	11.6	11.4	11.2	10.9	10.7	10.8	11.0	11.0

DEPTH	2184.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	11.6	11.6	11.6	10.9	10.2	10.2	10.3	10.2
24	10.1	10.1	10.1	10.1	10.1	10.0	9.9	9.9
48	10.0	10.3	10.7	10.6	10.5	10.3	10.1	10.2
72	10.4	10.3	10.3	10.5	10.8	11.0	11.2	11.0
96	10.9	11.0	11.2	11.2	11.2	11.2	11.2	11.6
120	11.9	11.7	11.5	12.1	12.9	13.1	13.3	13.4
144	13.4	13.2	13.0	12.8	12.7	13.0	13.4	13.4
168	13.4	13.5	13.8	13.6	13.4	13.3	13.2	13.4
192	13.6	13.5	13.4	13.5	13.6	13.3	13.1	13.1
216	13.1	13.2	13.3	13.5	13.7	14.2	14.7	14.0
240	13.4	13.4	13.4	13.4	13.4	13.3	13.2	13.1
264	13.1	13.1	13.1	13.1	13.0	13.3	13.6	13.2
288	12.9	12.9	12.9	12.5	12.2	12.3	12.5	12.1
312	11.9	12.1	12.3	12.3	12.2	12.0	11.8	11.8
336	11.9	11.8	11.9	11.9	11.9	12.0	12.0	11.8

DEPTH	2186.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	10.7	10.4	10.1	10.1	10.0	10.0	10.0	9.9
24	9.9	10.0	10.1	10.0	9.9	9.8	9.7	9.5
48	9.4	9.5	9.6	9.6	9.6	9.6	9.6	9.8
72	10.0	10.0	10.0	10.0	10.1	10.1	10.2	10.1
96	10.1	10.1	10.1	10.2	10.2	10.5	10.9	11.4
120	11.9	12.2	12.5	12.6	12.7	12.7	12.9	12.9
144	13.1	12.9	12.8	12.4	12.0	12.5	13.0	12.7
168	12.5	12.5	12.6	12.7	12.9	12.8	12.8	12.7
192	12.6	12.8	13.1	13.1	13.2	13.0	12.8	12.7
216	12.6	12.6	12.6	12.5	12.6	12.6	12.6	12.8
240	12.9	12.9	12.8	12.9	13.0	12.4	11.9	12.3
264	12.7	12.7	12.7	12.8	12.9	12.9	12.9	12.8
288	12.8	12.8	12.8	12.0	11.4	11.3	11.2	11.3
312	11.5	11.4	11.3	11.4	11.6	11.5	11.4	11.3
336	11.3	10.8	10.4	10.4	10.5	10.4	10.4	10.5

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WALL RANGES VS DEPTH

DEPTH	2188.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	11.2	10.9	10.6	10.8	11.1	10.6	10.3	10.2
24	10.1	10.1	10.0	10.2	10.3	10.3	10.4	10.3
48	10.3	10.2	10.2	10.2	10.2	10.2	10.3	10.1
72	10.0	10.1	10.2	10.5	10.8	10.3	9.9	9.9
96	10.0	9.6	9.4	9.4	9.4	9.4	9.4	9.5
120	9.6	10.0	10.5	10.9	11.2	11.4	11.7	12.4
144	13.4	13.2	13.2	13.0	12.9	12.6	12.4	12.5
168	12.5	12.9	13.4	13.4	13.4	12.9	12.6	12.6
192	12.6	12.1	11.6	11.1	10.7	10.7	10.7	10.7
216	10.8	10.9	11.1	11.0	11.0	11.0	11.1	11.0
240	11.0	10.9	10.9	11.2	11.5	11.7	11.9	11.4
264	11.0	10.8	10.7	10.6	10.6	10.5	10.5	10.3
288	10.1	10.3	10.5	10.7	11.0	11.1	11.2	11.1
312	11.0	10.9	10.8	10.6	10.5	10.4	10.5	10.6
336	10.8	10.9	11.1	10.8	10.7	10.8	11.1	11.1

DEPTH	2194.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	10.8	11.0	11.2	11.4	11.7	11.7	11.8	11.5
24	11.2	11.1	11.1	10.9	10.7	10.5	10.3	10.4
48	10.5	10.4	10.3	10.3	10.3	10.3	10.2	10.4
72	10.6	10.7	10.8	11.0	11.3	11.3	11.4	11.2
96	11.0	10.6	10.3	10.6	10.9	11.5	12.1	12.2
120	12.3	12.6	12.9	12.4	12.0	12.4	12.9	12.3
144	11.8	11.8	11.9	12.0	12.2	11.8	11.5	11.0
168	10.6	10.9	11.3	11.9	12.5	12.9	13.3	13.1
192	12.9	13.2	13.4	13.1	12.9	12.4	12.0	12.7
216	13.4	13.4	13.5	13.8	14.1	14.2	14.4	13.9
240	13.4	13.5	13.7	13.5	13.4	12.8	12.2	11.4
264	10.7	11.0	11.2	12.2	13.4	12.9	12.4	12.4
288	12.3	12.3	12.4	12.1	12.0	12.0	12.0	12.2
312	12.4	12.7	13.0	11.9	11.0	11.1	11.2	11.3
336	11.4	11.4	11.4	11.3	11.3	11.3	11.3	11.0

DEPTH	2196.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	10.8	10.7	10.6	10.5	10.5	10.3	10.3	10.1
24	10.0	10.1	10.3	10.3	10.4	10.4	10.3	10.2
48	10.2	10.3	10.4	10.3	10.3	10.3	10.3	10.7
72	11.1	10.5	10.0	10.2	10.4	10.6	10.8	11.2
96	11.7	11.6	11.6	11.7	11.8	11.8	11.9	11.6
120	11.4	11.1	10.9	11.2	11.5	11.5	11.5	11.5
144	11.6	11.4	11.2	11.6	12.2	12.0	11.9	11.8
168	11.7	11.4	11.1	11.0	11.0	10.8	10.7	10.9
192	11.1	11.1	11.0	11.0	11.0	11.1	11.1	11.5
216	11.9	11.8	11.7	11.8	12.0	11.9	11.8	11.9
240	12.0	11.9	11.7	11.5	11.4	11.6	11.9	12.0
264	12.1	12.1	12.2	11.9	11.7	11.6	11.7	12.0
288	12.3	11.8	11.3	11.3	11.3	11.1	11.0	11.0
312	11.0	11.4	11.7	11.8	11.9	11.7	11.6	11.4
336	11.2	11.0	10.9	10.4	10.0	9.9	10.0	10.3

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WALL RANGES VS DEPTH

DEPTH	2198.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	10.9	10.9	10.9	10.4	10.0	9.8	9.7	9.6
24	9.6	10.2	10.8	10.8	10.8	10.5	10.3	10.2
48	10.0	10.4	10.9	10.3	9.8	10.2	10.7	10.4
72	10.1	10.0	9.8	10.0	10.3	10.6	11.0	11.0
96	10.9	10.5	10.1	10.2	10.3	10.3	10.3	10.6
120	10.9	11.4	11.9	11.9	11.8	11.4	11.0	11.2
144	11.5	11.3	11.1	11.3	11.6	11.5	11.4	11.4
168	11.5	11.5	11.5	11.2	11.0	10.4	9.8	10.0
192	10.2	10.4	10.6	11.0	11.5	11.4	11.4	11.3
216	11.3	11.3	11.3	11.2	11.1	10.9	10.7	10.5
240	10.4	10.7	11.0	10.7	10.4	10.7	11.0	11.1
264	11.2	10.6	10.1	10.1	10.0	10.3	10.6	10.1
288	9.7	9.6	9.6	10.1	10.7	10.8	11.0	11.0
312	11.0	10.8	10.6	10.9	11.2	10.8	10.5	10.7
336	11.0	11.2	11.4	11.0	10.7	10.4	10.2	10.5

DEPTH	2202.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	11.4	11.3	11.3	11.3	11.4	11.0	10.7	10.7
24	10.8	10.8	10.9	10.9	10.9	11.0	11.2	11.1
48	11.1	11.1	11.1	11.2	11.4	11.4	11.4	11.2
72	11.0	11.0	11.0	11.1	11.2	12.1	13.2	13.2
96	13.2	13.1	13.1	13.2	13.3	13.3	13.3	13.2
120	13.1	13.1	13.1	13.2	13.3	12.2	11.2	11.4
144	11.5	11.2	11.0	11.0	11.0	11.0	11.1	11.2
168	11.4	11.0	10.7	10.6	10.4	10.5	10.6	10.7
192	10.8	10.9	11.1	10.9	10.8	11.1	11.4	11.0
216	10.6	11.0	11.3	11.5	11.6	11.2	10.8	11.1
240	11.5	11.1	10.8	10.9	11.1	10.9	10.7	10.4
264	10.1	10.4	10.9	11.0	11.2	11.2	11.2	11.3
288	11.4	11.3	11.3	10.5	9.8	9.7	9.6	9.8
312	10.0	10.0	10.1	10.4	10.8	10.9	11.0	10.8
336	10.7	10.7	10.7	10.9	11.2	10.8	10.5	10.9

DEPTH	2204.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	10.8	10.6	10.5	10.2	10.0	10.0	10.0	9.9
24	9.9	10.4	11.0	10.7	10.5	10.7	10.8	10.5
48	10.2	10.0	9.8	9.8	9.9	9.9	9.9	10.2
72	10.7	11.0	11.5	11.6	11.8	11.7	11.6	11.7
96	11.9	11.8	11.9	11.6	11.4	11.5	11.6	11.4
120	11.2	11.2	11.2	11.3	11.4	11.5	11.6	11.6
144	11.6	11.6	11.6	11.1	10.6	10.7	10.8	10.7
168	10.7	10.1	9.7	9.7	9.8	10.0	10.3	10.0
192	9.8	10.1	10.5	10.3	10.2	10.1	10.0	10.6
216	11.3	11.1	10.9	10.6	10.3	10.5	10.6	10.3
240	10.0	10.2	10.3	9.9	9.6	9.6	9.7	9.8
264	9.9	10.0	10.1	10.0	9.9	9.9	9.8	9.8
288	9.8	9.9	10.1	9.9	9.7	9.8	10.0	9.8
312	9.8	9.7	9.7	9.8	10.0	10.1	10.2	10.0
336	9.9	9.9	10.0	10.1	10.2	10.2	10.2	10.5

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WALL RANGES VS DEPTH

DEPTH	2210.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	16.0	15.8	15.6	15.7	15.9	14.4	13.2	13.2
24	13.2	13.0	12.8	12.9	13.0	13.1	13.2	12.7
48	12.4	12.8	13.2	13.6	14.0	14.2	14.3	14.2
72	14.1	14.5	14.9	14.8	14.7	14.9	15.2	14.8
96	14.5	15.0	15.6	15.6	15.6	15.2	14.8	15.2
120	15.6	15.1	14.7	15.0	15.4	15.1	14.9	15.2
144	15.5	15.7	15.9	15.6	15.4	15.0	14.6	15.1
168	15.7	15.6	15.6	15.6	15.6	15.4	15.3	15.6
192	16.1	15.9	15.8	15.8	15.8	16.0	16.3	16.5
216	16.6	16.1	15.7	15.8	15.8	16.0	16.3	15.8
240	15.3	15.7	16.2	16.0	15.8	16.0	16.3	15.7
264	15.3	15.4	15.6	16.0	16.5	16.1	15.8	15.6
288	15.4	15.5	15.6	15.2	14.9	14.9	15.0	14.6
312	14.3	14.9	15.6	15.3	15.1	14.9	14.8	15.3
336	15.9	15.8	15.8	15.6	15.5	15.6	15.7	15.8

DEPTH	2212.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	14.4	14.5	14.6	14.3	14.0	13.7	13.5	13.7
24	13.9	13.9	13.8	14.3	14.8	14.2	13.7	13.5
48	13.4	13.6	14.0	13.6	13.4	13.5	13.7	13.6
72	13.6	13.8	14.1	14.2	14.3	14.1	14.0	13.7
96	13.6	14.0	14.5	14.4	14.3	14.4	14.6	15.0
120	15.4	15.0	14.6	14.8	15.0	14.8	14.6	14.6
144	14.5	15.1	15.8	15.7	15.7	16.1	16.5	16.9
168	17.3	16.6	16.1	16.2	16.4	16.4	16.5	16.6
192	16.7	16.9	17.1	16.9	16.7	16.6	16.6	16.9
216	17.2	16.6	16.0	16.0	16.0	15.8	15.6	15.9
240	16.3	16.4	16.7	16.9	17.3	17.0	16.8	16.7
264	16.6	16.9	17.2	16.9	16.6	16.0	15.5	15.6
288	15.7	15.7	15.7	15.8	16.0	15.4	14.9	15.3
312	15.7	15.4	15.2	15.5	15.8	14.9	14.2	14.2
336	14.1	14.2	14.3	14.4	14.6	14.3	14.1	14.2

DEPTH	2214.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	15.2	14.2	13.4	13.5	13.7	14.1	14.7	14.0
24	13.4	13.4	13.4	13.3	13.3	13.3	13.4	13.5
48	13.7	13.5	13.4	13.4	13.4	13.6	14.0	14.2
72	14.6	14.9	15.3	15.2	15.2	14.9	14.6	14.3
96	14.0	13.8	13.6	13.8	14.1	14.2	14.4	14.3
120	14.2	14.3	14.5	15.1	15.7	15.4	15.2	15.6
144	16.1	16.3	16.5	16.2	16.0	16.1	16.3	16.7
168	17.0	17.1	17.3	17.1	16.9	17.0	17.2	17.2
192	17.3	17.2	17.1	17.0	16.9	16.7	16.6	16.7
216	16.8	16.3	15.8	15.7	15.6	15.7	15.8	15.6
240	15.3	15.1	14.9	16.0	17.3	17.2	17.1	17.0
264	16.9	16.7	16.6	16.9	17.1	16.9	16.7	16.5
288	16.3	16.3	16.4	16.2	16.0	16.2	16.6	16.1
312	15.8	15.6	15.4	15.2	15.1	14.7	14.4	14.7
336	15.1	14.9	14.8	14.9	15.1	15.1	15.1	15.1

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WALL RANGES VS DEPTH

DEPTH	2216.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	14.8	14.9	15.0	14.8	14.6	14.1	13.6	13.6
24	13.6	13.7	13.9	13.5	13.2	13.4	13.6	13.5
48	13.5	13.6	13.7	13.6	13.5	13.5	13.6	13.7
72	13.9	13.9	13.9	13.9	14.0	13.9	13.9	13.7
96	13.5	14.0	14.5	14.4	14.4	14.1	13.8	13.6
120	13.5	14.2	14.9	14.7	14.6	14.9	15.3	15.3
144	15.4	15.4	15.5	15.6	15.7	16.0	16.4	16.4
168	16.4	16.6	16.9	16.8	16.8	16.8	16.8	16.8
192	16.9	16.1	15.5	15.4	15.3	15.4	15.5	15.6
216	15.9	16.3	16.8	16.8	16.9	16.8	16.9	16.8
240	16.8	16.7	16.5	16.1	15.8	16.3	16.8	16.9
264	17.0	16.4	16.0	16.0	16.1	15.2	14.4	14.7
288	15.1	15.3	15.5	16.0	16.6	15.8	15.1	15.2
312	15.4	15.3	15.2	15.3	15.3	15.4	15.5	15.2
336	15.0	14.9	14.9	14.5	14.1	14.5	15.0	14.9

DEPTH	2218.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	13.4	13.2	13.0	13.4	13.9	13.9	13.9	13.5
24	13.2	13.3	13.4	13.0	12.6	13.1	13.6	13.7
48	13.8	13.5	13.2	13.3	13.5	13.6	13.7	13.5
72	13.4	13.5	13.6	13.7	13.8	13.8	13.9	13.6
96	13.4	13.6	13.9	14.4	14.9	14.8	14.9	14.6
120	14.4	15.0	15.6	15.6	15.7	15.9	16.1	16.1
144	16.1	15.9	15.7	15.6	15.6	15.6	15.7	15.7
168	15.7	16.0	16.3	16.8	17.3	16.3	15.5	15.7
192	15.9	16.2	16.5	16.6	16.7	16.3	15.9	15.8
216	15.7	15.6	15.4	15.6	15.9	15.4	15.0	15.3
240	15.7	15.4	15.1	14.9	14.7	14.6	14.4	14.5
264	14.6	15.5	16.7	15.6	14.7	14.5	14.4	14.8
288	15.2	15.1	15.0	14.9	14.9	15.3	15.8	15.3
312	14.8	14.9	15.1	14.8	14.6	14.4	14.2	14.6
336	15.0	14.9	14.9	14.4	14.1	13.7	13.5	13.4

DEPTH	2220.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	15.7	15.5	15.3	15.1	14.9	15.0	15.1	15.0
24	14.9	14.9	14.9	14.2	13.6	13.3	13.0	13.4
48	13.8	13.8	13.9	13.7	13.6	13.8	14.0	13.7
72	13.5	13.6	13.6	13.6	13.6	13.7	13.9	13.8
96	13.9	13.7	13.6	13.5	13.5	13.5	13.4	13.9
120	14.4	14.4	14.5	15.2	16.0	15.4	14.8	15.1
144	15.4	15.7	16.0	16.1	16.2	16.3	16.4	16.3
168	16.2	16.5	16.8	16.8	16.7	17.0	17.3	16.7
192	16.2	16.3	16.4	16.2	16.1	16.2	16.4	16.3
216	16.2	16.3	16.4	16.3	16.2	16.5	16.9	16.7
240	16.5	16.3	16.1	16.2	16.3	16.4	16.4	16.4
264	16.5	16.4	16.4	16.4	16.4	16.3	16.3	16.0
288	15.8	15.6	15.6	15.5	15.5	15.3	15.1	15.1
312	15.2	14.9	14.8	14.8	14.8	14.9	15.0	15.0
336	15.1	15.0	15.0	15.0	15.0	14.9	14.8	15.2

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2222.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	14.9	15.2	15.4	14.5	13.6	13.5	13.4	13.5
24	13.5	13.7	13.8	13.6	13.3	13.2	13.1	13.6
48	14.2	13.8	13.4	13.8	14.2	14.1	14.0	14.1
72	14.2	14.1	14.1	14.0	14.0	13.8	13.7	14.0
96	14.3	14.2	14.2	14.7	15.3	15.0	14.8	15.0
120	15.2	15.2	15.3	15.3	15.4	15.5	15.6	16.1
144	16.7	16.8	17.0	17.0	17.2	16.9	16.7	16.7
168	16.8	16.8	16.9	16.9	17.0	16.7	16.3	16.6
192	17.0	16.9	16.9	16.9	16.9	16.6	16.3	16.5
216	16.7	16.8	16.9	16.9	16.9	16.9	17.0	17.0
240	17.0	16.9	16.8	16.8	16.9	16.8	16.9	16.9
264	17.0	17.0	17.1	16.6	16.3	16.2	16.2	16.2
288	16.2	16.4	16.6	16.4	16.2	15.9	15.8	15.8
312	15.8	15.8	15.8	15.8	15.9	15.9	15.9	15.8
336	15.7	14.9	14.2	14.0	13.8	14.3	15.0	14.9

DEPTH	2224.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	14.1	14.0	13.9	14.1	14.4	14.5	14.6	14.4
24	14.1	13.8	13.4	13.3	13.3	13.7	14.3	13.9
48	13.6	13.6	13.6	13.6	13.7	13.7	13.8	13.8
72	13.8	13.7	13.7	13.7	13.8	13.8	13.9	14.1
96	14.3	14.1	14.0	14.1	14.2	15.0	15.9	15.0
120	14.3	14.6	14.9	15.2	15.6	15.2	14.8	14.9
144	15.0	15.0	15.1	16.0	17.2	17.2	17.3	17.7
168	18.3	17.5	16.8	17.0	17.2	17.2	17.2	17.5
192	17.9	17.0	16.2	16.4	16.7	16.5	16.4	16.8
216	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.1
240	17.1	17.1	17.2	17.5	17.9	17.8	17.7	17.3
264	16.9	17.0	17.2	17.1	17.1	16.6	16.3	16.2
288	16.3	16.2	16.3	16.2	16.2	16.2	16.3	15.9
312	15.7	15.7	15.8	16.1	16.3	16.0	15.8	15.8
336	15.8	15.6	15.4	15.0	14.6	14.4	14.1	14.1

DEPTH	2226.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	12.9	13.0	13.1	12.7	12.3	12.5	12.9	12.8
24	12.8	12.8	12.8	12.9	13.0	13.1	13.3	13.7
48	14.3	13.7	13.1	13.3	13.5	13.8	14.1	13.6
72	13.3	13.4	13.6	13.1	12.6	13.0	13.5	13.9
96	14.4	13.8	13.2	13.2	13.1	13.0	13.0	13.0
120	13.1	13.1	13.1	13.1	13.1	13.0	13.0	14.4
144	16.1	16.3	16.6	16.4	16.2	16.8	17.4	17.3
168	17.3	17.4	17.6	17.2	16.9	17.0	17.0	16.9
192	16.9	16.7	16.6	16.7	16.9	16.8	16.8	16.7
216	16.6	17.0	17.5	17.5	17.6	17.7	17.8	17.4
240	17.0	17.1	17.4	17.0	16.7	17.0	17.4	17.3
264	17.1	16.8	16.6	16.9	17.2	17.2	17.1	17.1
288	17.1	17.0	17.1	17.2	17.3	17.1	16.9	16.2
312	15.6	15.0	14.4	14.0	13.7	14.1	14.5	13.6
336	12.9	12.6	12.5	12.5	12.5	12.7	12.9	12.9

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CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2230.0		TILT	0		VOS	5973.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.5	5.4	5.3	5.3	5.3	5.3	5.3	5.3
24	5.3	5.1	4.9	5.0	5.1	5.2	5.3	5.3
48	5.3	5.3	5.3	5.2	5.1	5.1	5.1	5.0
72	4.9	4.7	4.6	4.6	4.6	4.8	5.0	5.1
96	5.2	5.2	5.2	5.1	5.0	4.8	4.7	4.8
120	4.9	4.9	4.9	4.7	4.6	4.7	4.8	4.8
144	4.8	5.0	5.3	5.1	4.9	5.1	5.3	5.2
168	5.2	5.3	5.4	5.3	5.2	5.0	4.9	4.9
192	5.0	4.9	4.8	4.7	4.6	4.7	4.7	4.9
216	5.1	4.9	4.8	4.8	4.8	4.8	4.8	4.9
240	5.1	5.1	5.2	5.2	5.1	4.9	4.7	4.8
264	5.0	5.1	5.2	5.3	5.4	5.4	5.4	5.5
288	5.5	5.4	5.4	5.4	5.4	5.6	5.7	5.6
312	5.5	5.5	5.5	5.5	5.5	5.4	5.3	5.3
336	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.3

DEPTH	2231.9		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2236.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2237.9		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2240.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2242.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

SONIC

CUSTOMER : Marathon Petroleum
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CAVERN :State LPG No. 4
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WALL RANGES VS DEPTH

DEPTH	2244.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2246.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2248.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2250.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2255.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2260.1		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2265.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2269.9		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2275.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

SONIC

CUSTOMER : Marathon Petroleum
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CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2278.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2279.9		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2282.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	25.4	25.5	25.6	25.2	24.8	25.8	26.8	27.4
24	28.2	28.7	29.3	29.2	29.2	29.4	29.6	29.5
48	29.4	29.2	29.1	29.3	29.5	29.3	29.2	29.2
72	29.3	29.1	28.9	29.1	29.5	29.4	29.4	29.6
96	29.8	29.8	29.9	29.6	29.4	29.3	29.2	29.5
120	30.0	29.3	28.7	28.8	29.0	29.2	29.5	29.5
144	29.5	29.4	29.4	29.1	29.0	29.1	29.4	29.3
168	29.3	29.4	29.6	29.5	29.5	29.1	28.8	29.1
192	29.4	29.0	28.6	27.8	27.2	27.6	28.1	28.2
216	28.4	28.3	28.2	28.2	28.2	28.1	28.0	27.8
240	27.6	27.8	28.0	27.6	27.3	26.7	26.1	26.6
264	27.2	26.2	25.3	25.3	25.4	25.3	25.3	25.1
288	24.9	25.2	25.6	25.5	25.4	25.6	25.8	25.7
312	25.8	25.3	25.0	25.1	25.3	25.3	25.4	24.9
336	24.6	24.6	24.7	24.6	24.7	24.7	24.8	25.1

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2283.9		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	25.2	25.3	25.4	25.3	25.4	25.7	26.2	26.5
24	26.9	26.9	26.9	27.3	27.8	28.4	29.1	29.0
48	29.0	28.9	28.9	28.9	29.0	29.2	29.4	29.2
72	29.0	29.3	29.6	29.6	29.6	29.4	29.4	29.6
96	29.8	29.0	28.3	28.2	28.2	28.5	29.0	29.0
120	29.1	29.2	29.4	29.2	29.1	29.4	29.9	29.8
144	29.9	29.5	29.3	29.2	29.3	29.4	29.7	29.6
168	29.6	29.9	30.3	30.0	29.9	29.7	29.6	29.5
192	29.6	29.5	29.5	29.4	29.5	29.5	29.6	29.4
216	29.4	29.0	28.6	28.6	28.7	28.9	29.1	29.2
240	29.4	28.2	27.2	27.9	28.7	27.5	26.5	26.1
264	25.9	25.7	25.6	26.0	26.5	25.7	25.1	25.2
288	25.4	25.2	25.1	25.1	25.1	25.1	25.1	25.1
312	25.3	25.4	25.5	25.0	24.6	24.6	24.7	24.7
336	24.7	24.6	24.7	24.7	24.8	25.5	26.2	25.7

DEPTH	2285.9		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	26.7	26.5	26.4	26.2	26.1	26.1	26.2	25.8
24	25.5	25.6	25.8	26.3	27.0	27.8	28.8	28.7
48	28.8	28.8	28.9	28.9	28.9	29.3	29.8	29.8
72	29.9	29.6	29.3	29.2	29.1	29.4	29.9	30.2
96	30.7	29.9	29.2	29.0	28.9	28.9	29.1	29.1
120	29.1	29.3	29.5	29.6	29.9	29.8	29.8	29.4
144	29.2	29.1	29.2	29.7	30.3	30.0	29.8	29.9
168	30.0	30.0	30.0	30.3	30.7	30.8	31.0	30.4
192	30.0	30.0	30.1	30.0	30.0	30.0	30.0	30.0
216	30.0	30.0	30.0	29.9	29.9	29.8	29.7	29.5
240	29.3	29.4	29.6	30.1	30.6	28.6	26.9	26.4
264	25.9	25.8	25.8	25.8	25.8	25.6	25.5	25.4
288	25.4	25.3	25.4	25.3	25.3	25.5	25.7	25.6
312	25.7	25.5	25.4	25.6	25.8	25.3	25.0	24.8
336	24.7	24.6	24.7	25.7	26.8	26.5	26.3	26.5

DEPTH	2287.9		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	25.6	25.8	26.1	26.0	26.0	26.2	26.5	26.4
24	26.5	26.4	26.5	26.5	26.6	27.4	28.3	28.3
48	28.3	28.4	28.6	28.7	28.9	29.1	29.3	29.3
72	29.4	29.6	30.0	29.9	30.0	29.9	30.0	29.9
96	30.0	29.3	28.8	28.5	28.2	28.4	28.6	28.8
120	29.0	29.3	29.6	29.5	29.6	29.7	29.9	29.9
144	30.0	29.9	29.9	30.1	30.3	30.1	29.9	29.8
168	29.9	30.1	30.4	30.4	30.5	30.3	30.3	30.2
192	30.2	30.0	30.0	30.1	30.3	29.6	29.1	29.0
216	28.9	28.9	28.9	28.4	28.1	28.0	28.0	28.0
240	28.0	27.7	27.5	27.4	27.4	27.1	26.8	26.1
264	25.5	26.0	26.5	26.3	26.1	26.0	26.0	26.0
288	26.0	25.6	25.2	25.3	25.4	25.4	25.4	25.5
312	25.5	25.5	25.5	25.5	25.5	25.6	25.8	26.0
336	26.1	25.8	25.5	25.5	25.6	25.6	25.8	25.6

SONIC

CUSTOMER : Marathon Petroleum
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CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2290.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	25.8	25.8	25.8	25.8	25.9	25.7	25.5	26.7
24	28.1	27.1	26.2	26.5	26.8	26.8	26.8	27.9
48	29.1	29.1	29.1	28.9	28.7	29.3	30.0	29.2
72	28.6	29.2	29.9	30.0	30.2	30.1	30.1	30.2
96	30.4	29.4	28.6	28.9	29.3	29.3	29.4	29.0
120	28.6	29.2	29.9	29.8	29.9	30.0	30.3	30.2
144	30.2	30.4	30.7	30.5	30.4	30.3	30.3	30.4
168	30.6	30.6	30.7	30.5	30.4	30.3	30.2	30.1
192	30.2	30.1	30.2	30.2	30.3	30.2	30.3	29.7
216	29.3	29.4	29.6	29.3	29.0	29.0	29.1	29.0
240	28.9	28.3	27.8	27.6	27.5	27.4	27.4	27.2
264	27.1	26.8	26.5	26.3	26.2	26.2	26.1	26.1
288	26.1	26.2	26.2	26.5	26.8	25.9	25.1	25.7
312	26.4	25.8	25.3	25.1	25.0	24.9	25.0	24.9
336	25.0	24.9	25.0	25.1	25.2	25.6	26.1	26.0

