UICI-8-4

EPA FALL-OFF TEST REPORT

2020

From: Dade, Randy
To: Chavez, Carl, EMNRD
Cc: Dade, Randy
Subject: [EXTERNAL] [[HFCSECURE WARNING: MESSAGE ENCRYPTED]2020 WDW-4 MIT
Date: Monday, October 17, 2022 6:07:59 AM
Attachments: 2020_12_18 Frontier Artesia WDW 4 MIT Report Final Secured.pdf

Carl,
Attached is the 2020 WDW-4 FOT. Please see the attached email from Wes Janes. If there are any questions or comments, please reach out to me. Thanks.

Carl,

Please find attached the 2020 WDW-4 Mechanical Integrity and Falloff Testing Report. There appears to have been an error in the transmittal of the document that caused the erroneous references to a different report. The attached document is the original copy of the report and is intended to satisfy annual testing requirement for WDW-4.

Regarding the remaining topics in your email, the differential pressure observed during the 2020 falloff test is consistent with a reservoir with a large permeability-thickness and a small skin factor. Historically, waste fluids are able to be delivered to the receiving formation under nearly gravity flow as shown by low surface injection pressures. This leads to a relatively low differential pressure observed at reservoir test depth. The reservoir pressure rise in this well recorded during testing indicates that continued injection is generating a limited pressure rise within the permitted high-permeability injection zone and that the well remains suitable for continued injection service. No significant injectivity changes or new wellbore problems have been identified in recent testing and formation properties and pressures have not changed significantly. In short, there are no problems with the well and there is no cause for concern regarding injectivity in the well based on the 2020 testing.

In addition, WDW-4 has successfully demonstrated Part I Mechanical Integrity on an annual basis and Part II Mechanical Integrity in 2018. Per the discharge permit and regulations, Part II Mechanical Integrity Testing is required every five (5) years and will be performed again on WDW-4 in 2023. As such, the temperature log was not run in 2022.

I would be happy to set up a meeting with Petrotek as needed to discuss any concerns OCD may have related WDW-4 well testing. Please let me know when you are in receipt of this email and are available if any questions remain.

Thanks,

Wes Janes

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Petrotek

Technical Report

MECHANICAL INTEGRITY AND RESERVOIR TESTING

CLASS I NON-HAZARDOUS DEEPWELL WELL NO. 4

(OCD UIC Permit: UICI-008-4)
(API Number: 30-015-44677)

HollyFrontier Navajo Refining Company
Artesia, New Mexico

Section 23, Township 17S, Range 27E
1217 FSL, 2443 FWL

December 2020

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2020 MECHANICAL INTEGRITY AND RESERVOIR TESTING
CLASS I NON-HAZARDOUS DEEPWELL
OCD UIC Permit: UICI-008-4
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HollyFrontier Navajo Refining Company
Artesia, New Mexico

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EXECUTIVE SUMMARY

This report summarizes the successful mechanical integrity testing (MIT) and falloff testing activities performed on WDW-4 at the HollyFrontier Navajo Refining Company (HFNR) facility in Artesia, New Mexico. The work was performed as a condition of the applicable UIC permit issued by the New Mexico Oil Conservation Division (OCD). Under contract, Petrotek Corporation (Petrotek) developed the MIT procedures, provided field supervision, provided pressure transient test analysis, and prepared the final report documenting the fieldwork on the Class I non-hazardous injection well.

The test procedures were submitted to the OCD headquarters and OCD District II on September 8, 2020, before field activities commenced. Attachment 1 presents the test notification and procedures submitted to OCD. Approvals were received from regulatory agency staff prior to commencement of activities. No OCD personnel were present to witness testing. MIT activities were supervised by Wes Janes (Petrotek), Holt Tilton (HFNR contractor), and Lewis R. Dade (HFNR).

The field activities consisted of an annulus pressure test (APT) and an injection falloff test on WDW-4. The well satisfactorily demonstrated mechanical integrity pursuant to the applicable UIC permit, guidelines and regulations. All MIT requirements were satisfied as a result of the work performed. Wellbore and reservoir properties were confirmed as similar to those determined from analysis of the previous testing conducted in the well.

1. FACILITY INFORMATION

a. **Name** - HollyFrontier Navajo Refining Company

b. **Location** - Highway 82 East, Artesia, New Mexico, 88211

c. **Operator's Oil And Gas Remittance Identifier (GRD) Number** - 15694

2. WELL INFORMATION

a. **OCD UIC Permit number authorizing injection** - OCD UIC Permit: UICI-008-4

b. **Well classification** - Class I Non-hazardous

c. **Well name and number** - WDW-4

d. **API Number** - 30-015-44677

e. **Legal Location** - Section 23, Township 17S, Range 27E, 1217 FSL, 2443 FWL

3. CURRENT WELLBORE SCHEMATIC

A wellbore schematic displaying the well configuration during testing is provided as Figure 1. A wellhead schematic is provided as Figure 2.

4. COPY OF AN ELECTRIC LOG ENCOMPASSING THE COMPLETED INTERVAL

A copy of the dual induction log run in 2018 during the completion of the well was submitted with the original permit and can be found online on the OCD website as part of the OCD well files for this well.

5. COPY OF RELEVANT PORTIONS OF ANY POROSITY LOG USED TO ESTIMATE FORMATION POROSITY

A copy of the neutron density log, encompassing the completed interval between 10,307 and 10,680 feet BGL, can be found online on the OCD website as part of the well files for this well. From these logs, it was determined that the injection reservoir thickness is approximately 330 feet with an average porosity of 25 percent. Consistent with the most recent test analysis submitted, these values were used for the analysis performed for and presented in this report.

6. PVT DATA OF THE FORMATION AND INJECTION FLUID

Formation fluid samples of connate brine from the injection interval were not collected from the WDW-4 during drilling and completion. Therefore, the average total dissolved solids (TDS) of the formation fluid is estimated to be 25,000 mg/l per the previously submitted and approved UIC permit application, data acquired from offset wells, and consistent with the falloff test analysis from 2018.

The formation viscosity, fluid compressibility, and total compressibility were estimated using bottom hole temperature and pressure recorded in the well at the depth of the injection zone in conjunction with industry standard correlations. These correlations are presented in the SPE textbook on Pressure Transient Testing which was published as part of the SPE Textbook Series as Volume 9. For the sake of brevity, only page, equation, and figure numbers from this volume will be listed subsequently in this report as a reference for all correlations presented for the PVT data.

The percent solids for the fluid was approximated as 2.5%, based on the average 25,000 mg/l TDS brine concentration discussed above. A bottom hole temperature of 159 °F has been used as representative of the formation for these correlations. This value was derived from the original temperature log, run in 2018 when the well was completed. This log is can be found online on the OCD site as part of the WDW-4 well files.

Fluid viscosity was estimated using multiple equations developed by McCain that first are used to estimate fluid viscosity at atmospheric conditions (equations L-84, 85, and 86), which is then converted to viscosity at bottom hole conditions (equation L-87) by using a correction factor. These equations can be found on page 336. As a primary input for the correlation, pressure is required,. The formation pressure has been estimated at a depth of 10,307 feet BGL using the average formation fluid specific gravity based on the TDS value discussed above. Using this method, a value of 4,574.5 psi has been estimated as the pressure at the depth the gauges were set at for testing (10,307 feet BGL). At this pressure and a temperature of 159 °F, the following equations have been used to derive viscosity:

$$\mu_{w1} = AT_F^B \quad \text{(L-84)}$$

$$A = 109.574 - 8.40564 * S + 0.313314 * S^2 + 8.72213 * 10^{-3} * S^3 \quad \text{(L-85)}$$

$$B = -1.12166 + 2.63951 * 10^{-2} * S - 6.749461 * 10^{-4} * S^2 \quad \text{(L-86)}$$

$$\frac{\mu_w}{\mu_{w1}} = 0.9994 + 4.0295 * 10^{-5} * P + 3.1062 * 10^{-9} * P^2 \quad \text{(L-87)}$$

Where,

μ_{w1} is the viscosity of the formation fluid at atmospheric conditions
T_F is the bottom hole temperature in °F
S is the percent of solids
P is the bottom hole pressure in psi
μ_w is the viscosity of the brine at bottom hole conditions

Using these equations, a value of 0.52 centipoise is calculated for the formation fluid viscosity.

Formation Compressibility was estimated using equation L-89 provided on page 337. This equation was developed for limestone formations, which is consistent with the primary composition of the effective injection interval (see discussion in Section 11).

$$cf = \frac{a}{(1+bc\Phi)^{\frac{1}{b}}} \quad \text{(L-89)}$$

Where,

a = 0.8535
b = 1.075
c = 2.303 E06
Φ = 0.25

Based on this equation, a value of 3.50E-6 psi^{-1} is derived for formation compressibility.

Fluid compressibility was estimated using figures L-30 and L-31 on page 338 with a bottom hole temperature of 159 °F, a bottom hole pressure of 4,574.5 psi, and a dissolved solids weight of 2.5%. Using Figure L-31 to first estimate freshwater compressibility, a value of 2.86E-06 psi^{-1} is derived. Using Figure L-30, the coefficient of isothermal compressibility (ratio of brine compressibility over freshwater compressibility) was determined to be approximately 0.95. This results in a value of 2.70E-06 psi^{-1} for the formation fluid compressibility (c_w).

By combining the formation and formation fluid compressibility, the total system compressibility is determined. The total system compressibility (c_t) is approximately 6.20E-06 psi^{-1}.

The specific gravity of the test fluid, based on the static gradient survey performed at the end of the test, was 1.003 (gradient of 0.434 psi/ft) with a measured temperature during injection of 103.2 °F. Using Equations L-84 through L-87, the

viscosity of the injected fluid at bottom hole conditions at the wellbore during injection is 0.76 cp. The compressibility of the injected fluid (based on Figures L-30 and 31) is 2.78E-06 psi^{-1}.

The values presented in this section have been utilized for analysis unless stated otherwise.

7. DAILY RATE HISOTRY FOR A MINIMUM OF ONE MONTH PRECEDING THE FALLOFF TEST

The following table summarizes data acquired with HFNR well monitoring equipment for the month prior to and the month that testing was conducted.

TABLE 1
AUGUST AND SEPTEMBER INJECTION DATA

Date	Injection Pressure (psi)	Injection Rate (gpm)	Annulus Pressure (psi)
8/1/2020	101.746	142.43	171.108
8/2/2020	104.496	154.67	153.862
8/3/2020	103.539	146.87	168.937
8/4/2020	104.626	157.66	187.580
8/5/2020	114.092	186.49	249.121
8/6/2020	110.350	175.32	219.118
8/7/2020	104.138	155.49	167.951
8/8/2020	98.972	144.67	125.021
8/9/2020	99.062	144.83	129.772
8/10/2020	98.307	143.06	133.779
8/11/2020	99.328	140.96	184.115
8/12/2020	90.636	103.42	228.268
8/13/2020	84.033	84.21	163.720
8/14/2020	99.075	120.56	233.622
8/15/2020	96.541	127.88	137.351
8/16/2020	88.063	99.21	65.829
8/17/2020	84.951	95.77	94.074
8/18/2020	99.904	150.79	176.868
8/19/2020	115.476	194.32	247.212
8/20/2020	127.548	224.30	234.851
8/21/2020	123.408	215.20	218.503
8/22/2020	114.908	188.07	244.487
8/23/2020	121.478	208.49	219.793
8/24/2020	125.332	222.91	213.664
8/25/2020	127.698	222.07	193.999
8/26/2020	126.723	219.42	187.108

Date	Injection Pressure (psi)	Injection Rate (gpm)	Annulus Pressure (psi)
8/27/2020	110.649	169.91	166.768
8/28/2020	128.749	220.58	194.900
8/29/2020	137.462	229.56	227.892
8/30/2020	113.696	177.84	166.871
8/31/2020	125.003	212.21	188.960
9/1/2020	100.909	130.51	151.414
9/2/2020	109.039	162.71	153.059
9/3/2020	105.831	154.51	152.921
9/4/2020	109.141	168.93	156.605
9/5/2020	113.935	182.12	178.197
9/6/2020	113.838	183.19	183.575
9/7/2020	113.158	181.49	161.575
9/8/2020	112.138	176.60	134.217
9/9/2020	119.885	202.11	129.227
9/10/2020	109.858	175.78	85.299
9/11/2020	97.348	134.57	74.700
9/12/2020	100.859	147.31	82.277
9/13/2020	98.422	136.85	90.475
9/14/2020	98.730	137.40	104.018

8. CUMULATIVE INJECTION INTO THE FORMATION FROM TEST WELL

The cumulative volume of waste injected into this well since operations began, based on OCD records and HFNR data, is 4,826,810 barrels (202,726,013 gallons).

9. PRESSURE GAUGES

a. **Describe the type of downhole surface pressure readout gauge used included manufacturer and type -** Two downhole pressure and temperature memory gauges were utilized for the falloff testing. The gauges were 1.25-inch Quartz pressure and temperature memory gauges manufactured by DataCan (Part No. 100229).

b. **List the full range, accuracy and resolution of the gauge(s) -** The memory gauges are designed to measure pressure to an accuracy of 0.03% of full scale and a resolution of 0.01% of full scale, and operate within a range of 14.7 to 16,000 psi.

c. **Provide the manufacturer's recommended frequency of calibration and a calibration certificate showing the date the gauge was last calibrated -** These gauges are recommended to be calibrated once per year. These gauges were last calibrated on 2/7/2019 (Gauge #242117) and 5/15/2019 (Gauge

#242560). Attempts have been made to recertify these gauges, but due to logistical issues related to the coronavirus pandemic, attempts have been unsuccessful. However, these gauges have had limited hours of use since they were last certified. The most recent calibration certificates are provided in Attachment 2. The data collected using the two gauges is in close agreement, indicating that the gauges continue to function properly.

The bottom gauge (Serial Number - 242560) was utilized for analysis. The bottom gauge was hung at a test depth of 10,307 feet BGL.

10. ONE-MILE AREA OF REVIEW (AOR)

A standard one-mile Area of Review (AOR) was evaluated for WDW-4 as part of the annual testing and reporting requirements. This evaluation was performed by Federal Abstract Company. The wells located within this one-mile AOR are listed in Attachment 3. This table contains the operator, well name, API number, well type, well status, location, and date of abandonment or completion. A figure displaying the wells located in the AOR and the wells in the surrounding sections has been provided as Figure 15.

Based on the data review, there are no wells that have been newly plugged and abandoned within the AOR in the last year. There have also been no wells drilled within the AOR in the last year.

a. **Wells Located Within the One-mile AOR -** The wells located within the one-mile AOR are provided as Attachment 3. This table contains the operator, well name, API number, well type, well status, location, and date of abandonment or completion.

b. **Status of Wells Within AOR -** In Attachment 3, the abbreviation SWD indicates Salt Water Disposal, P&A indicates Plugged and Abandoned, TA indicates Temporarily Abandoned, and AL indicates Abandoned Location. The “new” well status represents permitted wells that have not been drilled or completed.

c. **Provide details on any offset producers and injectors completed in the same injection interval -** Based on public data, there is one well that has been completed in the same formation as WDW-4 within the one-mile AOR. This well is the Alamo Permian Resources, LLC Berry Federal #029 (ID – 14) and it was plugged and abandoned in 2013. No offset producers exist in the injection interval within the AOR based on public data.

11. GEOLOGY

a. Describe the geologic environment of the injection interval
b. Discuss the presence of geologic features, i.e., pinchouts, channels and faults, if applicable
c. Provide a portion of a relevant structure map, if necessary

The following discussion provides responses to the requirements listed above. This discussion is primarily based on information presented in the previous permit application for this well.

The WDW-4 well is located in Eddy County, New Mexico on the Northwest Shelf of the Permian Basin. The injection interval is undifferentiated Silurian-Devonian age strata composed of shallow water carbonates, dolostone and limestones. The confining zone is comprised of the upper Devonian Woodford Formation and the overlying undifferentiated Mississippian strata.

Based on the WDW-4 drilling report, the top of the Silurian-Devonian injection zone is at a depth of approximately 10,220 feet KB. A structure map of the top of the Silurian-Devonian is provided in Figure 3. The gross thickness of the Silurian-Devonian is approximately 665 feet thick. The top of the injection zone is over 1,000 feet below the base of the injection zone in which the three other Class I wells (WDW-1, WDW-2, and WDW-3) operated by HFNR are completed. These three wells are completed in the lower portion of the Permian age Wolfcamp Formation and the underlying Pennsylvanian age Cisco and Canyon Formations. The geologic interpretations have been confirmed but not revised as part of this report.

12. OFFSET WELLS

There is one well that was completed in the same formation as WDW-4 within the AOR. As noted in 10.c, this well is the Alamo Permian Resources, LLC Berry Federal #029 (ID – 14). This well was plugged and abandoned in 2013.

a. **Identify the distance between the test well and any offset wells completed in the same injection interval –** The Berry Federal #029 well is approximately 2,000 feet to the north of WDW-4.

b. **Report the status of the offset wells during both the injection and shut-in portions of the test -** The offset Berry Federal #029 well was plugged and abandoned in 2013.

c. **Describe the impact, if any, of the offset wells during both the injection and shut-in portions of the test -** There was no significant impact on the

character of the falloff test and the development of a useful test from wells identified in the AOR. A discussion of possible late-time effects is included in Section 15 of this report.

13. CHRONOLOGICAL LISTING OF THE DAILY TESTING ACTIVITIES

a. **Date of the test -** Testing was performed from September 14 through 16, 2020.

b. **Time of the injection period -** Constant-rate injection occurred for approximately 72 hours before the falloff test began. This injection period exceeded the duration of the falloff. Figure 4 presents the test history.

c. **Type of injection fluid -** Filtered waste was utilized as test injection fluid.

d. **Final injection pressure and temperature prior to shutting in the well -** Prior to shutting in the well, the bottom hole injection pressure was 4,583.8 psia (at 10,307 feet BGL) and the injection rate was 132 gpm (4,525.7 bwpd) with a measured bottom hole temperature of 103.2 °F.

e. **Total shut-in time -** The well was shut-in for approximately 41.9 hours for testing.

f. **Final static pressure and temperature at the end of the falloff portion of the test -** At the conclusion of the test, the final bottom hole pressure was 4,579.0 psia and the final bottom hole temperature was 118.7 °F. Following the conclusion of the test, the gauges were pulled out of the hole, and sinker bars were run in on wireline to find the top of fill. Fill was tagged at 10,448 feet BGL (10,468 feet KB). Positive wellhead pressure was present throughout the test.

14. DESCRIBE THE LOCATION OF THE SHUT-IN VALVE USED TO CEASE FLOW TO THE WELL FOR THE SHUT-IN PORTION OF THE TEST

The well was shut-in using a wing valve located on the inlet side of the wellhead.

15. PRESSURE FALLOFF ANALYSIS

This section addresses requirements 15-20 of Section IX, Report Components, of the OCD falloff test guidelines.

The equations, parameters and calculations utilized to derive these values are detailed further in the following discussion. Table 2 contains input values used to perform the specified calculations.

The raw digital data collected during the test is provided in Attachment 4. The contracted service company whose gauges were utilized for testing generated an injection falloff test report based on this collected data. This report is provided in Attachment 5.

a. **Radius of test investigation -** The radius of investigation for this test was determined to be approximately 10,399 feet.

b. **Time to beginning of the infinite acting portion of the test -** The time at which the test began to display attributes of radial flow was approximately 0.15 hours after shut-in. This value was derived from the log-log plot.

c. **Slope(s) determined from the semi-log plot -** The slope for the middle-time radial period, as determined from the semi-log plot, was 0.46878 psi/cycle.

d. **Transmissibility (kh/μ) -** The transmissibility was determined to be 1,569,774 md-ft/cp.

e. **Permeability (k) -** The permeability was determined to be 2,474 md.

f. **Skin Factor (s) -** The skin factor was determined to be -1.9 units.

g. **Pressure drop due to skin (ΔP_{skin}) -** The pressure drop due to skin was determined to be -0.76 psi

h. **Flow efficiency -** The flow efficiency was determined to be 1.16.

i. **Flow capacity (kh) -** The flow capacity (permeability-thickness) was determined to be 816,283 md-ft.

j. **P_{1hr} -** The extrapolated pressure at 1-hr was determined to be 4,581.2 psi.

TABLE 2
FALLOFF TEST ANALYSIS INPUT VALUES

Parameter	Value	Unit
Formation Thickness, h	330	feet
Porosity, Φ	25	percent
Viscosity, μ	0.52	centipoise
Formation Compressibility, c_f	3.50E-06	1/psi
Total Compressibility, c_t	6.20E-06	1/psi
Formation Volume Factor, B	1.00	bbl/stb
Wellbore Radius, r_w	0.3532	feet
Final Well Flowing Pressure, p_{wf}	4,583.8	psia
Final Injection Rate, q_{final}	4,525.7 132	bwpd (gpm)
Horner Straight Line Slope, m	0.46878	psi/cycle

The average historical injection period used to account for total volume in the analysis was calculated by dividing the cumulative historical injection through the end of July (4,573,235 barrels) by the final injection rate (132 gpm). This resulted in a value of 1,455,120 minutes. This value of 24,252.0 hours of injection at 132 gpm was used in conjunction with the injection data collected from the beginning of August through the end of testing. Figure 5 presents flow rates used in analysis. The total waste volume injected up to the time of shut-in utilized for calculations was 202,726,013 gallons (4,826,810 bbls).

To determine the mobility-thickness (transmissibility), the following equation was utilized. The resulting transmissibility was 1,569,774 md-ft/cp.

$$\frac{kh}{\mu} = 162.6\frac{q_{final}B}{m}$$

Where,

k is the permeability, in md
h is the formation thickness, in feet
μ is the viscosity of the formation fluid, in cp
q is the final flow rate, in bpd
B is the formation volume factor in RB/STB
m is the slope of the line assigned to the radial flow period on the semi-log plot, in psi/cycle
and 162.6 is a units conversion constant

$$\frac{kh}{\mu} = Transmissibility = 162.6\frac{4{,}525.7 * 1.0}{0.46878} = 1{,}569{,}774\frac{md-ft}{cp}$$

The transmissibility derived from the slope of the semi-log straight line was then used to determine the permeability thickness. The resulting permeability-thickness was 816,283 md-ft.

$$kh = \left(\frac{kh}{\mu}\right)\mu = 1{,}569{,}774\left(\frac{md-ft}{cp}\right)0.52\ cp = 816{,}283\ md-ft$$

This permeability-thickness was then used to determine the permeability of the reservoir. The resulting permeability was 2,474 md.

$$k = \frac{kh}{h} = \frac{816{,}283\ md-ft}{330\ ft} = 2{,}474\ md$$

In order to determine if the appropriate viscosity was utilized in the previous calculations, it must be determined if the pressure transient was traveling through reservoir fluids. This is done by determining the time it is expected to take the pressure transient to travel through the injected fluid. The first step of this is to determine the radius of waste emplaced by injection. The piston-like displacement radius was estimated to be 323 feet.

$$r_{waste} = \sqrt{\frac{0.13368 * V}{\pi h \Phi}}$$

Where,

r_{waste} is the distance to the waste front, in feet
V is the total volume of fluid injected into the well, in gallons
h is the formation thickness, in feet
Φ is the porosity, as a fraction
0.13368 is a conversion constant

$$r_{waste} = \sqrt{\frac{0.13368 * (202{,}726{,}013)}{\pi * 330 * 0.25}} = 323\ feet$$

Based on this radius, the time for a pressure transient to travel through this fluid can be calculated. The resulting time was approximately 0.03 hours.

$$t_{waste} = 948\frac{\Phi\mu_{waste}c_t r_{waste}^2}{k}$$

Where,

t_{waste} is the time for a pressure transient to reach the waste front, in hours
Φ is the porosity, as a fraction
μ_{waste} is the viscosity of the waste, in cp
r_{waste} is the radius of the waste front, in feet
c_t is the total compressibility, in psi^{-1}
k is the permeability, in md
948 is a conversion constant

$$t_{waste} = 948\frac{0.25 * 0.52 * 6.2E-06 * (323)^2}{2{,}474} = 0.03\ hours$$

Based on this result, and the time it took for radial flow to be reached (0.15 hours), it is likely that the pressure transient was dominated by reservoir fluid properties during the middle-time radial flow period, indicating that the appropriate viscosity was used for analysis.

The near wellbore damage, referred to as skin, can be calculated based on the results of the straight line, semi-log analysis as well. This is done by utilizing the following equation. The result of this calculation was a skin of -1.9 units.

$$s = 1.151\left(\frac{P_{wf} - P_{1hr}}{m} - log\left(\frac{k}{\Phi\mu c_t r_w^2}\right) + 3.23\right)$$

Where,

s is skin damage, in units
P_{wf} is the shut-in well pressure, in psi
P_{1hr} is the extrapolated pressure at a time of 1 hour, using the slope of the straight line from the semi-log analysis, in psi
m is the slope of the radial line, in psi/cycle
k is the permeability, in md
Φ is the porosity, as a fraction
μ is the viscosity, in cp
r_w is radius of the wellbore in feet
1.151 and 3.23 are constants

$$s = 1.151\left(\frac{4{,}583.8 - 4{,}581.2}{0.46878} - log\left(\frac{2{,}474}{0.25 * 0.52 * 6.2E-06 * 0.3532^2}\right) + 3.23\right)$$

$$= -1.9$$

The pressure contribution of the skin term to wellbore pressure can be calculated using the following equation. The result of this calculation was -0.8 psi of pressure due to skin.

$$\Delta P_{skin} = 0.869 * m * s$$

Where,

ΔP_{skin} is the change in pressure due to skin, in psi
m is slope of the radial line, in psi/cycle
s is skin, in units
0.869 is a conversion constant

$$\Delta P_{skin} = 0.869 * 0.46878 * -1.9 = -0.8\, psi$$

The flow efficiency (FE) can be determined using the following equation, provided within the OCD Guidelines (Section IX, 15, h). The result of this calculation was 1.16.

$$FE = \frac{P_{wf} - \Delta P_{skin} - P_{end\ of\ test}}{P_{wf} - P_{end\ of\ test}}$$

Where,

P_{wf} is the shut-in well pressure, in psi
ΔP_{skin} is the change in pressure due to skin damage, in psi
$P_{end\ of\ test}$ is the pressure at the end of the falloff test, in psi

$$FE = \frac{4{,}583.8 - (-0.8) - 4{,}579.0}{4{,}583.8 - 4{,}579.0} = 1.16$$

The test radius of investigation (r_{inv}) can be determined using the following equation. The result of this calculation was 10,399 feet.

$$r_{inv} = 0.029\sqrt{\frac{kt}{\Phi\mu c_t}}$$

Where,

k is permeability, in md
t is time, in hours
Φ is porosity, as a fraction
μ is viscosity, in cp
c_t is total compressibility, in psi^{-1}
0.029 is a constant

$$r_{inv} = 0.029\sqrt{\frac{2{,}474 * 41.9}{0.25 * 0.52 * 6.2E-06}} = 10{,}399\ feet$$

Figure 6 is a cartesian plot of the test showing the pressure falloff as the highlighted time period to the right side of the plot. The data is sufficient for analysis, but it is noted that some minor oscillations are present in the pressure data. Early time data is dominated by wellbore storage. Based on examination of the log-log diagnostic plot provided as Figure 7, it is likely that the test reached the onset of radial flow approximately 0.15 hours after well shut-in. It is likely that middle-time data suitable for semi-log analysis lasts until 0.5 to 0.6 hours after shut-in, shown by the horizontal green line superimposed over the derivative on this plot. The test has been analyzed based on the reasonable assumption that a period of radial flow exists in the data. Subsequent to the end of this period, a late-time period appears to develop. Figure 8 shows the semi-log plot of the falloff with a line consistent with the likely radial flow period denoted on the log-log plot. Figure 9 shows a magnification of this same pseudo-straight line during the period used to obtain the slope used in the simple Horner method analysis and equations presented in the preceding text. Figures 10 through 12 present a simulation analysis generated using a simulator to account for wellbore storage during early time and that includes a radial composite system to account for pressure behavior observed in late-time. The average pseudo-rate discussed earlier in this report was used in the simulation to account for injection from start-up until August 1 and actual rate data points were used from August 1 until test shut-in. The simulation analysis generally supports the more simplistic graphical analysis that relies upon the semi-log slope.

There are late time effects evident in the log-log plots (Figures 7 and 11), and it is possible that multi-layer effects and cross-flow may be impacting the data toward the end of the test. Noise is also evident in these plots and in the magnified semi-

log plot shown as Figure 9. The noise and small oscillations in the data may be related to gauge effects and cross flow. Toward the end of the test, it is possible that a late-time period is developing where the effects of heterogeneity or offset injection may be starting to influence the test. However, the substantial permeability-thickness of this injection zone result in small pressure changes during both middle- and late-time periods of the test that generate a somewhat noisy derivative even with the high-resolution gauges used to collect the pressure-transient data. The character of the fall-off data and the derivative are similar to the patterns evident in previous testing of this well and are consistent with a large permeability-thickness and a negligible skin factor.

The following figures are provided illustrating the test analysis and results:

- Figure 4 - Cartesian Plot of Pressure, Temperature and Rate vs. Time
- Figure 5 - Rate History Plot
- Figure 6 - Cartesian Plot of Pressure Falloff
- Figure 7 - Log-log Derivative Plot
- Figure 8 - Semi-log Horner Plot
- Figure 9 - Semi-log Horner Plot, Radial Zoom
- Figure 10 - Cartesian Plot of Pressure Falloff with Model Match
- Figure 11 - Log-log Derivative Plot with Model Match
- Figure 12 - Semi-log Horner Plot with Model Match
- Figure 13 - Daily Injection Rate History for Month Prior to Test Plot
- Figure 14 - Hall Plot

As specified by OCD requirements, a Hall Plot (Figure 14) generated from the data presented in Table 1 over the month leading up to the falloff test this year is included. It is noted that this plot of a limited elapsed time of the Hall function is a simplistic presentation based on correcting average daily wellhead pressures to bottomhole conditions based on hydrostatic head and tubing friction loss. The plot has been made with these BHP values rather than a pressure change (or dp) that would be generated by subtracting original reservoir pressure from the injection pressure value. Because this BHP value is used, the Hall plot slope is not proportional to other indicators, but qualitatively can yield insight to well conditions based on changing slopes. Further, consistent with the Hall method, it is assumed that the reservoir is homogenous and isotropic, that none of the average daily pressures are impacted by transient flow (relatively continuous, constant rate injection took place), and that no offset wells are impacting pressure at this well

during the time that the Hall function has been plotted (September of 2020). The slope of the data is fairly linear, and this linearity is consistent with no significant changes in well condition taking place during this time period. Based on this observed linear trend, there are no current concerns noted with regard to well or reservoir performance. Attachment 6 presents a summary of the falloff test.

Table 3 summarizes historical well test analysis results, including the results from the test this year.

TABLE 3
HISTORICAL AMBIENT RESERVOIR TESTING

Year	Fill Depth (feet)	Permeability (md)	Mobility-thickness (md-ft/cp)	Skin (units)	P* (psia)
2020	8,355	2,474	1,569,774	-1.9	4,579.0
2018	N/A	6,642	3,845,360	-3.47	4,520.4

All raw data generated by the test will be kept on file by HFNR for a period not less than five years. The raw data has been provided as a part of this report, with additional files available upon OCD request.

16. INTERNAL MECHANICAL INTEGRITY

On September 16, the annulus was pressured to 586.7 psi. The well had been shut in for approximately 44 hours prior to the test, to achieve thermal equilibrium. A calibrated digital pressure gauge (Crystal XP2i 5,000 psi, SN - 901241) supplied by Petrotek was installed on the annulus at the wellhead. The well and test gauge were then isolated from the rest of the system and annulus pressure was then monitored for a period of thirty minutes at 5-minute intervals. During the Part I internal mechanical integrity test the pressure decreased by 2.5 psi. Since a change of 10% (58.7 psi) of the starting test pressure is allowable, this test is within acceptable specifications.

Attachment 7 presents a copy of the gauge certification. Pressures were observed as follows during testing.

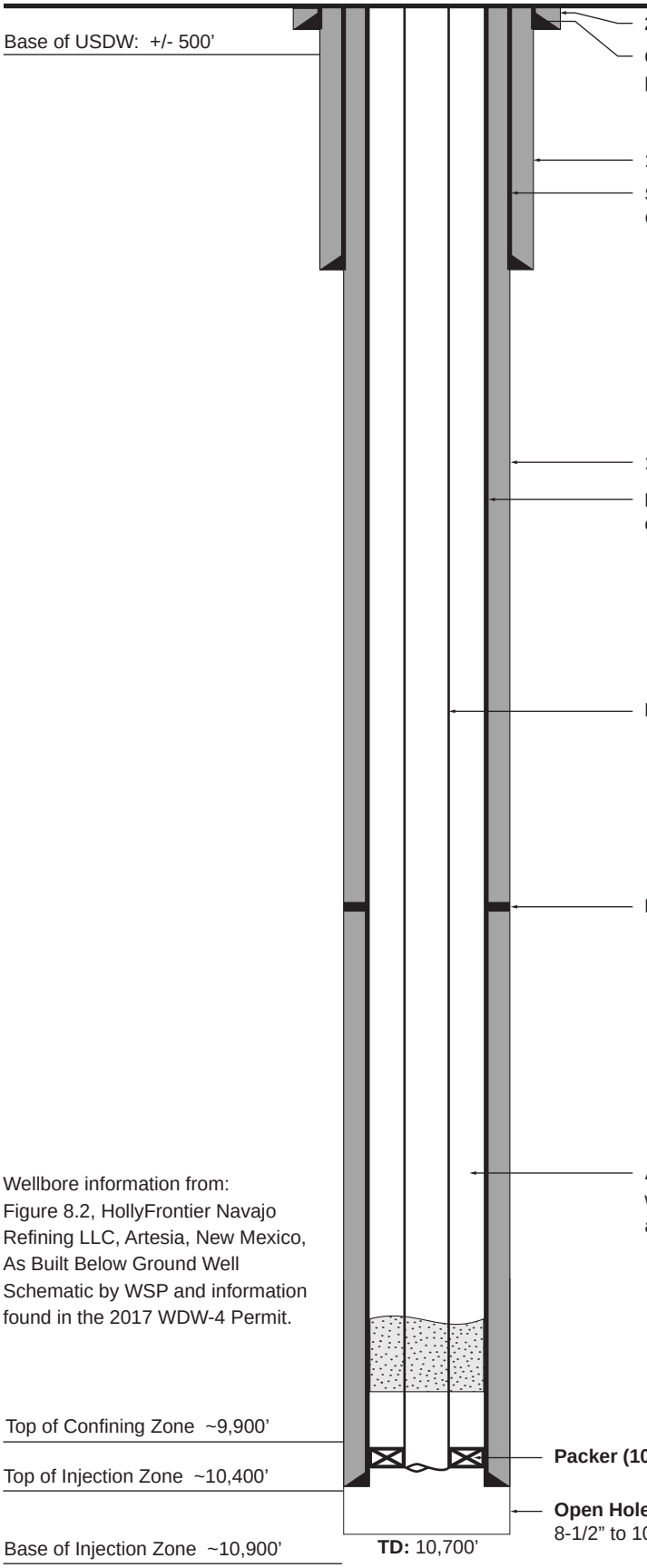
TABLE 4
ANNULUS PRESSURE TEST MEASUREMENTS

Time, Minutes	0	5	10	15	20	25	30
Pressure, Psi	586.7	585.9	585.4	585.0	584.7	584.5	584.2

FIGURES

OCD UIC Permit: UICI-008-4
Well API Number: 30-015-44677
Sec. 23, T17S, R27E - Eddy County, New Mexico
SHL: Lat. 32.81581°, Long. -104.25003°

All depths are referenced to the Kelly bushing elevation 20' above ground level. Ground level elevation is 3,563' above mean sea level.



24" Hole

Conductor Pipe (0' - 80'): 20", 129.33 lb/ft 0.625" wall, API 5LX-56, plain-end, beveled conductor, cemented to surface with redi-mix.

17-1/2" Hole

Surface Casing (0' - 1,680'): 13-3/8", 54.5 lb/ft, K-55, ST&C, cemented to surfce.

12-1/4" Hole

Protection Casing (0' - 10,327'): 9-5/8", 47 lb/ft, N-80, LT&C, cemented to surface.

Injection Tubing (0' - 10,265'): 7", 26 lb/ft, K-55, LT&C

DV Tool (5,800'): 9-5/8"

Annulus Fluid: Injection tubing and protection casing annulus filled with 263 bbl of brine water containing a corrosion inhibitor, a bactericide and an oxygen scavenger.

Packer (10,265'): 7" x 9-5/8"

Open Hole: 8-1/2" to 10,700'

Wellbore information from: Figure 8.2, HollyFrontier Navajo Refining LLC, Artesia, New Mexico, As Built Below Ground Well Schematic by WSP and information found in the 2017 WDW-4 Permit.

NOT TO SCALE

HOLLYFRONTIER

Figure 1
Wellbore Diagram,
WDW No. 4
2020 FOT/MIT Report

Scale: NTS	Date: September 2020	
2020_HF_Artesia_WDW1_Fig_04.pdf	By: WEK	Checked: NB

Petrotek
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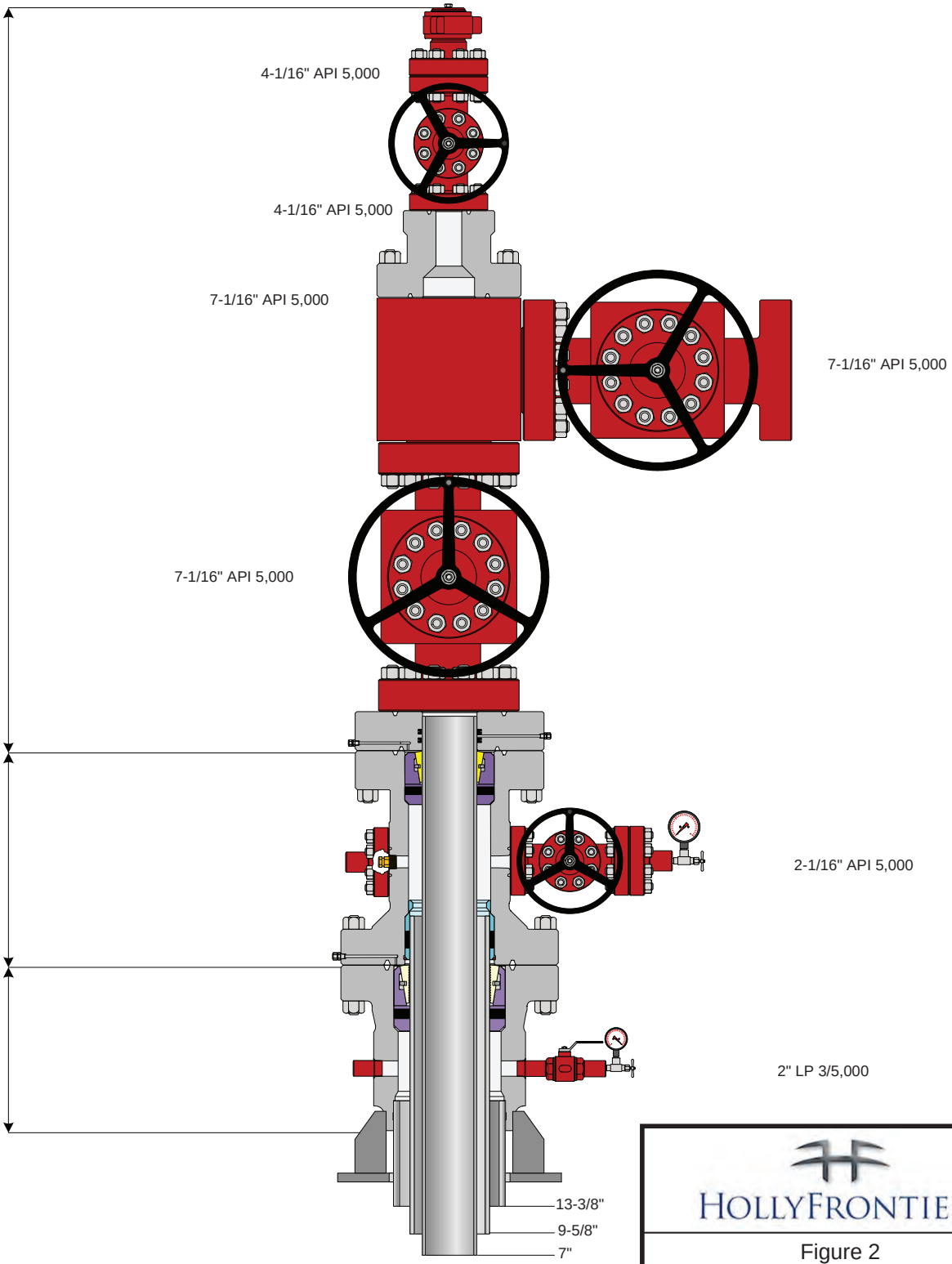
Littleton, Colorado 80127 USA
303-290-9414
www.petrotek.com

OCD UIC Permit: UICI-008-4
Well API Number: 30-015-44677
Sec. 23, T17S, R27E - Eddy County, New Mexico
SHL: Lat. 32.81581°, Long. -104.25003°



Wellhead information from:
Figure 8.3, Navajo Refining - Holly Frontier
by Weatherford.