DEPTH	2291.9		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	25.8	25.8	25.9	25.8	25.9	25.8	25.9	26.0
24	26.2	26.2	26.3	26.2	26.2	27.4	28.8	28.9
48	29.1	29.0	29.0	28.9	28.9	29.7	30.7	30.6
72	30.7	30.2	29.8	30.2	30.7	30.6	30.6	30.6
96	30.7	30.6	30.7	30.4	30.3	30.2	30.3	29.5
120	28.8	29.3	30.0	30.3	30.7	30.2	29.9	29.5
144	29.2	29.9	30.7	30.5	30.4	30.2	30.2	30.1
168	30.2	30.2	30.3	30.3	30.4	30.3	30.3	30.3
192	30.3	30.3	30.3	30.5	30.7	30.5	30.3	30.3
216	30.3	30.5	30.7	30.6	30.7	30.7	30.8	30.7
240	30.7	30.5	30.4	30.3	30.4	30.4	30.5	30.5
264	30.7	30.6	30.7	30.1	29.6	30.1	30.7	30.6
288	30.7	30.6	30.7	28.4	26.5	25.9	25.5	25.5
312	25.5	25.5	25.5	25.5	25.6	25.6	25.6	25.2
336	24.9	25.2	25.6	25.6	25.8	25.8	25.8	25.8

DEPTH	2294.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	28.6	28.5	28.4	28.5	28.7	28.7	28.7	28.7
24	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7
48	28.7	28.7	28.7	28.6	28.6	28.6	28.7	28.6
72	28.6	28.6	28.7	28.6	28.6	28.5	28.6	28.6
96	28.7	29.0	29.3	29.0	28.7	28.7	28.7	28.5
120	28.4	28.5	28.7	28.6	28.5	28.6	28.7	28.6
144	28.6	28.6	28.6	28.6	28.7	28.7	28.7	28.7
168	28.7	28.9	29.1	28.9	28.8	28.7	28.7	28.7
192	28.7	28.7	28.7	28.7	28.8	29.1	29.5	29.4
216	29.4	29.0	28.7	29.3	30.0	29.3	28.7	28.7
240	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7
264	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8
288	28.8	28.6	28.5	29.3	30.2	30.1	30.0	29.3
312	28.7	28.7	28.8	28.7	28.6	28.6	28.7	28.7
336	28.7	28.7	28.7	28.6	28.5	28.6	28.7	28.6

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2296.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	27.3	27.0	26.7	26.7	26.7	26.7	26.7	26.7
24	26.7	26.7	26.7	27.7	28.9	28.8	28.9	28.9
48	29.0	27.8	26.7	26.7	26.7	26.7	26.7	26.6
72	26.6	26.6	26.7	26.7	26.7	26.7	26.7	26.7
96	26.7	26.7	26.7	26.7	26.7	26.6	26.7	26.1
120	25.7	26.1	26.7	26.7	26.7	26.7	26.7	26.6
144	26.6	26.6	26.7	26.7	26.7	26.7	26.7	26.7
168	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7
192	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7
216	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7
240	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7
264	26.7	26.7	26.7	26.7	26.8	26.7	26.7	25.6
288	24.7	24.8	24.9	24.5	24.2	24.1	24.1	24.0
312	24.0	23.7	23.5	23.8	24.1	24.1	24.3	24.4
336	24.5	24.6	24.7	25.6	26.7	26.6	26.6	26.9

DEPTH	2298.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	24.6	24.6	24.6	24.6	24.6	24.6	24.7	24.6
24	24.6	24.6	24.6	24.6	24.7	24.6	24.7	24.6
48	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6
72	24.6	24.6	24.6	24.6	24.6	24.6	24.7	24.6
96	24.7	24.6	24.6	24.6	24.6	24.6	24.6	24.6
120	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6
144	24.7	24.6	24.6	24.6	24.6	24.6	24.7	24.6
168	24.6	24.6	24.7	24.6	24.7	24.6	24.6	24.6
192	24.6	24.6	24.7	24.6	24.6	24.6	24.7	24.6
216	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6
240	24.7	24.6	24.6	24.6	24.7	24.6	24.7	24.6
264	24.7	24.6	24.7	24.4	24.3	24.4	24.6	24.6
288	24.6	24.6	24.6	24.6	24.7	24.6	24.6	24.6
312	24.7	24.6	24.6	24.6	24.7	24.6	24.6	24.6
336	24.7	24.6	24.7	24.6	24.7	24.6	24.7	24.6

DEPTH	2300.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
24	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
48	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
72	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
96	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
120	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
144	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
168	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
192	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
216	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
240	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
264	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
288	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
312	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
336	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2302.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
24	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
48	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
72	20.8	20.8	20.8	20.8	20.8	20.7	20.7	20.7
96	20.8	20.7	20.6	20.6	20.7	20.7	20.7	20.7
120	20.7	20.7	20.7	20.7	20.7	20.7	20.8	20.7
144	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
168	20.8	20.7	20.7	20.7	20.7	20.7	20.7	20.7
192	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
216	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
240	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
264	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
288	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7
312	20.7	20.7	20.7	20.7	20.7	20.7	20.8	20.7
336	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.7

DEPTH	2304.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
24	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
48	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
72	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
96	18.7	18.7	18.7	18.7	18.7	18.6	18.6	18.6
120	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
144	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
168	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
192	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
216	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
240	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
264	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
288	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
312	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
336	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7

DEPTH	2306.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	13.0	13.6	14.3	14.4	14.5	14.5	14.7	14.4
24	14.1	14.2	14.3	14.1	14.0	14.0	14.0	14.5
48	15.1	14.7	14.3	14.2	14.1	14.5	14.9	14.7
72	14.5	14.3	14.3	14.1	14.0	14.0	14.0	14.0
96	14.1	14.1	14.1	14.1	14.0	13.9	13.8	13.6
120	13.5	14.1	14.9	14.9	14.9	14.6	14.3	13.9
144	13.5	13.7	13.9	13.9	14.0	14.1	14.2	13.9
168	13.7	13.6	13.5	13.9	14.4	14.3	14.2	14.1
192	14.0	14.2	14.4	14.4	14.4	14.4	14.4	14.1
216	13.8	13.8	13.8	13.8	13.9	14.2	14.7	14.5
240	14.4	14.3	14.2	13.9	13.6	13.9	14.1	14.3
264	14.4	14.4	14.4	14.3	14.1	14.1	14.1	14.1
288	14.1	14.1	14.1	14.0	13.9	13.8	13.6	13.6
312	13.6	14.0	14.3	14.2	14.1	14.1	14.0	13.9
336	13.7	13.9	14.0	13.5	13.1	13.0	13.0	13.0

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2308.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
24	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
48	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
72	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
96	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
120	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
144	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
168	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
192	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
216	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
240	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
264	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
288	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
312	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
336	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

DEPTH	2310.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
24	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
48	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
72	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
96	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
120	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
144	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
168	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
192	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
216	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
240	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
264	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
288	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
312	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
336	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

DEPTH	2311.9		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
24	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
48	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
72	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
96	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
120	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
144	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
168	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
192	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
216	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
240	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
264	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
288	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
312	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
336	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2314.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2316.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2318.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2320.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2325.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2330.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	23.3	23.8	24.4	24.2	24.1	24.1	24.2	23.7
24	23.2	23.2	23.2	23.2	23.3	23.4	23.5	23.5
48	23.5	24.2	24.9	24.8	24.8	24.3	23.8	23.6
72	23.5	23.4	23.4	23.6	23.9	24.3	24.8	24.9
96	25.1	24.1	23.3	23.2	23.3	23.3	23.5	23.5
120	23.6	23.4	23.4	23.3	23.4	23.3	23.3	23.2
144	23.3	23.2	23.3	23.2	23.3	23.4	23.6	23.4
168	23.3	23.2	23.2	23.1	23.0	23.0	23.0	23.4
192	23.8	23.5	23.2	23.2	23.2	23.2	23.2	23.1
216	23.1	23.1	23.2	23.3	23.4	23.2	23.0	23.1
240	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.4
264	23.6	23.5	23.5	23.4	23.4	23.6	23.8	23.7
288	23.6	24.0	24.5	23.8	23.2	23.2	23.4	23.2
312	23.2	23.2	23.2	23.3	23.4	23.4	23.5	23.5
336	23.5	23.6	23.7	23.6	23.7	23.4	23.3	23.2

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2332.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	24.2	25.1	26.2	25.5	24.9	24.9	24.9	25.3
24	25.7	25.1	24.7	24.8	25.0	24.9	25.0	25.0
48	25.1	24.8	24.6	24.5	24.6	24.2	23.9	23.8
72	23.8	23.8	23.9	23.8	23.8	24.1	24.4	24.6
96	24.8	24.0	23.3	23.3	23.3	23.7	24.1	24.3
120	24.5	24.4	24.3	24.5	24.8	24.9	25.0	23.9
144	22.9	23.4	24.0	23.7	23.4	23.3	23.2	23.2
168	23.4	23.5	23.7	23.4	23.3	23.3	23.4	23.3
192	23.3	23.2	23.3	23.2	23.1	23.1	23.1	23.3
216	23.5	23.2	23.0	23.0	23.0	23.7	24.4	24.4
240	24.5	23.7	23.0	23.0	23.1	23.9	24.8	24.3
264	23.8	23.8	23.8	23.6	23.4	23.4	23.6	23.4
288	23.3	24.6	26.1	26.0	26.1	26.5	26.9	26.0
312	25.3	24.9	24.5	24.1	23.8	23.8	23.8	23.8
336	23.9	24.0	24.2	24.2	24.3	24.6	25.0	24.6

DEPTH	2334.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	24.1	23.7	23.4	23.1	23.0	22.8	22.7	22.7
24	22.7	22.2	21.9	22.6	23.4	23.6	23.9	24.0
48	24.2	23.8	23.4	23.3	23.2	22.9	22.7	22.2
72	21.9	21.8	21.7	21.6	21.6	22.3	23.0	23.2
96	23.4	22.9	22.5	22.3	22.1	22.3	22.5	22.5
120	22.5	22.2	22.0	21.8	21.7	21.6	21.6	21.6
144	21.6	21.6	21.7	21.6	21.6	21.7	21.8	21.7
168	21.6	21.8	22.0	21.4	20.8	21.8	23.0	22.2
192	21.6	21.5	21.6	22.5	23.6	23.6	23.6	23.6
216	23.6	23.7	23.8	23.7	23.7	26.4	29.8	30.1
240	30.4	27.0	24.3	24.0	23.8	23.5	23.3	23.1
264	23.0	23.0	23.0	23.2	23.4	23.6	23.8	23.6
288	23.4	23.5	23.7	24.2	24.7	23.6	22.8	22.8
312	23.0	23.5	24.1	24.1	24.3	24.3	24.4	23.9
336	23.4	23.8	24.3	23.7	23.2	23.7	24.2	24.1

DEPTH	2343.9		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2346.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2348.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2349.9		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

SONIC

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WALL RANGES VS DEPTH

DEPTH	2355.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2360.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2364.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2366.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
24	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
48	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
96	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
120	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
168	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
192	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
216	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
240	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
264	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
288	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
312	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
336	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

DEPTH	2368.1		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.5	6.5	6.6	6.6	6.6	6.6	6.7	6.6
24	6.5	6.6	6.7	7.2	7.7	7.1	6.6	6.8
48	7.1	7.1	7.0	6.9	6.8	7.1	7.4	6.9
72	6.5	6.9	7.3	6.9	6.6	7.1	7.8	7.1
96	6.6	6.6	6.6	6.5	6.5	6.9	7.4	7.7
120	8.1	7.7	7.4	7.6	7.8	7.3	6.9	6.9
144	7.0	7.4	7.8	7.2	6.7	6.9	7.2	6.9
168	6.7	8.1	10.2	10.6	11.0	10.9	10.8	10.5
192	10.1	10.2	10.3	10.7	11.2	11.1	11.2	11.0
216	10.8	11.1	11.4	10.9	10.5	10.8	11.2	10.9
240	10.7	11.0	11.4	8.5	6.8	6.7	6.6	6.5
264	6.5	7.3	8.4	7.5	6.8	6.8	6.7	6.6
288	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.6
312	6.7	6.6	6.6	6.5	6.5	7.3	8.4	7.5
336	6.8	6.8	6.7	6.6	6.5	6.5	6.6	6.5

DEPTH	2370.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2372.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2374.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2376.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

SONIC

CUSTOMER : Marathon Petroleum
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CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2378.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2380.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	20.6	7.5	19.9	7.2	19.2	7.3	19.5	7.4
24	20.0	7.7	20.5	7.5	19.0	7.4	19.0	8.7
48	18.6	18.7	18.8	18.8	18.8	18.9	18.9	18.8
72	18.8	18.7	18.8	18.7	18.6	18.8	19.1	19.0
96	18.9	18.9	18.9	19.2	19.5	19.2	18.9	18.9
120	18.9	18.9	18.9	18.7	18.5	18.7	18.8	18.7
144	18.5	18.5	18.5	18.5	18.6	18.6	18.7	19.8
168	21.2	21.3	21.6	21.6	21.7	21.3	20.9	20.8
192	20.7	21.1	21.5	21.6	21.8	21.5	21.3	20.4
216	19.7	20.1	20.6	21.0	21.5	21.5	21.5	20.7
240	19.9	20.0	20.1	20.0	19.9	19.9	19.9	20.0
264	20.2	20.3	20.4	20.0	19.6	20.0	7.9	7.9
288	20.5	7.8	20.3	7.8	19.4	7.8	20.4	7.8
312	21.2	7.8	21.0	7.5	20.1	7.3	19.1	7.0
336	19.4	6.9	18.7	7.2	19.4	7.1	20.1	7.4

DEPTH	2382.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	14.8	14.2	13.7	13.8	13.9	13.8	13.8	14.2
24	14.7	14.6	14.7	14.4	14.1	14.0	14.0	16.8
48	21.0	21.0	21.1	21.1	21.2	20.4	19.8	19.8
72	19.9	19.9	19.9	20.3	20.7	20.7	20.8	20.4
96	20.0	19.9	19.8	20.4	21.0	21.0	20.9	21.0
120	21.0	21.1	21.3	20.5	19.9	20.4	20.9	20.2
144	19.6	20.2	20.9	20.8	20.8	20.6	20.5	20.8
168	21.1	21.1	21.3	21.0	20.9	20.8	20.9	20.9
192	21.0	21.0	21.1	21.1	21.1	21.0	20.9	20.8
216	20.9	20.9	20.9	20.8	20.7	20.4	20.2	19.6
240	19.1	19.1	19.2	19.5	19.9	20.0	20.2	20.2
264	20.2	20.3	20.5	20.3	20.2	17.3	15.1	15.1
288	15.2	14.9	14.7	14.9	15.1	14.9	14.8	14.8
312	14.9	15.0	15.1	14.3	13.6	13.8	14.0	13.3
336	12.6	13.1	13.7	13.6	13.6	13.5	13.6	14.1

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WALL RANGES VS DEPTH

DEPTH	2384.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	13.6	13.5	13.5	13.7	14.0	13.8	13.7	13.7
24	13.8	14.2	14.6	15.4	16.4	16.6	16.9	17.4
48	18.0	18.0	18.0	18.2	18.5	18.3	18.1	18.7
72	19.3	19.9	20.6	20.0	19.5	19.3	19.2	18.0
96	17.0	17.0	17.1	17.3	17.6	17.8	18.0	18.2
120	18.5	18.3	18.1	18.1	18.1	18.7	19.5	19.4
144	19.4	19.4	19.4	19.9	20.6	20.6	20.6	20.7
168	20.8	20.8	20.9	20.8	20.8	20.7	20.7	20.7
192	20.6	20.5	20.4	20.6	20.9	20.8	20.7	20.3
216	19.9	19.9	19.9	20.3	20.7	20.8	20.9	20.9
240	20.9	20.6	20.4	20.3	20.2	20.2	20.2	17.9
264	20.6	19.9	14.3	18.2	14.1	16.1	14.3	15.0
288	14.5	14.9	14.3	15.0	14.7	14.7	14.3	14.4
312	13.9	14.5	14.2	14.0	13.8	13.7	13.6	13.5
336	13.7	13.5	13.7	13.8	13.5	13.4	13.5	13.6

DEPTH	2386.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	13.8	14.0	14.2	14.1	14.0	14.2	14.4	14.4
24	14.3	14.5	14.7	15.9	17.3	17.5	17.7	18.0
48	18.3	18.4	18.6	18.3	18.1	18.1	18.2	19.0
72	19.9	20.2	20.6	20.4	20.3	20.5	20.8	18.8
96	17.3	17.5	17.9	18.1	18.5	18.4	18.5	18.3
120	18.2	18.6	19.0	19.9	21.0	20.4	19.9	20.5
144	21.2	21.1	21.2	21.3	21.5	21.6	21.7	21.5
168	21.3	21.3	21.4	21.3	21.3	21.3	21.4	21.3
192	21.3	21.1	21.1	21.1	21.2	21.1	21.2	21.1
216	21.1	20.6	20.1	20.1	20.2	20.1	20.1	20.0
240	20.0	20.1	20.1	20.3	20.5	20.6	20.8	20.9
264	21.0	19.5	18.2	16.1	14.4	14.9	15.5	15.0
288	14.5	14.8	15.1	15.1	15.1	14.4	13.9	14.0
312	14.1	14.0	13.9	13.7	13.6	13.6	13.6	13.8
336	14.0	13.8	13.6	13.9	14.3	13.3	12.5	13.1

DEPTH	2388.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	13.8	14.1	14.4	14.2	14.1	14.0	14.0	13.9
24	14.0	14.1	14.3	14.4	14.6	14.5	14.4	14.3
48	14.2	14.2	14.3	16.6	20.0	20.7	21.4	21.4
72	21.4	21.5	21.7	21.4	21.1	21.2	21.3	21.2
96	21.0	21.1	21.3	21.3	21.4	21.4	21.5	21.5
120	21.5	21.5	21.6	21.5	21.4	21.5	21.7	21.6
144	21.6	21.6	21.7	21.5	21.4	21.6	21.9	21.6
168	21.4	21.5	21.6	21.5	21.3	21.1	21.0	21.1
192	21.3	21.2	21.3	21.5	21.7	21.4	21.1	20.6
216	20.1	20.1	20.2	20.1	20.1	20.6	21.3	20.7
240	20.2	19.8	19.5	19.9	20.5	20.1	19.8	20.1
264	20.6	20.2	14.3	14.5	14.9	14.9	15.0	14.8
288	14.7	14.7	14.7	14.4	14.0	14.1	14.1	14.1
312	14.1	14.1	14.1	14.0	14.0	13.9	13.8	13.9
336	14.0	13.9	14.0	13.8	13.7	13.8	13.9	13.8

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CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2390.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	13.3	13.9	14.7	14.2	13.7	13.7	13.6	13.4
24	13.3	13.8	14.4	14.3	14.2	14.1	14.0	14.8
48	15.9	15.8	15.8	17.8	20.5	20.2	19.9	19.7
72	19.6	19.8	20.1	19.9	19.7	20.5	21.3	20.3
96	19.4	17.6	16.1	16.0	16.0	17.6	19.7	20.0
120	20.4	20.6	20.8	20.7	20.7	20.3	19.9	20.4
144	21.1	20.8	20.6	20.3	20.1	20.9	21.7	21.2
168	20.7	21.0	21.3	21.5	21.8	21.8	21.8	21.8
192	21.7	21.7	21.6	21.8	22.0	21.3	20.7	20.3
216	20.0	19.9	19.9	20.1	20.2	19.9	19.7	19.9
240	20.1	20.0	20.0	20.2	20.5	20.6	20.6	20.7
264	20.8	20.9	21.0	21.1	21.2	17.4	14.7	14.2
288	13.7	12.7	11.9	13.1	14.7	14.5	14.4	14.1
312	13.8	13.8	13.8	13.8	13.8	13.7	13.7	13.6
336	13.5	13.5	13.6	13.7	13.8	13.6	13.4	13.3

DEPTH	2392.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	10.8	10.7	10.6	11.2	11.9	12.4	12.9	12.9
24	13.0	12.6	12.2	12.1	12.0	12.7	13.6	13.7
48	13.9	14.9	16.2	16.6	17.0	17.2	17.5	17.6
72	17.8	17.0	16.3	16.8	17.3	17.6	17.9	18.1
96	18.4	16.7	15.3	15.9	16.5	16.3	16.2	16.6
120	17.0	17.0	17.1	17.1	17.2	16.8	16.5	16.9
144	17.4	17.7	18.0	18.2	18.5	18.0	17.5	17.7
168	17.8	17.4	17.0	17.2	17.6	17.6	17.7	17.5
192	17.4	17.4	17.4	17.5	17.7	17.8	17.9	17.6
216	17.3	17.4	17.6	17.6	17.7	18.0	18.5	19.0
240	19.7	19.7	19.8	20.1	20.4	20.0	19.7	19.6
264	19.6	19.7	19.9	19.8	19.7	15.1	12.2	12.3
288	12.5	12.2	11.9	11.8	11.8	11.7	11.7	11.4
312	11.2	11.6	11.9	11.3	10.7	10.7	10.7	10.5
336	10.4	10.4	10.5	10.6	10.7	10.6	10.6	10.7

DEPTH	2394.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.2	9.2	9.3	9.3	9.5	9.6	9.7	10.1
24	10.5	10.3	10.2	10.0	9.8	9.8	9.9	9.6
48	9.4	11.1	13.5	13.6	13.8	14.3	14.9	15.0
72	15.1	14.9	14.7	14.7	14.8	15.0	15.3	15.2
96	15.1	15.0	15.0	14.6	14.2	14.5	14.9	14.8
120	14.8	14.8	14.8	14.7	14.6	14.7	14.8	14.9
144	15.1	15.2	15.3	15.2	15.2	15.4	15.6	15.4
168	15.2	15.5	15.8	15.9	16.0	15.5	15.1	15.2
192	15.4	15.5	15.7	15.9	16.1	15.8	15.6	15.9
216	16.2	15.8	15.6	15.6	15.6	16.2	16.9	17.4
240	17.9	17.9	18.0	14.3	12.0	11.9	11.9	11.9
264	12.0	12.1	12.4	12.2	12.1	10.7	9.6	9.1
288	8.6	9.0	9.4	9.2	8.9	9.4	10.0	9.9
312	9.8	9.8	9.9	9.7	9.6	9.5	9.4	9.3
336	9.2	9.0	8.8	8.9	9.0	9.1	9.1	9.1

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2396.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.5	9.4	9.4	9.5	9.7	9.3	9.1	9.4
24	9.9	9.5	9.2	9.2	9.1	9.8	10.6	11.0
48	11.4	11.1	10.8	11.0	11.3	11.2	11.1	12.2
72	13.5	12.8	12.2	12.4	12.7	12.7	12.8	12.6
96	12.4	11.9	11.4	11.1	10.8	11.1	11.4	11.2
120	11.1	11.1	11.1	12.1	13.4	13.4	13.5	13.1
144	12.8	13.2	13.6	14.5	15.4	14.9	14.5	14.8
168	15.3	15.3	15.4	15.3	15.4	15.2	15.2	15.3
192	15.5	15.4	15.4	15.1	14.7	14.6	14.4	14.3
216	14.2	14.2	14.3	14.4	14.6	14.4	14.3	14.6
240	15.0	14.7	14.5	13.2	12.1	12.0	11.9	12.0
264	12.1	12.1	12.1	12.0	12.0	12.2	12.4	12.3
288	8.5	8.6	12.2	8.6	12.2	8.7	12.2	9.0
312	12.4	9.2	12.6	9.2	11.8	9.2	11.9	9.1
336	10.0	8.8	9.1	8.6	9.1	8.6	9.1	8.7

DEPTH	2398.0		TILT	0		VOS	5974.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.5	8.3	8.2	8.4	8.7	8.3	8.0	8.3
24	8.6	8.2	7.9	8.4	9.0	8.4	7.9	8.5
48	9.1	8.7	8.4	8.1	7.9	7.9	8.0	8.1
72	8.3	8.6	9.0	8.5	8.1	8.1	8.2	8.1
96	8.0	8.0	8.1	8.3	8.7	8.7	8.8	8.4
120	8.0	8.3	8.7	8.8	8.9	8.5	8.1	8.6
144	9.1	8.5	7.9	8.4	9.1	8.5	8.0	8.2
168	8.4	10.5	14.2	14.2	14.2	14.1	14.0	14.1
192	14.1	14.3	14.5	13.7	12.9	12.3	11.8	11.6
216	11.5	11.6	11.8	11.7	11.7	11.6	11.6	11.5
240	11.4	11.8	12.3	12.1	12.0	10.1	8.7	8.5
264	8.3	8.7	9.2	8.7	8.2	8.7	9.2	8.7
288	8.3	8.2	8.2	8.1	8.1	8.0	8.0	8.2
312	8.4	8.5	8.7	8.7	8.8	8.8	8.9	8.9
336	8.9	8.6	8.4	8.3	8.2	8.2	8.1	8.3

DEPTH	2400.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.0	9.1	9.2	9.2	9.1	9.0	8.9	9.3
24	9.8	9.3	9.0	9.1	9.2	9.1	9.0	9.1
48	9.3	9.0	8.8	8.9	9.0	8.9	8.9	9.1
72	9.4	9.3	9.3	9.4	9.5	9.2	8.9	8.9
96	8.8	8.8	8.8	9.4	10.0	9.4	8.8	9.1
120	9.4	9.1	8.9	9.0	9.2	9.2	9.3	9.5
144	9.7	9.3	9.0	8.9	8.8	8.9	8.9	8.9
168	8.8	8.9	9.0	9.1	9.1	9.0	8.8	9.2
192	9.7	9.3	9.0	8.9	8.9	9.0	9.1	9.0
216	9.0	8.9	8.8	8.9	9.0	8.9	8.9	8.9
240	8.8	8.9	9.0	9.0	9.0	8.9	8.8	9.0
264	9.2	9.0	8.8	8.8	8.8	8.8	8.8	9.0
288	9.3	9.0	8.8	8.8	8.8	8.9	9.0	9.1
312	9.2	9.0	8.8	9.0	9.1	9.0	8.9	9.0
336	9.1	9.1	9.1	8.9	8.8	8.8	8.8	8.9

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2402.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	12.5	12.4	12.3	12.2	12.2	12.2	12.2	12.4
24	12.6	12.4	12.3	12.3	12.3	12.3	12.2	12.4
48	12.5	12.7	13.0	13.2	13.5	13.8	11.2	11.4
72	11.6	11.8	12.1	13.7	13.7	13.5	13.4	13.1
96	12.9	12.9	13.0	13.2	13.5	14.2	15.2	15.3
120	15.5	15.7	15.9	16.1	16.3	16.1	16.0	16.1
144	16.2	15.8	15.5	15.6	15.7	15.9	16.0	15.9
168	15.9	16.0	16.1	16.0	15.9	16.0	16.0	16.3
192	16.6	16.3	16.0	16.1	16.2	16.0	16.0	15.9
216	16.0	15.4	14.9	14.9	14.9	14.1	13.5	12.9
240	12.5	12.3	5.9	12.2	6.3	12.2	6.1	12.3
264	5.6	12.5	5.6	12.3	5.6	12.1	5.7	12.3
288	5.7	12.4	5.6	12.4	6.0	12.2	5.8	12.3
312	5.8	12.1	5.6	12.3	5.8	12.3	5.6	12.1
336	12.2	12.2	12.2	12.1	12.0	12.1	12.2	12.3

DEPTH	2404.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	15.8	15.5	15.2	15.1	15.1	15.2	15.4	15.3
24	15.3	15.3	15.4	15.3	15.2	15.2	15.3	15.4
48	15.6	16.2	16.8	17.3	13.3	18.4	13.3	13.5
72	13.3	14.1	13.5	17.8	13.3	17.6	13.5	17.2
96	13.6	16.8	13.3	16.8	13.6	18.8	13.3	21.2
120	13.2	21.8	13.3	22.7	13.4	22.6	13.6	22.3
144	13.5	22.0	10.8	21.9	22.2	22.4	22.7	22.6
168	22.5	22.6	22.8	22.5	22.3	22.5	22.8	22.9
192	23.1	22.8	22.6	22.8	23.0	22.7	22.5	22.5
216	22.5	21.5	20.7	20.5	20.4	19.0	17.9	16.8
240	15.9	15.5	9.5	15.3	10.3	15.4	10.3	15.4
264	10.0	15.7	9.5	15.5	9.5	15.2	10.2	15.3
288	9.0	15.6	9.8	15.8	8.9	15.4	8.4	15.2
312	9.4	15.1	9.7	15.3	10.1	15.4	9.8	15.1
336	15.1	15.1	15.1	15.1	15.1	15.2	15.3	15.5