NOT TO SCALE

HOLLYFRONTIER

Figure 2
Wellhead Diagram,
WDW No. 4

2020 FOT/MIT Report

Scale: NTS	Date: October 2020	
2020_HF_Artesia_WDW1_Fig_02.pdf	By: WEK	Checked: NB

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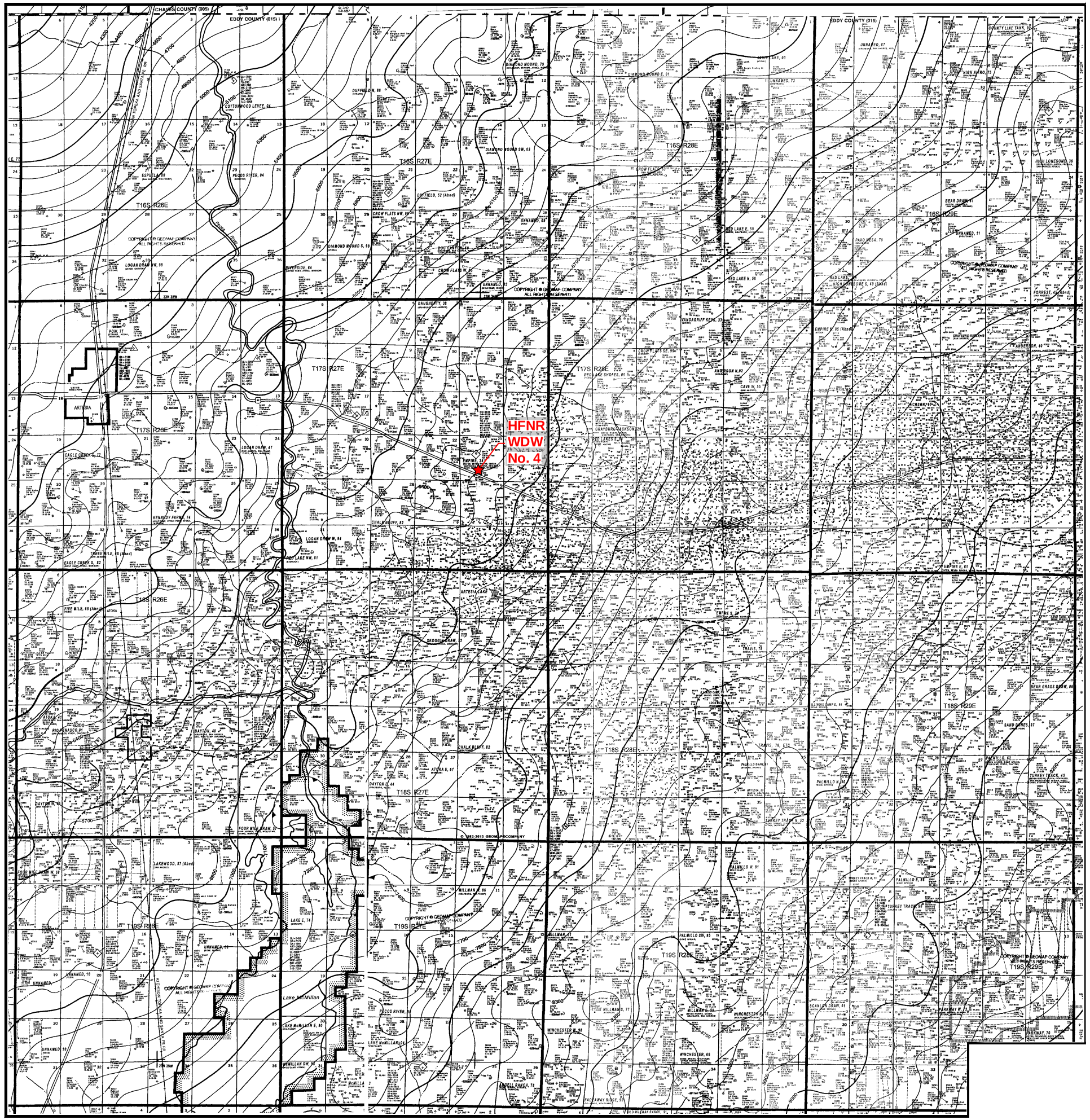

Adapted from HollyFrontier Navajo Refining LLC, Artesia, New Mexico, Published Structure Map, Top of Siluro-Devonian by WSP Parsons Brinckerhoff, Figure 8.

HOLLYFRONTIER

Figure 3
Silurian-Devonian Formation
Structure Map
2020 FOT/MIT Report

Contour Interval = 100'	Date: October 2020	
2020_HF_Artesia_WDW4_Fig_03.pdf	By: WEK	Checked: NB

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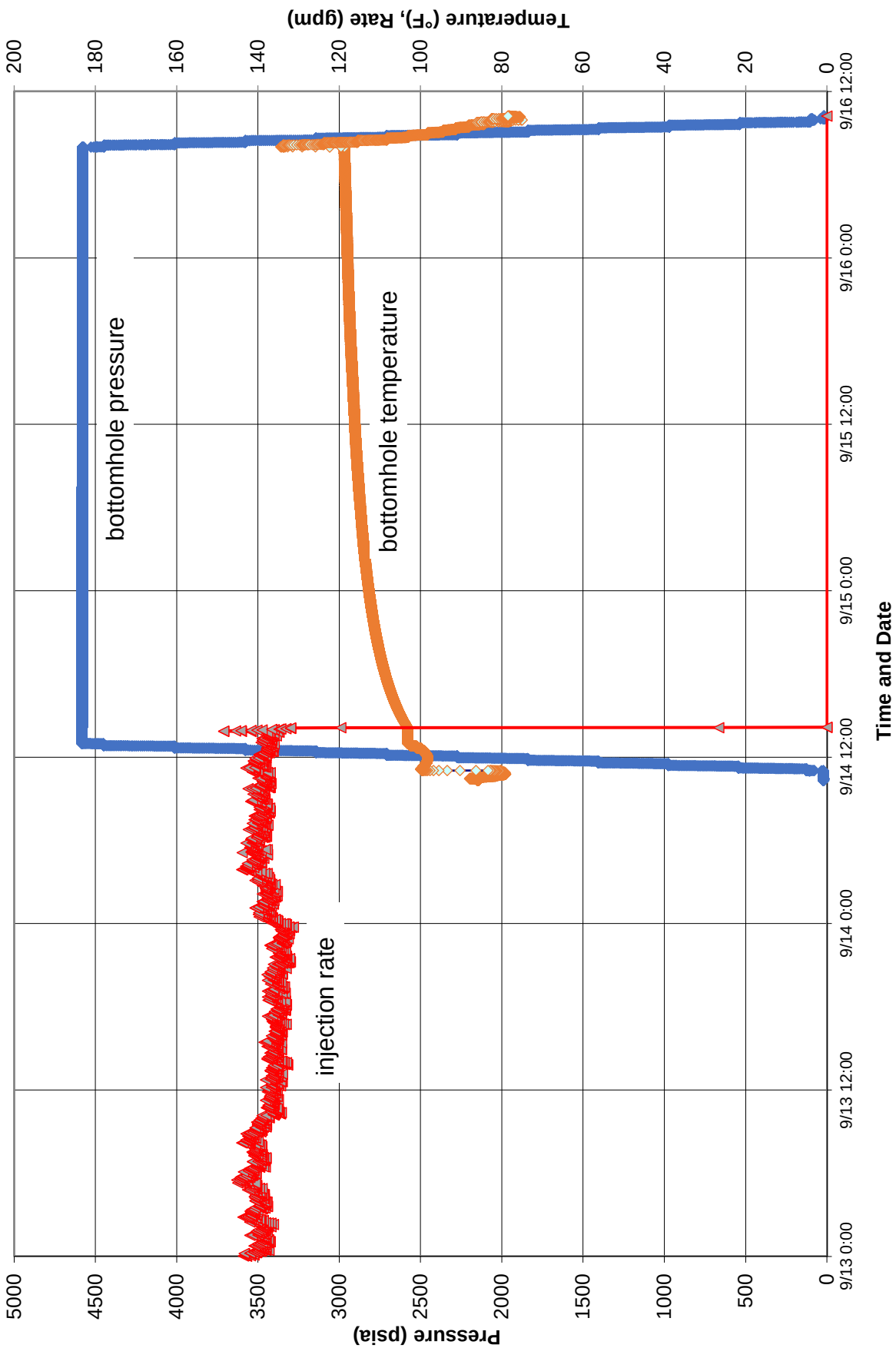
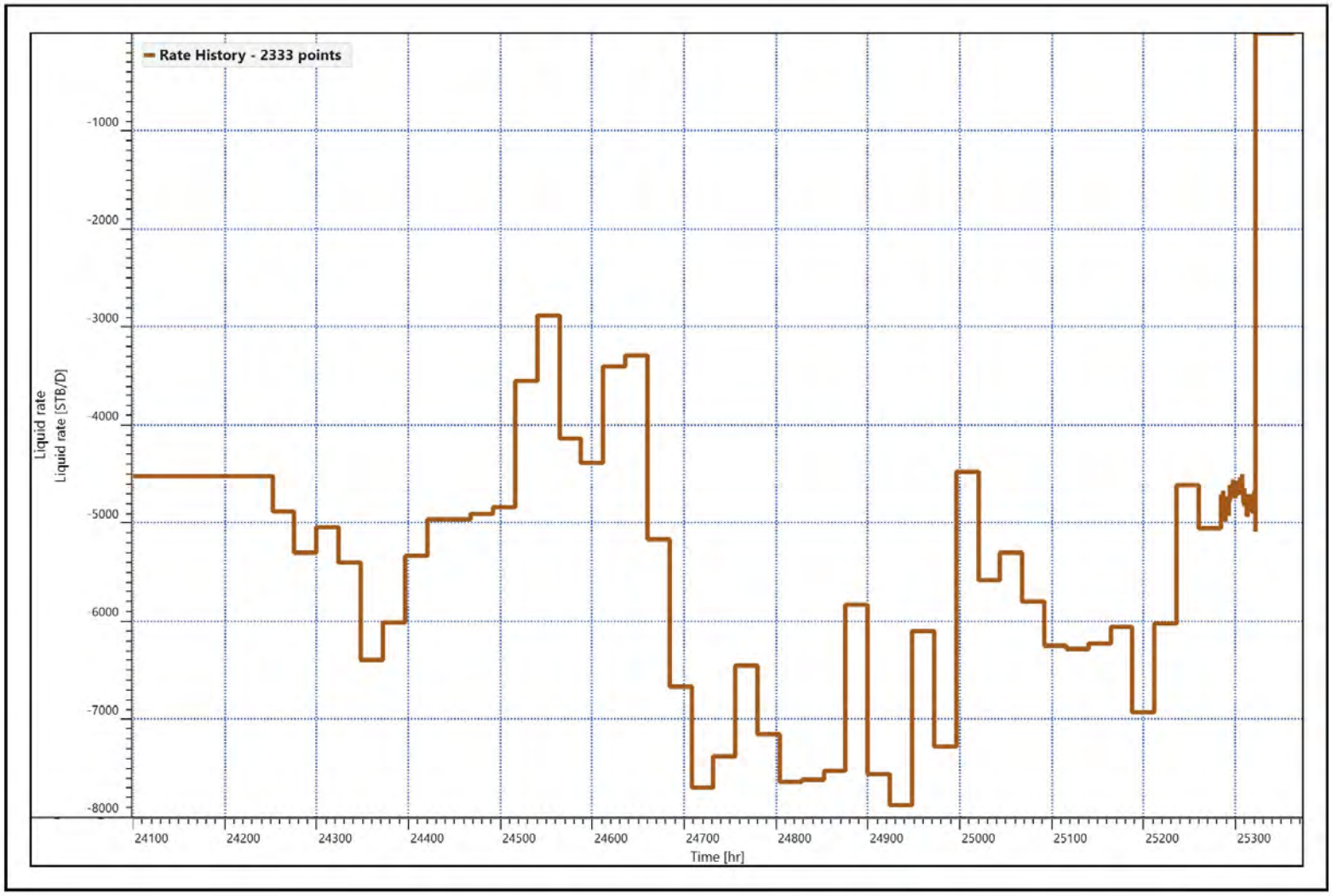
HollyFrontier Navajo Refining Company

Figure 4 - Cartesian Plot of Pressure, Temperature and Rate vs. Time, WDW-4

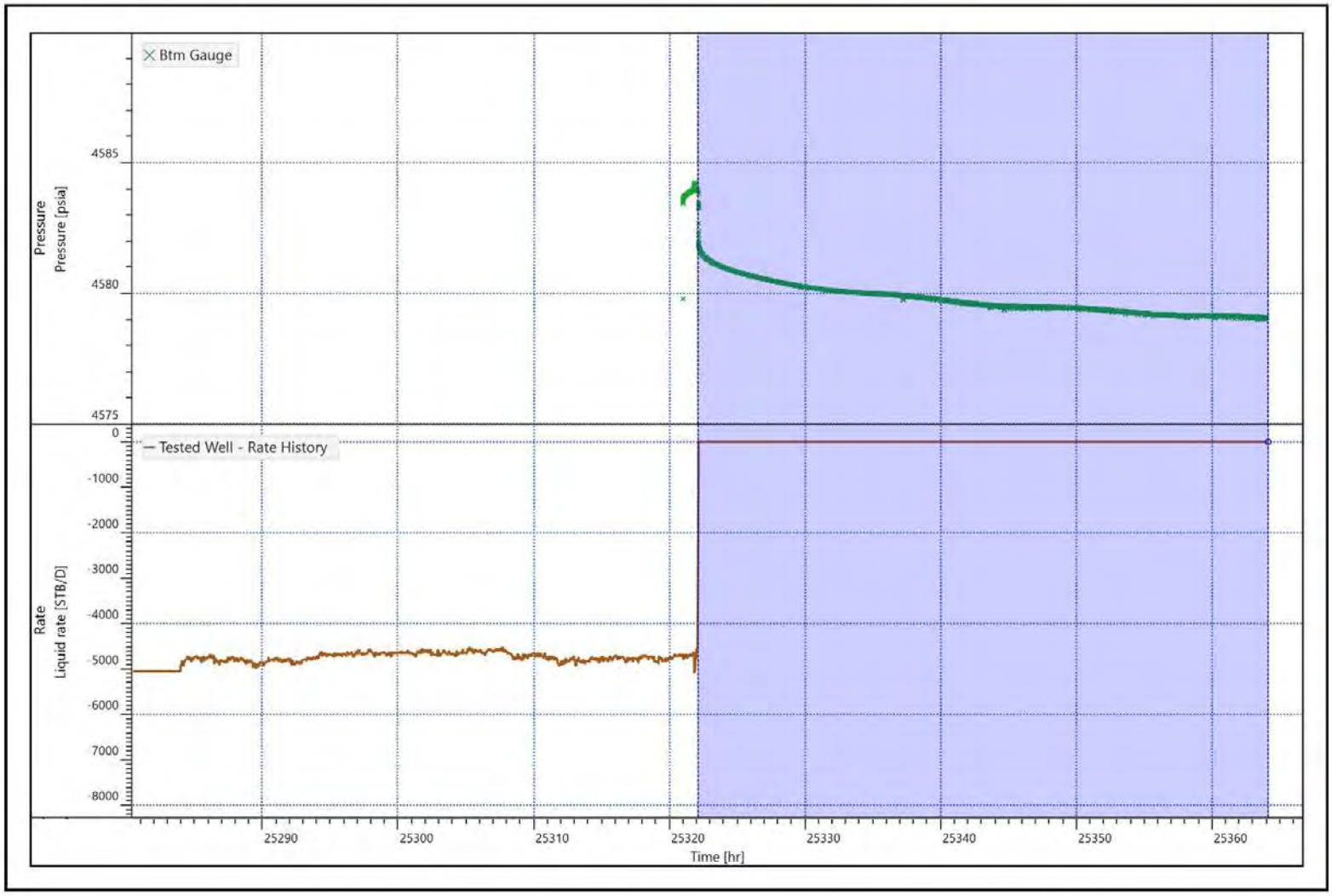


HollyFrontier Navajo Refining Company
Figure 5 - Rate History, WDW-4, September 14-16, 2020



Petrotek

HollyFrontier Navajo Refining Company
Figure 6 - Cartesian Plot of Pressure Falloff, WDW-4, September 14-16, 2020



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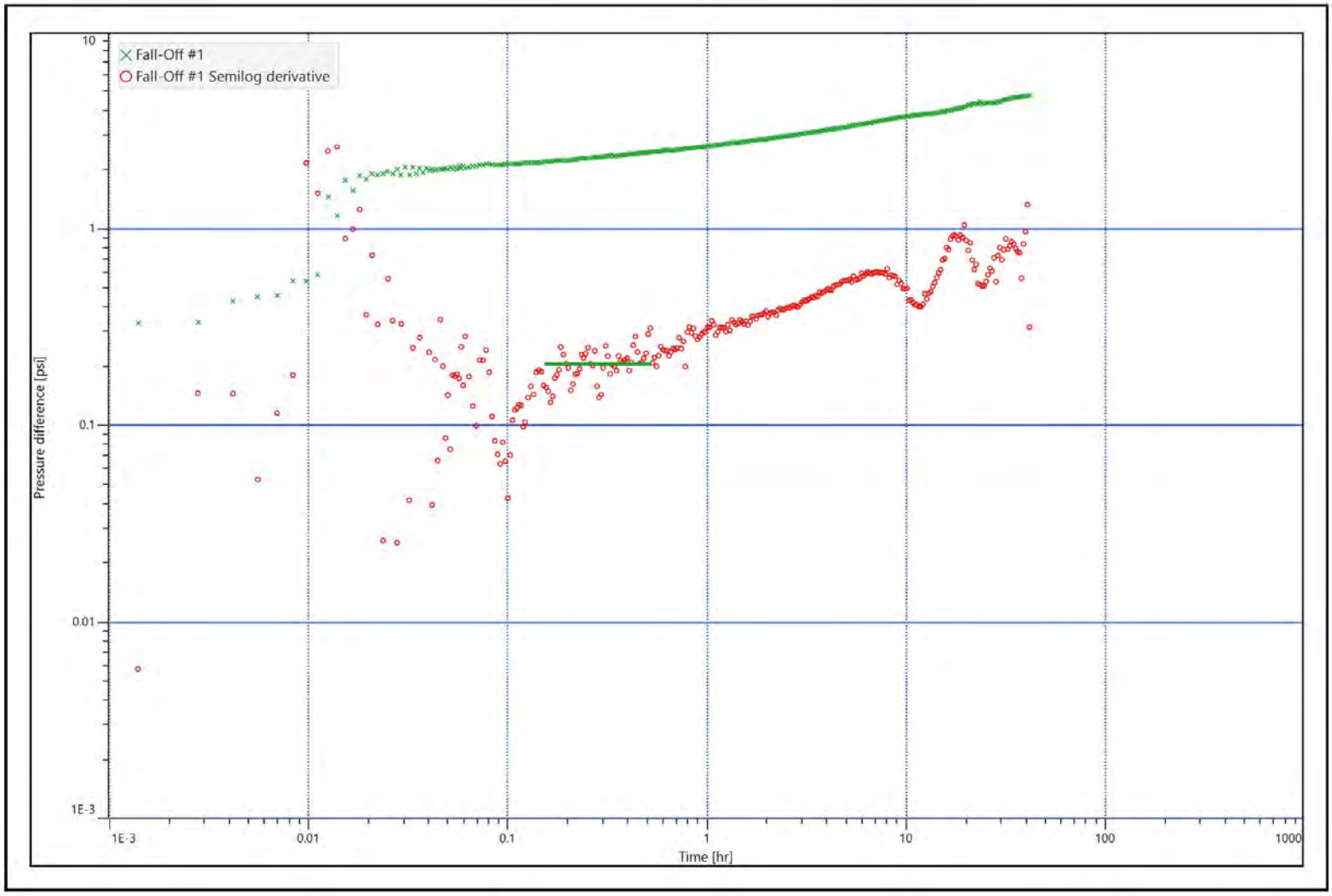
HollyFrontier Navajo Refining Company
Figure 7 - Log-log Derivative Plot, WDW-4, September 14-16, 2020



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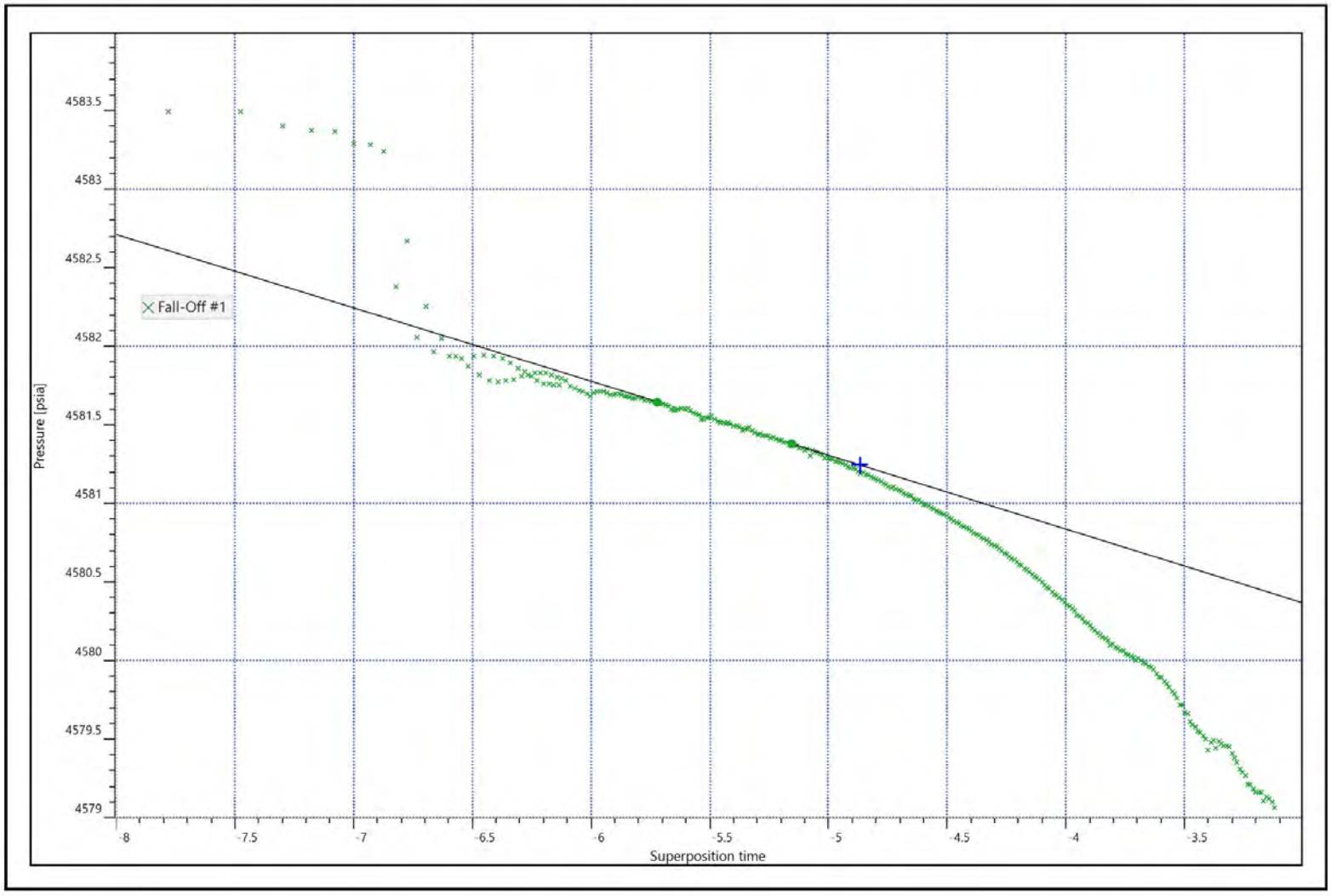
HollyFrontier Navajo Refining Company
Figure 8 - Semi-log Horner Plot, WDW-4, September 14-16, 2020



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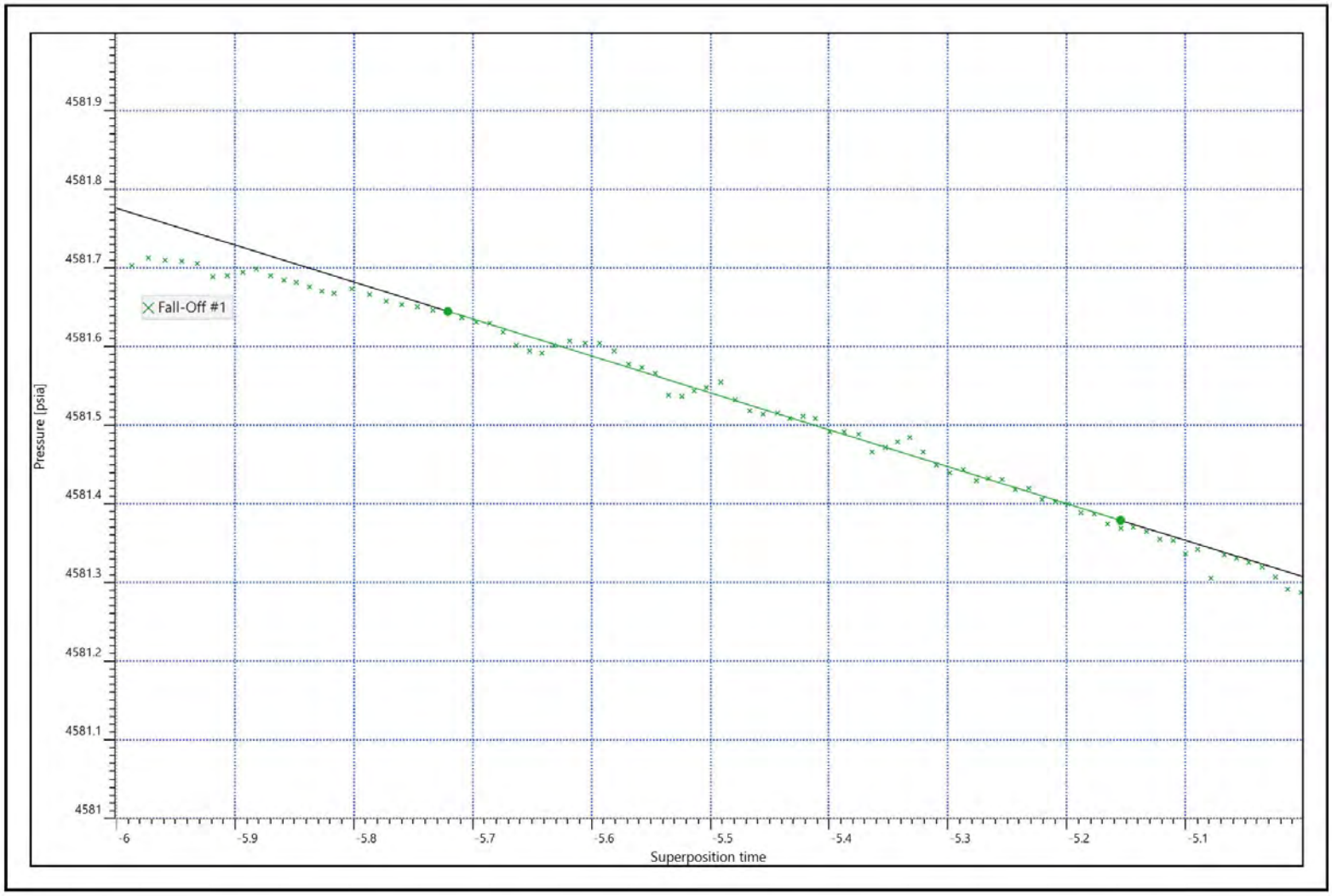
HollyFrontier Navajo Refining Company
Figure 9 - Semi-log Horner Plot, Radial Zoom, WDW-4, September 14-16, 2020



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HollyFrontier Navajo Refining Company

Figure 10 - Cartesian Plot of Pressure Falloff with Model Match, WDW-4, September 14-16, 2020

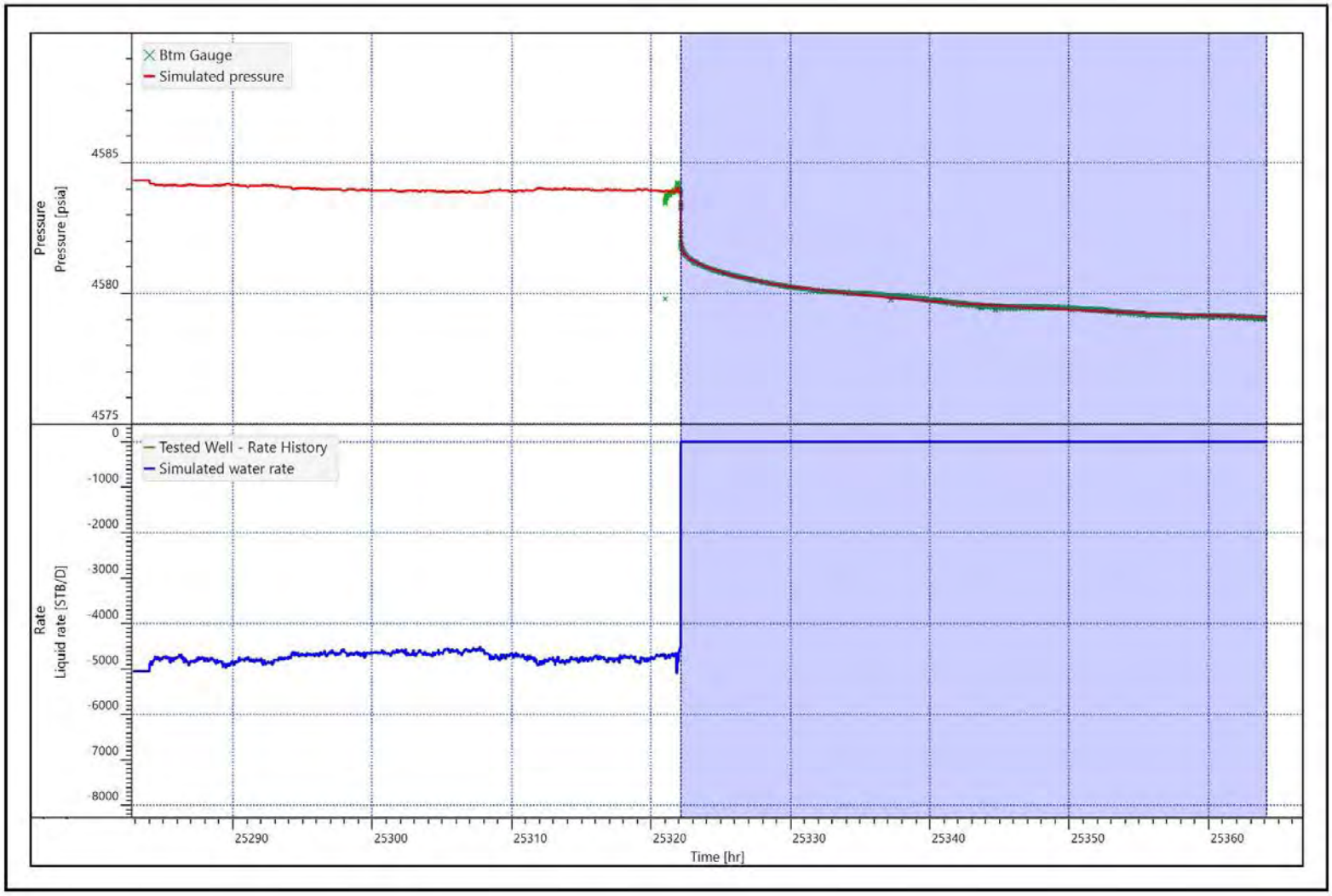

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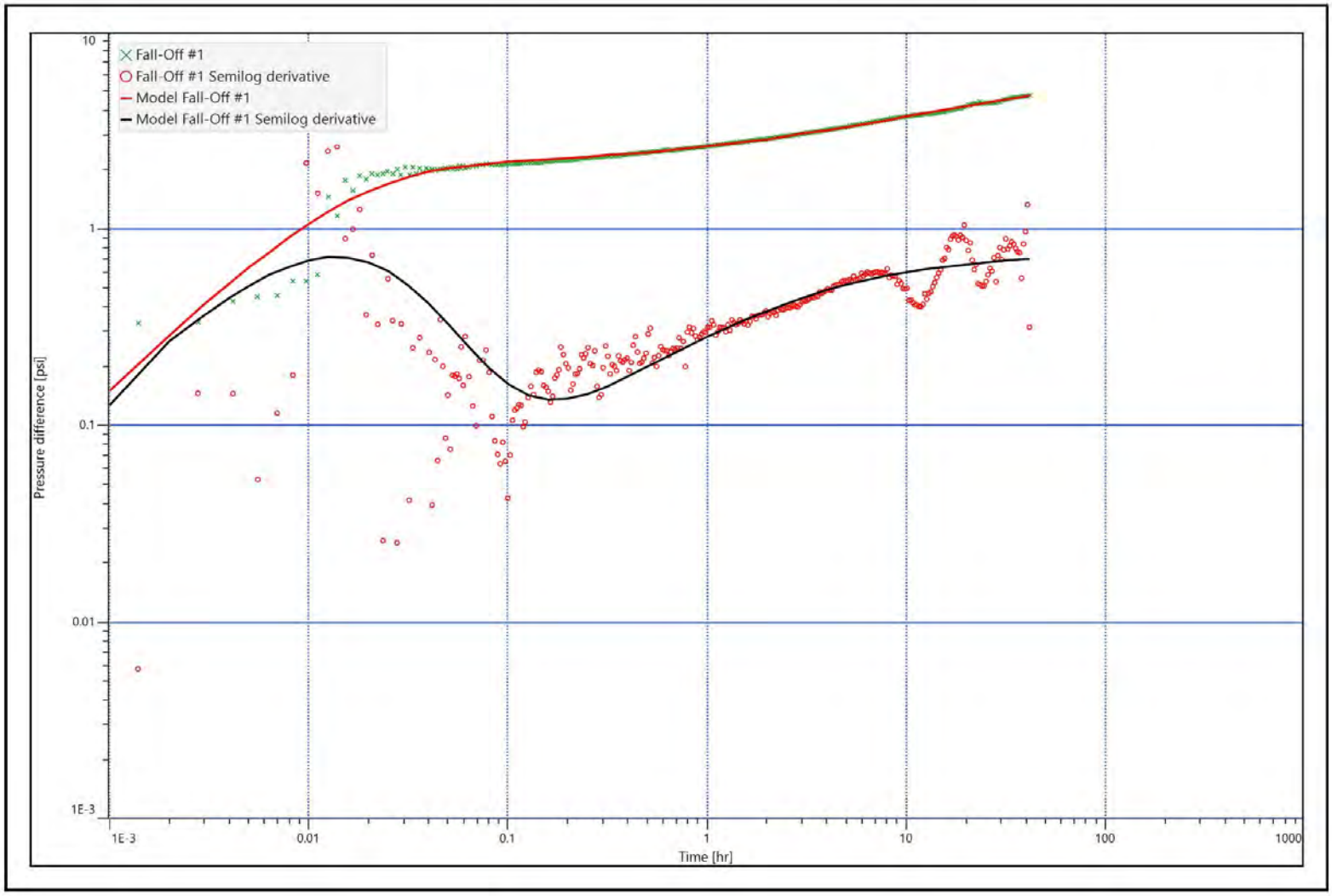
Figure 11 - Log-log Derivative Plot with Model Match, WDW-4, September 14-16, 2020