DEPTH	2404.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	15.8	15.5	15.3	15.2	15.1	15.3	15.4	15.4
24	15.4	15.4	15.4	15.3	15.3	15.3	15.4	15.5
48	15.7	16.2	16.9	17.4	17.9	18.5	13.5	13.6
72	13.7	14.2	14.7	17.8	17.7	17.7	17.8	17.3
96	16.8	16.9	17.0	16.9	16.9	18.9	21.4	21.4
120	21.4	22.0	22.6	22.8	23.1	22.8	22.5	22.5
144	22.5	22.1	21.8	22.0	22.3	22.6	22.9	22.7
168	22.6	22.8	23.0	22.7	22.5	22.7	23.0	23.1
192	23.2	22.9	22.7	22.9	23.1	22.8	22.6	22.6
216	22.6	21.6	20.8	20.6	20.6	19.1	17.9	16.9
240	16.0	15.5	15.1	15.3	15.6	15.4	15.4	15.4
264	15.6	15.8	16.1	15.6	15.1	15.3	15.5	15.3
288	15.2	15.7	16.2	15.8	15.5	15.5	15.4	15.3
312	15.2	15.1	15.1	15.4	15.7	15.4	15.2	15.1
336	15.1	15.1	15.2	15.1	15.1	15.2	15.4	15.6

SONIC

CUSTOMER : Marathon Petroleum
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OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2406.1		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	16.5	16.6	16.7	16.7	16.7	16.2	15.8	16.2
24	16.7	16.7	16.8	16.8	16.8	16.4	16.0	15.8
48	15.6	15.9	16.4	16.6	17.0	16.4	15.9	16.0
72	16.1	16.8	17.6	17.5	17.5	17.1	16.8	18.0
96	19.5	21.0	22.7	22.1	21.6	22.5	23.7	23.3
120	23.1	23.2	23.4	23.3	23.3	23.4	23.6	23.4
144	23.4	23.3	23.4	23.4	23.4	23.4	23.4	23.4
168	23.4	23.4	23.5	23.2	23.0	23.0	23.0	23.2
192	23.4	23.5	23.7	23.6	23.6	23.6	23.6	23.6
216	23.7	22.3	21.1	21.1	21.1	21.1	21.1	21.3
240	21.6	18.3	16.0	15.8	15.6	15.7	15.8	16.2
264	16.6	16.0	15.5	15.8	16.1	16.2	16.4	15.8
288	15.3	15.3	15.4	15.3	15.4	15.3	15.3	15.3
312	15.4	15.3	15.3	15.2	15.1	15.3	15.6	15.4
336	15.4	15.6	15.8	15.8	15.8	15.9	16.0	16.2

DEPTH	2408.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	15.7	15.4	15.0	15.8	16.8	16.6	16.5	16.0
24	15.5	16.0	16.6	16.1	15.7	16.1	16.6	19.3
48	23.0	23.2	23.4	23.3	23.2	23.2	23.2	23.1
72	23.1	23.1	23.0	22.9	22.8	22.8	22.9	22.0
96	21.3	22.0	22.8	22.7	22.7	22.9	23.2	23.4
120	23.7	23.4	23.1	22.9	22.8	22.8	22.9	22.9
144	22.9	23.1	23.3	23.3	23.4	23.4	23.4	23.4
168	23.4	23.4	23.4	23.4	23.5	23.3	23.2	22.4
192	21.8	22.6	23.5	23.3	23.2	22.7	22.2	22.6
216	23.2	22.5	22.0	21.5	21.1	21.4	21.8	19.1
240	20.9	18.8	17.2	16.7	16.3	15.5	15.5	15.4
264	15.4	15.9	16.5	16.6	16.8	16.0	15.4	15.4
288	15.5	15.6	15.8	15.6	15.4	15.1	14.8	14.9
312	15.0	14.9	14.9	14.9	15.0	15.0	15.0	15.0
336	15.0	15.1	15.2	15.3	15.4	15.5	15.7	15.7

DEPTH	2410.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	13.6	14.4	15.3	15.4	15.7	15.5	15.4	14.6
24	14.0	14.9	15.8	16.1	16.4	18.9	22.3	22.4
48	22.5	22.7	22.9	22.7	22.5	22.3	22.2	22.1
72	22.1	22.2	22.4	22.8	23.3	23.4	23.5	23.4
96	23.4	23.0	22.7	23.3	24.1	23.1	22.2	22.4
120	22.6	22.5	22.4	22.7	23.0	23.0	23.0	23.0
144	23.0	23.2	23.6	23.5	23.5	23.0	22.5	22.9
168	23.4	23.2	23.1	23.1	23.1	23.0	23.0	23.0
192	23.0	22.7	22.3	22.3	22.3	22.7	23.2	23.2
216	23.2	22.3	21.5	21.5	21.6	20.5	12.6	19.3
240	20.3	19.2	18.5	17.8	17.1	16.8	12.4	16.8
264	13.5	16.8	15.7	15.4	15.2	15.5	15.8	15.5
288	15.2	15.2	15.3	14.4	13.6	13.6	13.6	13.6
312	13.6	13.5	13.5	13.6	13.7	13.6	13.6	13.4
336	13.3	13.6	14.0	13.8	13.7	14.2	14.7	14.1

SONIC

CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2412.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	13.3	13.2	13.2	13.2	13.3	13.3	13.3	14.1
24	14.9	14.9	14.9	15.4	16.0	16.8	17.7	17.7
48	17.7	18.3	19.0	19.6	20.3	20.3	20.3	20.2
72	20.1	20.4	20.7	20.8	21.0	20.1	19.2	18.4
96	17.7	17.7	17.7	18.3	19.1	19.7	20.3	20.1
120	19.9	19.9	19.9	20.0	20.2	20.1	20.2	20.8
144	21.5	20.7	20.0	20.2	20.5	20.3	20.2	20.0
168	19.9	20.4	21.0	21.1	21.2	21.6	22.1	21.4
192	20.7	20.6	20.5	20.2	20.0	19.8	19.5	19.2
216	19.0	19.1	19.3	19.4	19.5	19.5	19.6	19.6
240	19.6	19.7	19.9	18.8	17.9	18.2	18.6	18.2
264	17.9	17.8	17.8	16.9	16.1	15.5	15.0	14.5
288	14.2	14.2	14.3	14.3	14.3	14.3	14.2	14.2
312	14.1	13.6	13.2	14.0	15.0	14.3	13.7	14.3
336	14.9	14.8	14.7	14.8	14.8	14.1	13.5	13.4

DEPTH	2414.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	15.9	16.2	16.6	16.4	16.2	16.1	16.1	15.9
24	15.7	15.4	15.0	15.7	16.5	17.8	19.2	19.1
48	18.9	19.2	19.5	19.6	19.7	19.3	19.0	19.7
72	20.5	20.1	19.8	19.8	19.9	19.8	19.7	19.4
96	19.2	18.9	18.6	19.1	19.7	19.1	18.6	19.0
120	19.5	19.0	18.6	18.9	19.2	19.4	19.6	19.6
144	19.5	19.6	19.8	19.7	19.6	19.7	19.8	19.9
168	20.1	19.8	19.5	20.0	20.6	20.6	20.7	20.4
192	20.2	19.7	19.4	19.5	19.8	20.1	20.5	19.1
216	17.9	18.4	18.9	18.4	18.0	17.8	17.7	17.9
240	18.2	18.5	18.9	18.1	17.5	17.2	17.0	16.4
264	15.9	16.4	17.0	17.5	18.0	18.5	19.2	18.5
288	17.9	18.1	18.2	17.9	17.7	17.7	17.8	18.5
312	19.2	19.1	19.1	19.3	19.5	18.8	18.2	18.1
336	18.1	17.3	16.7	16.1	15.7	15.7	15.7	15.8

DEPTH	2416.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	19.1	18.3	17.6	17.7	17.8	17.1	16.4	16.1
24	15.9	16.5	17.3	17.0	16.7	16.2	15.8	15.8
48	15.9	16.2	16.6	17.2	18.0	18.2	18.6	18.1
72	17.8	17.2	16.8	17.1	17.6	17.7	17.8	16.8
96	15.9	16.1	16.3	16.3	16.3	17.1	18.0	17.8
120	17.6	18.2	18.9	18.9	18.9	18.2	17.6	17.5
144	17.5	17.9	18.5	18.7	19.0	18.9	18.8	18.2
168	17.8	17.6	17.5	17.6	17.8	18.1	18.5	18.7
192	18.9	17.9	17.1	16.5	16.1	16.1	16.2	16.2
216	16.3	16.2	16.1	16.2	16.3	16.3	16.3	16.2
240	16.1	16.3	16.4	17.8	19.5	19.4	19.4	19.2
264	19.2	19.0	19.0	18.7	18.4	18.3	18.2	18.7
288	19.3	19.3	19.4	19.0	18.7	18.0	17.5	17.5
312	17.7	17.3	17.0	16.6	16.3	16.5	16.8	16.7
336	16.6	16.5	16.4	16.5	16.6	17.6	18.9	18.9

SONIC

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WALL RANGES VS DEPTH

DEPTH	2420.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	12.9	12.9	12.9	11.5	10.4	11.0	11.6	11.2
24	10.8	10.9	11.0	10.7	10.5	10.6	10.7	10.5
48	10.3	10.3	10.4	11.3	12.3	12.4	12.5	12.3
72	12.2	12.2	12.2	12.6	13.2	11.6	10.5	10.5
96	10.6	10.4	10.2	11.1	12.2	11.5	10.8	11.6
120	12.5	12.5	12.6	12.4	12.2	12.7	13.2	13.1
144	13.0	13.2	13.4	13.0	12.6	12.3	12.2	12.5
168	12.9	12.6	12.2	12.3	12.3	20.5	12.2	20.9
192	12.1	20.9	13.4	20.4	12.6	20.3	12.5	20.1
216	12.9	19.8	12.0	19.7	11.8	20.7	12.0	21.4
240	12.5	20.8	13.4	21.6	13.6	22.7	13.4	22.8
264	12.6	22.5	11.9	12.1	12.4	12.2	12.0	12.1
288	12.2	12.2	12.3	12.7	13.2	12.7	12.3	12.1
312	11.8	12.0	12.2	12.2	12.2	12.0	11.7	12.7
336	14.0	13.5	13.0	13.1	13.3	13.1	13.0	12.9

DEPTH	2422.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	15.0	14.6	14.3	13.4	12.8	13.4	11.2	14.0
24	14.0	17.7	10.8	10.6	10.3	10.0	9.8	10.0
48	10.3	10.0	9.7	9.7	9.8	9.7	9.6	9.6
72	9.5	9.5	18.2	18.3	18.5	18.4	18.6	18.1
96	11.3	17.4	9.7	18.0	9.1	18.9	9.9	18.4
120	18.3	18.2	18.2	18.1	18.0	18.3	18.6	18.6
144	18.5	18.6	18.7	18.4	9.9	18.1	10.5	18.3
168	10.3	18.0	10.4	17.7	10.0	21.8	10.5	22.0
192	10.5	22.4	10.5	22.3	11.1	22.4	10.4	22.0
216	10.7	21.6	10.0	21.5	10.3	22.9	9.6	24.0
240	9.8	23.1	22.7	23.6	24.5	24.3	24.2	24.5
264	24.9	24.3	23.7	14.0	14.1	14.0	14.0	14.1
288	14.1	14.0	13.9	14.4	14.9	14.4	14.0	14.0
312	14.0	14.1	14.2	14.2	14.3	13.8	13.5	14.2
336	15.0	14.9	15.0	15.1	15.2	15.0	14.9	14.9

DEPTH	2424.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	17.1	16.4	15.7	15.4	15.3	15.9	16.6	16.9
24	17.4	24.8	25.1	24.5	24.1	24.1	24.2	23.5
48	23.0	23.5	24.1	23.6	23.2	23.5	23.9	24.0
72	24.2	24.2	24.3	24.1	24.0	25.4	27.0	26.0
96	25.1	24.6	24.1	25.1	26.2	26.5	26.9	25.5
120	24.2	24.0	23.9	23.9	24.0	24.1	24.2	24.2
144	24.2	24.1	24.1	23.9	23.9	23.9	24.0	24.2
168	24.5	23.7	23.0	23.3	23.7	23.0	22.5	23.1
192	23.8	23.9	24.0	24.3	24.8	24.5	24.3	24.0
216	23.8	23.5	23.2	23.3	23.5	25.2	27.2	26.6
240	26.0	25.4	24.9	25.5	26.2	26.0	25.9	26.3
264	26.9	26.0	25.3	15.9	15.8	15.9	16.1	16.1
288	16.1	15.8	15.6	16.1	16.7	16.1	15.7	15.9
312	16.2	16.2	16.2	16.3	16.4	15.8	15.3	15.6
336	16.0	16.4	17.0	17.0	17.1	17.0	16.9	17.0

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DEPTH	2426.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	19.2	18.1	17.1	17.4	17.7	18.3	19.1	19.8
24	20.6	23.4	27.1	26.8	26.6	26.3	26.2	25.9
48	25.7	25.6	25.5	25.5	25.5	25.8	26.2	26.5
72	26.9	26.8	26.8	26.7	26.8	26.5	26.3	26.6
96	27.0	26.9	26.9	26.5	26.2	26.0	25.9	25.7
120	25.5	25.5	25.5	25.7	26.0	26.4	26.9	26.8
144	26.8	26.7	26.8	26.5	26.2	26.2	26.2	26.5
168	26.9	26.8	26.9	26.5	26.3	23.3	26.2	23.5
192	25.6	23.7	23.7	23.9	25.1	24.0	23.8	23.7
216	23.6	23.5	24.0	23.6	24.2	24.0	23.9	23.6
240	23.4	23.2	23.0	22.7	22.6	21.2	20.1	19.2
264	18.4	18.2	18.0	17.7	17.5	17.8	18.2	18.0
288	18.0	17.6	17.2	17.8	18.4	17.8	17.4	17.8
312	18.3	18.2	18.2	18.3	18.4	17.7	17.1	17.0
336	17.0	17.9	18.9	18.9	19.0	18.9	18.8	18.9

DEPTH	2428.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	17.5	17.2	17.1	18.7	20.8	21.0	21.3	20.7
24	20.2	20.8	21.5	23.0	24.9	24.8	24.8	24.7
48	24.7	24.2	23.8	23.8	23.9	24.4	24.9	25.3
72	25.8	25.4	25.0	24.8	24.6	24.3	24.0	24.4
96	24.9	24.8	24.8	24.6	24.5	24.2	24.0	24.3
120	24.6	25.4	26.3	24.9	23.7	24.4	25.1	24.8
144	24.6	24.6	24.7	25.0	25.3	25.3	25.3	24.8
168	24.3	24.1	23.9	23.5	23.0	23.7	24.4	23.8
192	23.4	23.5	23.7	23.6	23.5	23.5	23.6	23.4
216	23.2	23.4	23.7	23.8	24.0	23.9	23.8	23.8
240	23.8	24.0	24.2	21.2	18.9	18.9	19.0	18.7
264	18.5	18.1	17.7	17.4	17.2	17.3	17.5	17.2
288	17.0	17.5	18.0	17.3	16.7	16.8	16.9	16.8
312	16.8	17.0	17.2	17.0	16.8	17.6	18.6	18.0
336	17.5	17.3	17.1	17.3	17.5	17.8	18.3	17.8

DEPTH	2430.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	17.6	17.5	17.4	17.6	18.7	18.6	18.5	18.3
24	18.2	18.1	18.1	18.4	18.6	18.6	18.2	18.1
48	18.2	17.8	17.2	16.9	16.8	16.8	17.1	17.6
72	17.7	17.5	16.7	17.0	17.7	17.8	17.8	17.8
96	17.3	16.8	17.2	17.5	17.7	17.8	17.9	17.4
120	17.2	17.3	17.8	18.7	18.9	18.9	18.2	18.6
144	19.5	19.3	19.7	21.0	21.5	21.7	21.7	21.7
168	21.8	22.2	22.8	22.8	22.6	22.9	24.3	23.5
192	22.8	22.9	22.9	22.5	22.2	22.7	23.2	22.6
216	22.1	22.5	22.9	23.2	23.5	23.2	23.0	22.3
240	21.8	22.0	22.3	19.8	20.6	21.3	21.4	22.2
264	23.3	22.7	22.5	22.9	23.1	23.1	23.0	23.1
288	21.8	22.7	23.8	24.0	24.4	24.4	24.4	24.3
312	24.2	24.1	24.1	24.8	22.0	22.3	22.6	22.8
336	23.0	23.2	23.4	23.3	22.6	19.4	17.1	17.3

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WALL RANGES VS DEPTH

DEPTH	2430.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	17.6	17.5	17.4	17.5	18.8	18.7	18.5	18.4
24	18.2	18.1	18.2	18.5	18.6	18.7	18.3	18.2
48	18.3	17.9	17.3	17.1	16.9	16.9	17.2	17.8
72	17.8	17.6	16.8	17.0	17.8	17.8	17.9	17.8
96	16.7	16.8	16.9	17.5	17.6	17.8	17.7	17.5
120	17.5	17.3	17.8	18.7	16.9	18.9	17.2	18.6
144	18.9	19.3	18.9	20.9	18.8	21.7	18.7	21.7
168	19.2	22.1	21.6	22.7	21.7	22.9	24.3	23.5
192	22.8	22.8	22.9	22.5	22.2	22.7	23.2	22.6
216	22.0	22.4	22.9	23.2	23.5	23.2	23.0	22.3
240	21.7	22.0	22.3	19.8	23.2	21.2	22.8	22.1
264	24.7	22.6	23.8	22.8	22.9	23.0	23.0	23.0
288	21.9	22.8	23.9	24.2	24.5	24.5	24.6	24.5
312	24.4	24.3	24.2	25.0	21.9	22.2	25.9	22.7
336	25.9	23.1	25.9	23.2	22.7	19.5	17.1	17.3

DEPTH	2432.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	18.1	18.1	18.2	20.3	21.7	22.1	21.9	21.9
24	22.0	22.3	22.6	22.7	22.7	22.6	22.4	25.6
48	24.1	22.3	24.9	23.0	25.1	24.4	25.7	25.1
72	24.9	24.7	25.3	19.8	25.0	19.4	25.2	19.1
96	25.9	18.6	26.0	18.2	24.9	19.5	23.9	20.0
120	24.7	18.1	25.9	18.8	24.9	19.0	25.0	19.1
144	25.0	18.8	25.1	19.0	23.9	21.5	23.5	18.8
168	23.9	18.5	24.4	19.4	25.2	21.5	24.6	23.4
192	22.4	22.0	21.6	21.9	22.4	22.3	22.3	22.4
216	22.5	22.5	22.5	22.2	22.0	22.1	22.3	22.2
240	22.1	20.7	19.5	18.6	17.8	18.0	18.2	17.4
264	16.8	17.0	17.4	17.6	17.9	18.0	18.2	18.0
288	17.8	18.0	18.4	18.3	18.3	18.8	19.3	18.8
312	18.3	18.2	18.2	18.7	19.4	18.6	17.8	17.8
336	17.8	17.7	17.6	17.7	17.8	17.9	18.0	18.0

DEPTH	2432.1		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	18.1	17.9	18.0	20.1	21.8	22.3	22.1	22.0
24	22.2	22.5	22.8	22.9	22.9	22.8	24.0	26.0
48	23.8	22.5	22.4	23.3	24.8	24.8	25.0	25.5
72	25.4	25.0	21.8	19.9	19.5	19.5	19.6	19.2
96	18.8	18.7	18.5	18.3	18.7	19.5	21.0	20.1
120	18.3	18.2	18.3	18.8	19.0	19.0	19.1	19.1
144	18.7	18.8	19.2	18.9	19.4	21.5	20.6	18.6
168	18.5	18.3	18.0	19.2	21.6	21.4	24.5	23.4
192	22.4	21.9	21.6	21.9	22.4	22.3	22.3	22.4
216	22.5	22.4	22.5	22.2	22.0	22.1	22.2	22.1
240	22.1	20.7	19.6	18.7	17.9	18.0	18.3	17.5
264	16.8	17.1	17.4	17.6	17.9	18.1	18.2	18.0
288	17.8	18.1	18.4	18.3	18.3	18.8	19.3	18.8
312	18.3	18.2	18.2	18.8	19.4	18.6	17.9	17.8
336	17.9	17.7	17.6	17.7	17.8	17.9	18.0	18.0

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DEPTH	2436.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	18.9	9.9	10.4	12.6	12.5	11.2	15.4	19.5
24	16.7	14.3	12.3	11.9	12.9	18.2	21.1	21.1
48	12.5	10.0	10.6	11.2	12.0	15.8	20.0	20.0
72	14.9	10.8	10.9	12.8	24.9	26.2	18.5	18.0
96	15.5	11.3	11.4	13.4	25.7	14.9	14.4	13.1
120	10.6	10.6	10.9	11.8	12.5	13.1	13.1	13.9
144	17.0	15.5	12.6	13.0	12.7	11.1	10.9	11.5
168	10.9	10.6	10.6	10.6	10.6	21.0	22.9	22.3
192	21.9	21.4	20.9	21.2	21.5	21.5	21.5	21.6
216	21.7	21.6	21.5	21.4	21.5	21.4	21.4	21.4
240	21.5	20.9	20.4	19.9	19.5	19.3	19.1	18.6
264	18.3	18.4	18.6	18.6	18.6	18.8	19.0	19.0
288	19.0	19.1	19.2	19.1	19.0	19.3	19.8	19.4
312	19.1	19.2	19.3	19.5	19.7	19.2	18.7	18.7
336	18.7	18.7	18.7	18.8	18.9	19.1	19.4	19.1

DEPTH	2437.9		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	19.3	10.9	10.7	11.8	11.8	11.2	10.8	10.7
24	11.1	12.0	13.5	11.5	10.6	11.0	11.1	11.0
48	11.0	10.8	10.5	10.6	10.9	11.0	11.0	10.9
72	10.9	10.9	10.9	10.9	10.8	11.0	11.5	11.0
96	10.8	10.8	10.8	10.9	12.2	12.7	11.2	10.8
120	10.8	10.8	10.8	10.8	10.8	10.9	11.6	11.8
144	11.0	10.9	11.0	11.0	10.9	10.8	10.8	10.8
168	12.1	13.2	13.2	12.1	10.8	20.8	22.1	21.8
192	21.6	21.1	20.7	20.8	21.1	21.1	21.1	21.2
216	21.4	21.2	21.0	21.1	21.2	21.0	20.9	21.1
240	21.2	21.0	20.8	20.5	20.3	19.9	19.5	19.2
264	19.0	19.1	19.2	19.1	19.0	19.2	19.4	19.5
288	19.6	19.6	19.6	19.4	19.3	19.6	20.0	19.7
312	19.5	19.7	19.8	19.8	19.9	19.5	19.2	19.1
336	19.1	19.1	19.2	19.3	19.4	19.7	20.0	19.6

DEPTH	2440.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	19.7	10.8	10.1	9.4	9.4	9.8	10.2	10.6
24	11.0	11.1	11.0	11.1	10.8	9.8	10.1	11.1
48	11.1	10.9	10.1	10.3	11.0	11.0	11.0	11.1
72	10.4	9.5	10.3	11.0	10.9	10.9	10.9	10.9
96	10.9	11.0	11.1	11.3	11.0	10.9	10.9	11.1
120	11.6	10.9	10.3	10.0	10.7	12.2	10.5	9.9
144	10.7	10.6	10.0	10.5	10.9	10.9	10.9	10.9
168	10.9	10.9	10.9	10.9	10.9	20.6	21.3	21.3
192	21.3	20.8	20.3	20.4	20.6	20.6	20.7	20.8
216	21.0	20.7	20.5	20.6	20.9	20.6	20.5	20.7
240	20.9	21.1	21.3	21.2	21.2	20.5	20.0	19.9
264	19.8	19.8	19.9	19.6	19.4	19.6	19.8	20.0
288	20.3	20.2	20.1	19.8	19.6	19.9	20.2	20.1
312	20.0	20.2	20.4	20.2	20.1	19.8	19.6	19.6
336	19.5	19.6	19.8	19.8	19.9	20.3	20.7	20.2

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DEPTH	2442.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	20.1	20.3	20.6	20.6	20.7	20.6	20.6	20.3
24	20.0	20.4	20.9	20.8	20.7	20.5	20.3	20.3
48	20.2	20.4	20.6	20.4	20.3	20.2	20.1	20.2
72	20.3	20.1	19.9	20.2	20.5	20.2	19.9	20.2
96	20.6	20.5	20.5	20.4	20.3	20.3	20.3	20.3
120	20.3	20.3	20.4	20.1	19.9	19.8	19.7	19.8
144	19.9	19.2	18.6	19.3	20.1	20.2	20.3	20.4
168	20.6	20.7	20.9	20.6	20.5	20.5	20.5	20.7
192	21.1	20.5	20.0	20.1	20.2	20.2	20.3	20.4
216	20.6	20.3	20.0	20.2	20.6	20.3	20.0	20.3
240	20.6	21.1	21.7	21.9	22.0	21.2	20.4	20.5
264	20.6	20.5	20.5	20.1	19.7	19.9	20.2	20.6
288	20.9	20.7	20.5	20.2	19.9	20.2	20.4	20.4
312	20.4	20.6	20.9	20.6	20.2	20.1	20.1	20.0
336	20.0	20.1	20.3	20.4	20.5	20.9	21.4	20.7

DEPTH	2448.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	21.3	20.3	19.5	19.5	19.6	19.9	20.2	19.8
24	19.5	19.6	19.8	19.5	19.2	19.7	20.2	20.0
48	19.8	19.7	19.7	19.5	19.4	19.9	20.4	20.9
72	21.5	20.1	18.9	19.2	19.6	19.5	19.5	19.5
96	19.5	19.5	19.5	19.6	19.7	20.2	20.8	20.4
120	20.1	19.6	19.2	19.4	19.6	20.6	21.8	21.5
144	21.3	20.9	20.5	20.2	20.0	19.9	19.8	20.0
168	20.3	20.6	20.9	20.2	19.6	19.2	18.9	19.0
192	19.2	19.3	19.5	19.4	19.5	20.5	21.6	20.6
216	19.7	20.0	20.3	20.0	19.7	20.0	20.3	19.4
240	18.7	19.0	19.5	19.4	19.4	19.1	18.9	19.2
264	19.5	19.8	20.2	20.3	20.4	19.4	18.6	18.9
288	19.3	19.3	19.3	19.2	19.2	18.9	18.7	18.7
312	18.9	18.9	18.9	19.3	19.8	19.5	19.3	19.5
336	19.7	19.3	18.9	19.5	20.2	19.7	19.2	20.2

DEPTH	2450.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	18.8	19.2	19.7	20.5	21.5	21.6	21.8	24.9
24	29.2	19.5	19.2	18.9	18.7	19.3	19.9	19.7
48	19.5	19.6	19.8	20.5	19.5	19.6	19.7	19.0
72	18.4	18.5	18.6	19.4	20.2	19.8	19.4	19.4
96	19.3	19.6	19.9	20.1	20.5	19.9	19.5	19.4
120	19.4	19.1	18.8	18.9	19.2	19.2	19.2	18.7
144	18.3	18.6	18.9	18.8	18.7	19.2	19.8	19.7
168	19.7	20.1	20.7	20.7	20.8	19.3	21.5	20.7
192	20.0	19.9	19.9	19.6	19.4	19.7	20.0	19.8
216	19.6	19.8	20.0	20.6	21.2	20.6	20.1	19.7
240	19.3	19.2	19.1	18.7	18.5	18.6	18.8	18.9
264	19.0	18.7	18.5	17.9	17.3	17.6	18.0	17.9
288	17.9	18.2	18.6	18.2	18.0	18.4	19.0	18.4
312	18.0	18.1	18.4	18.4	18.6	18.3	18.1	18.5
336	19.0	18.9	18.9	19.3	19.8	18.8	18.0	18.3

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2452.1		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	19.3	20.0	20.9	21.6	22.4	21.5	20.8	20.6
24	20.5	19.5	18.6	18.4	18.2	18.9	19.6	19.4
48	19.2	19.5	19.9	19.2	18.6	18.3	18.1	18.6
72	19.3	19.2	19.3	19.8	20.4	20.3	20.2	20.6
96	21.1	20.4	19.7	19.8	19.9	20.3	20.9	21.3
120	21.9	21.1	20.4	20.8	21.4	21.2	21.1	21.1
144	21.1	20.7	20.4	20.2	20.1	20.3	20.6	19.8
168	19.1	19.3	19.5	19.5	19.5	19.5	19.5	20.2
192	20.9	20.3	19.8	20.4	21.2	21.0	20.8	20.6
216	20.5	20.9	21.4	21.0	20.8	21.4	22.1	20.7
240	19.5	19.3	19.2	19.0	18.9	18.6	18.4	18.2
264	18.0	17.8	17.7	18.0	18.4	18.1	17.9	18.1
288	18.4	19.0	19.6	19.3	19.1	19.2	19.4	19.7
312	20.2	20.1	20.2	19.7	19.4	19.3	19.2	19.3
336	19.5	20.0	20.5	19.6	18.8	18.4	18.2	18.7