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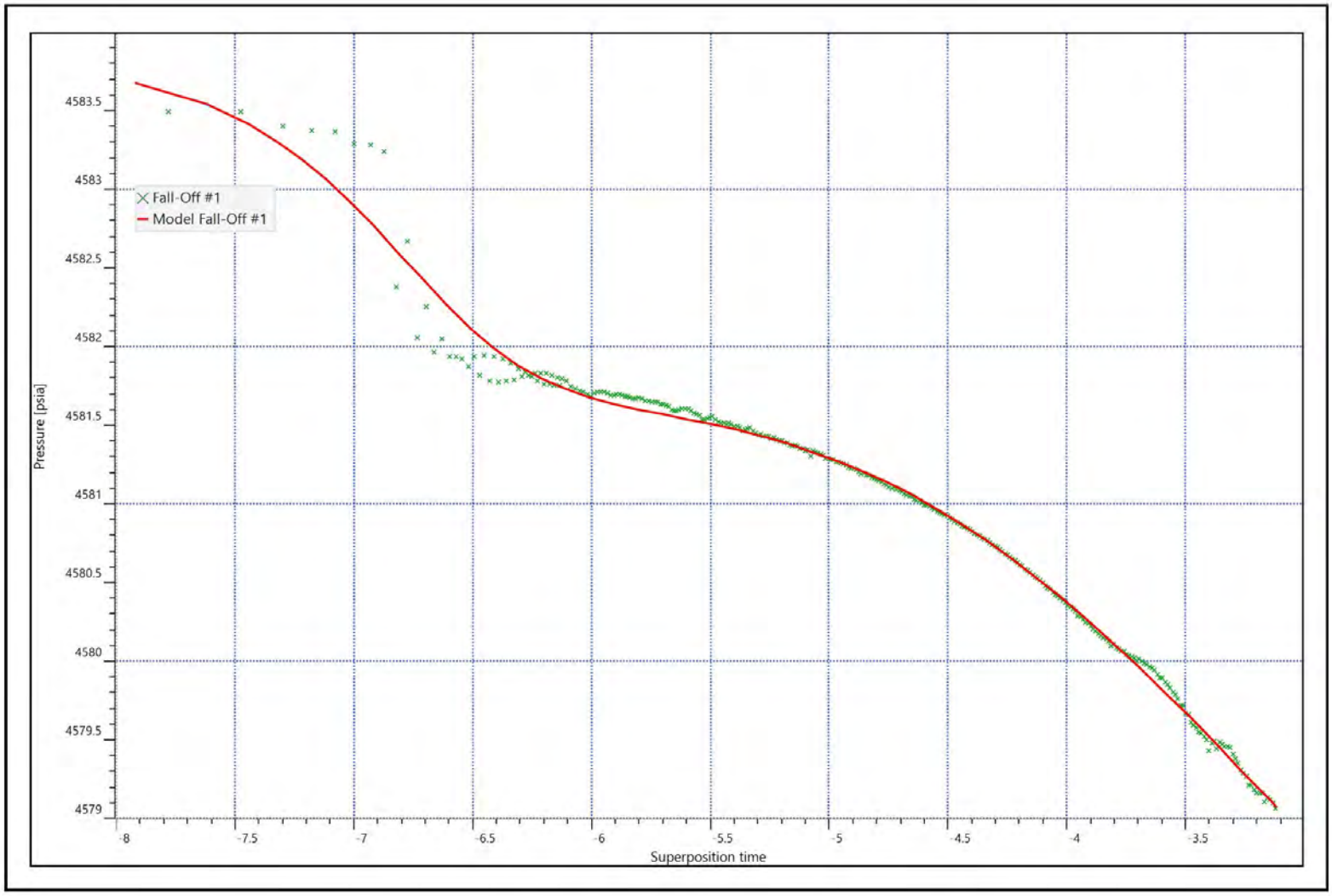
HollyFrontier Navajo Refining Company

Figure 12 - Semi-log Horner Plot with Model Match, WDW-4, September 14-16, 2020



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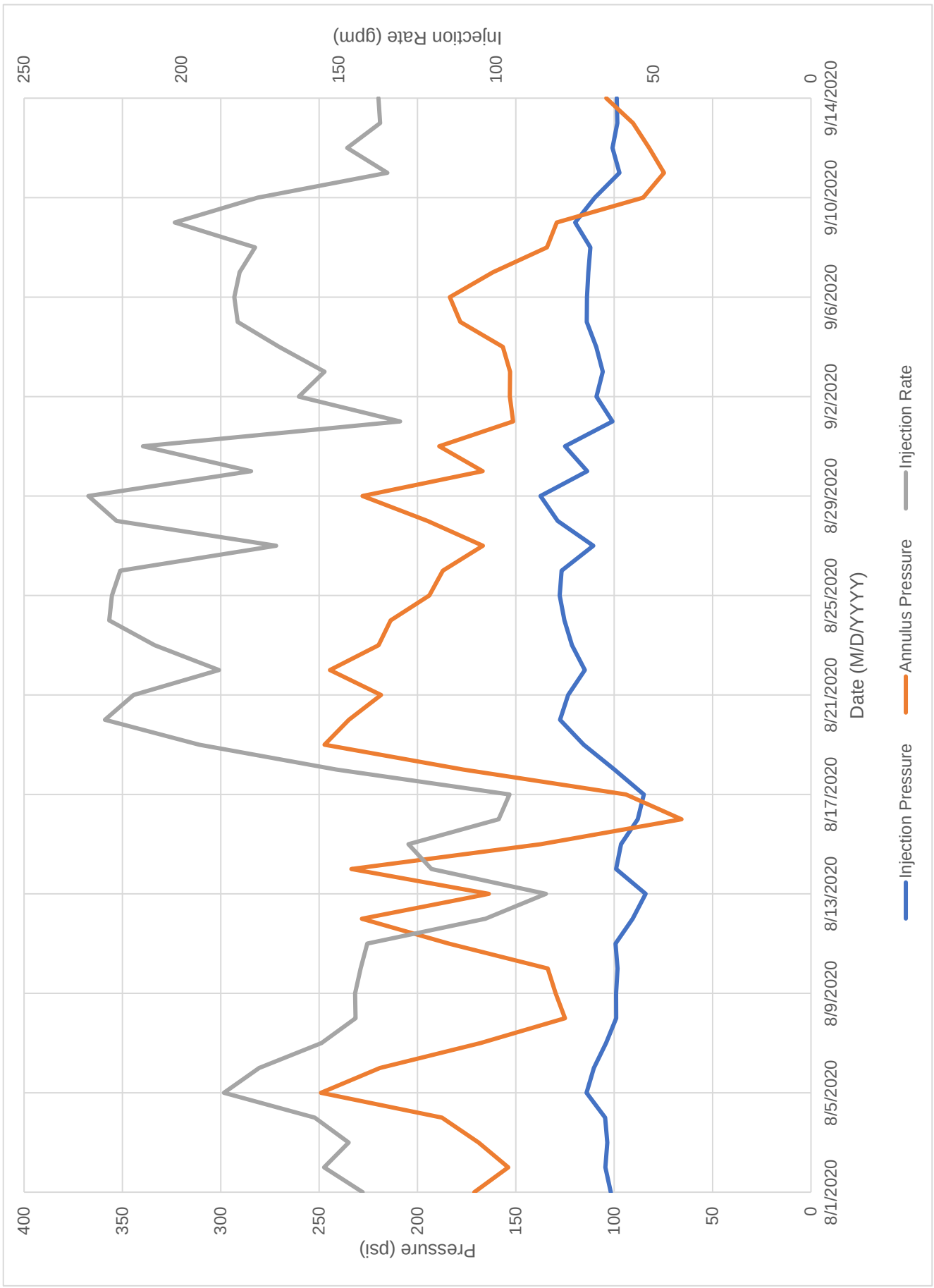
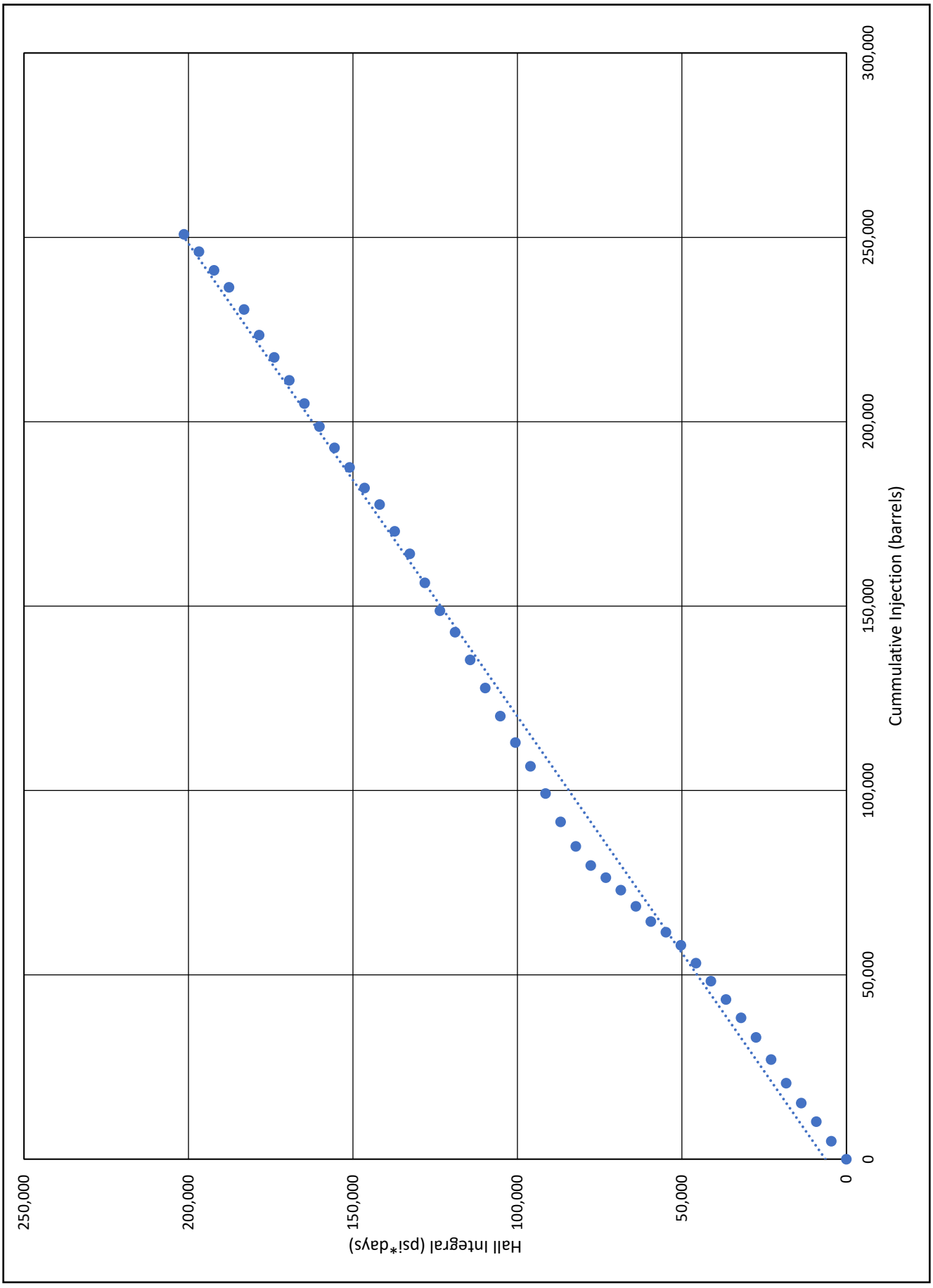
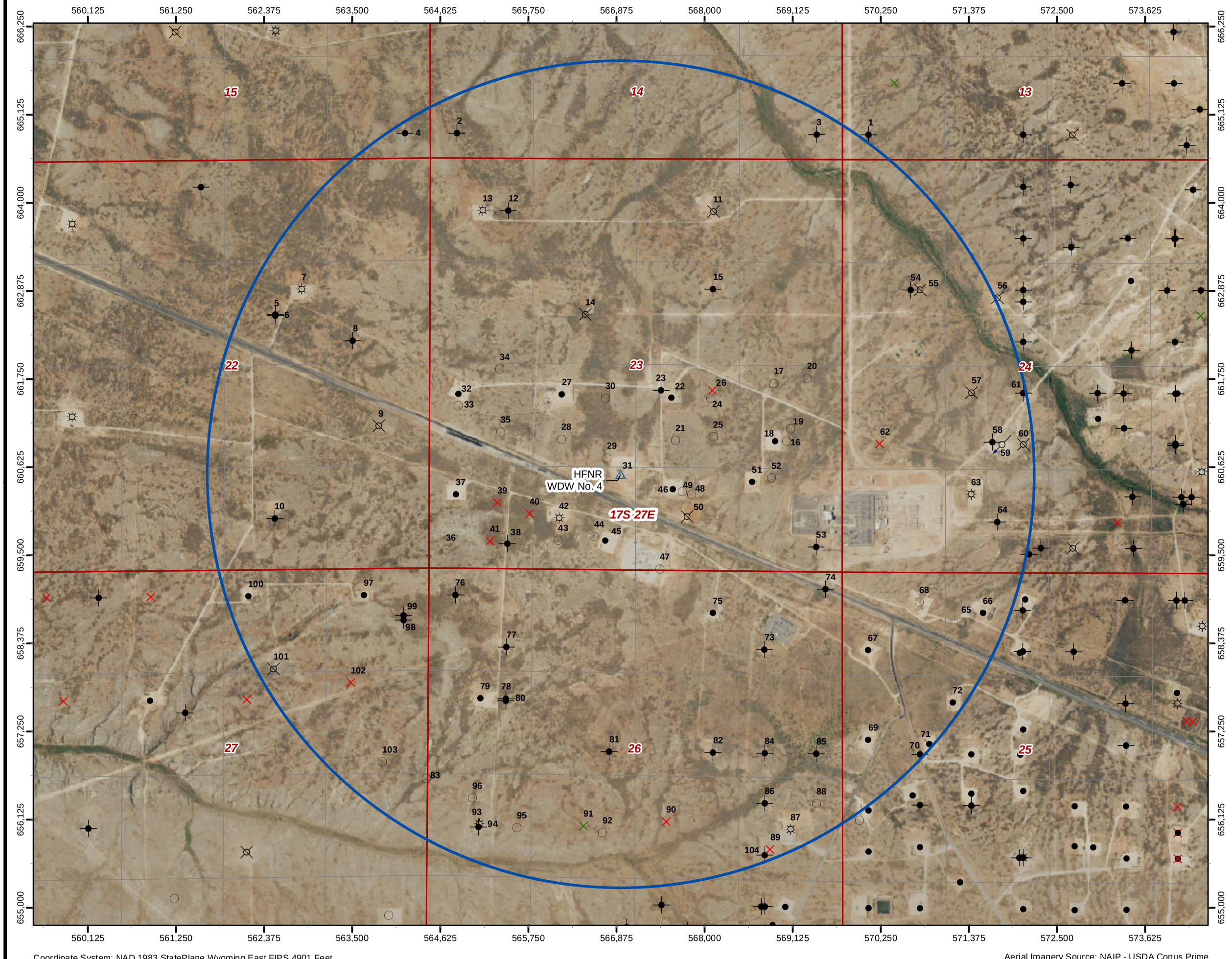
HollyFrontier Navajo Refining Company
Figure 13 - Daily Injection Rate History, WDW-4



HollyFrontier Navajo Refining Company
Figure 14 - Hall Plot, WDW-4





Legend

- HollyFrontier Navajo Refining WDW Location
- New (Not Drilled/Completed)
- Active Oil Well
- Plugged & Abandoned Oil Well
- Abandoned Location, Oil
- Active Gas Well
- Plugged & Abandoned Gas Well
- Abandoned Location, Gas
- Active Injection Well

Note:
Well data from the EMNRD, OCD GIS Public FTP Site, downloaded 09/24/2020.
Last modified by EMNRD, 09/16/2020.

0 600 1,200 1,800 2,400 Feet

1 inch = 1,200 feet

Coordinate System: NAD 1983 StatePlane Wyoming East FIPS 4901 Feet

Aerial Imagery Source: NAIP - USDA Conus Prime

HOLLYFRONTIER

Figure 15
One-Mile AOR Map

2020 FOT/MIT Report

Scale: 1:14,400	Date: December 2020	
2020_HF_Artesia_WDW4_Fig_15_Rev121720.mxd	By: WEK	Checked: NB

Petrotek
5935 South Zang Street, Suite 200
Littleton, Colorado 80127 USA
303-290-9414
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ATTACHMENTS

Attachment 1
OCD Test Notification

Petrotek

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. 30-015-44677

5. Indicate Type of Lease STATE ☐ 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

1. Type of Well: Oil Well ☐ Gas Well ☐ Other

8. Well Number: WDW-4

2. Name of Operator: HOLLYFRONTIER NAVAJO REFINING LLC

9. OGRID Number: 15694

3. Address of Operator: P.O. BOX 159, ARTESIA, NM 88210

10. Pool name or Wildcat: SILURIAN-DEVONIAN

4. Well Location
Unit Letter N :1217 feet from the SOUTH line and 2443 feet from the WEST line
Section : 23 Township: 17S Range: 27E NMPM County: EDDY

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3565

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	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
OTHER: Pressure Fall Off /Test & MIT	☒		☐	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.

Day 1: Sept 12, 2020; Start constant Injection Rate of 160 gpm into WDW-4, (30-015-44677) as well as the three (3) other injection wells for at least 30 hours prior to shut-in of WDW-4 for Fall Off Testing. .Wellhead pressure on WDW-1, WDW-2 and WDW-3 will not exceed 1400 psig. Plant personnel will record rate, volume and pressure during the constant rate injection period to ensure steady flow for analysis. Injection fluid samples will be collected every 10 hours and analyzed for pH and specific gravity.
Day 2: Sept. 13, 2020 Continue constant injection rate into all 4 wells.
Day 3: Sept. 14, 2020 While injection continues, run dual downhole memory gauges to test depth making flowing gradient stops every 1,000 feet. Collect pressure data at test depth for a minimum of 1 hour while injecting at a constant rate. Shut WDW-4 in and start data collection for a minimum of 30 hours. WDW-1, WDW-2 and WDW-3 will continue normal injection and operation.
Day 4: Sept 15, 2020. WDW-4 is still shut in while collecting pressure data.
Day 5: Sept 16, 2020. After a minimum of 30 hours of data collection, gauges will be pulled from the well making stops every 1,000 feet. After tools reach surface, a second run with sinker bars will tag bottom. MIT will be conducted for a minimum of 30 minutes with calibrated pressure guage.
NOTE: Will notify Artesia District of schedule for Witnessing of bot.hole gauge install and MIT .
.

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 TITLE Env. Spec. DATE 9/08/2020
Type or print name Lewis R. Dade E-mail address: Lewis.Dade@hollyfrontier.com PHONE:575-746-5281

For State Use Only

APPROVED BY: Carl J. Chavez TITLE Environmental Engineer DATE 9/8/2020
Conditions of Approval (if any):
Follow Fall Off Test Plan.

Attachment 2
Downhole Pressure Gauge Certification

Petrotek

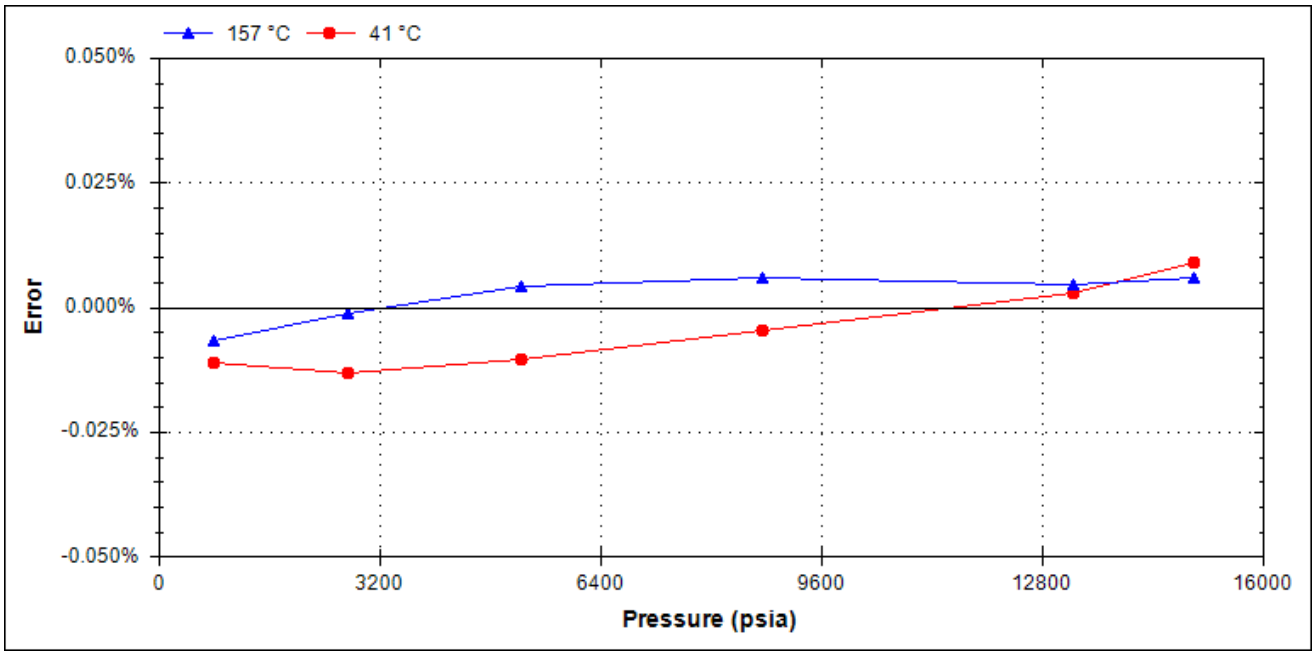
DataCan

"The Next Generation of Down Hole Tools"

Calibration Date:	07-Feb-19	**Calibration System:**	CALIBRATION02
Max Pressure Error:	0.013% F.S.	**Batch Number:**	20190204.163024
Max Temperature Error:	0.194 °C		
Part Number:	100229		
Serial Number:	242117		

1.25 OD_Quartz DXB_Assembly_,			
Max Pressure		Max Temperature	
psi	kPa	ºF	ºC
16,000	110,316	351	177

Accuracy: As shown in the graph below, this DataCan Pressure gauge conforms to within +/- 0.030% F.S. of the pressure standard used in calibration, which is accurate to within +/- 0.01% of reading.



Working Standards

Sun Electronic Systems Environmental Chamber, Model: EC127, Serial: EC0063
DHI Instruments Pressure Controller, Model: PPCH-200M (30,000psi Reference), Serial: 1894

Traceability Statement

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

Approved By:
DataCan Services Corp.

Calibrated By:
Angelo Pulido

DataCan

SO 53177 Shipping Date Feb 7, 2019

Cal Certificate

Certificate Date Feb 7, 2019

Serial Number 242117

Max P 16000 Pressure Error 0.013 % FS

Max T 177 Temperature Error 0.194 °C

- ☐ Flash Drive Loaded
- ☒ Calibration files
- ☒ USB cable functions

Tool Info

- ☒ Serial Number
- ☒ Max P
- ☒ Max T

Calibration Date Feb 7, 2019

Part Marking

- ☒ Serial Number
- ☒ Max P
- ☒ Max T

Utilities - Diagnostics - Start Sampling

Pressure 12.251 psia

Temperature 21.304 degC

Current Draw mA

☒ Checked By Renato Herrera Feb 7, 2019

DataCan

Gauge Parts

Arrived	Left
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐

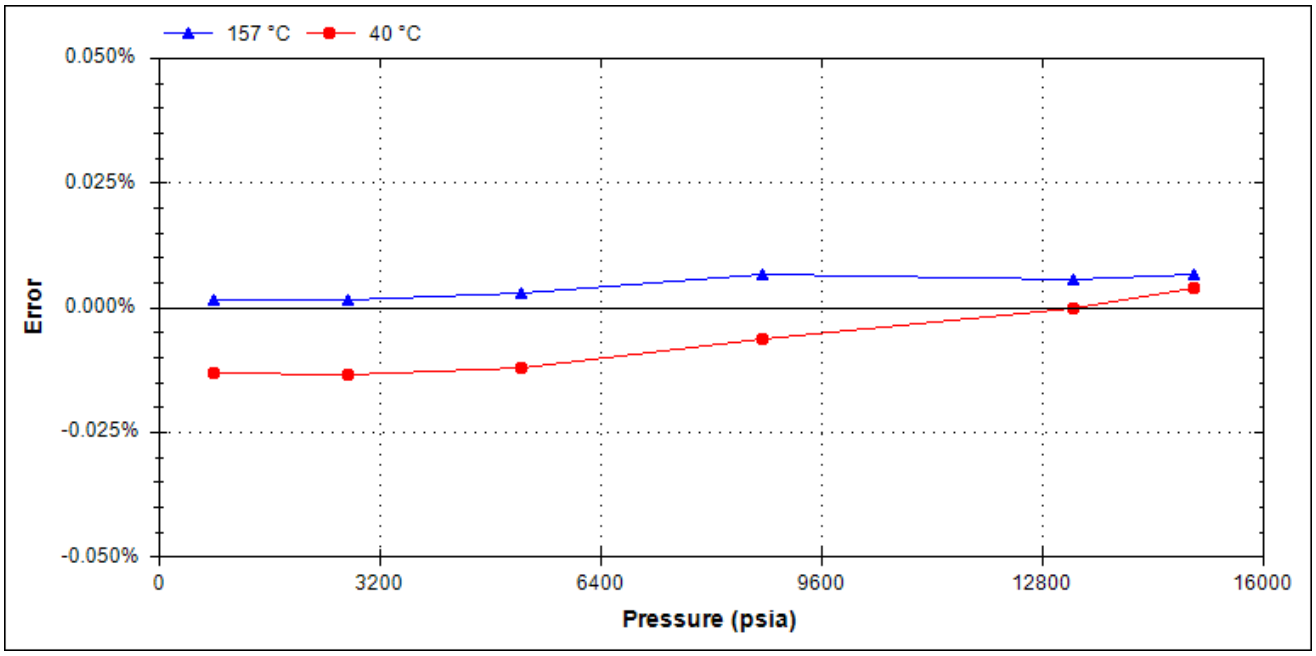
DataCan

"The Next Generation of Down Hole Tools"

Calibration Date:	15-May-19	**Calibration System:**	CALIBRATION03
Max Pressure Error:	0.014% F.S.	**Batch Number:**	20190412.085316
Max Temperature Error:	0.104 °C		
Part Number:	100229		
Serial Number:	242560		

1.25 OD_Quartz DXB_Assembly_,			
Max Pressure		Max Temperature	
psi	kPa	ºF	ºC
16,000	110,316	351	177

Accuracy: As shown in the graph below, this DataCan Pressure gauge conforms to within +/- 0.030% F.S. of the pressure standard used in calibration, which is accurate to within +/- 0.01% of reading.



Working Standards

Sun Electronic Systems Environmental Chamber, Model: EC127, Serial: EC0020
DHI Instruments Pressure Controller, Model: PPCH-200M (30,000psi Reference), Serial: 1529

Traceability Statement

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

Approved By:
DataCan Services Corp.

Calibrated By:
Angelo Pulido

DataCan

SO 54250 Shipping Date May 15, 2019

Cal Certificate

Certificate Date May 15, 2019

Serial Number 242560

Max P 16000 Pressure Error 0.014 % FS

Max T 177 Temperature Error 0.104 °C

- ☐ Flash Drive Loaded
- ☒ Calibration files
- ☒ USB cable functions

Tool Info

- ☒ Serial Number
- ☒ Max P
- ☒ Max T

Calibration Date May 15, 2019

Part Marking

- ☒ Serial Number
- ☒ Max P
- ☒ Max T

Utilities - Diagnostics - Start Sampling

Pressure 19.231 psia

Temperature 20.468 degC

Current Draw mA

☒ Checked By Renato Herrera May 15, 2019

DataCan

Gauge Parts

Arrived	Left
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
☐	☐
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☐	☐

Attachment 3
AOR Well List

Petrotek

ID	Operator	Well Name	API	Well Type	Well Status	Section	Township	Range	Quarter	Lat	Long	Date Comp or Plug
1	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00440	Oil	P&A	22	17S	27E	G	32.8277206	-104.2397232	6/20/2000
2	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00454	Oil	P&A	27	17S	27E	B	32.8277893	-104.2568283	12/31/1999
3	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00453	Oil	P&A	22	17S	27E	E	32.8277283	-104.2418747	1/1/2000
4	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00458	Oil	P&A	22	17S	27E	O	32.8277855	-104.2589798	1/1/2000
5	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #031	30-015-21569	Oil	P&A	22	17S	27E	H	32.8213921	-104.2643814	1/1/2000
6	SDX RESOURCES INC	BERRY A #031Y	30-015-21668	Oil	P&A	27	17S	27E	H	32.8214264	-104.2643814	12/31/1999
7	Murchison Oil and Gas, LLC	MARALO FEDERAL #002	30-015-30532	Gas	Active	27	17S	27E	A	32.8223076	-104.263298	10/15/1998
8	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00470	Oil	P&A	22	17S	27E	G	32.8205109	-104.2611618	12/31/1999
9	Murchison Oil and Gas, LLC	MARALO FEDERAL #004	30-015-30795	Gas	P&A	27	17S	27E	A	32.8175163	-104.2601013	1/1/2001
10	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #002	30-015-21443	Oil	P&A	22	17S	27E	I	32.8142662	-104.2644119	2/27/2007
11	SDX RESOURCES INC	WODEN FEDERAL #001	30-015-30386	Gas	P&A	27	17S	27E	A	32.8250237	-104.2461777	10/16/2014
12	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00471	Oil	P&A	15	17S	27E	P	32.8250618	-104.2546921	1/1/2001
13	OXY USA WTP LIMITED PARTNERSHIP	OXY ROSENKAVLIER FEDERAL #001	30-015-30908	Gas	Active	26	17S	27E	H	32.8250656	-104.2557602	12/31/1999
14	ALAMO PERMIAN RESOURCES, LLC	BERRY FEDERAL #029	30-015-00472	Gas	P&A	23	17S	27E	L	32.8214188	-104.2514877	12/31/1999
15	HANSON ENERGY	BERRY FEDERAL #034	30-015-31113	Oil	P&A	23	17S	27E	L	32.8223038	-104.2461853	12/31/1999
16	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #025	30-015-41882	Oil	New	23	17S	27E	M	32.8169556	-104.2431335	12/10/2013
17	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #024	30-015-41881	Oil	New	26	17S	27E	D	32.8189926	-104.2436676	1/1/2000
18	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #005	30-015-41260	Oil	Active	14	17S	27E	M	32.8169594	-104.2436218	1/1/2000
19	OXY USA WTP LIMITED PARTNERSHIP	OXY VIKING FEDERAL #002	30-015-33980	Gas	New	26	17S	27E	L	32.8173943	-104.2429733	NA
20	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #013	30-015-41873	Oil	New	23	17S	27E	L	32.8191719	-104.2422867	12/10/2013
21	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #022	30-015-41879	Oil	New	26	17S	27E	E	32.8169975	-104.247757	1/1/2000
22	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #004	30-015-41341	Oil	Active	23	17S	27E	M	32.8184853	-104.2479172	11/28/2013
23	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #005	30-015-00473	Oil	P&A	26	17S	27E	E	32.8187637	-104.2483444	12/31/1999
24	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #023	30-015-41880	Oil	New	23	17S	27E	L	32.81847	-104.2462921	12/9/2013
25	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #012	30-015-41872	Oil	New	26	17S	27E	E	32.8171196	-104.2461929	1/1/2000
26	SDX RESOURCES INC	BERRY FEDERAL #035	30-015-31178	Oil	AL	26	17S	27E	D	32.818743	-104.2462161	1/1/2000
27	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #003	30-015-41340	Oil	Active	26	17S	27E	L	32.8186111	-104.2524796	1/1/2000
28	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #020	30-015-41877	Oil	New	23	17S	27E	M	32.8170433	-104.2524872	1/1/2000
29	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #011	30-015-41871	Oil	New	23	17S	27E	D	32.8163795	-104.2505951	1/1/2000
30	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #021	30-015-41878	Oil	New	27	17S	27E	B	32.8184814	-104.2506561	1/31/2003
31	NAVAJO REFINING COMPANY, L.L.C.	WDW 4 #004	30-015-44677	SWD	New	23	17S	27E	D	32.816088	-104.249871	1/1/2001
32	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #002	30-015-41339	Oil	Active	23	17S	27E	M	32.8186226	-104.2567749	12/31/1999
33	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #018	30-015-41876	Oil	New	23	17S	27E	M	32.8182106	-104.2567749	1/21/2014
34	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #019	30-015-41854	Oil	New	23	17S	27E	M	32.8195	-104.255043	1/21/2014
35	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #010	30-015-41870	Oil	New	26	17S	27E	L	32.8172989	-104.2550201	NA
36	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #026	30-015-41853	Oil	New	23	17S	27E	N	32.8131561	-104.2572937	1/1/2001
37	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #006	30-015-41342	Oil	Active	23	17S	27E	K	32.8151054	-104.2568893	7/22/2013
38	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #006	30-015-00474	Oil	P&A	23	17S	27E	N	32.8133812	-104.2547531	12/31/1999
39	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #027	30-015-41999	Oil	AL	23	17S	27E	K	32.8148117	-104.2551651	12/6/2013
40	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #015	30-015-41998	Oil	AL	26	17S	27E	K	32.8144264	-104.2538071	7/25/2011
41	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #014	30-015-41997	Oil	AL	23	17S	27E	N	32.8134689	-104.2554626	12/10/2013
42	OXY USA WTP LIMITED PARTNERSHIP	OXY VIKING FEDERAL #001	30-015-29281	Gas	Active	23	17S	27E	K	32.8142662	-104.252594	12/31/1999
43	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #028	30-015-41883	Oil	New	26	17S	27E	K	32.8134956	-104.2526321	NA
44	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #029	30-015-41852	Oil	New	23	17S	27E	F	32.8136253	-104.2511368	10/26/2010
45	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #007	30-015-41425	Oil	Active	26	17S	27E	F	32.8134804	-104.250679	1/1/2000
46	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #008	30-015-41468	Oil	Active	23	17S	27E	N	32.8152809	-104.2478638	12/27/2013
47	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #030	30-015-41884	Oil	New	23	17S	27E	J	32.8124809	-104.2484131	12/6/2013
48	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #031	30-015-41885	Oil	New	23	17S	27E	K	32.8150902	-104.2470779	12/9/2013
49	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #016	30-015-41874	Oil	New	23	17S	27E	O	32.8152008	-104.247467	12/9/2013

ID	Operator	Well Name	API	Well Type	Well Status	Section	Township	Range	Quarter	Lat	Long	Date Comp or Plug
50	ALAMO PERMIAN RESOURCES, LLC	BERRY FEDERAL #030	30-015-21510	Gas	P&A	23	17S	27E	J	32.8143272	-104.2472763	12/31/1999
51	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #009	30-015-41261	Oil	Active	23	17S	27E	J	32.8155365	-104.2445679	1/1/2000
52	OXY USA WTP LIMITED PARTNERSHIP	YESO VIKING FEDERAL #017	30-015-41875	Oil	New	23	17S	27E	N	32.8156738	-104.2437668	6/18/2013
53	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #007	30-015-00475	Oil	P&A	23	17S	27E	O	32.8132591	-104.2419052	12/31/1999
54	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #036	30-015-31179	Oil	P&A	23	17S	27E	B	32.8222733	-104.2379761	8/6/1999
55	ALAMO PERMIAN RESOURCES, LLC	BERRY FEDERAL #027	30-015-00483	Gas	P&A	23	17S	27E	J	32.8222733	-104.237587	12/31/1999
56	OXY USA WTP LIMITED PARTNERSHIP	OXY CHOPSTICKS STATE COM #001	30-015-30446	Gas	P&A	23	17S	27E	O	32.821991	-104.2343674	12/31/1999
57	ALAMO PERMIAN RESOURCES, LLC	BERRY A #022	30-015-00497	Gas	P&A	23	17S	27E	G	32.8186646	-104.2354507	1/18/2008
58	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #019	30-015-00499	Oil	P&A	23	17S	27E	O	32.8169289	-104.2345734	11/30/2012
59	ROVER OPERATING, LLC	BERRY A #033	30-015-25154	SWD	Active	23	17S	27E	P	32.8168449	-104.2341843	2/9/2014
60	ALAMO PERMIAN RESOURCES, LLC	BERRY A #011	30-015-00498	Gas	P&A	23	17S	27E	J	32.8168411	-104.2332993	12/31/1999
61	SDX RESOURCES INC	BERRY A #021	30-015-01239	Oil	P&A	26	17S	27E	I	32.8186531	-104.2332993	1/1/2001
62	SDX RESOURCES INC	BERRY A FEDERAL #037	30-015-31114	Oil	AL	26	17S	27E	H	32.81686646	-104.2392541	1/1/2000
63	OXY USA WTP LIMITED PARTNERSHIP	OXY CHOPSTICKS FEDERAL #002	30-015-31743	Gas	Active	26	17S	27E	G	32.8150902	-104.2354584	8/28/2000
64	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-01532	Oil	P&A	23	17S	27E	I	32.8141251	-104.2343826	12/31/1999
65	COG OPERATING LLC	REDBUD FEDERAL #003	30-015-39759	Oil	New	26	17S	27E	A	32.8106079	-104.2358856	1/1/2000
66	Spur Energy Partners LLC	REDBUD FEDERAL #001	30-015-32694	Oil	Active	23	17S	27E	P	32.8109283	-104.2349777	12/31/1999
67	Redwood Operating LLC	MATTHEWS 25 FEDERAL #003	30-015-41698	Oil	Active	26	17S	27E	J	32.8096275	-104.2397614	12/31/1999
68	Redwood Operating LLC	MATTHEWS 25 FEDERAL #004	30-015-41699	Oil	New	23	17S	27E	J	32.811306	-104.2376251	8/7/2001
69	Redwood Operating LLC	MATTHEWS 25 FEDERAL #001	30-015-40804	Oil	Active	23	17S	27E	I	32.8064804	-104.2397614	12/31/1999
70	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #003	30-015-00519	Oil	P&A	26	17S	27E	I	32.8059731	-104.2376099	12/31/1999
71	Redwood Operating LLC	MATTHEWS 25 FEDERAL #002	30-015-41721	Oil	Active	23	17S	27E	I	32.8063278	-104.2372055	12/9/2013
72	Spur Energy Partners LLC	DOGWOOD FEDERAL #003	30-015-39763	Oil	Active	23	17S	27E	I	32.8077812	-104.2362442	12/31/1999
73	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #006	30-015-00580	Oil	P&A	26	17S	27E	I	32.8096504	-104.2440567	12/31/1999
74	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00579	Oil	P&A	26	17S	27E	I	32.8117714	-104.2415161	12/31/1999
75	Grizzly Operating, LLC	TRIGG FEDERAL #001	30-015-30956	Oil	Active	14	17S	27E	P	32.810936	-104.2462082	1/1/2000
76	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00581	Oil	P&A	26	17S	27E	H	32.8115845	-104.2569122	1/1/2000
77	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00582	Oil	P&A	23	17S	27E	P	32.8097496	-104.2547836	1/1/2001
78	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #002	30-015-00686	Oil	P&A	23	17S	27E	I	32.8079376	-104.2547989	12/31/1999
79	OXY USA WTP LIMITED PARTNERSHIP	OXY CHARLEMAGNE FEDERAL #001	30-015-30181	Oil	Active	26	17S	27E	A	32.8079453	-104.2558746	1/1/2000
80	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00583	Oil	P&A	25	17S	27E	D	32.807869	-104.2547989	12/31/1999
81	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00584	Oil	P&A	26	17S	27E	B	32.8060799	-104.2505188	12/31/1999
82	LIME ROCK RESOURCES A, L.P.	TRIGG FEDERAL #002	30-015-31193	Oil	P&A	13	17S	27E	M	32.8060417	-104.2462006	1/1/2001
83	Redwood Operating LLC	EAGLE 26 H FEDERAL #009	30-015-43688	Oil	New	24	17S	27E	L	32.80514069	-104.258114	8/7/2001
84	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #014	30-015-00585	Oil	P&A	25	17S	27E	E	32.8060188	-104.2440567	12/31/1999
85	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #015	30-015-00586	Oil	P&A	25	17S	27E	E	32.8059998	-104.2419052	1/1/2000
86	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00587	Oil	P&A	25	17S	27E	D	32.8042603	-104.2440567	12/31/1999
87	OXY USA WTP LIMITED PARTNERSHIP	OXY HARVESTER FEDERAL #001	30-015-30882	Gas	Active	25	17S	27E	C	32.8033371	-104.242981	12/31/1999
88	Redwood Operating LLC	EAGLE 26 I FEDERAL #012	30-015-43908	Oil	New	24	17S	27E	D	32.80424009	-104.2419018	1/1/2000
89	Redwood Operating LLC	EAGLE 26 I FEDERAL #007C	30-015-42301	Oil	AL	24	17S	27E	E	32.8026352	-104.2438278	10/26/2010
90	SDX RESOURCES INC	TRIGG FEDERAL #003	30-015-31388	Oil	AL	24	17S	27E	N	32.80360947	-104.248156	4/24/2001
91	OXY USA WTP LIMITED PARTNERSHIP	OXY COMMODORE FEDERAL #001K	30-015-36875	Gas	AL	25	17S	27E	F	32.80347057	-104.2515885	12/10/2019
92	Redwood Operating LLC	EAGLE 26 K FEDERAL #010	30-015-43694	Oil	New	24	17S	27E	K	32.80323263	-104.2507912	10/26/2010
93	Spur Energy Partners LLC	ARCO B FEDERAL COM #001	30-015-21047	Gas	Active	24	17S	27E	N	32.8035316	-104.2559128	1/1/2000
94	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-00589	Oil	P&A	24	17S	27E	K	32.8034363	-104.2559509	1/1/2000
95	Redwood Operating LLC	EAGLE 26 L FEDERAL #011	30-015-43689	Oil	New	25	17S	27E	C	32.80341019	-104.2543525	NA
96	Redwood Operating LLC	EAGLE 27 FEDERAL COM #001H	30-015-47052	Oil	New	24	17S	27E	K	32.8044524	-104.2562131	10/19/2016
97	Redwood Operating LLC	EAGLE 27 FEDERAL #001	30-015-29936	Oil	Active	24	17S	27E	F	32.811573	-104.2607193	6/15/1999
98	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	30-015-01237	Oil	P&A	24	17S	27E	K	32.8107071	-104.2590714	NA