DEPTH	2456.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	17.1	19.9	16.8	16.5	16.2	16.5	16.9	16.8
24	16.8	16.8	16.9	16.9	16.9	16.6	16.3	17.0
48	17.8	17.9	18.0	18.7	19.5	18.1	16.9	17.5
72	18.2	17.9	17.8	18.8	20.0	18.6	17.4	17.6
96	17.9	17.2	16.6	17.0	17.5	17.1	16.7	16.8
120	16.9	17.6	18.3	18.4	18.5	18.3	18.2	18.2
144	18.2	17.3	16.5	16.9	17.2	17.9	18.7	19.6
168	20.6	19.6	18.7	18.3	18.1	20.5	18.0	20.7
192	17.8	21.0	18.3	21.3	17.8	21.5	16.9	20.8
216	17.0	20.7	16.8	20.7	16.9	20.3	16.6	20.3
240	16.7	19.9	16.4	19.8	16.4	19.4	16.5	19.2
264	16.7	19.9	16.7	19.8	19.7	19.2	18.8	19.3
288	16.6	16.6	16.7	17.8	19.2	19.1	19.0	18.8
312	18.7	18.6	18.5	17.5	16.6	16.6	16.7	17.0
336	17.3	17.0	16.7	16.7	16.8	16.8	16.8	16.9

DEPTH	2457.9		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	19.4	19.8	11.5	11.3	20.0	11.3	19.0	11.5
24	19.8	11.5	20.5	11.6	20.9	11.3	20.9	11.6
48	20.8	12.2	20.9	12.8	20.9	12.4	20.3	12.0
72	21.2	12.3	20.9	12.8	21.8	12.7	21.6	12.1
96	22.4	11.8	21.7	11.7	21.0	11.7	20.3	11.5
120	21.2	12.0	20.9	12.5	19.6	12.5	21.5	12.5
144	21.9	11.9	21.3	11.5	11.8	12.2	12.8	13.4
168	14.1	13.4	12.8	12.5	12.4	21.0	21.0	21.0
192	20.9	21.3	21.7	21.7	21.8	21.7	21.7	20.8
216	20.0	20.6	21.2	20.6	20.0	19.7	19.5	20.1
240	20.7	20.2	19.8	20.2	20.7	19.8	19.0	19.7
264	20.6	20.9	21.2	20.7	20.3	19.7	19.3	19.8
288	11.4	11.4	19.5	12.2	19.9	13.0	19.0	12.9
312	20.0	12.7	18.9	12.0	18.4	11.4	18.3	11.6
336	18.8	11.6	19.0	11.5	19.3	11.5	19.0	11.6

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2460.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	5.8	5.7	0.6	5.8	0.6	5.9
24	0.6	5.8	0.6	5.9	0.6	5.8	0.6	5.9
48	0.6	6.2	0.6	6.5	0.6	6.3	0.6	6.1
72	0.6	6.2	0.6	6.5	0.6	6.4	0.6	6.1
96	0.6	6.0	0.6	5.9	0.6	5.9	0.6	5.8
120	0.6	6.1	0.6	6.4	0.6	6.3	0.6	6.3
144	0.6	6.0	0.6	5.9	0.6	6.2	0.6	6.7
168	0.6	6.7	0.6	6.3	0.6	10.4	10.5	10.4
192	10.4	10.6	10.8	10.8	10.9	10.8	10.8	10.4
216	10.0	10.2	10.6	10.2	10.0	9.9	9.8	10.0
240	10.3	10.1	9.9	10.1	10.3	9.9	9.5	9.9
264	10.3	10.4	10.6	10.3	10.1	9.9	9.6	9.9
288	0.6	5.8	0.6	6.2	0.6	6.6	0.6	6.5
312	0.6	6.4	0.6	6.1	0.6	5.8	0.6	5.9
336	0.6	5.9	0.6	5.8	0.6	5.8	0.6	5.9

DEPTH	2462.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
24	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
48	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
96	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
120	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
144	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
168	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
192	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
216	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
240	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
264	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
288	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
312	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
336	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

DEPTH	2464.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2466.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2470.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2475.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2480.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2485.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

DEPTH	2488.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
24	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
72	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
96	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
120	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
144	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
168	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
192	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
216	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
240	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
264	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
288	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
312	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
336	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2490.1		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
24	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
72	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
96	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
120	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
144	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
168	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
192	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
216	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
240	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
264	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
288	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
312	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
336	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

DEPTH	2492.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	15.2	12.6	15.4	12.7	13.0	12.5	13.2	12.5
24	15.4	13.0	15.4	15.3	15.3	11.9	14.9	12.6
48	15.6	14.1	15.2	17.3	14.6	12.0	14.9	11.5
72	15.2	16.5	14.1	17.4	15.4	18.4	15.0	18.6
96	14.9	22.5	15.2	23.1	14.5	29.2	15.4	30.0
120	13.2	35.2	15.0	35.2	14.5	35.2	14.6	35.7
144	15.2	35.8	14.5	36.2	14.8	37.6	15.2	36.8
168	14.1	41.8	14.2	42.0	15.7	46.3	15.4	46.3
192	15.6	46.3	15.7	39.6	15.2	38.5	15.0	40.2
216	15.0	39.9	14.7	37.6	15.2	37.2	15.2	36.5
240	14.7	35.6	14.9	36.4	14.7	34.1	15.3	19.9
264	13.8	18.6	13.1	14.4	13.0	12.0	14.9	12.6
288	15.2	12.4	14.3	12.0	15.2	12.5	15.4	13.5
312	15.4	13.6	15.4	19.9	15.7	19.6	15.3	18.5
336	15.4	12.7	15.4	12.5	15.6	12.2	15.2	12.6

DEPTH	2497.9		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	39.6	35.8	32.8	32.4	32.2	33.0	34.0	33.0
24	32.2	32.4	32.8	32.7	32.8	32.8	32.9	32.9
48	32.9	32.6	32.3	32.2	32.1	32.0	31.9	31.9
72	31.9	32.0	32.3	31.6	31.0	31.7	32.5	31.7
96	31.0	31.1	31.4	32.3	33.4	33.0	32.7	33.0
120	33.4	34.0	34.7	33.3	33.5	33.5	33.0	36.0
144	40.0	38.7	41.0	40.9	40.9	40.7	40.6	40.5
168	40.5	40.6	40.9	42.0	43.3	47.5	41.2	47.3
192	38.7	47.5	40.5	47.6	43.9	47.1	44.9	46.8
216	45.0	44.6	44.3	43.7	43.2	44.6	41.1	44.8
240	41.3	44.9	40.6	45.0	41.3	40.5	39.8	39.3
264	38.9	40.8	43.1	41.9	40.9	41.0	41.2	40.7
288	40.3	39.6	39.1	38.6	38.3	39.6	41.1	40.9
312	40.9	40.5	40.3	40.0	39.8	39.3	38.9	38.9
336	38.9	38.3	37.8	38.2	38.8	39.8	39.7	39.2

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WALL RANGES VS DEPTH

DEPTH	2498.0		TILT	0		VOS	5975.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	39.0	35.7	32.8	32.5	32.2	33.0	34.0	33.0
24	32.2	32.4	32.8	32.7	32.8	32.8	32.9	32.8
48	32.9	32.6	32.4	32.2	32.0	31.9	31.9	31.9
72	31.9	32.0	32.2	31.5	31.0	31.7	32.5	31.7
96	31.0	31.1	31.4	32.3	33.4	33.0	32.6	33.0
120	33.4	34.0	34.6	33.3	33.5	33.5	33.0	36.0
144	38.8	38.7	38.7	40.8	40.8	40.6	40.6	40.4
168	40.5	40.6	40.9	42.0	43.2	47.5	47.3	47.2
192	47.3	47.5	47.6	47.5	47.5	47.1	46.9	46.8
216	45.0	44.6	44.3	43.7	43.3	44.7	44.5	44.9
240	45.1	44.9	44.9	45.1	41.3	40.5	39.8	39.4
264	39.0	40.8	43.0	41.8	40.8	40.9	41.2	40.7
288	40.3	39.7	39.2	38.8	38.5	39.7	41.2	41.0
312	40.9	40.6	40.3	40.0	39.8	39.3	39.0	38.9
336	38.9	38.3	37.8	38.2	38.8	39.7	39.9	39.3

DEPTH	2500.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	32.9	33.2	33.6	33.0	32.5	32.6	32.8	32.4
24	32.2	32.7	33.3	33.1	32.9	32.7	32.5	32.4
48	32.5	32.6	32.8	31.9	31.3	31.2	31.3	31.2
72	31.3	31.0	30.8	30.6	30.4	31.4	32.5	31.2
96	30.2	30.2	30.3	31.7	33.3	32.1	31.1	31.6
120	32.2	32.6	33.0	32.8	32.6	32.9	33.3	36.2
144	39.6	39.7	39.8	38.9	38.1	38.9	39.8	39.0
168	40.8	40.5	40.6	39.9	39.4	47.3	40.1	47.0
192	44.7	47.2	44.2	47.4	44.7	46.9	44.7	46.6
216	43.9	44.4	45.0	45.1	45.3	45.1	45.0	44.8
240	44.8	44.4	44.2	42.2	40.5	40.9	41.4	41.4
264	41.6	40.4	39.5	39.2	39.1	39.9	40.9	40.1
288	39.4	41.6	44.2	44.3	44.5	44.4	44.5	43.2
312	42.0	41.6	41.3	40.5	39.8	40.5	41.3	40.1
336	39.1	38.9	38.9	37.8	36.8	36.5	36.3	34.5

DEPTH	2502.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	31.4	31.3	31.4	31.9	32.5	32.0	31.7	31.6
24	31.7	31.6	31.5	31.5	31.5	31.3	31.1	31.1
48	31.3	31.2	31.3	31.3	31.5	31.5	31.5	31.2
72	31.0	30.7	30.6	29.9	29.3	30.5	31.8	30.2
96	28.8	28.9	29.1	30.0	31.1	31.3	31.7	32.1
120	32.6	32.2	31.8	32.5	33.3	33.2	33.2	32.9
144	32.6	32.8	33.1	33.2	33.5	32.7	32.1	37.6
168	41.1	40.4	39.8	39.7	39.6	47.1	39.9	46.7
192	39.5	47.0	41.6	47.3	43.2	46.6	44.0	46.3
216	44.6	44.2	43.9	44.0	44.3	44.8	45.4	45.1
240	45.0	42.9	41.2	41.2	41.3	41.2	41.3	41.0
264	40.7	40.0	39.4	39.2	39.2	35.3	32.2	32.0
288	31.8	32.1	32.5	32.9	33.5	36.9	41.3	41.2
312	41.3	41.1	41.1	40.7	40.5	40.2	40.1	38.4
336	37.3	36.9	36.6	35.3	32.6	32.9	33.3	32.3

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WALL RANGES VS DEPTH

DEPTH	2504.1		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	31.4	31.0	30.7	30.9	31.3	31.3	31.5	31.4
24	31.4	31.4	31.5	31.5	31.6	30.7	29.9	30.0
48	30.3	30.5	30.8	30.5	30.3	29.9	29.6	28.2
72	31.1	30.5	25.8	29.0	25.5	28.4	26.7	26.5
96	26.3	25.8	25.3	25.3	30.8	31.2	31.4	31.6
120	31.9	31.6	31.4	31.9	32.4	32.2	32.0	32.1
144	32.2	32.5	32.9	32.8	32.8	32.4	32.2	36.2
168	41.4	40.2	39.2	39.5	39.9	46.9	42.1	46.4
192	43.5	46.8	39.8	47.1	42.9	46.4	42.7	46.1
216	41.7	42.6	43.8	43.3	42.9	43.0	43.2	44.8
240	44.8	41.9	39.5	39.5	39.6	39.4	42.5	40.1
264	38.0	36.8	35.8	33.9	38.4	35.1	34.1	31.7
288	31.5	31.4	32.1	31.3	30.7	31.0	31.3	39.7
312	32.4	39.8	39.8	39.5	39.4	39.1	38.0	36.7
336	35.5	34.8	34.1	32.7	31.5	31.8	32.1	31.7

DEPTH	2508.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	29.9	30.0	30.2	30.4	30.7	30.3	30.0	30.2
24	30.4	30.2	30.0	29.1	28.4	28.9	29.6	29.4
48	29.3	29.4	29.5	29.7	30.0	30.9	31.9	31.6
72	31.4	30.1	29.1	27.3	25.9	24.4	26.9	26.6
96	23.8	26.4	24.8	27.2	30.3	31.1	31.9	30.8
120	29.9	30.4	31.1	30.1	29.2	29.7	30.3	30.7
144	31.3	31.4	31.7	32.4	33.3	33.3	33.5	36.3
168	39.8	39.2	38.8	39.9	41.2	46.6	41.2	45.9
192	40.1	46.4	40.9	46.8	40.2	45.9	40.9	45.6
216	41.0	42.4	40.7	41.1	43.8	44.0	44.3	44.3
240	44.3	39.9	36.3	36.3	36.3	35.9	35.5	35.5
264	35.5	35.8	36.2	36.5	36.9	34.6	32.6	31.3
288	30.2	30.1	30.2	30.1	30.2	32.9	36.2	36.6
312	37.2	37.2	37.4	37.3	37.3	37.1	37.0	34.6
336	32.6	32.6	32.6	31.3	30.2	30.1	30.2	30.0

DEPTH	2510.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	31.0	29.7	28.6	27.8	27.1	27.2	27.3	30.7
24	27.3	30.3	28.4	29.8	31.4	29.3	29.3	29.2
48	27.3	29.0	27.5	27.8	28.1	28.2	28.4	27.9
72	27.5	27.2	26.9	27.1	27.4	27.2	27.0	26.7
96	26.4	26.7	27.0	27.1	27.3	27.5	32.3	31.8
120	27.3	31.7	29.2	31.6	27.1	31.3	26.7	33.0
144	29.1	34.9	35.0	35.4	36.0	35.7	35.6	37.1
168	38.9	39.1	39.4	40.1	44.7	47.0	46.6	45.6
192	45.8	46.6	47.4	46.9	46.5	45.7	45.3	45.4
216	45.3	45.2	45.4	44.8	45.0	44.7	43.9	44.2
240	44.7	39.7	43.2	37.8	38.5	37.2	36.1	31.5
264	35.4	35.4	28.6	35.9	26.6	34.2	27.7	28.2
288	28.9	29.3	28.4	28.5	28.6	32.1	36.5	36.6
312	36.8	37.7	38.8	30.4	37.9	32.5	34.2	32.3
336	28.6	30.0	29.5	29.3	28.9	29.3	28.5	29.6

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WALL RANGES VS DEPTH

DEPTH	2512.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	29.0	28.8	28.6	28.3	28.0	29.2	30.7	31.2
24	31.8	30.5	29.3	30.1	31.0	31.7	32.6	32.3
48	32.1	31.6	28.5	28.3	25.9	26.3	26.7	27.0
72	27.2	26.5	25.9	26.2	26.6	26.7	27.0	26.8
96	26.7	26.9	27.1	27.0	27.0	29.5	32.7	32.8
120	33.0	33.0	33.0	33.1	33.2	32.9	32.6	35.2
144	38.4	38.3	38.3	38.3	38.5	38.1	37.7	37.9
168	38.1	38.9	39.9	40.3	46.5	47.7	41.0	46.6
192	41.6	47.5	43.3	47.0	43.5	46.6	43.1	45.7
216	40.6	46.8	40.3	48.9	43.6	44.8	44.0	44.2
240	44.4	39.8	39.9	39.3	40.0	39.7	37.5	33.8
264	29.1	35.0	28.9	35.3	28.6	33.8	28.6	28.4
288	28.2	29.5	31.0	29.9	28.6	29.1	29.0	34.7
312	31.7	35.2	37.2	30.0	29.0	31.3	31.4	29.9
336	29.5	30.1	28.9	30.4	31.3	30.1	29.1	29.0

DEPTH	2514.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	35.1	30.5	35.5	33.2	34.6	33.4	34.3	33.8
24	30.7	32.2	32.1	31.1	32.2	31.7	31.3	33.4
48	32.1	31.8	32.9	32.0	31.3	31.2	31.3	31.3
72	31.4	33.2	30.4	29.0	29.4	29.4	31.4	31.3
96	31.3	31.2	31.3	31.8	32.5	32.2	31.9	32.5
120	33.2	32.9	32.8	33.5	34.3	35.7	37.3	36.7
144	40.9	41.0	36.3	43.2	37.7	42.4	39.1	45.0
168	40.3	44.3	41.3	46.8	40.2	48.5	40.3	48.7
192	40.5	48.5	40.6	47.1	38.0	47.8	40.4	47.2
216	41.3	48.3	45.8	50.3	45.5	45.7	46.0	45.7
240	45.5	40.5	42.3	41.4	37.9	41.6	36.9	36.0
264	35.3	34.5	33.9	34.7	35.7	33.1	33.1	29.9
288	29.3	30.8	32.6	31.5	30.2	30.4	30.8	33.2
312	33.1	33.5	35.5	33.8	32.4	31.7	31.2	31.3
336	31.5	31.4	31.4	31.4	31.5	31.3	31.3	33.0

DEPTH	2516.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	32.9	32.1	32.3	33.1	32.5	34.2	31.5	33.9
24	32.1	32.7	31.8	32.1	32.2	31.9	31.9	32.4
48	32.1	31.9	32.8	33.0	31.4	31.8	32.1	32.0
72	32.1	31.8	31.7	31.8	32.1	32.0	32.1	31.8
96	31.7	31.6	31.7	32.1	32.6	32.8	33.0	32.1
120	31.3	32.3	33.6	43.3	31.5	46.6	46.0	48.0
144	49.1	49.8	50.6	48.6	48.6	50.2	50.8	50.8
168	49.4	49.2	49.3	49.0	49.0	48.9	49.6	49.7
192	49.4	49.4	49.9	47.2	45.6	49.0	48.6	48.7
216	49.0	49.4	50.0	50.2	49.5	48.7	48.3	47.6
240	47.2	46.5	33.1	43.8	44.2	44.1	42.9	38.1
264	31.5	35.1	32.3	32.5	32.7	32.5	32.3	31.3
288	30.4	32.1	34.1	33.0	32.1	32.5	33.1	32.8
312	32.5	34.5	36.9	34.1	34.2	32.4	32.5	31.9
336	32.0	33.1	34.3	33.1	32.1	32.2	32.4	32.6

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WALL RANGES VS DEPTH

DEPTH	2518.1		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	32.5	32.1	31.8	33.0	34.4	35.0	35.7	34.0
24	32.6	32.5	32.5	32.4	32.4	32.6	32.9	34.0
48	35.2	34.4	33.7	34.3	35.0	36.1	34.3	35.3
72	37.6	36.9	31.8	37.0	33.3	34.1	35.0	33.1
96	31.5	33.0	34.8	33.2	31.8	34.0	36.6	37.9
120	39.4	41.3	43.5	43.7	44.0	48.7	44.0	49.0
144	45.4	50.9	43.8	48.2	48.8	52.8	48.0	53.8
168	46.6	51.5	47.9	50.5	47.1	48.7	50.5	50.2
192	49.9	50.6	51.5	47.3	50.4	50.3	50.4	50.4
216	50.5	50.1	49.9	50.1	50.5	49.9	49.4	49.2
240	49.2	48.4	46.1	48.6	49.5	49.3	49.1	39.8
264	49.1	49.1	49.3	50.3	33.7	32.8	51.6	35.1
288	49.3	31.4	49.3	32.0	51.4	31.7	51.2	33.0
312	49.1	36.5	49.3	36.8	49.3	36.6	51.6	35.6
336	49.7	34.1	35.0	34.7	34.5	34.1	33.8	33.8

DEPTH	2522.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	36.1	37.1	38.3	36.9	35.8	34.6	33.6	34.9
24	36.3	36.9	37.6	37.5	37.4	37.7	38.1	37.4
48	36.8	37.5	38.4	38.4	38.5	38.9	39.4	38.6
72	38.0	37.9	37.9	38.0	38.2	38.3	34.6	34.5
96	37.5	33.4	37.9	37.2	36.7	36.8	37.0	37.4
120	37.9	36.8	41.4	46.1	37.9	50.0	36.4	50.0
144	37.6	50.0	37.5	47.5	39.7	53.9	40.1	54.2
168	39.5	54.2	42.3	53.9	44.0	51.7	53.7	53.5
192	53.5	53.5	53.7	53.2	44.8	52.0	51.7	51.4
216	53.7	51.5	53.2	50.4	55.2	50.4	53.1	49.9
240	52.7	49.7	51.0	49.8	48.7	48.1	49.5	47.9
264	48.2	48.2	48.4	48.8	49.3	33.3	49.5	41.8
288	36.2	35.7	30.4	30.2	29.9	30.1	31.2	33.4
312	36.8	36.4	36.1	36.4	36.9	37.7	38.6	37.2
336	36.1	36.1	36.2	37.5	39.0	37.5	36.2	36.1

DEPTH	2524.1		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	40.7	37.7	38.3	37.4	38.0	36.3	40.5	36.2
24	38.4	37.3	37.6	37.3	38.7	37.4	38.7	37.3
48	39.2	38.0	37.0	37.7	38.5	37.8	37.2	38.7
72	38.1	39.1	38.5	38.3	38.3	38.2	39.2	38.5
96	37.1	33.6	38.6	38.8	37.2	37.4	37.7	37.8
120	38.1	37.8	40.2	47.5	53.9	53.4	53.1	50.4
144	48.0	47.9	48.0	47.1	46.4	54.3	54.4	54.5
168	54.7	55.2	55.7	55.6	45.0	53.4	52.8	55.3
192	54.6	54.6	54.2	53.8	53.5	53.4	53.5	53.4
216	53.4	53.2	53.1	53.6	54.3	54.3	54.3	53.5
240	52.8	52.7	52.6	51.3	50.1	48.3	49.7	49.6
264	49.5	49.4	49.4	49.8	50.4	33.6	50.1	42.1
288	49.5	37.4	49.4	29.2	49.1	29.2	49.8	33.6
312	49.7	37.3	48.9	40.0	49.5	39.8	51.5	38.5
336	49.3	37.6	40.5	37.8	38.4	37.9	39.8	37.1

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2526.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	38.7	38.3	37.9	38.0	38.1	38.1	37.6	37.5
24	39.9	37.7	37.9	37.1	37.2	37.2	37.3	37.2
48	37.2	38.2	37.4	38.0	37.3	38.3	38.8	38.7
72	37.4	38.9	38.7	38.5	38.4	38.6	39.0	38.6
96	38.3	38.1	38.0	37.8	37.7	38.0	38.4	38.3
120	38.3	38.6	39.1	48.3	40.6	52.5	38.5	50.0
144	37.9	48.4	38.4	47.8	39.4	54.0	39.2	54.2
168	38.8	54.8	41.4	55.7	55.4	54.6	54.8	55.4
192	55.2	55.0	54.9	54.1	53.3	54.6	55.3	54.9
216	54.7	54.6	54.4	53.8	54.1	53.8	53.7	52.9
240	52.3	52.2	52.3	51.4	50.8	48.3	50.7	49.0
264	50.6	48.0	50.7	47.0	45.0	38.8	42.8	42.3
288	42.0	41.1	40.5	40.5	40.6	40.9	38.0	37.4
312	38.4	38.0	37.1	43.2	37.9	40.9	44.9	40.2
336	42.8	38.9	42.1	41.2	40.5	40.2	40.1	39.3

DEPTH	2528.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	41.6	38.3	41.0	38.1	38.5	38.0	38.7	38.0
24	37.4	37.6	37.9	37.9	36.6	37.8	37.7	38.1
48	38.7	38.3	38.1	38.3	38.5	38.8	39.1	38.7
72	38.4	38.7	39.1	38.5	38.1	38.1	38.1	39.3
96	40.7	39.6	38.7	38.4	38.3	37.4	36.6	38.1
120	39.9	40.0	40.2	47.9	38.3	51.5	38.4	49.6
144	38.4	49.0	39.0	48.5	47.3	53.0	47.1	53.5
168	49.4	54.3	49.6	55.9	52.0	55.5	53.7	55.6
192	54.3	55.3	53.6	55.4	53.9	55.7	54.1	55.0
216	51.7	54.6	53.7	54.0	53.8	54.0	54.3	52.6
240	51.2	50.3	51.7	52.7	48.0	48.2	48.6	48.5
264	48.6	46.6	44.9	44.0	43.3	41.5	39.9	40.3
288	40.7	41.6	42.7	42.1	41.6	40.2	39.1	38.3
312	37.6	38.2	42.6	43.3	39.9	42.1	41.1	42.1
336	40.2	40.1	42.4	42.0	41.7	42.5	43.5	42.4

DEPTH	2530.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	38.1	38.3	38.7	38.2	37.8	37.9	38.1	38.3
24	38.7	38.3	38.1	37.7	37.4	38.3	39.4	38.2
48	37.2	37.7	38.3	39.3	40.5	38.7	37.2	37.5
72	38.0	37.9	38.0	38.6	39.4	39.3	39.4	39.8
96	40.3	39.6	39.1	38.2	37.4	38.1	38.8	39.4
120	40.2	40.9	41.7	47.6	38.8	50.5	40.7	49.2
144	37.7	49.5	37.9	49.2	49.1	52.0	52.8	52.8
168	52.9	53.9	55.1	56.0	56.1	56.3	53.2	55.8
192	53.9	55.6	56.6	56.6	53.9	56.8	54.3	55.2
216	54.1	54.5	49.8	54.3	54.4	53.3	52.4	53.5
240	48.8	50.5	49.3	52.2	48.6	47.7	46.9	45.9
264	45.1	44.6	44.2	44.5	45.0	44.5	40.0	39.9
288	41.6	40.0	38.7	40.6	38.4	40.0	42.8	39.4
312	49.3	38.8	48.4	43.4	45.1	44.4	43.8	43.9
336	44.2	44.1	44.2	44.1	44.2	41.2	41.1	41.0

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2532.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	39.5	39.2	39.0	38.7	38.5	38.6	38.8	38.5
24	38.3	37.8	37.4	37.3	37.3	37.6	38.0	37.5
48	37.2	37.1	37.2	38.5	37.4	38.3	37.3	37.5
72	37.6	37.5	37.6	38.5	39.5	39.4	39.5	39.8
96	40.2	39.3	38.5	39.5	40.7	41.4	42.4	41.4
120	40.6	41.9	43.5	47.2	51.8	49.5	47.5	48.8
144	50.3	50.0	49.8	49.9	50.1	51.0	52.1	52.1
168	52.1	53.4	54.9	55.8	53.0	56.8	56.7	56.3
192	56.0	55.7	55.9	56.2	56.5	56.2	55.8	55.3
216	54.7	54.4	54.4	54.5	54.7	54.0	55.5	54.3
240	51.1	50.1	52.5	51.7	51.0	48.9	49.5	44.4
264	43.6	43.6	44.3	43.9	43.6	43.7	39.5	39.6
288	41.3	39.3	39.8	39.3	40.3	39.3	40.7	39.2
312	47.5	39.2	43.6	43.6	43.6	43.8	44.2	43.8
336	43.6	43.6	43.6	42.6	41.7	40.7	39.8	39.6

DEPTH	2534.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	38.1	37.6	37.9	38.0	38.3	37.7	37.3	37.4
24	37.6	37.5	37.4	37.5	37.7	37.6	37.6	37.3
48	37.2	37.2	37.4	37.8	38.3	37.9	37.6	37.5
72	37.6	38.1	38.7	39.2	39.8	40.3	40.9	39.3
96	37.9	38.5	39.2	40.0	41.0	40.3	39.6	40.3
120	41.2	43.4	46.0	47.3	48.7	47.9	47.2	46.9
144	46.6	48.5	50.7	48.4	51.3	51.4	51.6	52.4
168	53.4	53.9	54.6	55.4	55.0	57.4	55.6	57.2
192	56.1	55.7	55.5	55.7	56.0	55.6	55.3	55.1
216	55.2	54.5	53.9	53.5	54.9	54.4	53.6	53.0
240	51.4	49.6	51.8	50.9	51.6	49.5	45.3	42.9
264	41.2	42.6	37.9	42.7	38.1	42.0	38.7	39.1
288	39.6	38.8	38.1	38.2	38.4	38.2	38.1	37.9
312	37.7	37.7	43.0	43.2	38.1	42.7	37.9	43.6
336	43.4	42.7	42.1	41.8	41.7	40.3	39.0	38.4

DEPTH	2536.1		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	38.5	38.3	38.3	38.2	38.3	37.8	37.4	37.5
24	37.7	38.1	38.6	36.7	37.6	37.5	37.4	37.4
48	37.4	37.5	37.7	37.8	38.0	37.7	37.6	37.5
72	37.6	38.4	39.4	39.4	39.6	40.1	40.6	40.3
96	40.2	41.8	43.6	44.4	45.3	44.6	44.0	45.0
120	46.2	45.8	45.5	46.8	48.2	48.1	48.2	48.1
144	48.2	48.8	49.7	51.0	52.5	51.7	51.0	52.7
168	54.6	54.4	54.2	55.0	56.0	57.7	55.7	57.7
192	57.0	56.5	56.1	55.9	55.9	56.1	56.4	56.3
216	56.4	55.3	54.3	54.7	55.2	54.6	54.2	51.9
240	53.9	51.8	55.2	50.1	52.1	49.8	46.2	43.0
264	41.5	41.6	41.4	41.5	42.5	40.3	38.4	39.5
288	40.9	39.1	37.6	37.9	38.4	38.2	38.0	37.8
312	37.6	37.3	42.1	42.5	43.1	43.4	43.7	43.4
336	43.1	41.8	40.6	41.1	41.7	39.9	38.3	38.3