ID	Operator	Well Name	API	Well Type	Well Status	Section	Township	Range	Quarter	Lat	Long	Date Comp or Plug
99	COG OPERATING LLC	RJ UNIT #105	30-015-29803	Oil	P&A	25	17S	27E	E	32.8108711	-104.2590714	12/31/1999
100	Redwood Operating LLC	EAGLE 27 B FEDERAL #003	30-015-29937	Oil	Active	24	17S	27E	K	32.8115349	-104.2655106	12/31/1999
101	CONCHO EXPLORATION	HONDO FEDERAL GAS COM #003	30-015-32614	Gas	P&A	23	17S	27E	K	32.8089867	-104.2644577	12/31/1999
102	DEVON ENERGY PRODUCTION COMPANY, LP	EAGLE 27 H FEDERAL #015	30-015-29942	Oil	AL	26	17S	27E	L	32.80849945	-104.2612538	NA
103	Redwood Operating LLC	EAGLE 26 FEDERAL COM #001H	30-015-47053	Oil	New	27	17S	27E	H	32.8057245	-104.2599439	NA
104	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #010	30-015-00588	Oil	P&A	26.00	17S	27E	I	32.8024445	-104.2440567	NA

Attachment 4
Digital Data

Attachment 5
FESCO Injection Falloff Test Report

Petrotek

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

FLOWING GRADIENT SURVEY

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Formation: Unavailable

Test Date: 9/14/2020
Location: Eddy County, NM
Status: Injecting Water

Well Data: Wellhead Connection: 4-1/16" BX-155 Flange
Elevation: 20 ft above GL
Tubing: 7" Set at 10265 ft (Packer)
Casing: 9.625" Set at 10327 ft (EOC)
Perfs: 10327 - 10700 ft (MD)
Datum: 10514 ft (MD)

Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Depth			Pressure					
MD ft	TVD ft	Delta Depth ft	WHP psig	BHT °F	Gauge Pressure psig	Delta Pressure psi	Pressure Gradient psi / ft	Comments
0	0	0	100	101.34	127.86	0.00	0.0000	
1000	1000	1000		100.85	544.84	416.98	0.4170	
2000	2000	1000		100.32	976.03	431.19	0.4312	
3000	3000	1000		99.92	1407.99	431.96	0.4320	
4000	4000	1000		99.73	1840.71	432.72	0.4327	
5000	5000	1000		99.77	2274.37	433.66	0.4337	
6000	6000	1000		100.04	2708.20	433.83	0.4338	
7000	7000	1000		100.52	3142.81	434.61	0.4346	
8000	8000	1000		101.29	3578.00	435.19	0.4352	
9000	9000	1000		102.50	4013.82	435.82	0.4358	
10000	10000	1000		104.12	4450.44	436.62	0.4366	
10307	10307	307	100	104.69	4584.25	133.81	0.4359	

BHT at Test Depth: 121.70 °F
Extrapolated BHP at Datum: 4674.00 psig
BHP Gradient at Datum : 0.4359 psi/ft

Oil Level: Injecting
Water Level: Injecting
Csg Press: 144 psig

Previous BHP: U/A
BHP Change: U/A

Remarks: MIRU slickline. RIH with electronic memory gauge making injecting gradient stops to 10307 ft. Flow well for 36 minutes. SI well for 41.9 hr falloff test. POOH making static gradient stops to surface. RDMO.

Certified: FESCO, Ltd. - Ozona, Texas

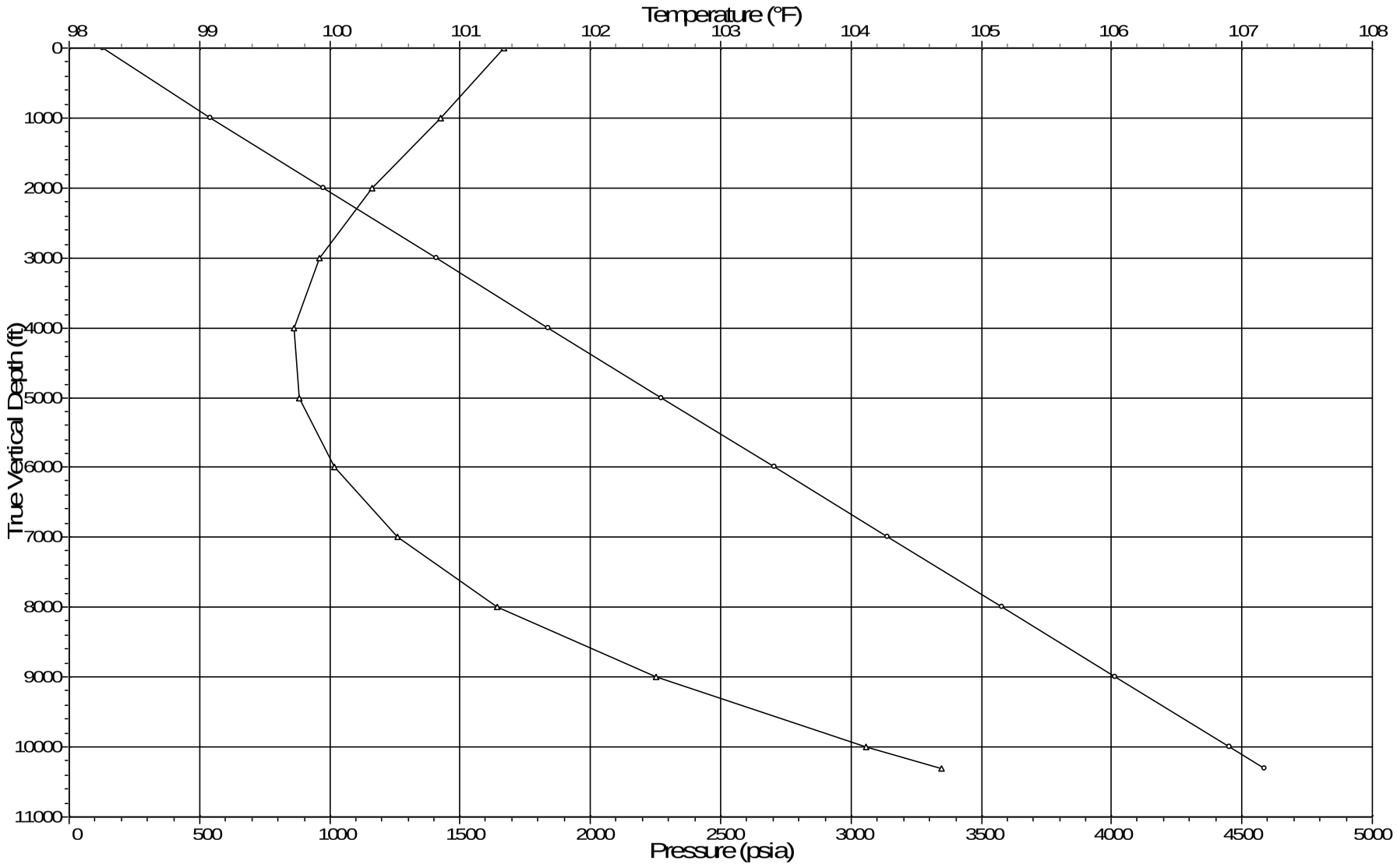
By: Tom Anderson
District Manager - (325) 392-3773

Job No.: J202009160804.001A

Petrotek Corporation

Well: Navajo Refining Waste Disposal Well No. 4 Gauge Type: Electronic
Field: Davonia Gauge Range: 15000 psi
Test Date: 09/14/2020 Gauge SN: DC-4587

Flowing Gradient Plot



J202009160804.001A

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

STATIC GRADIENT SURVEY

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Formation: Unavailable

Test Date: 9/16/2020
Location: Eddy County, NM
Status: Shut in 41.9 hrs

Well Data: Wellhead Connection: 4-1/16" BX-155 Flange
Elevation: 20 ft above GL
Tubing: 7" Set at 10265 ft (Packer)
Casing: 9.625" Set at 10327 ft (EOC)
Perfs: 10327 - 10700 ft (MD)
Datum: 10514 ft (MD)

Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Depth			Pressure					
MD ft	TVD ft	Delta Depth ft	WHP psia	BHT °F	Gauge Pressure psia	Delta Pressure psi	Pressure Gradient psi / ft	Comments
0	0	0	100	78.07	101.35	0.00	0.0000	Water level at surface.
1000	1000	1000		85.71	535.76	434.41	0.4344	
2000	2000	1000		89.46	969.59	433.83	0.4338	
3000	3000	1000		92.69	1402.56	432.97	0.4330	
4000	4000	1000		95.80	1837.43	434.87	0.4349	
5000	5000	1000		99.67	2272.33	434.90	0.4349	
6000	6000	1000		104.50	2707.02	434.69	0.4347	
7000	7000	1000		109.71	3142.30	435.28	0.4353	
8000	8000	1000		117.00	3577.02	434.72	0.4347	
9000	9000	1000		125.32	4011.72	434.70	0.4347	
10000	10000	1000		135.31	4445.30	433.58	0.4336	
10307	10307	307	100	121.60	4578.78	133.48	0.4348	

BHT at Test Depth: 121.60 °F
Extrapolated BHP at Datum: 4669.00 psia
BHP Gradient at Datum : 0.4348 psi/ft

Oil Level: None
Water Level: Surface
Csg Press: 238 psig

Previous BHP: U/A
BHP Change: U/A

Remarks: POOH after 41.9 hr BHP Flloff Test making static gradient stops to surface. RDMO.

Certified: FESCO, Ltd. - Ozona, Texas

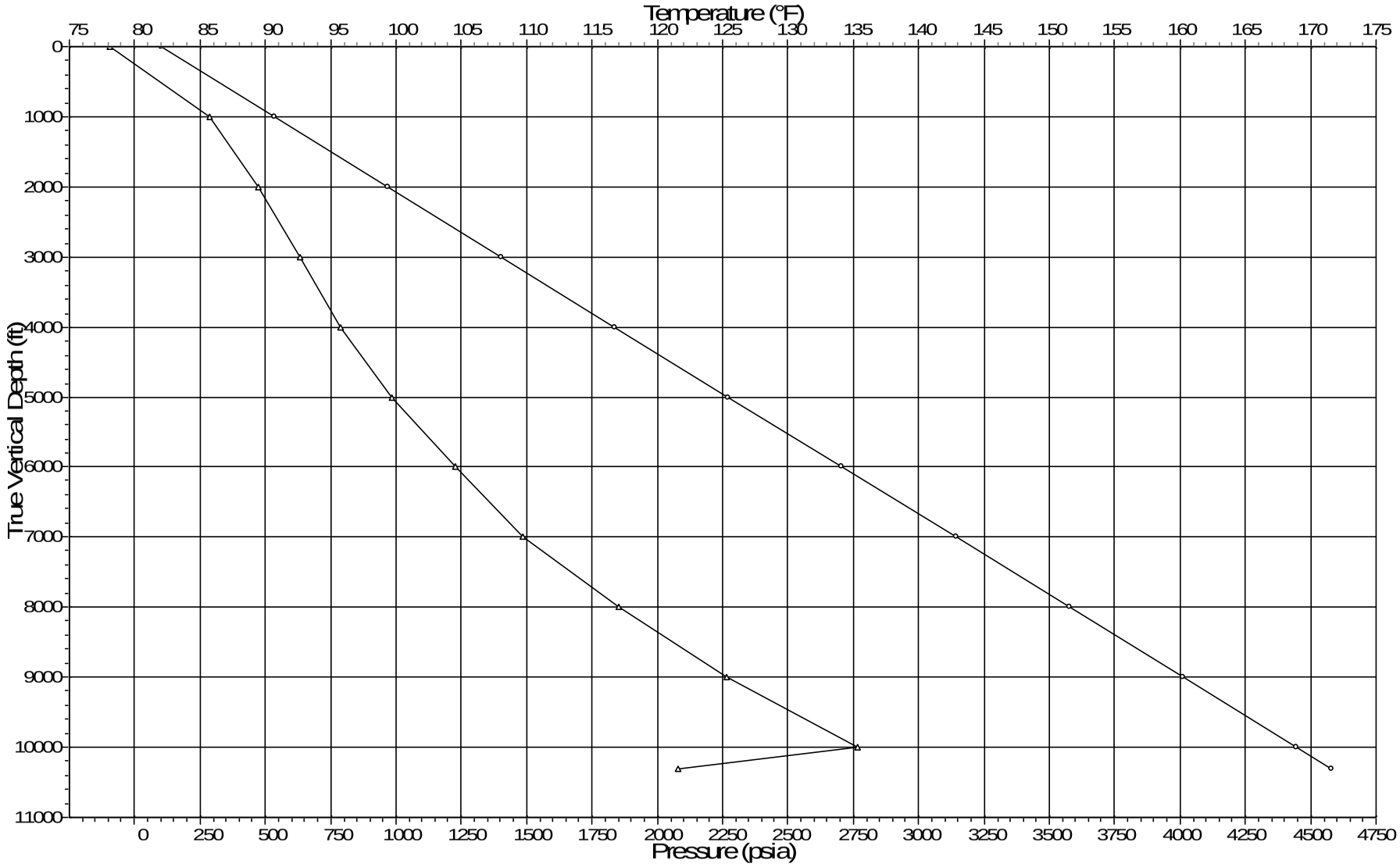
By: Tom Anderson
District Manager - (325) 392-3773

Job No.: J202009160804.001A

Petrotek Corporation

Well: Navajo Refining Waste Disposal Well No. 4 Gauge Type: Electronic
Field: Davonia Gauge Range: 15000 psi
Test Date: 09/16/2020 Gauge SN: DC-4587

Static Gradient Plot

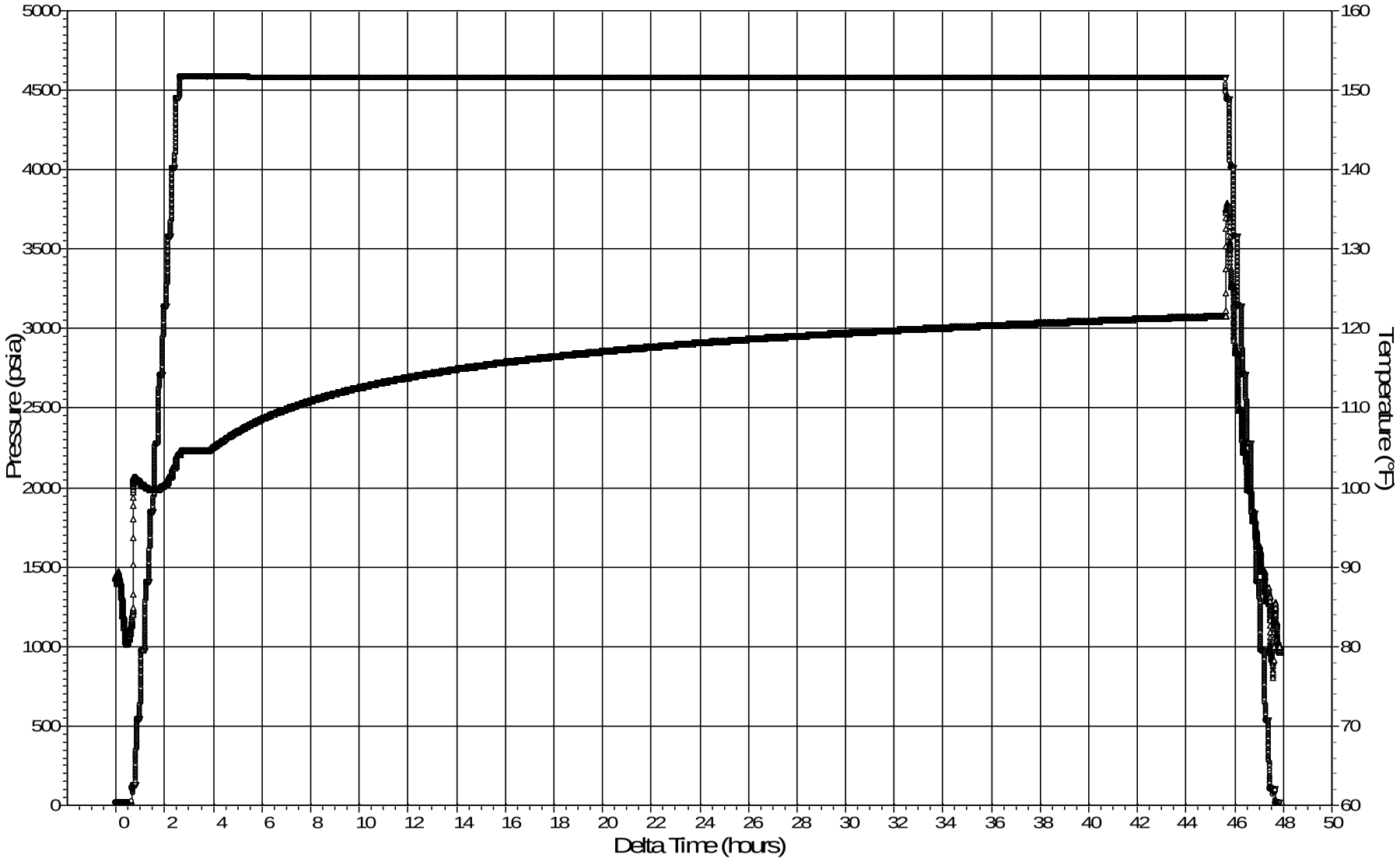


J202009160804.001A

Petrotek Corporation

Well: Navajo Refining Waste Disposal Well No. 4 Gauge Type: Electronic
Field: Davonia Gauge Range: 15000 psi
Test Date: 09/14 - 09/16/2020 Gauge SN: DC-4587