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2538.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	38.1	38.2	38.4	37.9	37.4	37.7	38.0	37.9
24	37.9	37.7	37.7	37.6	37.6	37.4	37.3	37.3
48	37.4	37.7	38.0	37.8	37.7	37.7	37.7	37.8
72	38.0	37.9	40.3	40.3	39.4	40.1	39.5	40.2
96	39.6	42.1	45.0	44.5	44.2	44.5	45.0	46.5
120	48.2	48.1	48.2	48.5	49.0	48.5	48.2	48.5
144	49.0	50.2	51.6	52.4	53.4	52.4	51.6	52.7
168	53.9	54.1	54.4	54.4	54.6	57.2	54.5	56.7
192	56.3	56.1	56.0	55.5	56.0	55.0	54.9	55.2
216	55.6	54.2	53.1	52.9	52.8	53.4	52.7	51.3
240	50.8	51.5	50.6	49.4	50.4	48.9	45.9	43.8
264	41.2	40.6	37.6	40.6	37.6	41.2	37.7	39.4
288	37.9	38.8	37.4	37.7	38.1	37.8	37.6	37.8
312	38.2	37.8	41.3	41.8	37.9	42.7	37.2	42.7
336	42.7	40.5	39.8	40.0	40.4	39.3	37.7	37.9

DEPTH	2540.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	39.0	38.3	37.9	37.7	37.7	37.7	37.9	37.6
24	37.4	37.4	37.4	37.5	37.7	37.8	37.9	37.7
48	37.6	37.2	37.0	37.2	37.4	37.7	38.0	37.7
72	37.4	38.3	39.4	40.1	41.0	40.0	39.0	38.5
96	38.1	40.8	44.0	44.2	44.6	44.8	45.2	45.0
120	44.9	45.0	47.8	48.0	48.9	48.6	49.1	49.5
144	48.1	50.8	53.9	53.6	53.5	53.1	52.9	53.1
168	53.4	53.6	53.9	53.5	53.3	56.7	54.8	55.6
192	54.7	54.7	54.9	54.8	54.8	55.0	53.9	54.9
216	54.6	54.2	53.9	53.5	53.3	52.2	51.2	50.7
240	50.3	51.3	50.6	48.7	48.6	48.0	45.4	44.1
264	42.1	39.7	37.6	39.7	42.1	42.2	39.6	39.2
288	39.8	38.6	38.0	38.7	37.9	38.3	37.8	37.6
312	38.1	39.5	40.4	41.1	42.1	42.1	42.1	42.1
336	42.2	39.8	42.4	38.9	39.0	38.8	40.8	38.2

DEPTH	2542.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	38.5	37.7	37.0	36.8	36.8	36.8	36.9	36.9
24	37.0	36.8	36.6	36.8	37.2	37.1	37.2	37.4
48	37.7	37.7	37.9	37.2	36.8	37.6	38.6	38.1
72	37.7	39.3	41.2	40.3	39.6	38.8	38.1	38.0
96	38.0	40.6	43.7	43.7	43.8	43.8	43.9	43.8
120	43.8	45.5	47.5	47.5	47.6	48.7	49.9	50.5
144	53.4	52.5	50.3	52.2	52.6	52.8	53.2	54.1
168	55.2	54.6	54.2	55.8	54.2	56.1	54.8	54.5
192	54.3	54.5	54.8	54.7	54.8	54.8	54.9	54.6
216	54.5	53.8	53.2	53.2	53.4	52.7	52.1	52.1
240	52.1	51.0	58.9	49.7	57.0	47.2	45.5	43.7
264	42.2	39.9	38.0	38.9	40.1	39.6	39.2	39.2
288	39.2	38.5	38.0	37.8	37.7	38.8	38.0	37.4
312	38.3	39.5	39.5	40.3	41.4	41.1	40.9	40.9
336	40.1	39.0	38.1	38.1	38.1	38.4	38.8	38.6

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2544.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	39.9	38.6	37.4	37.0	36.8	36.7	36.8	36.7
24	36.8	36.8	36.9	36.8	36.9	36.8	36.9	36.6
48	36.5	36.7	37.0	37.9	37.0	37.5	39.2	38.3
72	41.4	39.3	39.6	40.6	38.8	39.6	40.5	40.3
96	40.2	40.2	40.3	42.7	45.4	44.8	44.3	44.5
120	44.8	44.7	50.3	50.9	50.6	50.3	50.4	53.6
144	53.1	53.4	53.9	54.0	54.2	54.1	54.2	54.0
168	54.0	54.1	54.3	54.6	55.0	55.8	55.2	55.9
192	55.2	55.0	54.9	55.0	54.8	54.4	54.2	53.7
216	53.4	53.3	53.4	52.8	52.4	52.3	52.3	52.2
240	52.0	51.1	50.6	50.8	42.4	47.4	41.4	43.2
264	37.4	38.9	40.6	40.1	39.6	38.7	37.9	37.7
288	37.7	38.8	40.1	39.8	39.6	39.0	38.4	39.3
312	40.3	39.4	38.7	39.6	40.7	40.2	39.8	39.6
336	39.5	38.6	37.9	37.5	37.3	38.4	39.6	39.7

DEPTH	2546.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	38.4	37.6	37.0	37.1	37.3	37.2	37.2	36.8
24	36.5	36.4	36.5	36.8	37.2	36.8	36.5	36.4
48	36.5	36.7	37.0	37.0	37.2	37.9	38.7	38.6
72	38.5	39.2	40.1	39.7	39.5	39.8	40.2	40.1
96	40.2	40.1	40.2	40.0	39.9	38.9	38.0	43.4
120	48.2	49.7	50.9	50.8	50.9	50.2	49.7	53.3
144	51.0	53.5	52.2	54.3	53.6	54.4	54.3	54.8
168	54.1	54.6	54.5	55.6	55.2	55.0	55.0	55.0
192	55.1	54.5	54.2	53.8	55.4	54.9	55.0	54.9
216	54.2	52.9	53.4	54.4	49.9	52.7	55.7	52.4
240	54.7	52.4	50.5	52.9	38.5	47.7	38.7	42.8
264	40.6	39.6	39.8	40.5	37.4	39.5	37.0	37.6
288	38.4	38.3	38.4	38.4	38.5	38.4	38.4	38.4
312	38.5	38.4	38.4	40.8	38.5	40.4	38.7	38.6
336	38.7	38.4	38.3	38.2	38.3	38.3	38.5	38.4

DEPTH	2548.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	38.0	37.6	36.6	36.6	36.6	36.5	36.5	36.4
24	36.5	36.4	36.5	36.4	36.5	36.4	36.5	37.0
48	37.6	37.0	37.6	36.7	37.0	37.0	37.8	38.0
72	36.5	39.0	40.7	39.8	39.1	39.2	39.1	40.0
96	41.2	40.3	39.6	39.3	39.1	38.0	37.0	37.8
120	49.0	49.7	50.6	51.2	51.0	51.0	52.7	53.0
144	52.9	53.3	53.8	54.6	54.9	55.0	55.2	55.2
168	54.8	55.1	55.9	55.6	55.3	55.4	55.3	55.2
192	55.7	55.7	40.0	54.5	36.8	55.3	36.5	55.2
216	39.0	53.1	39.1	53.9	38.3	52.9	36.9	52.6
240	36.9	51.3	36.6	52.9	40.5	47.5	36.8	42.7
264	39.0	39.8	40.6	41.0	41.6	40.4	39.5	39.5
288	39.6	39.0	38.5	38.6	38.7	38.6	38.5	37.4
312	36.5	36.5	40.5	41.3	41.7	41.5	41.4	40.5
336	39.6	39.0	38.5	38.5	38.5	38.6	38.7	38.3

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2550.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	38.1	37.3	36.6	36.2	36.9	37.2	36.6	36.6
24	36.6	36.5	36.5	36.0	36.6	37.0	36.6	36.6
48	37.0	37.2	37.6	37.5	37.6	37.2	37.0	36.8
72	36.6	38.8	41.4	39.9	38.7	38.6	40.3	40.7
96	38.8	41.0	37.2	37.9	38.7	37.9	37.2	37.2
120	49.4	49.7	48.8	51.5	48.8	51.6	51.3	52.9
144	51.2	52.9	51.7	54.8	54.3	55.6	54.3	55.5
168	54.9	55.6	55.0	55.6	52.1	55.6	55.4	55.3
192	55.7	56.2	36.9	55.2	38.3	55.6	39.2	55.4
216	37.6	54.5	36.7	53.4	36.8	52.9	38.6	52.6
240	36.9	50.5	37.0	52.1	43.3	47.0	43.5	43.5
264	43.6	42.4	41.4	41.4	41.6	40.2	39.0	39.4
288	40.1	39.2	38.5	38.5	38.5	38.3	38.3	37.4
312	36.8	37.0	43.3	41.8	42.7	41.1	41.7	40.6
336	41.4	40.0	38.8	38.6	38.5	38.3	38.1	38.1

DEPTH	2552.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	36.9	37.4	38.0	38.0	38.1	37.4	36.9	36.6
24	36.5	36.4	36.5	36.7	37.0	36.8	36.6	37.4
48	38.4	37.4	38.1	37.7	36.6	37.3	36.6	36.9
72	37.3	37.9	39.0	39.7	38.5	40.6	36.6	40.9
96	38.0	41.6	38.9	38.8	38.8	39.7	40.7	39.6
120	50.1	50.2	50.6	51.7	51.7	52.0	52.9	52.7
144	52.2	52.6	37.7	54.6	37.9	55.1	38.8	55.5
168	37.7	55.6	38.1	55.5	37.9	55.3	37.0	55.3
192	37.2	55.7	37.5	55.3	38.7	55.4	38.5	55.2
216	38.0	54.7	36.9	52.9	39.4	52.9	38.9	52.6
240	38.5	50.7	38.1	51.4	44.6	46.4	45.0	43.5
264	42.2	42.2	42.2	40.3	38.5	39.2	38.8	38.7
288	39.9	39.1	42.7	38.3	39.2	38.0	37.9	37.5
312	45.0	37.7	42.2	42.2	42.2	41.1	40.2	40.0
336	39.9	39.1	42.2	38.1	38.3	38.1	38.1	37.4

DEPTH	2554.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	38.0	37.3	36.8	37.4	38.1	37.6	37.2	36.7
24	36.3	36.6	36.9	36.8	36.9	37.0	37.3	36.9
48	36.6	37.3	36.6	37.6	37.2	37.4	37.0	36.8
72	36.9	38.0	36.9	39.7	36.6	40.9	37.4	41.1
96	36.8	42.2	41.0	43.3	46.1	47.2	48.4	49.5
120	50.8	50.8	50.9	51.5	50.9	51.9	50.9	52.6
144	52.3	52.8	37.0	54.2	36.8	54.5	38.5	55.5
168	38.3	55.6	37.4	55.4	36.8	54.9	36.8	55.2
192	36.9	55.2	36.8	55.4	41.2	55.2	37.6	55.0
216	38.2	54.4	38.0	52.6	37.9	52.6	38.7	51.7
240	38.4	51.0	41.2	50.6	40.2	45.9	44.2	43.3
264	42.5	42.2	42.0	40.1	38.4	38.4	38.5	38.4
288	38.4	38.1	37.9	37.9	38.1	37.4	36.8	40.3
312	37.5	38.8	42.5	42.3	42.1	41.1	37.4	37.9
336	38.4	38.4	38.5	38.5	38.5	38.9	39.4	38.6

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WALL RANGES VS DEPTH

DEPTH	2558.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	36.6	36.6	36.6	36.2	35.9	35.9	36.1	36.3
24	36.6	36.6	36.6	36.6	36.6	36.4	36.3	36.5
48	36.8	36.6	36.6	36.5	36.5	36.4	36.5	36.6
72	36.8	37.6	38.7	39.7	40.9	40.9	41.1	41.2
96	41.4	43.2	45.3	45.5	45.8	46.7	47.7	48.1
120	48.6	48.5	48.6	49.1	49.8	50.8	52.0	52.2
144	52.7	51.9	38.1	52.2	40.9	52.4	37.3	53.1
168	37.2	53.3	37.3	53.7	37.2	52.9	38.4	52.8
192	38.3	52.9	37.9	53.1	37.3	52.9	36.1	52.7
216	37.3	52.5	36.3	51.9	38.5	51.7	39.0	48.9
240	42.2	47.4	45.1	48.1	43.2	43.1	43.1	41.0
264	39.2	39.2	39.2	37.5	35.9	35.9	36.1	37.4
288	39.0	37.6	36.5	36.7	37.0	39.8	43.1	43.0
312	42.9	41.9	37.8	38.6	40.1	38.8	37.7	37.6
336	37.6	36.8	36.1	37.6	39.4	39.2	39.2	37.8

DEPTH	2562.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	31.8	31.8	31.8	31.8	31.8	31.6	31.5	31.2
24	31.0	30.9	31.0	30.9	31.0	30.9	31.0	30.8
48	30.7	30.6	30.6	30.8	31.0	31.0	31.1	32.6
72	34.3	34.9	35.7	35.3	35.1	36.8	38.7	37.9
96	37.3	36.3	35.4	34.4	42.4	41.6	44.2	43.1
120	43.8	43.6	43.5	43.9	44.5	45.1	45.8	46.9
144	48.2	46.9	46.9	48.0	48.2	49.0	49.9	49.8
168	49.6	50.2	51.1	51.3	51.3	49.8	49.3	49.4
192	49.4	49.6	49.9	49.8	49.8	49.6	49.5	49.1
216	48.9	49.0	49.0	48.0	46.9	47.2	47.6	46.2
240	44.9	43.7	42.7	45.4	38.3	40.1	32.4	35.7
264	33.7	32.8	31.9	32.6	33.3	32.8	32.4	32.2
288	32.2	32.1	32.1	31.9	31.8	32.0	32.4	32.1
312	31.9	32.0	34.9	34.9	33.5	33.0	32.6	32.2
336	31.8	32.0	32.4	32.3	32.4	32.2	32.1	31.9

DEPTH	2564.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	30.8	30.7	30.7	30.5	30.4	29.8	29.3	29.5
24	29.7	29.4	29.1	29.2	29.3	29.2	29.2	29.2
48	29.2	29.9	30.7	31.5	32.5	31.9	31.4	31.3
72	31.4	31.0	30.7	32.6	30.8	34.4	30.8	35.1
96	31.1	34.3	34.7	36.4	38.3	39.0	39.9	40.6
120	41.4	41.1	40.9	41.3	41.8	42.2	42.7	45.1
144	44.6	44.5	44.4	45.9	44.3	47.2	44.5	48.1
168	43.8	48.7	41.2	50.1	49.0	48.2	47.6	47.6
192	47.7	48.0	48.3	48.2	48.2	47.9	47.7	47.3
216	47.1	47.2	47.5	47.2	47.1	46.9	46.9	45.2
240	43.6	43.6	43.6	44.0	44.4	38.7	34.3	32.9
264	31.8	31.8	31.9	32.0	32.2	32.3	32.5	31.4
288	30.4	31.2	32.1	30.7	29.5	30.1	30.8	31.4
312	32.0	32.7	33.5	33.1	32.8	31.5	30.4	31.1
336	31.9	31.1	30.4	31.2	32.1	32.0	32.1	31.4

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WALL RANGES VS DEPTH

DEPTH	2566.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	27.7	27.9	28.2	28.3	28.4	28.3	28.4	28.0
24	27.7	28.2	28.9	28.4	28.0	28.0	28.1	28.5
48	28.9	28.8	28.8	29.1	29.6	29.6	29.6	29.8
72	30.2	30.6	31.1	31.5	32.1	32.1	32.2	32.2
96	32.4	33.5	34.0	35.8	38.6	38.0	38.6	39.3
120	42.2	40.3	43.8	40.5	43.6	41.6	43.5	43.5
144	43.6	43.6	43.6	43.8	44.2	45.4	46.9	46.4
168	46.1	47.2	48.8	48.8	48.6	48.2	48.0	48.0
192	48.2	47.1	46.2	46.2	46.2	46.1	46.1	46.1
216	46.2	46.1	46.1	45.3	44.6	44.5	44.4	43.1
240	42.0	42.6	34.0	41.8	29.1	38.0	29.6	32.2
264	28.2	31.1	29.5	30.9	29.9	29.2	28.6	28.3
288	28.0	27.9	28.0	28.3	28.8	28.1	27.5	30.3
312	33.9	32.8	31.9	30.8	29.7	29.6	29.6	28.9
336	28.4	29.6	31.1	29.9	28.8	28.7	28.6	28.1

DEPTH	2568.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	27.1	26.7	26.4	26.5	26.6	26.6	26.7	26.5
24	26.4	26.5	26.7	26.7	26.7	26.6	26.6	27.1
48	27.7	27.6	27.7	28.2	28.9	29.2	29.6	29.6
72	28.9	29.2	28.9	29.1	29.5	29.4	29.5	31.7
96	31.9	32.9	34.0	35.2	36.7	36.9	37.3	38.0
120	39.0	39.5	40.2	39.7	40.2	41.7	43.3	43.2
144	43.2	43.4	43.6	43.6	43.6	44.9	43.9	45.2
168	45.1	46.5	47.1	47.2	47.5	46.8	46.3	46.3
192	46.4	45.9	46.5	46.0	46.5	46.4	46.5	46.1
216	46.5	46.1	44.7	45.1	44.7	44.9	44.7	43.1
240	42.0	42.2	41.1	39.6	39.6	37.3	27.7	31.6
264	27.0	30.4	27.1	30.3	27.1	28.9	29.9	28.9
288	29.9	28.4	27.3	27.2	27.1	27.0	26.9	27.1
312	27.4	29.4	25.6	31.1	27.3	29.6	27.1	29.1
336	27.1	28.0	29.1	28.9	26.9	28.3	27.1	27.8

DEPTH	2571.9		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	27.0	26.6	26.3	26.1	25.9	26.1	26.4	26.4
24	26.4	26.4	26.4	26.1	25.8	25.5	25.3	25.5
48	25.8	25.7	25.6	26.0	26.4	26.3	26.2	26.8
72	27.5	28.1	28.0	28.2	28.0	28.9	28.1	30.9
96	28.1	31.6	29.1	32.6	32.4	34.0	29.3	35.8
120	29.3	37.1	27.0	38.8	26.0	41.8	26.0	42.8
144	30.3	42.8	44.7	42.9	45.1	44.8	44.6	44.8
168	45.1	45.1	45.1	45.1	45.1	44.8	44.6	44.5
192	44.6	44.5	44.4	44.4	44.4	44.7	45.0	44.4
216	43.9	43.9	44.0	44.4	44.9	44.3	43.9	42.6
240	26.7	41.4	29.7	39.5	29.5	37.6	27.5	31.7
264	29.2	30.0	28.6	29.2	26.6	28.8	25.9	27.9
288	26.3	27.2	26.4	26.2	26.6	26.5	26.6	26.4
312	26.3	26.4	29.3	30.7	29.3	29.1	29.1	30.1
336	28.4	28.3	29.9	27.9	29.6	27.1	27.8	27.4

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WALL RANGES VS DEPTH

DEPTH	2576.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	25.2	25.2	25.3	24.3	25.3	24.2	25.5	24.5
24	25.2	24.4	25.2	24.3	24.9	24.2	24.8	24.6
48	24.4	24.3	24.4	24.3	24.4	24.3	24.4	26.5
72	24.9	26.8	24.4	27.0	24.9	27.7	25.1	28.8
96	26.2	29.4	24.9	30.4	24.9	32.1	24.8	36.1
120	24.8	37.0	25.7	37.7	25.6	40.7	26.4	41.9
144	25.5	42.5	25.3	43.5	43.3	43.3	43.5	43.7
168	43.9	43.8	43.9	43.7	43.7	43.7	43.9	43.8
192	43.8	43.7	43.8	43.6	43.6	44.0	44.4	43.9
216	43.5	42.2	43.2	41.0	41.0	40.9	41.8	41.7
240	41.2	40.4	26.2	38.9	25.2	37.6	25.6	33.2
264	25.5	28.6	24.9	27.8	25.8	27.0	26.2	25.6
288	25.2	25.0	24.9	24.8	24.7	24.7	24.8	24.8
312	24.9	25.3	28.0	29.1	29.1	27.0	25.3	25.6
336	25.9	25.4	25.1	25.0	25.1	25.1	25.2	25.2

DEPTH	2578.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	24.2	23.9	23.6	23.5	23.6	23.6	23.7	23.6
24	23.6	23.2	22.9	22.8	22.7	22.8	23.0	23.0
48	23.0	23.2	23.4	23.5	23.6	23.7	24.0	24.6
72	25.4	25.5	23.7	25.2	23.8	26.4	23.7	27.9
96	24.1	28.4	26.3	29.6	24.7	31.4	23.7	35.5
120	23.7	36.4	23.6	37.2	23.4	40.0	40.8	41.3
144	41.7	42.4	43.1	44.0	44.2	44.0	44.0	44.3
168	44.7	45.2	45.8	45.0	44.3	44.2	44.2	44.3
192	44.4	44.7	45.0	44.7	44.6	44.2	43.9	43.6
216	43.4	43.3	43.4	41.7	25.2	41.3	25.1	41.4
240	25.2	40.4	22.3	38.9	24.9	37.0	25.1	32.8
264	24.7	28.0	26.0	26.5	23.4	25.6	23.8	23.8
288	23.8	24.1	24.4	24.6	24.8	24.8	24.8	24.6
312	24.4	25.1	27.7	29.1	26.0	26.6	25.9	24.9
336	24.1	24.1	24.1	24.5	25.1	24.2	23.4	23.8

DEPTH	2580.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	23.7	23.5	23.3	23.6	24.0	23.9	23.8	23.4
24	23.0	22.3	21.6	21.6	21.6	21.8	22.0	22.4
48	22.9	22.3	22.9	22.9	23.0	23.2	23.6	22.6
72	24.1	24.1	23.4	23.5	23.6	25.6	23.4	27.2
96	23.3	27.6	24.6	28.9	21.5	32.2	24.5	35.1
120	23.6	36.3	24.4	37.3	24.4	39.2	24.4	40.7
144	23.3	42.2	23.6	44.0	23.7	43.6	23.4	44.6
168	24.0	45.3	24.5	45.9	24.5	46.0	23.7	47.2
192	23.3	46.8	23.1	47.6	23.7	47.3	21.9	44.5
216	23.4	45.8	23.6	42.3	24.0	41.7	24.4	41.1
240	24.4	40.8	24.2	40.5	22.9	37.8	23.3	31.8
264	24.1	28.7	24.1	26.3	24.1	24.3	24.5	24.1
288	23.8	24.1	22.9	22.9	24.5	22.6	23.0	22.3
312	24.5	22.3	23.3	29.8	23.4	27.3	26.3	25.8
336	24.0	24.0	24.7	24.1	23.9	23.5	23.7	23.7

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WALL RANGES VS DEPTH

DEPTH	2582.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	22.7	22.4	22.6	22.0	23.0	22.1	23.8	22.0
24	22.9	21.5	21.8	21.3	20.8	20.7	20.7	20.7
48	20.8	20.7	22.5	22.7	20.5	22.9	20.5	23.9
72	21.4	24.1	20.7	24.5	20.7	25.9	20.7	27.2
96	20.7	28.2	21.6	29.5	23.4	33.5	23.8	36.0
120	22.9	36.7	24.1	37.8	21.1	38.4	21.2	41.6
144	21.4	43.4	20.9	45.1	22.9	47.2	22.9	48.7
168	23.7	49.4	23.7	48.7	23.3	50.7	23.1	52.1
192	21.7	48.8	21.3	51.3	21.6	51.4	23.4	50.0
216	24.0	48.8	23.7	47.1	23.8	47.6	23.7	47.4
240	23.4	46.3	23.1	42.9	22.7	39.7	24.5	30.8
264	24.5	28.3	24.5	26.2	24.1	24.4	23.4	24.2
288	23.3	22.5	21.9	21.8	21.8	22.3	23.7	21.8
312	23.0	22.8	23.0	31.3	22.9	28.2	23.8	26.1
336	24.0	24.3	24.8	24.2	23.7	22.6	23.5	23.3

DEPTH	2584.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	23.3	23.2	23.3	22.5	23.1	21.7	23.1	21.8
24	23.3	21.8	22.3	21.7	22.3	21.0	22.3	20.5
48	21.9	20.9	22.5	21.8	22.5	21.7	22.9	24.3
72	22.3	24.8	22.6	25.6	22.0	27.4	22.2	28.7
96	22.1	29.8	22.2	30.7	22.6	35.1	22.6	36.7
120	22.5	37.1	21.5	38.2	22.5	41.1	22.8	44.4
144	24.8	45.3	25.6	47.7	24.8	50.6	51.4	52.2
168	24.8	52.8	22.5	53.2	22.2	54.0	22.3	55.8
192	23.6	54.4	24.0	54.3	22.7	53.2	24.5	51.9
216	25.3	51.4	24.5	51.0	24.0	50.5	25.6	49.5
240	24.4	48.8	26.2	45.5	25.3	44.8	24.8	31.9
264	24.7	28.0	24.7	24.8	25.1	23.7	22.5	24.3
288	22.5	23.7	23.3	23.5	23.1	23.2	22.9	22.5
312	21.9	23.0	30.5	32.2	30.8	29.1	27.6	26.4
336	24.8	24.9	25.1	24.5	24.0	23.9	23.8	23.5

DEPTH	2586.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	22.6	22.6	22.6	22.3	22.0	22.2	22.3	22.6
24	23.0	22.8	22.6	22.6	22.6	22.5	22.5	21.8
48	21.2	21.4	21.6	21.8	22.0	21.7	21.4	24.7
72	22.2	25.5	22.7	27.5	22.7	29.2	22.0	29.9
96	21.6	31.2	21.5	32.4	23.6	35.0	23.3	37.4
120	22.7	37.6	22.3	38.5	22.2	44.1	21.9	47.3
144	23.3	49.6	23.1	53.2	23.3	53.6	22.7	54.8
168	22.6	55.0	23.0	55.7	22.6	56.0	22.7	57.2
192	22.6	57.0	23.0	56.0	23.6	54.7	22.9	53.7
216	22.0	53.9	21.9	54.0	22.6	52.6	22.7	50.4
240	22.7	49.6	23.3	47.2	23.6	45.0	23.6	34.0
264	22.6	30.0	22.7	26.3	22.7	27.0	26.9	26.4
288	23.7	23.3	23.8	23.8	23.8	22.7	21.8	21.7
312	21.6	21.6	32.0	34.8	22.9	30.7	21.8	28.4
336	27.4	26.7	26.5	26.3	22.9	24.5	23.7	23.1

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2590.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	26.7	26.7	26.7	26.5	26.4	26.5	26.6	26.5
24	25.8	25.5	26.3	25.3	26.9	25.4	26.6	25.4
48	26.3	25.6	26.3	26.1	26.0	26.0	27.5	28.3
72	26.2	29.6	24.9	31.4	27.1	32.4	27.1	33.9
96	26.7	36.1	27.0	36.5	27.3	38.3	27.1	41.0
120	27.4	42.5	26.9	40.3	27.4	46.4	27.5	49.1
144	27.4	51.2	26.4	53.3	26.3	54.6	26.3	55.6
168	26.2	55.1	26.7	55.8	28.4	56.4	27.3	57.6
192	27.3	57.4	25.4	56.3	24.5	55.8	25.4	54.9
216	25.5	56.2	26.4	55.8	27.7	54.9	27.3	51.9
240	24.5	49.3	26.7	48.3	26.6	45.8	25.1	38.6
264	25.1	36.4	25.3	33.8	26.2	30.7	24.9	29.5
288	25.9	28.6	27.0	27.6	26.9	26.8	27.4	26.3
312	26.7	28.3	26.6	38.4	26.8	36.2	27.1	33.2
336	27.4	30.1	28.8	28.6	26.2	27.8	24.9	27.3

DEPTH	2592.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	26.9	26.7	26.6	26.2	25.9	26.3	26.7	27.0
24	26.5	26.3	27.3	26.1	26.7	26.7	26.7	26.6
48	26.6	26.9	27.3	27.2	27.3	27.2	28.4	29.3
72	26.4	31.1	26.2	32.7	26.2	34.0	27.1	35.2
96	27.3	36.9	27.4	37.3	25.9	38.7	26.7	41.8
120	26.9	43.2	26.7	35.6	26.9	45.7	26.7	47.5
144	26.3	51.3	27.7	53.4	26.9	55.0	26.9	56.2
168	26.9	56.0	26.6	56.5	26.3	57.0	27.5	57.7
192	27.7	57.2	26.6	55.9	26.7	55.5	26.0	55.3
216	26.2	56.0	26.0	55.3	26.7	54.0	26.6	51.6
240	27.4	49.2	27.7	48.3	26.7	46.1	26.6	41.1
264	26.9	37.4	27.7	33.6	26.3	30.4	27.3	29.6
288	30.2	28.7	26.9	28.0	27.0	27.3	26.7	27.3
312	26.7	28.9	27.5	39.5	26.0	37.2	26.0	34.1
336	27.7	31.6	26.6	29.8	26.2	29.1	26.2	28.2

DEPTH	2594.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	28.1	28.5	29.0	28.2	27.5	27.5	27.6	27.5
24	27.5	27.4	27.4	27.4	27.5	27.1	26.8	27.3
48	27.8	27.3	27.0	27.3	27.6	27.6	29.1	30.0
72	30.6	31.4	32.7	33.3	33.9	34.3	34.8	35.7
96	36.5	37.4	37.7	37.8	37.2	39.1	39.3	39.9
120	40.6	37.6	35.1	31.1	39.4	39.8	40.3	42.8
144	50.8	51.4	52.2	53.4	54.4	55.4	56.2	56.9
168	56.9	57.0	57.1	57.2	56.8	57.5	57.6	57.8
192	58.1	56.9	55.9	55.6	55.4	55.3	56.6	55.6
216	55.4	55.8	55.3	54.7	54.0	52.8	51.6	50.8
240	50.0	49.3	48.6	48.1	47.5	45.9	43.0	42.6
264	40.4	38.9	37.0	33.9	32.4	31.2	30.7	30.2
288	29.7	29.2	28.8	28.5	28.2	27.7	27.6	27.7
312	27.6	29.3	36.3	38.0	37.7	36.8	35.6	33.8
336	32.3	31.2	30.7	30.2	29.9	29.5	29.0	28.6

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2598.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	26.3	25.8	27.5	25.6	27.5	25.4	27.1	27.2
24	26.7	27.3	27.5	28.2	27.1	27.1	29.5	26.9
48	29.5	26.7	30.4	27.7	31.5	29.0	33.6	30.3
72	34.6	30.5	35.4	32.5	36.3	34.2	31.1	35.1
96	30.6	35.3	28.4	34.6	27.4	30.9	27.7	27.8
120	28.0	28.4	28.9	28.5	38.7	28.9	38.5	32.8
144	57.6	55.4	53.4	51.3	49.5	49.5	49.5	49.7
168	50.1	49.9	49.9	50.1	50.4	51.8	47.5	51.0
192	46.6	50.9	43.9	50.4	44.3	49.7	49.6	49.5
216	49.6	49.5	49.7	49.8	50.0	50.4	50.9	50.9
240	51.1	50.2	49.4	49.0	48.6	47.1	45.8	45.0
264	44.3	43.9	43.5	43.4	43.4	42.8	42.4	42.6
288	43.0	42.9	42.9	41.4	40.1	40.2	40.4	37.0
312	34.1	32.3	30.8	30.6	30.6	30.2	30.0	29.4
336	28.9	27.6	26.5	26.1	25.7	25.5	25.3	25.8

DEPTH	2600.0		TILT	86		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	109.1	109.1	109.1	109.1	109.1	109.1	108.9	109.0
24	109.1	109.1	109.1	109.1	109.0	108.9	109.0	109.1
48	109.1	109.1	109.1	109.1	109.1	109.1	109.1	109.1
72	109.1	109.1	109.1	109.1	109.1	109.1	109.1	109.1
96	109.1	109.1	109.1	109.1	109.1	109.0	108.9	109.0
120	109.1	109.1	109.1	109.1	109.1	109.1	109.1	109.0
144	108.9	108.9	108.9	108.9	108.9	108.9	109.0	109.1
168	109.1	109.0	108.9	109.0	109.3	109.6	109.4	108.9
192	108.9	108.9	108.9	109.0	109.1	109.3	109.4	109.2
216	109.4	109.7	109.7	109.6	109.5	109.6	110.0	110.0
240	109.8	109.3	109.5	110.0	110.1	110.1	109.6	109.4
264	109.4	109.6	109.7	109.7	109.5	109.1	109.1	109.1
288	109.1	109.1	109.1	109.1	109.1	109.1	109.1	109.1
312	109.1	109.2	109.4	109.4	109.4	109.6	109.7	109.7
336	109.5	109.1	109.1	109.1	109.1	109.1	109.1	109.1

DEPTH	2600.0		TILT	81		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	108.3	108.3	108.3	108.3	108.3	108.3	108.3	108.4
24	108.6	108.4	108.5	109.0	108.8	108.3	108.3	108.3
48	108.3	108.8	109.4	109.3	108.9	108.0	107.8	107.8
72	108.6	109.1	109.1	109.3	109.4	109.4	109.4	109.4
96	109.5	109.7	109.7	109.7	109.7	110.0	110.5	110.0
120	109.6	109.5	109.6	110.0	110.0	109.9	109.8	109.9
144	110.2	110.1	110.0	110.0	110.1	110.2	110.1	110.0
168	110.0	110.0	110.0	110.0	110.0	110.2	110.4	110.5
192	110.2	110.1	110.4	110.6	110.8	110.8	110.8	110.8
216	110.8	110.8	111.0	110.9	110.4	110.6	111.1	110.6
240	110.2	110.2	110.2	110.2	110.6	110.7	110.4	110.0
264	109.7	109.7	109.4	108.6	108.2	108.1	108.2	108.3
288	108.3	108.2	108.1	108.0	108.1	108.3	108.4	108.6
312	108.4	108.6	109.4	109.8	110.0	109.8	109.7	109.7
336	109.1	108.3	108.3	108.3	108.1	108.2	108.3	108.3

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	78		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	108.4	108.5	108.7	108.9	108.9	108.8	108.4	108.5
24	108.9	108.7	108.7	109.0	108.9	108.6	108.3	108.0
48	107.8	107.9	108.1	108.5	108.8	108.4	108.3	108.3
72	108.3	108.5	109.2	109.4	109.4	109.6	109.7	109.7
96	109.9	110.2	110.2	110.3	110.5	110.5	110.5	110.7
120	110.7	110.4	110.4	110.5	111.0	111.3	111.1	110.8
144	110.5	111.0	111.3	111.1	111.1	111.1	111.1	111.1
168	111.1	111.3	111.6	111.5	111.2	110.9	110.9	111.1
192	111.2	111.4	111.6	111.6	111.6	111.3	111.2	111.5
216	111.5	111.3	111.3	111.4	111.6	111.8	112.2	112.2
240	112.2	112.2	111.8	111.3	111.2	110.7	109.7	109.4
264	109.4	108.9	108.6	108.6	108.8	109.1	108.8	108.7
288	108.8	108.8	108.6	108.4	108.4	108.5	108.6	108.6
312	108.8	109.0	109.3	109.6	110.0	109.5	109.0	108.7
336	108.5	108.3	108.2	108.2	108.5	108.6	108.6	108.4

DEPTH	2600.0		TILT	75		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	109.7	109.7	109.4	108.9	108.9	108.9	109.1	109.0
24	108.9	108.7	108.5	108.4	108.4	108.6	108.6	108.7
48	108.8	108.9	108.9	108.9	108.9	108.9	109.0	109.1
72	109.3	109.5	109.6	109.7	109.7	109.9	110.1	110.6
96	111.0	111.3	111.3	111.3	111.3	112.0	113.0	113.0
120	112.9	112.8	112.8	113.0	112.5	112.2	112.2	112.1
144	111.9	112.9	113.4	113.1	112.8	112.4	112.4	112.6
168	112.9	112.7	112.2	112.2	112.4	113.3	113.1	112.4
192	112.3	112.3	112.6	112.5	112.2	112.3	112.4	112.4
216	113.1	114.1	113.6	113.4	113.7	113.8	113.8	113.7
240	113.8	114.6	114.0	112.7	112.9	112.8	112.3	111.4
264	110.2	110.2	110.4	110.7	110.1	109.1	109.1	109.2
288	109.4	109.4	109.4	109.6	109.6	109.5	109.5	109.7
312	109.5	109.6	110.1	110.4	110.5	110.7	110.7	110.4
336	109.8	109.1	109.1	109.2	109.4	109.6	110.0	109.8

DEPTH	2600.0		TILT	72		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	109.2	108.5	106.6	105.8	104.9	105.4	107.6	97.6
24	97.3	97.3	96.8	95.1	94.6	94.6	94.4	94.3
48	94.3	92.9	91.0	91.2	91.3	91.3	91.6	92.1
72	92.4	92.7	92.9	91.0	91.2	91.3	91.8	91.7
96	91.7	91.7	91.8	91.8	107.4	101.0	101.6	103.4
120	107.5	113.6	114.0	114.4	114.0	114.1	106.8	115.2
144	115.2	114.4	114.0	114.5	115.4	116.6	115.7	115.2
168	115.4	115.0	114.4	114.5	114.9	115.5	115.7	115.7
192	115.1	114.8	115.1	115.2	115.2	115.0	114.6	113.8
216	114.0	114.6	114.5	114.3	114.1	114.1	114.1	113.9
240	113.8	113.6	113.6	113.8	113.6	113.2	112.2	111.7
264	111.3	110.8	110.5	110.7	110.9	111.1	100.4	109.3
288	109.3	94.7	94.9	93.2	92.1	92.1	92.3	109.6
312	109.5	109.5	109.7	94.1	92.7	109.8	109.7	109.6
336	93.2	94.0	94.4	94.6	94.6	93.6	109.5	109.4

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	69		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	92.7	89.7	92.6	92.6	92.9	93.3	93.9	94.0
24	93.9	91.3	89.7	89.7	89.5	89.2	89.0	88.9
48	89.1	89.0	88.9	90.7	91.3	89.1	88.5	88.6
72	88.9	89.3	89.8	89.7	89.4	89.6	89.7	89.9
96	87.8	89.2	89.5	89.6	90.6	90.7	90.7	89.8
120	92.3	90.6	91.7	92.8	93.5	93.6	93.7	95.2
144	108.6	108.6	108.6	110.8	111.0	111.0	110.8	110.6
168	117.4	117.6	118.1	117.1	116.5	116.5	116.4	116.2
192	116.2	115.9	115.0	114.9	115.2	114.2	114.1	115.5
216	115.6	115.2	114.5	114.2	114.5	114.3	113.9	113.9
240	113.9	113.9	114.0	114.1	113.8	113.6	113.6	109.3
264	90.5	91.2	91.2	89.7	90.9	93.6	93.6	109.6
288	109.6	86.0	81.8	80.8	80.2	80.0	84.6	92.6
312	92.9	92.6	109.6	109.5	90.7	89.9	89.4	89.2
336	90.9	107.8	90.9	90.6	89.7	109.4	109.4	109.2

DEPTH	2600.0		TILT	66		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	86.8	86.8	87.1	86.9	86.7	85.2	84.4	85.5
24	86.5	86.4	89.7	89.7	89.9	90.2	89.9	89.6
48	89.5	89.2	89.0	89.1	89.1	88.7	88.8	89.2
72	89.8	90.2	90.2	90.4	90.7	87.0	84.8	85.0
96	84.0	82.6	88.1	87.1	90.2	87.2	89.6	90.0
120	90.3	90.7	92.1	94.8	96.1	98.4	93.8	93.7
144	95.7	95.7	95.7	95.9	96.0	95.8	95.8	95.9
168	96.0	96.2	97.3	98.5	100.8	117.8	117.5	117.9
192	117.9	118.0	118.1	117.8	117.4	117.1	116.7	116.1
216	109.6	101.5	100.1	99.2	109.9	110.3	110.1	110.1
240	110.3	97.0	96.7	96.3	96.9	96.6	94.7	92.5
264	90.2	90.8	90.7	89.4	86.3	82.6	82.1	88.8
288	86.4	85.8	81.9	81.4	81.4	82.1	82.4	82.6
312	86.6	89.7	90.4	90.6	90.4	89.7	89.2	89.2
336	86.3	86.8	87.4	87.8	88.2	87.6	86.8	86.7

DEPTH	2600.0		TILT	63		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	83.2	83.7	83.5	83.1	83.1	83.0	82.9	82.7
24	82.6	83.0	82.8	81.1	80.4	82.2	82.3	82.3
48	82.4	83.8	83.6	83.4	83.5	83.9	84.4	85.0
72	85.5	86.1	84.8	84.4	84.2	84.4	86.7	85.1
96	84.6	84.8	84.9	86.6	82.9	83.3	83.8	83.8
120	83.9	84.0	94.8	94.8	95.3	95.4	95.0	94.7
144	94.6	94.7	95.2	96.2	96.2	95.8	96.4	96.8
168	96.8	96.6	96.3	98.3	100.3	102.3	101.7	100.0
192	100.8	101.8	102.8	103.0	102.7	100.4	99.1	99.4
216	99.9	100.5	100.7	100.7	100.0	98.6	97.0	97.0
240	96.8	96.2	95.5	94.6	94.7	94.7	94.2	90.1
264	92.2	92.5	92.5	91.7	88.1	83.6	83.8	88.5
288	84.0	83.9	83.8	83.8	83.8	83.6	83.3	82.8
312	82.8	83.4	85.3	85.6	85.0	86.3	86.6	84.9
336	84.2	84.1	83.7	83.7	83.9	83.8	83.6	83.3

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	60		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	75.6	75.5	75.7	75.9	76.5	75.4	74.6	75.0
24	74.7	75.0	74.4	72.1	73.1	76.0	74.6	74.0
48	74.9	74.6	75.0	75.5	81.8	75.5	75.0	74.9
72	75.0	76.0	76.7	77.4	78.8	78.7	78.8	79.4
96	80.5	78.3	77.5	78.7	79.2	79.5	80.0	80.0
120	80.3	81.2	81.8	91.0	92.0	96.3	96.3	96.9
144	97.8	98.2	98.2	97.3	97.4	98.0	98.0	97.9
168	97.4	97.4	97.5	97.4	97.4	97.9	98.2	98.5
192	98.0	97.9	98.2	94.4	89.2	97.4	97.0	97.1
216	97.3	98.0	100.0	100.6	98.1	97.1	96.8	96.3
240	95.9	95.8	93.5	95.0	95.3	95.2	95.1	90.9
264	94.6	94.6	94.6	94.4	90.3	83.0	80.0	79.3
288	78.5	78.5	78.9	79.2	79.5	79.8	79.8	79.6
312	78.0	78.7	84.4	86.1	85.5	83.4	82.4	83.4
336	81.8	82.4	84.3	83.5	83.2	83.7	79.6	76.6

DEPTH	2600.0		TILT	57		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	70.4	69.2	68.2	67.7	67.4	67.3	67.4	67.4
24	67.5	67.4	67.5	67.5	67.5	67.4	68.4	69.2
48	69.7	69.7	69.6	68.4	67.8	68.2	70.6	69.6
72	69.1	70.8	74.0	73.9	73.0	73.6	74.0	74.2
96	69.7	76.3	77.0	77.4	77.8	77.5	77.2	77.6
120	77.9	79.0	80.6	88.7	90.7	92.1	92.1	92.1
144	92.1	95.3	97.7	87.8	87.3	97.3	98.3	98.5
168	97.2	96.4	95.8	95.2	94.6	93.8	94.1	94.8
192	95.0	95.0	94.9	94.5	94.1	94.1	93.9	93.5
216	93.4	93.6	92.8	92.4	92.7	92.6	92.4	91.8
240	91.5	91.8	91.7	91.4	91.4	88.6	81.3	77.7
264	75.7	76.4	76.7	76.2	91.5	74.8	72.9	71.8
288	72.0	70.5	69.6	69.8	69.1	70.6	69.5	68.4
312	69.5	72.4	79.4	80.1	77.4	77.3	81.0	80.2
336	79.7	74.7	71.2	69.8	71.8	70.8	70.5	70.4

DEPTH	2600.0		TILT	54		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	64.6	63.8	62.7	61.3	62.3	62.9	62.6	62.1
24	61.5	62.1	62.1	60.9	61.5	63.0	62.5	62.0
48	63.6	63.0	64.0	62.8	62.3	63.4	64.4	65.4
72	62.1	66.6	69.8	69.0	67.4	67.5	68.6	68.3
96	68.2	68.2	76.3	75.4	75.4	75.8	76.4	77.7
120	78.8	78.5	78.4	79.6	92.3	84.3	80.7	80.5
144	85.1	84.7	84.5	84.5	84.7	92.6	92.6	92.8
168	93.2	93.9	94.8	94.4	93.6	92.3	92.6	93.9
192	93.5	93.2	92.8	91.7	90.4	92.1	93.3	93.2
216	93.0	92.9	92.4	91.5	92.0	91.5	91.3	89.6
240	86.5	85.9	87.4	89.9	87.1	83.5	78.7	75.2
264	72.5	67.1	67.3	68.3	68.1	67.0	65.8	65.6
288	65.9	65.6	65.3	65.4	65.6	65.4	65.4	63.5
312	62.3	62.5	67.5	68.6	67.6	67.8	67.0	66.2
336	66.1	65.7	65.3	65.2	65.3	65.3	65.5	65.1

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CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	51		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	59.8	59.2	58.3	59.3	60.5	59.6	58.8	58.1
24	57.7	58.0	58.4	58.4	58.5	58.6	49.7	58.1
48	58.3	59.3	60.8	59.9	59.4	59.3	58.9	58.3
72	59.3	60.5	62.0	63.1	64.0	63.9	64.1	64.5
96	66.0	64.8	65.1	61.7	72.0	62.3	62.6	62.2
120	71.7	71.9	75.4	75.7	79.7	77.1	77.6	78.0
144	79.1	79.7	80.7	81.5	82.9	82.1	81.3	83.4
168	84.8	85.4	87.1	89.1	89.3	89.6	89.3	88.7
192	88.4	88.4	89.2	89.9	90.7	90.2	89.4	87.7
216	86.8	86.3	86.4	86.6	86.9	86.2	85.0	82.5
240	81.2	82.2	80.3	77.2	76.9	74.8	69.7	67.4
264	66.4	65.4	65.2	65.4	63.4	63.0	61.6	61.1
288	62.3	62.4	62.0	60.7	59.9	59.9	59.8	59.7
312	59.2	60.4	65.0	65.8	64.7	65.3	65.4	64.5
336	63.4	62.3	60.9	59.8	60.8	60.9	61.0	60.4

DEPTH	2600.0		TILT	48		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	40.5	39.7	39.3	39.2	38.9	39.0	39.9	39.6
24	38.7	39.3	39.4	38.3	38.0	38.3	39.1	39.5
48	39.2	38.9	38.7	38.9	39.1	39.4	40.4	42.0
72	43.1	43.7	43.1	49.0	62.4	61.2	60.6	61.3
96	62.0	62.7	64.9	62.6	63.2	64.0	64.7	65.1
120	72.4	74.2	75.2	76.0	75.5	75.2	75.3	77.1
144	80.0	78.2	77.3	77.7	80.7	79.0	79.3	79.8
168	80.2	80.2	80.5	80.3	79.9	86.3	86.4	86.4
192	85.9	84.7	83.6	82.2	84.1	81.9	80.4	82.2
216	82.6	80.9	80.4	79.8	79.6	78.5	77.8	77.8
240	77.8	75.9	75.7	75.6	74.5	71.4	65.2	65.0
264	63.2	61.2	62.8	46.2	43.3	43.1	43.1	43.0
288	42.8	42.5	42.2	40.0	39.1	40.3	38.6	35.8
312	37.5	42.1	56.5	62.6	44.5	61.3	56.7	43.3
336	42.8	42.2	42.8	43.1	42.4	42.1	42.0	41.3

DEPTH	2600.0		TILT	45		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	35.7	35.6	35.1	34.6	34.3	34.3	34.7	35.0
24	35.4	35.3	35.4	35.5	35.1	34.4	35.0	35.2
48	34.9	36.0	38.1	37.5	36.7	35.5	35.8	36.9
72	38.5	39.6	39.6	39.8	40.2	40.7	41.8	44.5
96	45.9	46.6	48.0	51.6	65.0	66.6	68.2	69.2
120	70.0	70.2	71.1	72.5	72.1	72.5	74.5	75.1
144	75.0	75.6	76.3	76.7	76.8	76.7	77.2	77.3
168	76.7	77.0	77.9	78.6	77.8	78.7	78.8	79.1
192	78.4	78.1	78.1	78.0	77.9	77.4	77.2	77.4
216	76.2	74.4	76.2	76.9	75.3	74.8	75.0	74.2
240	73.2	71.3	72.5	75.6	73.8	64.7	48.8	44.2
264	42.9	41.6	41.0	41.6	41.5	41.2	40.0	39.2
288	39.1	37.6	35.6	35.7	35.7	35.4	35.0	34.6
312	34.8	36.6	42.6	44.2	42.9	41.6	40.9	41.3
336	41.1	40.6	39.8	39.2	39.1	37.6	35.6	35.7

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CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	42		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	32.4	31.8	31.5	31.6	31.8	31.8	31.9	31.5
24	31.2	29.9	28.9	28.9	28.6	28.7	29.2	30.2
48	28.7	30.0	31.3	31.0	30.9	30.9	32.6	35.6
72	35.9	36.2	36.3	37.7	40.0	39.1	39.2	41.5
96	42.6	43.1	43.1	46.2	58.9	62.8	64.9	66.0
120	67.1	68.0	68.9	69.7	69.8	70.2	71.1	70.8
144	69.9	70.6	71.7	73.7	74.5	74.8	74.8	74.6
168	74.3	74.7	75.6	74.8	74.5	74.8	74.7	74.4
192	75.5	75.8	74.1	74.3	75.4	74.8	74.4	74.5
216	74.2	73.8	72.0	71.0	71.3	71.1	70.7	70.8
240	70.3	68.5	67.8	67.6	65.7	51.2	47.1	42.5
264	42.0	40.6	39.6	38.9	37.8	36.7	33.4	31.5
288	31.5	31.1	30.7	30.6	30.5	30.5	30.3	29.9
312	28.5	29.6	38.0	41.1	40.0	39.8	39.0	37.3
336	34.7	32.1	31.6	31.3	31.4	31.1	31.6	31.9

DEPTH	2600.0		TILT	39		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	29.4	28.7	28.2	27.8	27.7	27.7	27.9	27.7
24	27.3	27.2	27.1	27.2	27.1	27.0	26.4	26.1
48	26.2	27.3	29.1	29.5	29.9	30.1	30.2	30.3
72	30.1	30.1	30.5	30.8	31.0	32.8	34.6	36.1
96	36.9	37.3	38.3	39.4	40.8	42.7	44.9	45.7
120	46.5	47.1	48.8	51.1	52.1	53.3	54.6	59.7
144	68.3	68.6	69.0	69.1	69.1	69.1	70.2	71.3
168	72.4	71.5	69.6	71.2	71.8	70.3	70.2	70.8
192	70.5	70.6	71.5	71.3	70.6	70.9	70.9	70.4
216	69.9	69.5	67.8	66.9	67.2	66.5	65.3	58.5
240	54.7	54.8	53.0	50.5	48.6	46.9	45.6	41.1
264	39.7	35.7	34.9	33.3	32.0	30.8	31.1	31.2
288	30.9	30.3	29.6	29.7	29.5	28.6	28.1	27.8
312	27.7	29.2	35.4	37.0	35.5	34.0	33.1	33.0
336	32.1	30.8	31.1	31.2	31.0	30.7	30.3	29.9

DEPTH	2600.0		TILT	35		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	28.3	28.3	28.0	27.5	26.9	26.5	26.3	26.6
24	27.2	26.9	26.7	26.8	26.3	25.6	25.5	25.2
48	24.7	24.8	25.4	25.9	26.4	26.8	27.9	29.4
72	29.7	30.0	30.1	30.1	30.1	31.5	32.5	32.6
96	32.8	33.1	34.2	35.1	35.4	38.2	43.2	44.4
120	45.5	45.8	46.3	47.0	49.5	51.5	52.0	52.7
144	53.5	52.4	51.8	52.0	53.0	54.6	54.5	54.6
168	55.2	57.1	59.9	59.9	59.6	58.6	57.8	57.2
192	56.4	56.0	56.3	56.2	56.1	56.9	57.2	56.3
216	56.2	56.4	55.4	54.9	55.1	54.9	54.6	52.5
240	51.2	50.9	49.7	48.1	47.6	46.9	45.7	40.9
264	35.8	35.1	34.1	32.6	31.2	30.0	29.6	29.4
288	29.2	29.0	28.9	28.5	28.3	28.3	28.0	27.5
312	26.9	28.1	34.2	35.9	34.5	33.7	32.9	31.7
336	30.8	30.1	29.5	29.1	28.9	28.7	28.5	28.4

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CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	30		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	26.4	26.3	26.2	26.1	26.2	26.4	26.7	26.5
24	26.1	26.0	26.0	25.9	26.0	26.3	25.9	25.6
48	25.2	25.0	25.0	25.9	26.6	26.8	27.4	28.3
72	28.5	28.8	29.5	30.3	31.2	31.7	32.2	32.8
96	33.3	33.7	33.7	34.3	36.5	37.7	38.5	40.4
120	41.8	41.7	42.0	42.6	44.8	46.8	47.9	48.4
144	48.7	49.1	49.6	49.9	49.8	49.6	49.9	50.1
168	49.8	50.6	52.0	51.2	50.9	51.6	51.5	51.1
192	51.1	51.1	51.0	51.0	51.1	52.1	52.5	51.6
216	50.5	49.5	49.7	49.8	49.7	49.0	48.3	48.1
240	47.5	46.3	45.3	44.5	44.4	42.5	37.9	35.3
264	33.6	32.2	31.0	29.9	29.7	29.8	29.3	28.6
288	27.3	26.8	27.7	27.6	27.6	27.0	26.6	26.3
312	26.5	28.3	34.5	36.0	34.4	33.1	31.9	30.6
336	30.1	30.0	29.9	29.7	29.2	28.1	27.0	26.6

DEPTH	2600.0		TILT	25		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	28.3	28.1	27.9	27.8	27.8	27.7	27.4	27.2
24	27.1	27.0	27.0	27.1	27.1	27.1	27.1	27.1
48	27.2	27.5	27.9	28.4	28.8	29.1	28.9	28.7
72	29.4	30.0	30.3	31.2	32.6	32.5	32.6	33.0
96	33.4	34.0	34.1	35.0	37.4	38.7	39.2	40.1
120	40.8	40.6	41.0	41.8	41.9	42.3	43.5	44.5
144	45.4	46.5	47.5	48.3	48.2	47.7	48.0	48.2
168	48.2	48.7	49.4	49.2	49.1	48.9	49.0	49.4
192	49.8	50.2	50.2	50.0	49.8	49.6	49.1	48.0
216	48.3	49.2	47.7	46.7	46.6	46.1	45.4	45.2
240	45.1	45.2	45.3	45.4	45.2	43.1	38.0	35.9
264	35.1	33.1	31.3	29.7	29.8	30.9	30.6	30.2
288	29.6	29.1	28.7	28.4	28.2	28.3	28.1	27.8
312	27.8	29.3	34.4	35.9	35.1	33.4	32.3	32.0
336	31.3	30.4	30.1	29.9	29.7	29.2	28.5	28.4

DEPTH	2600.0		TILT	20		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	28.8	28.3	28.2	28.2	28.3	28.3	28.2	28.0
24	27.8	27.5	27.3	27.2	27.3	27.4	27.3	27.3
48	27.2	27.4	27.8	28.0	28.3	28.6	29.2	30.0
72	30.4	31.0	32.0	32.4	32.6	32.6	32.9	33.9
96	34.7	35.6	35.9	36.1	35.9	37.1	39.2	39.9
120	40.3	40.1	40.4	41.0	42.9	44.8	46.4	47.1
144	47.3	47.6	48.0	48.7	49.8	51.1	51.6	52.1
168	52.7	52.6	52.1	52.1	52.4	53.4	53.9	54.3
192	52.7	52.1	53.5	53.8	53.6	54.2	54.2	53.0
216	52.4	52.1	51.6	51.3	51.6	51.8	52.0	51.8
240	51.7	51.4	49.9	48.0	47.8	47.6	39.7	37.5
264	37.4	37.5	37.5	37.0	35.1	32.9	32.0	31.3
288	30.9	30.3	29.7	29.3	29.0	28.6	28.3	28.2
312	28.3	30.0	36.4	38.6	37.8	36.9	35.4	33.1
336	31.9	31.2	30.7	30.2	29.8	29.5	29.2	29.0

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CUSTOMER : Marathon Petroleum
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WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	15		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	28.9	28.4	28.4	28.5	28.3	28.1	28.1	27.9
24	27.6	27.5	27.4	27.4	27.4	27.5	27.4	27.3
48	27.2	27.4	27.6	28.0	28.4	28.9	29.5	30.4
72	31.3	32.1	32.9	33.6	34.4	35.0	35.6	36.0
96	36.7	37.7	37.7	37.9	38.3	39.5	41.3	42.0
120	42.8	43.6	44.9	46.7	47.3	48.1	49.3	50.4
144	51.4	52.4	53.5	55.0	55.4	55.4	56.0	56.6
168	56.8	56.9	57.1	57.7	58.0	57.8	58.2	59.1
192	59.0	58.8	58.3	57.8	57.5	56.4	55.7	55.5
216	55.4	55.5	55.7	55.7	55.6	54.4	52.9	52.4
240	51.9	51.5	50.8	49.9	49.2	46.9	42.0	39.6
264	38.4	37.7	36.6	34.6	32.8	31.4	31.0	30.6
288	30.0	29.7	29.4	29.1	28.8	28.4	28.4	28.5
312	28.3	30.0	37.3	39.6	38.2	37.6	36.8	35.6
336	34.2	32.9	31.7	30.8	30.6	30.2	29.8	29.3

DEPTH	2600.0		TILT	10		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	28.8	28.3	28.2	28.3	28.1	28.0	27.9	27.9
24	27.9	27.7	27.6	27.6	27.7	27.9	27.9	27.8
48	27.7	27.8	28.1	28.1	28.4	29.2	29.9	30.7
72	31.2	32.0	33.1	33.8	34.4	34.8	35.3	36.1
96	36.9	37.8	38.1	38.4	38.5	39.6	41.4	42.7
120	43.7	43.9	44.3	31.5	45.9	47.1	48.4	50.0
144	52.0	52.1	52.7	54.2	55.0	55.5	56.1	56.5
168	56.1	56.0	56.1	56.7	57.2	57.3	57.7	58.4
192	58.5	58.3	57.7	57.1	56.8	56.6	56.4	55.8
216	56.2	57.1	56.8	56.7	56.6	55.9	55.0	52.9
240	51.2	49.9	49.3	49.1	48.1	46.8	44.9	42.4
264	40.0	38.6	36.9	34.4	32.9	31.9	31.4	30.9
288	30.4	29.9	29.4	29.2	28.8	28.3	28.2	28.3
312	28.1	29.9	37.6	40.6	39.9	38.4	36.6	34.3
336	32.7	31.5	31.1	30.8	30.5	30.0	29.6	29.2

DEPTH	2600.0		TILT	5		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	26.5	26.2	26.0	25.9	25.4	25.5	26.8	27.4
24	27.7	27.7	27.8	27.8	27.7	27.7	27.5	27.4
48	27.3	27.5	27.8	28.3	28.8	29.2	30.0	31.1
72	30.9	31.2	32.3	33.7	35.2	35.6	36.1	36.8
96	37.4	38.0	38.5	37.7	34.4	32.0	30.0	29.0
120	28.5	29.0	29.1	29.1	29.2	29.5	30.0	36.0
144	50.8	51.6	52.6	53.6	54.6	55.9	56.7	57.4
168	57.6	57.6	57.8	57.7	57.1	55.2	54.5	54.3
192	54.9	55.1	54.3	55.4	53.8	53.6	57.1	55.9
216	55.7	55.9	55.3	54.5	53.5	52.1	50.6	50.3
240	49.9	49.5	48.9	48.2	47.7	45.8	41.6	44.1
264	42.8	42.0	41.1	40.0	39.3	38.6	38.1	38.0
288	37.9	37.6	37.4	36.6	35.8	35.7	35.7	34.1
312	32.4	31.8	32.0	32.3	32.1	31.6	31.1	30.2
336	29.5	28.1	27.0	26.6	28.7	27.9	27.7	27.0

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	22.9	23.1	23.3	23.8	24.4	26.0	27.8	26.9
24	26.2	25.7	25.3	24.9	24.5	24.8	25.1	25.0
48	25.0	23.6	29.8	25.4	29.5	28.9	28.4	28.5
72	28.6	28.9	29.3	30.3	31.5	31.8	32.2	32.6
96	33.0	31.5	30.2	30.0	30.0	28.5	27.3	27.3
120	27.4	27.2	27.0	27.0	27.0	27.2	27.4	27.4
144	27.4	34.9	48.2	47.8	47.6	47.3	47.1	47.0
168	47.1	47.0	47.1	48.5	50.1	49.6	49.3	48.6
192	48.2	48.1	48.2	47.0	45.9	46.9	48.0	47.9
216	47.9	48.2	48.6	47.7	47.1	46.6	46.2	46.5
240	46.9	48.1	49.4	49.3	49.3	48.6	48.0	47.7
264	47.6	45.5	43.6	43.2	42.9	42.7	42.5	41.6
288	40.9	40.3	39.9	39.7	39.6	39.9	40.3	38.7
312	40.3	31.2	27.3	28.9	20.5	26.5	19.6	23.6
336	19.7	21.5	14.6	19.4	14.8	17.6	15.5	20.0

DEPTH	2600.0		TILT	-4		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	13.4	17.9	14.1	14.5	15.0	17.1	20.0	20.5
24	21.0	21.0	21.1	22.6	24.3	24.5	24.8	24.1
48	23.4	23.7	24.0	24.0	24.0	22.4	21.0	21.4
72	21.8	21.8	21.8	23.7	25.9	25.6	25.3	25.2
96	25.3	25.1	25.1	27.0	29.4	30.3	26.9	27.8
120	27.9	28.6	27.8	28.1	25.6	28.2	25.5	26.7
144	24.5	26.4	25.0	28.8	26.1	35.4	25.8	43.0
168	46.6	45.7	45.1	45.3	45.6	45.5	45.5	47.1
192	45.3	44.3	45.4	45.6	45.9	45.5	45.3	43.6
216	42.2	41.5	40.9	43.5	46.7	45.8	45.1	45.2
240	45.4	45.1	45.0	44.5	44.2	43.8	43.4	45.2
264	43.1	44.2	47.3	45.7	44.3	43.4	42.7	41.6
288	40.8	40.8	41.0	40.9	40.9	40.1	39.4	35.8
312	32.9	29.9	27.4	27.2	27.1	23.4	20.7	19.8
336	19.0	17.8	16.8	15.8	15.0	14.0	17.1	16.8

DEPTH	2600.0		TILT	-9		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	13.5	13.8	13.4	13.4	13.4	15.8	19.3	19.2
24	19.1	19.7	20.3	20.5	20.8	21.9	23.3	23.1
48	23.0	23.3	23.6	14.8	10.8	10.5	10.3	13.9
72	21.3	21.3	21.4	22.0	22.7	22.8	23.0	23.6
96	24.3	24.8	25.3	25.9	26.6	27.2	28.0	27.8
120	27.6	27.6	27.6	27.5	27.4	25.7	26.4	25.3
144	24.2	23.5	24.2	24.5	25.0	25.3	25.7	31.9
168	42.3	42.4	42.7	42.4	42.2	42.1	42.2	41.6
192	41.2	40.2	39.4	39.6	40.0	39.8	39.7	39.0
216	38.5	37.9	37.3	40.1	43.3	43.4	43.6	42.3
240	41.2	41.8	42.6	41.9	41.3	41.2	41.3	40.9
264	40.7	39.7	38.8	39.5	40.2	38.2	36.5	36.4
288	36.4	35.7	35.2	33.9	32.8	32.8	32.8	32.5
312	23.1	22.9	22.8	21.1	19.7	19.3	18.9	17.0
336	15.5	15.1	14.8	14.6	14.3	14.3	14.3	14.3

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	-12		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	12.0	12.2	12.5	13.5	12.6	14.7	14.7	16.3
24	18.4	18.7	19.0	19.1	19.1	14.2	11.3	11.3
48	11.3	11.1	11.0	10.6	10.3	10.0	9.8	9.6
72	9.5	9.5	9.5	9.4	9.4	9.3	9.4	13.2
96	22.4	22.8	23.3	23.3	23.2	24.4	25.7	26.4
120	27.1	27.1	27.2	27.2	27.2	27.0	26.8	24.5
144	22.7	22.6	22.6	23.1	23.7	23.6	23.7	26.9
168	31.2	34.7	39.2	39.7	40.4	39.7	39.0	38.7
192	38.4	38.3	38.3	38.2	38.2	38.2	38.3	37.8
216	37.4	37.4	37.4	38.0	38.6	38.6	38.6	39.0
240	39.6	39.3	39.0	38.9	38.9	38.5	38.2	37.6
264	37.1	37.7	38.5	37.9	37.3	36.7	36.1	36.0
288	36.0	35.1	34.2	34.2	34.2	33.2	32.4	30.9
312	29.7	22.6	18.3	17.3	18.5	17.0	15.2	14.7
336	14.3	14.0	13.7	13.6	13.7	13.0	12.4	12.2

DEPTH	2600.0		TILT	-15		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	12.0	11.9	11.7	11.8	11.9	13.7	17.7	15.4
24	15.0	16.3	18.1	18.0	18.1	13.9	11.3	11.1
48	10.9	10.8	10.8	10.4	10.1	9.8	9.5	9.2
72	9.0	9.0	9.1	9.1	9.0	9.0	9.0	12.2
96	18.8	19.9	21.1	21.1	21.1	23.0	25.3	25.5
120	25.7	25.7	25.7	26.2	26.8	26.7	26.7	24.2
144	22.2	22.2	22.3	22.5	22.8	23.2	23.7	26.6
168	30.4	33.8	38.1	37.6	37.2	37.1	37.0	37.5
192	38.1	36.9	35.9	35.9	36.0	35.9	35.8	35.7
216	35.7	35.0	34.4	35.1	35.9	36.5	37.2	37.5
240	38.0	38.3	38.8	38.7	38.6	37.3	36.1	36.2
264	36.4	36.3	36.4	36.5	36.7	36.0	35.5	34.0
288	32.7	32.5	32.4	32.0	31.6	30.7	29.9	21.8
312	17.2	16.8	16.5	16.4	16.5	15.2	14.1	13.8
336	13.6	13.3	13.0	12.4	11.8	11.9	12.0	12.0

DEPTH	2600.0		TILT	-18		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	11.1	11.2	11.4	11.4	11.4	12.8	14.6	14.5
24	14.5	14.5	14.5	12.5	11.0	10.9	10.9	10.5
48	10.1	10.0	9.9	9.7	9.5	9.2	8.9	8.7
72	8.6	8.6	8.7	8.7	8.8	9.0	9.2	12.4
96	19.2	20.0	20.9	20.9	21.1	21.7	22.4	22.8
120	23.2	23.8	24.4	24.4	24.4	24.9	23.9	22.5
144	18.9	20.4	22.3	22.3	22.4	22.5	22.7	27.2
168	28.3	29.7	34.0	32.8	34.6	34.4	34.4	34.7
192	35.1	35.1	35.2	34.6	34.1	34.1	34.1	33.7
216	33.4	33.0	32.7	29.8	27.5	28.2	29.0	31.9
240	35.6	35.7	36.0	35.5	35.1	35.0	35.0	34.9
264	34.8	34.1	33.4	33.4	33.5	33.4	33.4	32.4
288	31.5	31.3	31.2	25.1	21.1	18.5	16.6	16.9
312	17.2	16.5	15.8	13.8	12.3	12.3	12.4	12.1
336	11.9	11.6	11.4	10.4	9.6	9.6	9.6	10.3

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	-21		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.1	9.9	10.9	10.8	10.7	12.2	14.2	14.4
24	14.6	12.6	11.1	10.8	10.5	10.4	10.4	10.2
48	10.0	9.7	9.5	9.2	8.8	8.8	8.8	8.7
72	8.5	8.3	8.1	8.1	8.1	8.1	8.1	11.4
96	19.2	19.8	20.6	20.2	20.0	20.3	20.6	20.6
120	20.5	21.5	22.7	23.0	23.4	23.4	23.5	21.0
144	23.4	21.8	18.9	22.4	22.5	22.1	22.7	24.5
168	26.6	26.6	26.6	29.2	32.3	32.4	32.6	32.8
192	33.0	33.0	33.0	33.0	33.0	32.4	31.8	31.6
216	31.5	31.5	31.5	28.8	26.6	26.7	26.8	30.3
240	28.2	33.3	34.1	33.4	32.9	33.0	33.1	33.0
264	33.0	32.4	32.0	31.9	31.9	31.5	31.1	31.0
288	30.9	18.9	13.6	13.0	12.4	11.8	11.4	11.0
312	10.7	10.7	10.7	10.3	10.0	9.8	9.6	9.6
336	9.6	9.6	9.7	9.7	9.7	9.3	9.0	9.0

DEPTH	2600.0		TILT	-24		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.5	8.7	8.9	10.9	14.2	14.0	14.0	14.0
24	14.0	12.1	10.7	10.4	10.0	10.0	10.0	9.6
48	9.2	9.1	8.9	8.7	8.6	8.4	8.2	8.2
72	8.1	8.1	8.0	7.9	7.8	7.9	8.0	8.0
96	8.0	10.7	16.2	16.2	16.3	17.4	18.8	19.3
120	19.9	21.1	22.5	22.6	22.7	23.1	23.4	23.5
144	23.6	23.6	23.6	22.6	21.7	21.7	21.7	22.6
168	23.7	24.1	24.6	25.8	27.2	29.2	31.7	31.5
192	31.3	27.5	31.4	28.1	31.8	27.7	31.7	24.4
216	24.5	24.1	23.7	23.7	23.6	25.0	26.6	28.9
240	31.8	31.3	30.9	31.1	31.5	31.4	31.5	27.5
264	24.5	24.4	24.3	17.1	13.2	11.8	10.8	10.7
288	10.7	10.8	10.9	10.6	10.3	9.7	9.1	9.4
312	9.8	9.6	9.4	9.4	9.4	9.2	9.1	9.0
336	9.0	8.9	8.7	8.7	8.7	8.6	8.7	8.6

DEPTH	2600.0		TILT	-27		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.1	8.2	8.4	10.5	14.0	14.0	14.0	13.9
24	13.8	11.7	10.1	9.8	9.6	9.5	9.4	9.2
48	8.9	8.9	8.8	8.5	8.3	8.2	8.1	7.9
72	7.8	7.8	7.8	7.8	7.8	7.7	7.7	7.9
96	8.0	8.0	8.0	11.0	17.7	17.7	17.7	17.5
120	17.4	19.2	21.6	21.8	22.1	22.4	22.9	22.9
144	23.0	23.3	23.6	23.6	23.6	23.4	23.2	23.5
168	23.9	23.8	23.8	24.0	24.2	23.6	23.2	23.1
192	23.1	23.9	24.8	24.5	24.3	24.3	24.3	14.9
216	10.8	10.8	10.8	14.9	23.8	23.8	23.8	24.0
240	24.2	23.6	23.2	23.1	23.2	23.9	24.8	24.6
264	24.5	17.1	13.2	11.9	10.9	10.8	10.9	10.8
288	10.8	10.3	9.9	9.5	9.1	9.1	9.1	9.2
312	9.3	9.3	9.3	9.0	8.7	8.8	8.9	8.6
336	8.4	8.3	8.2	8.2	8.3	8.3	8.3	8.2

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	-30		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.8	7.9	7.9	10.0	13.7	13.7	13.6	13.8
24	14.0	11.7	10.0	9.8	9.6	9.3	9.0	8.9
48	8.9	8.7	8.5	8.3	8.0	7.9	7.8	7.8
72	7.7	7.6	7.6	7.5	7.5	7.4	7.4	7.5
96	7.6	7.7	7.8	7.8	7.8	10.7	16.6	16.7
120	16.8	16.9	17.0	18.9	21.4	21.4	21.4	22.1
144	23.0	22.8	22.5	22.9	23.3	23.4	23.5	23.7
168	24.0	23.9	23.9	22.6	21.4	16.7	13.7	13.8
192	13.8	13.3	12.8	12.4	12.1	11.4	10.8	10.6
216	10.4	10.5	10.6	14.3	22.0	23.0	24.1	23.1
240	22.2	22.2	21.5	18.3	22.6	12.9	12.1	12.1
264	12.1	11.3	10.7	10.6	10.7	10.2	9.9	9.8
288	9.7	9.3	8.9	8.9	9.0	8.7	8.4	8.4
312	8.4	8.3	8.2	8.0	7.8	7.9	7.9	7.9
336	8.0	7.5	7.0	7.2	7.4	7.2	7.1	7.4

DEPTH	2600.0		TILT	-33		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.8	7.3	7.9	9.9	13.4	13.5	13.6	11.6
24	10.1	9.7	9.4	9.4	9.3	9.1	8.8	8.6
48	8.4	8.2	8.0	8.0	8.0	7.8	7.7	7.7
72	7.6	7.5	7.4	7.4	7.4	7.3	7.3	7.3
96	7.4	7.5	7.8	7.8	7.8	7.9	8.0	8.1
120	8.2	11.1	17.0	17.0	17.0	18.9	21.3	21.2
144	21.2	21.8	22.6	22.6	22.5	21.7	20.9	20.4
168	19.9	19.5	19.2	19.6	20.0	14.7	11.6	11.6
192	11.5	11.5	11.5	10.4	9.4	9.1	8.9	9.6
216	10.4	10.2	10.0	13.5	20.8	19.9	19.2	20.0
240	21.0	21.0	20.9	14.9	11.6	11.6	11.6	11.4
264	11.2	10.8	10.4	10.4	10.4	9.8	9.2	9.0
288	8.8	8.5	8.2	8.2	8.2	8.2	8.1	7.9
312	7.6	7.6	7.6	7.6	7.6	7.5	7.4	7.2
336	7.1	7.0	6.9	6.8	6.6	6.6	6.6	6.7

DEPTH	2600.0		TILT	-36		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.7	7.1	7.6	9.8	13.7	13.7	13.7	11.6
24	10.1	9.8	9.6	9.4	9.1	9.0	8.8	8.6
48	8.5	8.2	8.0	7.9	7.8	7.6	7.4	7.4
72	7.4	7.3	7.2	7.2	7.2	7.2	7.2	7.2
96	7.2	7.2	7.2	7.3	7.4	7.5	7.6	7.8
120	8.0	10.4	14.7	15.0	15.3	15.4	15.5	15.6
144	15.7	15.8	15.8	18.0	21.0	20.4	19.9	19.8
168	19.9	19.0	18.3	18.3	18.3	14.2	11.6	11.3
192	11.1	10.0	9.1	8.9	8.7	8.7	8.6	8.7
216	8.8	9.0	9.1	12.5	19.9	19.1	18.3	18.2
240	18.2	19.0	18.7	13.7	11.6	10.7	10.4	10.4
264	8.7	9.6	8.4	9.3	8.6	8.9	9.2	8.4
288	9.1	8.1	8.1	7.8	8.0	7.6	7.8	7.4
312	7.7	7.2	7.1	7.1	7.3	6.9	7.1	6.8
336	6.7	6.7	6.6	6.5	6.4	6.5	6.4	6.7

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	-39		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.9	8.4	10.8	10.7	10.6	10.6	10.6	10.3
24	10.1	9.6	9.2	8.9	8.6	8.4	8.3	8.1
48	7.9	7.8	7.8	7.6	7.5	7.3	7.2	7.2
72	7.2	7.1	7.1	7.0	7.0	7.0	7.0	7.0
96	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.8
120	7.9	10.3	14.6	14.6	14.5	14.2	14.0	14.0
144	14.0	13.7	13.5	13.7	14.0	16.3	19.5	18.9
168	18.4	17.9	17.5	17.4	17.5	12.7	10.4	12.4
192	9.7	9.4	9.1	8.7	8.4	8.3	8.3	8.1
216	8.0	8.0	8.1	11.4	18.8	17.8	16.8	17.1
240	17.5	17.4	17.4	12.6	9.9	9.9	10.0	9.5
264	9.1	8.7	8.3	8.3	8.3	8.2	8.1	8.0
288	7.8	7.7	7.6	7.4	7.3	7.2	7.1	7.0
312	6.9	6.9	6.9	6.7	6.5	6.4	6.3	6.4
336	6.4	6.4	6.4	6.3	6.3	6.3	6.5	6.7

DEPTH	2600.0		TILT	-42		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	6.7	9.1	10.0	10.3	9.9	10.3	10.8	10.5
24	10.2	9.6	9.0	8.6	8.1	8.0	7.8	7.8
48	7.8	7.7	7.6	7.4	7.3	7.2	7.1	7.1
72	7.1	7.1	7.1	7.0	7.0	6.9	6.7	6.8
96	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.7
120	7.9	8.0	8.1	8.1	8.1	9.9	12.8	12.8
144	12.8	12.9	12.9	13.2	13.6	15.0	16.9	16.8
168	16.8	17.0	17.1	17.1	17.2	11.6	10.5	12.0
192	9.3	9.1	8.9	8.7	8.5	8.3	8.1	8.0
216	8.0	7.7	7.4	10.3	16.9	16.7	16.6	16.6
240	16.7	16.8	16.9	12.0	9.3	9.3	9.3	8.9
264	8.6	8.4	8.1	8.1	8.1	7.8	7.5	7.3
288	7.2	7.2	7.2	6.9	6.7	6.7	6.7	6.7
312	6.7	6.7	6.6	6.5	6.4	6.3	6.3	6.2
336	6.2	6.2	6.1	6.2	6.4	6.5	6.6	6.6

DEPTH	2600.0		TILT	-45		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.8	9.8	9.9	9.9	9.9	10.1	10.3	9.9
24	9.6	9.0	8.4	8.3	8.2	7.9	7.6	7.6
48	7.6	7.4	7.3	7.3	7.2	7.2	7.1	7.1
72	7.0	6.9	6.8	6.8	6.7	6.7	6.7	6.8
96	6.8	7.0	7.1	7.2	7.2	7.3	7.3	7.6
120	7.8	7.8	7.8	8.2	8.5	8.5	8.5	9.8
144	11.6	11.6	11.6	11.7	11.7	13.8	16.7	16.6
168	16.6	16.4	16.3	12.9	10.7	10.7	10.7	10.5
192	10.2	9.1	8.2	8.0	7.8	7.7	7.7	7.6
216	7.5	7.3	7.1	10.0	16.4	16.7	17.0	13.1
240	10.7	10.7	10.7	10.5	10.4	9.1	8.0	8.0
264	8.0	8.0	7.9	7.7	7.5	7.3	7.1	7.0
288	7.0	6.8	6.5	6.5	6.4	6.4	6.5	6.4
312	6.4	6.4	6.4	6.3	6.1	6.1	6.1	6.0
336	5.9	6.0	6.1	6.2	6.3	6.4	6.5	7.8

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	-50		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.1	9.1	9.1	9.3	9.6	9.5	9.5	9.3
24	9.2	8.6	8.1	8.1	8.1	7.7	7.3	7.3
48	7.3	7.3	7.2	7.1	7.0	6.9	6.9	6.8
72	6.8	6.7	6.7	6.7	6.7	6.7	6.7	6.8
96	6.8	6.8	6.9	7.0	7.1	7.2	7.3	7.5
120	7.6	7.6	7.7	7.7	7.7	8.0	8.3	8.3
144	8.3	8.6	8.9	10.3	12.4	12.4	12.4	13.8
168	15.5	12.3	10.2	10.2	10.2	10.1	10.0	10.0
192	9.9	8.6	7.5	7.4	7.3	7.2	7.0	6.9
216	6.8	6.8	6.8	9.5	15.7	12.3	10.1	10.2
240	10.2	10.1	10.0	9.9	9.9	8.5	7.4	7.4
264	7.3	7.2	7.1	7.1	7.1	7.0	6.9	6.7
288	6.5	6.3	6.2	6.1	6.1	6.0	5.9	6.0
312	6.0	6.0	6.0	5.9	5.9	5.8	5.7	5.7
336	5.7	5.7	5.7	5.8	5.9	7.2	9.1	9.1

DEPTH	2600.0		TILT	-55		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.7	8.7	8.7	8.9	9.0	9.3	9.6	8.9
24	8.4	8.3	8.2	7.9	7.6	7.5	7.4	7.4
48	7.3	7.2	7.1	7.1	7.0	6.9	6.8	6.8
72	6.8	6.7	6.7	6.7	6.6	6.7	6.7	6.7
96	6.8	6.8	6.9	6.9	7.0	7.0	7.1	7.2
120	7.3	7.4	7.5	7.6	7.8	7.8	7.8	8.0
144	8.3	8.6	8.9	9.3	9.8	9.9	10.0	9.9
168	9.9	9.8	9.8	9.8	9.7	9.7	9.7	9.6
192	9.6	8.1	7.0	7.0	7.0	6.8	6.6	6.4
216	6.3	6.3	6.3	7.6	9.8	9.8	9.8	9.8
240	9.7	9.7	9.7	9.6	9.6	8.1	7.0	7.0
264	7.0	6.8	6.6	6.4	6.3	6.3	6.3	6.2
288	6.1	6.0	6.0	6.0	6.0	6.0	5.9	5.8
312	5.7	5.6	5.6	5.6	5.5	5.4	5.4	5.4
336	5.5	5.6	5.8	6.9	8.6	8.6	8.7	8.7

DEPTH	2600.0		TILT	-60		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.5	8.5	8.5	8.6	8.7	8.7	8.7	8.5
24	8.3	8.2	8.2	7.9	7.6	7.6	7.5	7.4
48	7.3	7.2	7.1	7.0	7.0	6.9	6.8	6.7
72	6.7	6.7	6.7	6.8	6.8	6.8	6.8	6.9
96	7.0	7.0	7.0	6.9	6.9	6.8	6.7	7.0
120	7.3	7.3	7.3	7.5	7.6	7.7	7.8	7.8
144	7.9	7.9	7.9	9.0	10.3	10.1	9.8	9.8
168	9.7	9.6	9.5	9.5	9.4	9.4	9.4	9.4
192	9.4	7.8	6.7	6.6	6.4	6.4	6.4	6.2
216	6.1	6.1	6.1	7.5	9.8	9.6	9.5	9.5
240	9.4	9.4	9.4	9.4	9.4	7.7	6.6	6.5
264	6.4	6.3	6.2	6.2	6.1	6.0	5.9	5.9
288	5.9	5.8	5.7	5.7	5.7	5.6	5.5	5.4
312	5.4	5.3	5.3	5.3	5.2	5.3	5.3	5.5
336	5.7	6.8	8.3	8.3	8.4	8.3	8.4	8.4

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	-65		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.1	8.1	8.0	8.4	8.8	8.5	8.2	8.3
24	8.3	8.1	7.9	7.8	7.7	7.6	7.5	7.2
48	7.0	7.0	6.9	6.9	6.8	6.9	6.9	6.9
72	6.9	6.9	6.9	6.9	6.9	6.9	7.0	6.9
96	6.9	6.9	6.9	6.9	7.0	7.0	7.0	7.0
120	7.0	7.2	7.5	7.5	7.5	7.6	7.6	7.7
144	7.9	8.1	8.4	8.8	9.4	9.4	9.4	9.5
168	9.6	9.6	9.5	9.4	9.3	9.3	9.2	9.2
192	9.2	9.1	9.1	9.0	9.0	9.0	9.1	9.1
216	9.1	9.4	9.7	9.7	9.7	9.6	9.5	9.5
240	9.5	9.4	9.3	9.2	9.2	9.1	9.1	9.1
264	9.1	9.1	9.1	9.1	9.1	7.1	5.8	5.7
288	5.7	5.6	5.6	5.5	5.4	5.4	5.3	5.3
312	5.3	5.3	5.3	5.4	5.5	5.6	5.8	5.8
336	5.7	6.7	8.1	8.1	8.1	8.1	8.1	8.1

DEPTH	2600.0		TILT	-70		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	8.0	8.0	8.0	8.0	8.0	8.1	8.1	8.1
24	8.0	7.9	7.7	7.5	7.4	7.4	7.3	7.2
48	7.0	7.1	7.1	7.1	7.1	7.0	7.0	7.0
72	7.0	6.9	6.9	6.9	6.9	6.9	6.9	6.9
96	6.9	6.9	6.9	6.9	7.0	7.0	7.0	7.0
120	7.0	7.1	7.1	7.3	7.5	7.6	7.6	7.7
144	7.8	7.8	7.9	8.5	9.3	9.3	9.2	9.3
168	9.3	9.3	9.3	9.3	9.2	9.2	9.1	9.1
192	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.0
216	9.0	9.2	9.5	9.5	9.5	9.4	9.3	9.3
240	9.2	9.2	9.2	9.2	9.1	9.1	9.1	9.1
264	9.1	9.1	9.0	9.0	9.0	9.0	9.0	9.0
288	9.1	9.1	9.2	9.2	9.2	6.8	5.4	5.5
312	5.7	5.7	5.7	5.7	5.6	5.6	5.6	6.6
336	8.1	8.0	7.9	7.9	7.9	7.9	7.9	7.9

DEPTH	2600.0		TILT	-75		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.8	7.9	7.9	8.1	8.2	8.1	8.0	8.0
24	8.0	7.9	7.8	7.8	7.8	7.6	7.3	7.3
48	7.3	7.3	7.3	7.2	7.2	7.2	7.3	7.3
72	7.3	7.3	7.3	7.2	7.1	7.1	7.1	7.1
96	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
120	7.2	7.2	7.2	7.4	7.5	8.2	9.1	9.0
144	9.1	9.1	9.1	9.2	9.2	9.3	9.4	9.3
168	9.2	9.2	9.2	9.2	9.2	9.1	9.1	9.1
192	9.2	9.1	9.1	9.1	9.1	9.0	9.1	9.1
216	9.1	9.3	9.6	9.5	9.5	9.4	9.2	9.2
240	9.3	9.2	9.1	9.1	9.1	9.1	9.1	9.1
264	9.1	9.0	9.1	9.1	9.1	9.1	9.1	9.0
288	9.1	9.0	9.1	9.1	9.2	9.2	9.3	8.7
312	8.2	8.2	8.2	8.2	8.2	8.1	8.1	8.0
336	7.9	7.9	7.8	7.9	7.9	7.9	7.8	7.8

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2600.0		TILT	-80		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	7.9	7.9	7.9	7.9	8.0	8.8	9.7	9.6
24	9.5	9.5	9.5	9.4	9.2	8.4	7.7	7.7
48	7.6	7.6	7.5	7.5	7.5	7.5	7.5	7.5
72	7.5	7.4	7.4	7.4	7.4	7.4	7.4	7.5
96	7.6	7.7	7.8	7.7	7.7	7.7	7.7	7.7
120	7.7	8.1	8.4	8.4	8.5	8.5	8.5	8.7
144	8.8	8.8	8.7	8.7	8.7	9.0	9.2	9.2
168	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
192	9.2	9.1	9.1	9.1	9.1	9.1	9.1	9.1
216	9.1	9.2	9.2	9.2	9.2	9.2	9.2	9.2
240	9.2	9.2	9.2	9.2	9.2	9.1	9.1	9.1
264	9.1	9.1	9.2	9.2	9.2	9.2	9.2	9.2
288	9.2	9.2	9.2	9.2	9.2	9.2	9.2	8.8
312	8.3	8.3	8.4	8.3	8.2	8.1	8.1	8.1
336	8.1	8.1	8.0	8.0	8.0	8.0	7.9	7.9

DEPTH	2600.0		TILT	-85		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	9.2	9.2	9.2	9.3	9.4	9.4	9.4	9.4
24	9.4	9.4	9.4	9.2	9.1	9.0	9.0	9.0
48	9.1	9.0	9.0	9.0	9.0	8.9	8.7	8.7
72	8.7	8.9	9.2	9.2	9.2	8.7	8.3	8.3
96	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
120	8.3	8.3	8.3	8.4	8.6	8.6	8.6	8.6
144	8.6	8.6	8.6	8.6	8.7	9.0	9.4	9.4
168	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
192	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
216	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
240	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
264	9.4	9.3	9.3	9.3	9.3	9.3	9.3	9.4
288	9.5	9.5	9.5	9.5	9.5	9.4	9.3	9.3
312	9.3	9.3	9.4	9.2	9.1	9.1	9.2	9.2
336	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2

DEPTH	2602.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	13.5	14.1	13.4	13.4	13.4	16.2	19.7	19.9
24	20.2	20.5	20.8	21.9	23.4	24.0	24.6	23.9
48	23.4	23.7	24.0	17.5	10.3	10.0	9.7	14.5
72	21.7	21.7	21.8	23.3	25.4	25.1	24.9	25.0
96	25.2	25.1	25.2	27.0	29.4	30.4	27.0	28.0
120	29.2	28.8	28.5	28.3	28.3	28.4	28.6	26.8
144	25.2	25.1	25.1	27.5	30.5	37.5	48.7	47.8
168	47.1	46.9	46.9	46.2	45.6	46.9	46.8	47.7
192	45.7	45.7	45.9	45.8	45.9	45.3	44.9	45.4
216	45.9	46.4	47.1	47.2	47.5	47.1	46.9	46.2
240	45.6	45.5	45.6	45.6	45.7	45.7	45.7	45.3
264	45.0	44.9	44.9	45.6	46.5	45.7	45.1	45.1
288	40.9	40.8	42.7	40.6	40.8	40.1	39.3	40.4
312	38.1	29.8	26.9	26.3	25.7	22.0	19.9	18.2
336	16.5	15.8	16.2	15.4	14.7	14.7	14.7	14.1

SONIC

CUSTOMER : Marathon Petroleum
DATE : November 09, 2022
CAVERN :State LPG No. 4
OPERATION No. :1

WALL RANGES VS DEPTH

DEPTH	2604.0		TILT	0		VOS	5976.00	
Bearing	+ 0	+ 3	+ 6	+ 9	+ 12	+ 15	+ 18	+ 21
0	5.7	6.3	7.0	10.2	10.5	12.2	14.2	14.8
24	14.4	17.3	18.6	18.7	18.8	9.4	9.4	8.7
48	8.2	8.1	8.0	7.5	7.1	7.0	6.8	6.7
72	6.7	6.6	6.4	6.4	6.4	6.3	6.2	11.0
96	23.5	24.2	24.9	25.7	26.5	27.4	27.7	27.7
120	27.7	27.6	27.6	27.5	27.4	25.6	26.2	25.1
144	23.1	23.0	23.8	24.1	24.5	26.1	25.5	36.9
168	45.5	44.9	44.4	44.5	44.7	44.6	44.6	45.8
192	44.1	43.0	43.5	43.8	44.2	43.8	43.6	42.0
216	40.8	40.0	39.4	42.4	45.9	45.2	44.7	44.4
240	44.2	44.2	44.3	43.7	43.9	43.0	42.7	44.0
264	43.8	43.8	43.8	43.2	42.7	42.6	42.7	41.9
288	41.3	41.2	41.2	41.1	41.0	40.3	39.7	33.7
312	32.0	22.6	17.0	16.4	17.1	6.7	8.2	5.4
336	5.4	5.3	5.2	5.0	5.0	5.1	5.3	5.5

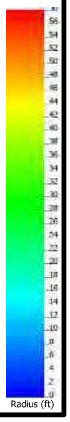
SONIC SURVEYS	CUSTOMER :Marathon Petroleum	CAVERN :State LPG No. 4	
	DATE :November 09, 2022	OPERATION No. :1	

VIEW FROM NORTH

with an overhang of 10°

SCALE 1/110





Results shown in the present document have not been validated nor controlled and cannot be considered as definitive. they cannot be used for interpretation processes and must be considered as indicative. FLODIM disclaims any reponsabilities in case of use of those preliminary results.

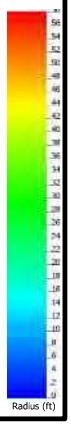
CUSTOMER	:Marathon Petroleum	CAVERN	:State LPG No. 4
DATE	:November 09, 2022	OPERATION No.	:1

VIEW FROM EAST

with an overhang of 10°

SCALE 1/110





Results shown in the present document have not been validated nor controlled and cannot be considered as definitive. they cannot be used for interpretation processes and must be considered as indicative. FLODIM disclaims any reponsabilities in case of use of those preliminary results.

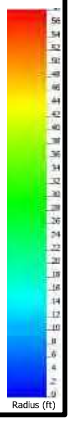
CUSTOMER	:Marathon Petroleum	CAVERN	:State LPG No. 4
DATE	:November 09, 2022	OPERATION No.	:1

VIEW FROM SOUTH

with an overhang of 10°

SCALE 1/110





Results shown in the present document have not been validated nor controlled and cannot be considered as definitive. they cannot be used for interpretation processes and must be considered as indicative. FLODIM disclaims any reponsabilities in case of use of those preliminary results.

CUSTOMER	:Marathon Petroleum	CAVERN	:State LPG No. 4
DATE	:November 09, 2022	OPERATION No.	:1

VIEW FROM WEST

with an overhang of 10°

SCALE 1/110





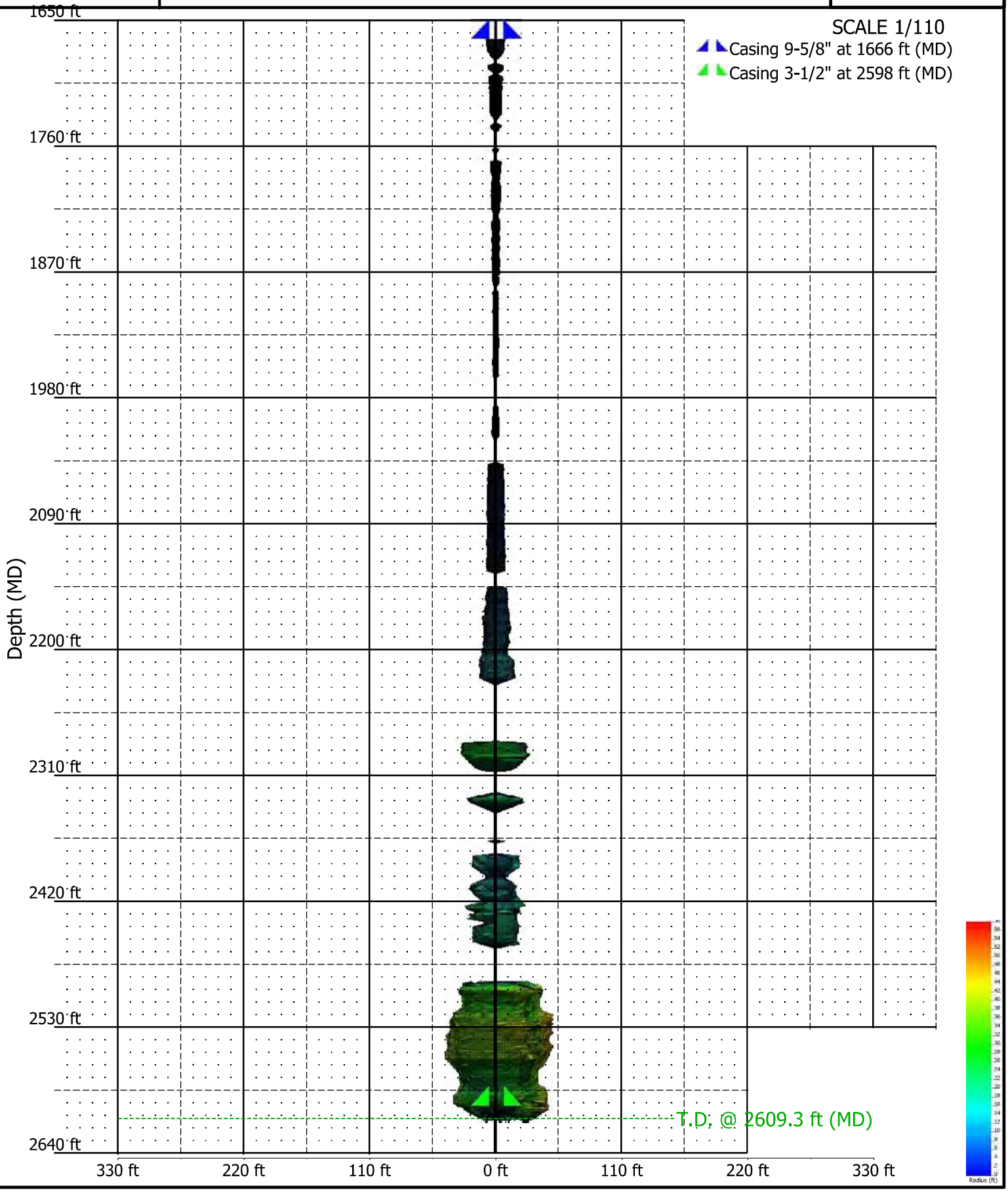
Results shown in the present document have not been validated nor controlled and cannot be considered as definitive. they cannot be used for interpretation processes and must be considered as indicative. FLODIM disclaims any reponsabilities in case of use of those preliminary results.

SONIC SURVEYS

CUSTOMER	: Marathon Petroleum	CAVERN	State LPG No. 4
DATE	: November 09, 2022	OPERATION No.	1

VIEW FROM NORTH

with an overhang of 0°

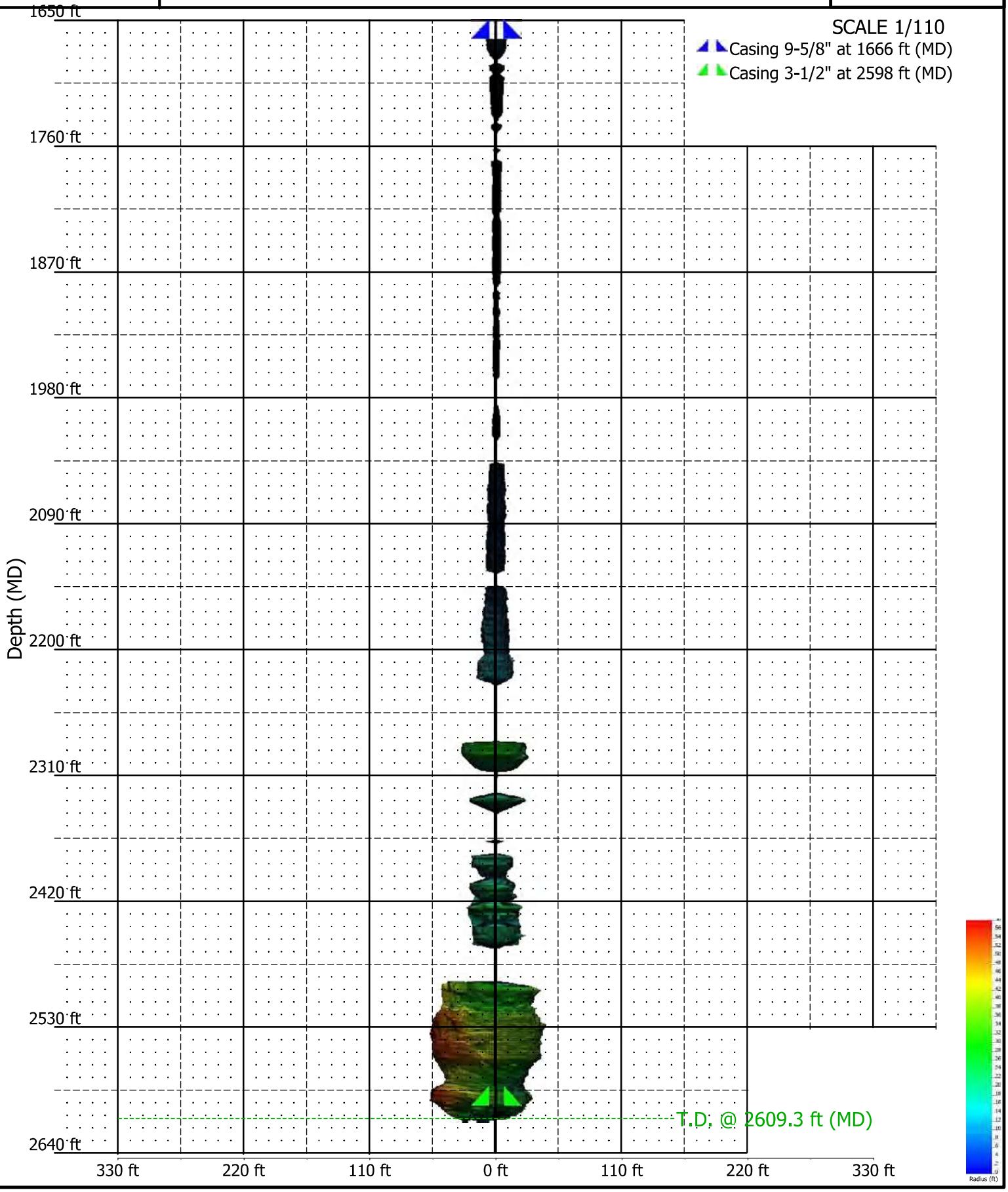


SONIC SURVEYS

CUSTOMER	: Marathon Petroleum	CAVERN	State LPG No. 4
DATE	: November 09, 2022	OPERATION No.	1

VIEW FROM EAST

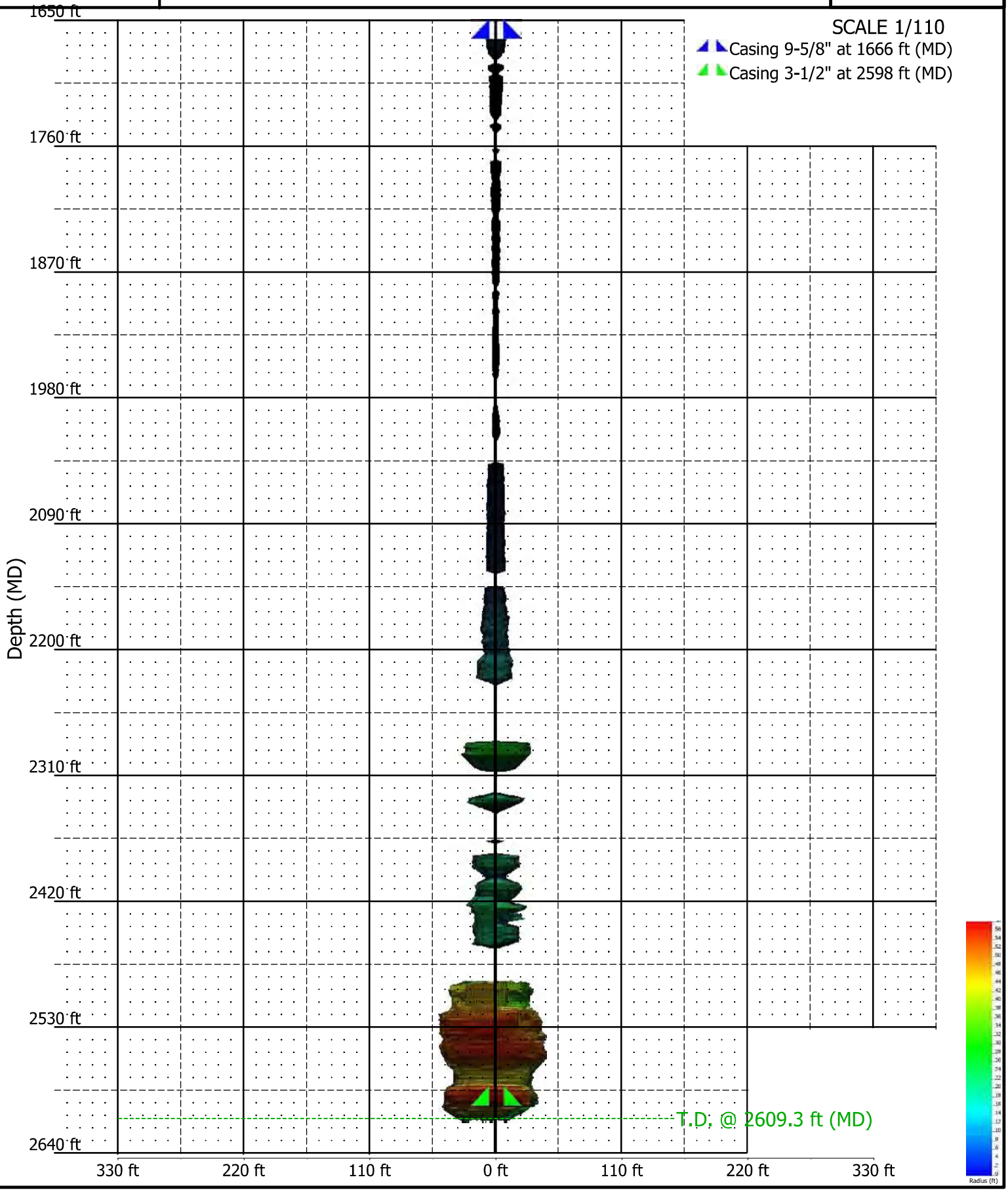
with an overhang of 0°



CUSTOMER	: Marathon Petroleum	CAVERN	State LPG No. 4
DATE	: November 09, 2022	OPERATION No.	1

VIEW FROM SOUTH

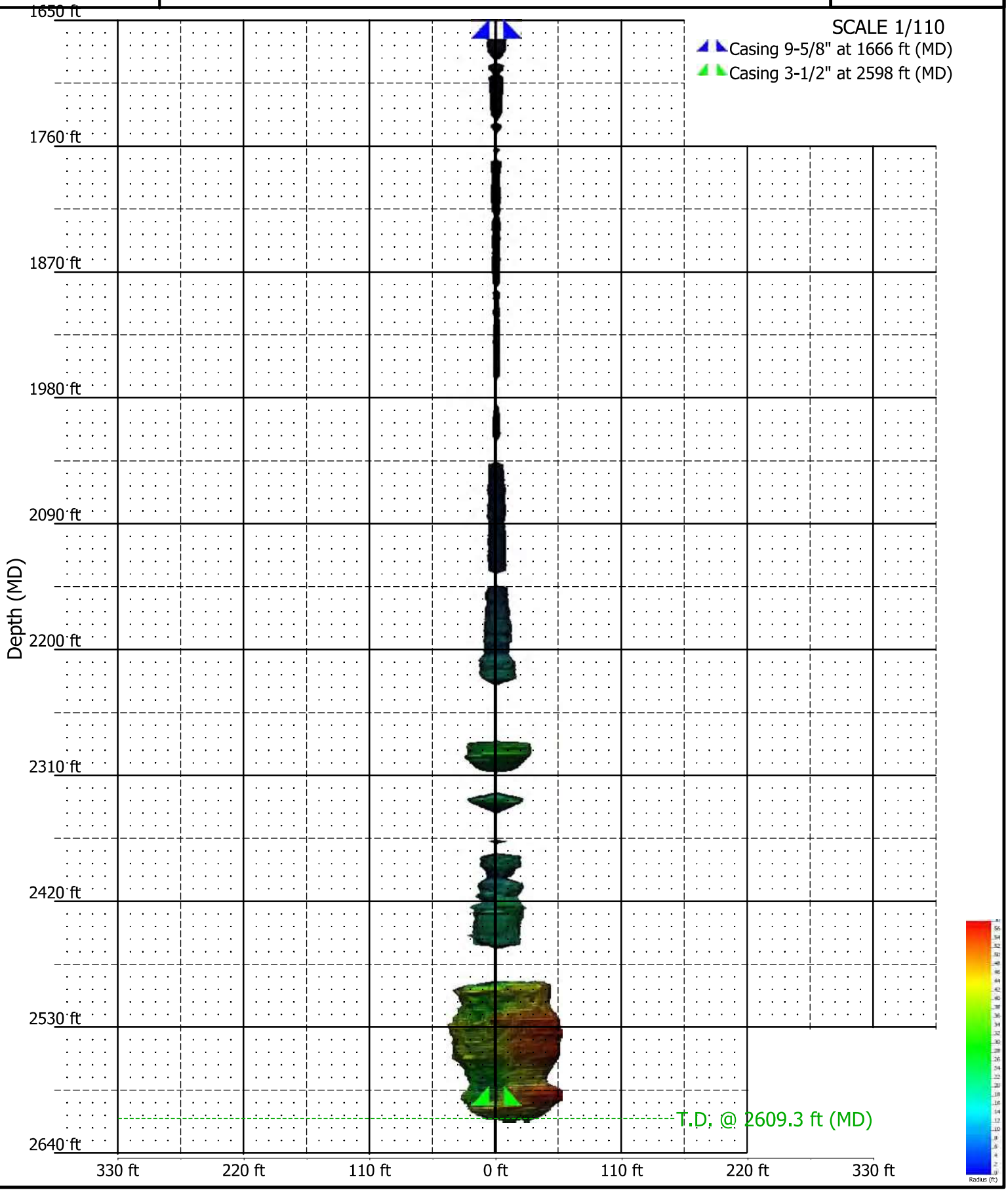
with an overhang of 0°



CUSTOMER	: Marathon Petroleum	CAVERN	State LPG No. 4
DATE	: November 09, 2022	OPERATION No.	1

VIEW FROM WEST

with an overhang of 0°



From: Flessner, Samuel J.
To: Chavez, Carl, EMNRD
Cc: O"Brien, Jessica L.; Brorman, Jeff A.; McElhaney, Brian R.; Holmes, Gabriel C.; Villarreal, Adrian
Subject: RE: [EXTERNAL] Jal Cavern #3, #4 WO, MIT Reports
Date: Wednesday, March 8, 2023 2:24:27 PM
Attachments: image002.png
image003.png
image004.png
image005.png
image006.png

Carl – Apologies for any difficulties you encountered during review. Below are summaries of the calculated leakage rates (CLRs) from each Cavern. The CLR was communicated in "bbl./year" terms in the summary table/report. I simply converted this figure to "bbl./hr." for your reference.

Cavern #3

- Test Duration: 24:06
- N2 Volume Test Start: 183,295 scf
- N2 Volume Test End: 182,633 scf
- Calculated Leak Rate (CLR): 519 bbl./year
- Converted CLR: 0.0592 bbl./hr.

The start/end test pressure/volume figures are summarized in "Table 6 Test Summary" on page 8. Annual CLR is listed in "Table 7 CLR Summary" on page 9.

Table 6 Test Summary

Parameter	Test Start	Test End	Change
Date (month/day/year)	December 08, 2022	December 09, 2022	-
Time (hours)	8:58	9:04	24.1
Wellhead Tubing Pressure (psig)	388.6	418.9	30.3
Wellhead Annulus Pressure (psig)	1,199.1	1,194.1	-5.0
Nitrogen-Brine Interface Depth (ft)	1,688.75	1,688.75	0.00
Average Temperature in N_2 Column (°F)	74.2	73.7	-0.5
Average N_2 Compressibility Factor	1.00	1.00	0.00
Volume of N_2 (SCF)	183,295	182,633	-662
Pressure Gradient at Casing Shoe (psi/ft)	0.76	0.76	0.00

Table 7 CLR Summary

CLR Parameter	Value
Average Pressure in N_2 Column (psig)	1,234.1
Average Wellbore Temperature in N_2 Column (°F)	73.9
Average N_2 Compressibility Factor	1.00
Change of N_2 (cubic ft/Test Period)	-8.02
Change of N_2 Volume (bbls/Test Period)	-1.43
CLR (bbls/yr)	519

Cavern #4

- Test Duration: 26:06
- N2 Volume Test Start: 296,039
- N2 Volume Test End: 293,202
- Calculated Leak Rate (CLR): 528 bbl./year
- Converted CLR: 0.0603 bbl./hr.

The start/end test pressure/volume figures are summarized in "Table 6 Test Summary" on page 9. Annual CLR is listed in "Table 7 CLR Summary" on page 10.

Table 6 Test Summary

Parameter	Test Start	Test End	Change
Date (month/day/year)	November 21, 2022	November 22, 2022	-
Time (hours)	12:03	14:09	26.1
Wellhead Tubing Pressure (psig)	952.2	1,203.0	250.8
Wellhead Annulus Pressure (psig)	1,205.1	1,201.6	-3.5
Tubing Nitrogen-Brine Interface Depth (ft)	1,147.50	1,674.50	527.00
Cavern Nitrogen-Brine Interface Depth (ft)	1,680.00	1,679.50	-0.50
Average Temperature in N_2 Column (°F)	73.6	73.7	0.1
Average N_2 Compressibility Factor	1.00	1.00	0.00
Volume of N_2 in Cavern (SCF)	296,039	293,202	-2,837
Volume of N_2 in the Tubing (SCF)	2,538	4,640	2,102
Pressure Gradient at Casing Shoe (psi/ft)	0.77	0.77	0.00

Table 7 CLR Summary

CLR Parameter	Value
Average Pressure in N_2 Column (psig)	1242.2
Average Wellbore Temperature in N_2 Column (°F)	73.7
Average N_2 Compressibility Factor	1.00
Change of N_2 (cubic ft/Test Period)	-8.84
Change of N_2 Volume (bbls/Test Period)	-1.57
CLR (bbls/yr)	528

Thanks,
Sam

From: Chavez, Carl, EMNRD <Carlj.Chavez@emnrd.nm.gov>
Sent: Friday, March 03, 2023 9:29 AM
To: Flessner, Samuel J. <sjflessner@marathonpetroleum.com>
Cc: O'Brien, Jessica L. <JOBrien@Marathonpetroleum.com>; Brorman, Jeff A. <JBrorman@marathonpetroleum.com>; McElhaney, Brian R. <BrMcElhaney@marathonpetroleum.com>
Subject: RE: [EXTERNAL] Jal Cavern #3, #4 WO, MIT Reports

Sam, et al.,

Good morning!

I've been studying the above subject cavern MITs performed in 2022.

I'm having difficulty locating the final Nitrogen leakage rate determined at the end of the 24 hour or greater tests.

For example, OCD had allowed leakage rate of 0.11 bbl/hr to determine passing.

Could you please point me to where the final leakage rates are in the reports? Also, it was difficult to follow the starting test pressure/vol vs. the ending test pressure/vol to quickly assess the test results at each cavern.

Please contact me to discuss.

Thank you.

Carl J. Chavez ● UIC Group
Engineering Bureau
EMNRD - Oil Conservation Division
Horizon Building
8801 Horizon Blvd., Suite 260 | Albuquerque, NM 87113
505.660.7923 | CarlJ.Chavez@emnrd.nm.gov
www.emnrd.nm.gov

From: Flessner, Samuel J. <sjflessner@marathonpetroleum.com>
Sent: Friday, February 17, 2023 3:25 PM
To: Chavez, Carl, EMNRD <Carlj.Chavez@emnrd.nm.gov>
Cc: Goetze, Phillip, EMNRD <phillip.goetze@emnrd.nm.gov>; O'Brien, Jessica L. <JOBrien@Marathonpetroleum.com>; Brorman, Jeff A. <JBrorman@marathonpetroleum.com>; McElhaney, Brian R. <BrMcElhaney@marathonpetroleum.com>
Subject: [EXTERNAL] Jal Cavern #3, #4 WO, MIT Reports

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Carl – I submitted the Workover/Mechanical Integrity Test Reports and C-103Z forms for Jal Caverns #3 and #4 to the OCD Website. Action IDs are provided below for reference.

Cavern #3: 187653
Cavern #4: 187684

Thanks,
Sam



Sam Flessner
Project Engineer III
L3S Mountain West
803 N 300 W, Salt Lake City, UT 84103
C: (419) 348-4269
sjflessner@marathonpetroleum.com

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

COMMENTS

Action 187684

COMMENTS

Operator: WESTERN REFINING COMPANY, L.P. 15 Smith Road Midland, TX 79705	OGRID: 248440
	Action Number: 187684
	Action Type: [C-103] Sub. General Sundry (C-103Z)

COMMENTS

Created By	Comment	Comment Date
cchavez	Form C-103Z Well Workover & MIT	3/1/2023

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
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1220 S. St Francis Dr., Santa Fe, NM 87505
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CONDITIONS

Action 187684

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Operator: WESTERN REFINING COMPANY, L.P. 15 Smith Road Midland, TX 79705	OGRID: 248440
	Action Number: 187684
	Action Type: [C-103] Sub. General Sundry (C-103Z)

CONDITIONS

Created By	Condition	Condition Date
cchavez	None	3/9/2023