Cartesian Plot



J202009160804.001A

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/14/20	10:21:01	-3.75111		12.69		88.88	Powered up gauge.
09/14/20	10:30:00	-3.60139		12.48		88.11	
09/14/20	10:40:00	-3.43472		12.79		83.54	
09/14/20	10:50:00	-3.26806		12.56		80.73	
09/14/20	11:00:00	-3.10139		12.56		82.98	
09/14/20	11:01:00	-3.08472		12.50		83.24	
09/14/20	11:01:15	-3.08056		111.62		83.32	Pressured up lubricator.
09/14/20	11:02:00	-3.06806		108.32		84.48	
09/14/20	11:03:00	-3.05139		120.40		100.08	
09/14/20	11:04:00	-3.03472		127.52		101.06	
09/14/20	11:05:00	-3.01806		127.29		101.23	
09/14/20	11:06:00	-3.00139		127.22		101.29	
09/14/20	11:07:00	-2.98472		127.25		101.32	
09/14/20	11:08:00	-2.96806		127.22		101.33	
09/14/20	11:09:00	-2.95139		127.07		101.34	
09/14/20	11:09:40	-2.94028		127.00		101.34	Casing Pressure = 144 psig.
09/14/20	11:09:45	-2.93889	100	127.86		101.34	RIH making flowing gradient stops.
09/14/20	11:10:00	-2.93472		166.19		101.34	
09/14/20	11:11:00	-2.91806		278.17		101.23	
09/14/20	11:12:00	-2.90139		369.49		101.10	
09/14/20	11:13:00	-2.88472		463.66		101.00	
09/14/20	11:14:00	-2.86806		544.50		100.90	Arrived at 1000 ft stop.
09/14/20	11:15:00	-2.85139		544.39		100.87	
09/14/20	11:16:00	-2.83472		544.43		100.86	
09/14/20	11:17:00	-2.81806		544.40		100.86	
09/14/20	11:18:00	-2.80139		544.35		100.86	
09/14/20	11:19:00	-2.78472		544.36		100.86	
09/14/20	11:20:00	-2.76806		544.44		100.86	
09/14/20	11:20:40	-2.75694		544.84		100.85	Left 1000 ft stop.
09/14/20	11:21:00	-2.75139		570.83		100.85	
09/14/20	11:22:00	-2.73472		668.28		100.75	
09/14/20	11:23:00	-2.71806		776.89		100.62	
09/14/20	11:24:00	-2.70139		894.83		100.49	
09/14/20	11:24:45	-2.68889		975.51		100.38	Arrived at 2000 ft stop.
09/14/20	11:25:00	-2.68472		975.88		100.35	
09/14/20	11:26:00	-2.66806		975.73		100.33	
09/14/20	11:27:00	-2.65139		976.01		100.33	
09/14/20	11:28:00	-2.63472		975.94		100.33	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/14/20	11:29:00	-2.61806		976.03		100.33	
09/14/20	11:30:00	-2.60139		976.05		100.33	
09/14/20	11:31:00	-2.58472		976.10		100.32	
09/14/20	11:31:40	-2.57361		976.03		100.32	Left 2000 ft stop.
09/14/20	11:32:00	-2.56806		1002.38		100.32	
09/14/20	11:33:00	-2.55139		1085.95		100.24	
09/14/20	11:34:00	-2.53472		1181.91		100.15	
09/14/20	11:35:00	-2.51806		1291.46		100.05	
09/14/20	11:36:00	-2.50139		1384.19		99.97	
09/14/20	11:36:20	-2.49583		1407.27		99.95	Arrived at 3000 ft stop.
09/14/20	11:37:00	-2.48472		1407.83		99.93	
09/14/20	11:38:00	-2.46806		1407.91		99.92	
09/14/20	11:39:00	-2.45139		1407.82		99.92	
09/14/20	11:40:00	-2.43472		1407.79		99.92	
09/14/20	11:41:00	-2.41806		1407.81		99.92	
09/14/20	11:42:00	-2.40139		1407.94		99.92	
09/14/20	11:42:45	-2.38889		1407.99		99.92	Left 3000 ft stop.
09/14/20	11:43:00	-2.38472		1424.14		99.92	
09/14/20	11:44:00	-2.36806		1510.73		99.87	
09/14/20	11:45:00	-2.35139		1620.25		99.83	
09/14/20	11:46:00	-2.33472		1723.28		99.79	
09/14/20	11:47:00	-2.31806		1828.05		99.75	
09/14/20	11:47:15	-2.31389		1840.80		99.75	Arrived at 4000 ft stop.
09/14/20	11:48:00	-2.30139		1840.69		99.74	
09/14/20	11:49:00	-2.28472		1840.79		99.74	
09/14/20	11:50:00	-2.26806		1840.73		99.74	
09/14/20	11:51:00	-2.25139		1840.76		99.74	
09/14/20	11:52:00	-2.23472		1840.63		99.73	
09/14/20	11:53:00	-2.21806		1840.69		99.73	
09/14/20	11:53:45	-2.20556		1840.71		99.73	Left 4000 ft stop.
09/14/20	11:54:00	-2.20139		1859.30		99.73	
09/14/20	11:55:00	-2.18472		1956.37		99.73	
09/14/20	11:56:00	-2.16806		2053.49		99.72	
09/14/20	11:57:00	-2.15139		2151.49		99.73	
09/14/20	11:58:00	-2.13472		2250.10		99.75	
09/14/20	11:58:30	-2.12639		2274.32		99.77	Arrived at 5000 ft stop.
09/14/20	11:59:00	-2.11806		2274.35		99.77	
09/14/20	12:00:00	-2.10139		2274.39		99.77	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/14/20	12:01:00	-2.08472		2274.43		99.77	
09/14/20	12:02:00	-2.06806		2274.39		99.77	
09/14/20	12:03:00	-2.05139		2274.34		99.77	
09/14/20	12:04:00	-2.03472		2274.30		99.77	
09/14/20	12:04:45	-2.02222		2274.37		99.77	Left 5000 ft stop.
09/14/20	12:05:00	-2.01806		2291.95		99.77	
09/14/20	12:06:00	-2.00139		2399.58		99.81	
09/14/20	12:07:00	-1.98472		2510.34		99.86	
09/14/20	12:08:00	-1.96806		2614.44		99.94	
09/14/20	12:09:00	-1.95139		2708.17		100.02	Arrived at 6000 ft stop.
09/14/20	12:10:00	-1.93472		2708.31		100.04	
09/14/20	12:11:00	-1.91806		2708.34		100.04	
09/14/20	12:12:00	-1.90139		2708.30		100.04	
09/14/20	12:13:00	-1.88472		2708.26		100.04	
09/14/20	12:14:00	-1.86806		2708.32		100.04	
09/14/20	12:15:00	-1.85139		2708.21		100.04	
09/14/20	12:15:40	-1.84028		2708.20		100.04	Left 6000 ft stop.
09/14/20	12:16:00	-1.83472		2732.24		100.05	
09/14/20	12:17:00	-1.81806		2838.43		100.14	
09/14/20	12:18:00	-1.80139		2932.38		100.23	
09/14/20	12:19:00	-1.78472		3031.34		100.33	
09/14/20	12:20:00	-1.76806		3136.44		100.46	
09/14/20	12:20:10	-1.76528		3142.74		100.48	Arrived at 7000 ft stop.
09/14/20	12:21:00	-1.75139		3142.80		100.51	
09/14/20	12:22:00	-1.73472		3142.83		100.52	
09/14/20	12:23:00	-1.71806		3142.80		100.52	
09/14/20	12:24:00	-1.70139		3142.80		100.52	
09/14/20	12:25:00	-1.68472		3142.85		100.52	
09/14/20	12:26:00	-1.66806		3142.82		100.52	
09/14/20	12:26:45	-1.65556		3142.81		100.52	Left 7000 ft stop.
09/14/20	12:27:00	-1.65139		3163.96		100.52	
09/14/20	12:28:00	-1.63472		3272.94		100.66	
09/14/20	12:29:00	-1.61806		3384.84		100.83	
09/14/20	12:30:00	-1.60139		3509.79		101.06	
09/14/20	12:30:35	-1.59167		3577.99		101.22	Arrived at 8000 ft stop.
09/14/20	12:31:00	-1.58472		3577.86		101.27	
09/14/20	12:32:00	-1.56806		3577.90		101.28	
09/14/20	12:33:00	-1.55139		3577.97		101.29	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/14/20	12:34:00	-1.53472		3577.95		101.29	
09/14/20	12:35:00	-1.51806		3577.95		101.29	
09/14/20	12:36:00	-1.50139		3577.97		101.29	
09/14/20	12:36:50	-1.48750		3578.00		101.29	Left 8000 ft stop.
09/14/20	12:37:00	-1.48472		3582.86		101.29	
09/14/20	12:38:00	-1.46806		3681.95		101.45	
09/14/20	12:39:00	-1.45139		3804.77		101.75	
09/14/20	12:40:00	-1.43472		3935.25		102.11	
09/14/20	12:40:40	-1.42361		4013.33		102.38	Arrived at 9000 ft stop.
09/14/20	12:41:00	-1.41806		4013.58		102.46	
09/14/20	12:42:00	-1.40139		4013.74		102.49	
09/14/20	12:43:00	-1.38472		4013.78		102.50	
09/14/20	12:44:00	-1.36806		4013.76		102.50	
09/14/20	12:45:00	-1.35139		4013.76		102.50	
09/14/20	12:46:00	-1.33472		4013.77		102.50	
09/14/20	12:47:00	-1.31806		4013.80		102.50	
09/14/20	12:47:15	-1.31389		4013.82		102.50	Left 9000 ft stop.
09/14/20	12:48:00	-1.30139		4103.16		102.65	
09/14/20	12:49:00	-1.28472		4247.49		103.16	
09/14/20	12:50:00	-1.26806		4381.39		103.65	
09/14/20	12:50:45	-1.25556		4450.14		104.00	Arrived at 10000 ft stop.
09/14/20	12:51:00	-1.25139		4450.18		104.06	
09/14/20	12:52:00	-1.23472		4450.35		104.10	
09/14/20	12:53:00	-1.21806		4450.37		104.11	
09/14/20	12:54:00	-1.20139		4450.40		104.11	
09/14/20	12:55:00	-1.18472		4450.40		104.11	
09/14/20	12:56:00	-1.16806		4450.41		104.12	
09/14/20	12:57:00	-1.15139		4450.44		104.12	
09/14/20	12:57:45	-1.13889		4450.44		104.12	Left 10000 ft stop.
09/14/20	12:58:00	-1.13472		4464.71		104.12	
09/14/20	12:59:00	-1.11806		4531.61		104.38	
09/14/20	12:59:45	-1.10556	100	4583.97		104.61	Gauge at TD=10307 ft (MD).
09/14/20	13:00:00	-1.10139		4584.10		104.65	
09/14/20	13:01:00	-1.08472		4584.16		104.68	
09/14/20	13:02:00	-1.06806		4584.22		104.69	
09/14/20	13:03:00	-1.05139		4584.23		104.69	
09/14/20	13:04:00	-1.03472		4584.24		104.69	
09/14/20	13:05:00	-1.01806	100	4584.25		104.69	10307 ft stop.

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/14/20	13:10:00	-0.93472		4584.08		104.69	
09/14/20	13:15:00	-0.85139		4584.09		104.69	
09/14/20	13:20:00	-0.76806		4584.12		104.69	
09/14/20	13:25:00	-0.68472		4584.13		104.69	
09/14/20	13:30:00	-0.60139		4584.18		104.69	
09/14/20	13:35:00	-0.51806		4584.18		104.69	
09/14/20	13:40:00	-0.43472		4584.22		104.69	
09/14/20	13:45:00	-0.35139		4584.20		104.69	
09/14/20	13:50:00	-0.26806		4584.39		104.69	
09/14/20	13:55:00	-0.18472		4584.36		104.66	
09/14/20	14:00:00	-0.10139		4584.23		104.66	
09/14/20	14:05:00	-0.01806		4584.17		104.68	
09/14/20	14:05:55	-0.00278		4584.12		104.68	Casing Pressure = 144 psig.
09/14/20	14:06:00	-0.00139		4584.10		104.68	Final Injection Rate = Unavailable.
09/14/20	14:06:05	0.00000	100	4584.08	0.00	104.68	Shut in well for BHP Falloff Test.
09/14/20	14:06:10	0.00139		4583.74	-0.34	104.68	
09/14/20	14:06:15	0.00278		4583.79	-0.29	104.69	
09/14/20	14:06:20	0.00417		4583.65	-0.43	104.69	
09/14/20	14:06:25	0.00556		4583.62	-0.46	104.69	
09/14/20	14:06:30	0.00694		4583.59	-0.49	104.69	
09/14/20	14:06:35	0.00833		4583.53	-0.55	104.69	
09/14/20	14:06:40	0.00972		4583.53	-0.55	104.69	
09/14/20	14:06:45	0.01111		4583.49	-0.59	104.69	
09/14/20	14:06:50	0.01250		4582.62	-1.46	104.69	
09/14/20	14:06:55	0.01389		4582.96	-1.12	104.69	
09/14/20	14:07:00	0.01528		4582.26	-1.82	104.69	
09/14/20	14:07:05	0.01667		4582.52	-1.56	104.69	
09/14/20	14:07:10	0.01806		4582.17	-1.91	104.69	
09/14/20	14:07:15	0.01944		4582.30	-1.78	104.70	
09/14/20	14:07:20	0.02083		4582.16	-1.92	104.70	
09/14/20	14:07:25	0.02222		4582.19	-1.89	104.70	
09/14/20	14:07:30	0.02361		4582.16	-1.92	104.70	
09/14/20	14:07:35	0.02500		4582.13	-1.95	104.70	
09/14/20	14:07:40	0.02639		4582.17	-1.91	104.70	
09/14/20	14:07:45	0.02778		4582.08	-2.00	104.71	
09/14/20	14:07:50	0.02917		4582.19	-1.89	104.71	
09/14/20	14:07:55	0.03056		4582.04	-2.04	104.71	
09/14/20	14:08:00	0.03194		4582.19	-1.89	104.71	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/14/20	14:08:05	0.03333		4582.03	-2.05	104.71	
09/14/20	14:08:10	0.03472		4582.19	-1.89	104.71	
09/14/20	14:08:15	0.03611		4582.03	-2.05	104.72	
09/14/20	14:08:20	0.03750		4582.16	-1.92	104.72	
09/14/20	14:08:25	0.03889		4582.04	-2.04	104.72	
09/14/20	14:08:30	0.04028		4582.12	-1.96	104.72	
09/14/20	14:08:35	0.04167		4582.05	-2.03	104.72	
09/14/20	14:08:40	0.04306		4582.09	-1.99	104.72	
09/14/20	14:08:50	0.04583		4582.07	-2.01	104.72	
09/14/20	14:08:55	0.04722		4582.07	-2.01	104.72	
09/14/20	14:09:00	0.04861		4582.04	-2.04	104.72	
09/14/20	14:09:10	0.05139		4582.02	-2.06	104.73	
09/14/20	14:09:15	0.05278		4582.08	-2.00	104.73	
09/14/20	14:09:20	0.05417		4582.01	-2.07	104.73	
09/14/20	14:09:30	0.05694		4582.02	-2.06	104.73	
09/14/20	14:09:40	0.05972		4582.02	-2.06	104.74	
09/14/20	14:09:45	0.06111		4582.07	-2.01	104.74	
09/14/20	14:09:55	0.06389		4582.04	-2.04	104.74	
09/14/20	14:10:05	0.06667		4582.03	-2.05	104.74	
09/14/20	14:10:15	0.06944		4582.02	-2.06	104.75	
09/14/20	14:10:20	0.07083		4582.04	-2.04	104.75	
09/14/20	14:10:30	0.07361		4582.04	-2.04	104.75	
09/14/20	14:10:45	0.07778		4581.99	-2.09	104.75	
09/14/20	14:10:55	0.08056		4581.99	-2.09	104.75	
09/14/20	14:11:05	0.08333		4581.98	-2.10	104.76	
09/14/20	14:11:15	0.08611		4581.98	-2.10	104.76	
09/14/20	14:11:30	0.09028		4581.98	-2.10	104.77	
09/14/20	14:11:40	0.09306		4581.96	-2.12	104.78	
09/14/20	14:11:55	0.09722		4581.96	-2.12	104.78	
09/14/20	14:12:10	0.10139		4581.95	-2.13	104.79	
09/14/20	14:12:20	0.10417		4581.94	-2.14	104.79	
09/14/20	14:12:35	0.10833		4581.94	-2.14	104.80	
09/14/20	14:12:50	0.11250		4581.93	-2.15	104.81	
09/14/20	14:13:05	0.11667		4581.93	-2.15	104.82	
09/14/20	14:13:25	0.12222		4581.93	-2.15	104.83	
09/14/20	14:13:40	0.12639		4581.93	-2.15	104.84	
09/14/20	14:14:00	0.13194		4581.90	-2.18	104.85	
09/14/20	14:14:15	0.13611		4581.90	-2.18	104.86	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/14/20	14:14:35	0.14167		4581.90	-2.18	104.88	
09/14/20	14:14:55	0.14722		4581.90	-2.18	104.89	
09/14/20	14:15:15	0.15278		4581.88	-2.20	104.90	
09/14/20	14:15:40	0.15972		4581.86	-2.22	104.92	
09/14/20	14:16:00	0.16528		4581.87	-2.21	104.93	
09/14/20	14:16:25	0.17222		4581.86	-2.22	104.94	
09/14/20	14:16:50	0.17917		4581.85	-2.23	104.96	
09/14/20	14:17:15	0.18611		4581.83	-2.25	104.97	
09/14/20	14:17:40	0.19306		4581.83	-2.25	104.99	
09/14/20	14:18:05	0.20000		4581.82	-2.26	105.00	
09/14/20	14:18:35	0.20833		4581.82	-2.26	105.02	
09/14/20	14:19:05	0.21667		4581.81	-2.27	105.04	
09/14/20	14:19:35	0.22500		4581.80	-2.28	105.06	
09/14/20	14:20:05	0.23333		4581.79	-2.29	105.08	
09/14/20	14:20:40	0.24306		4581.79	-2.29	105.11	
09/14/20	14:21:10	0.25139		4581.78	-2.30	105.12	
09/14/20	14:21:45	0.26111		4581.79	-2.29	105.14	
09/14/20	14:22:25	0.27222		4581.76	-2.32	105.16	
09/14/20	14:23:00	0.28194		4581.76	-2.32	105.18	
09/14/20	14:23:40	0.29306		4581.75	-2.33	105.21	
09/14/20	14:24:25	0.30556		4581.72	-2.36	105.24	
09/14/20	14:25:05	0.31667		4581.72	-2.36	105.27	
09/14/20	14:25:50	0.32917		4581.73	-2.35	105.31	
09/14/20	14:26:35	0.34167		4581.72	-2.36	105.33	
09/14/20	14:27:25	0.35556		4581.71	-2.37	105.35	
09/14/20	14:28:15	0.36944		4581.70	-2.38	105.37	
09/14/20	14:29:05	0.38333		4581.67	-2.41	105.40	
09/14/20	14:30:00	0.39861		4581.66	-2.42	105.44	
09/14/20	14:30:55	0.41389		4581.67	-2.41	105.48	
09/14/20	14:31:55	0.43056		4581.66	-2.42	105.51	
09/14/20	14:32:55	0.44722		4581.65	-2.43	105.55	
09/14/20	14:34:00	0.46528		4581.64	-2.44	105.59	
09/14/20	14:35:05	0.48333		4581.63	-2.45	105.63	
09/14/20	14:36:10	0.50139		4581.62	-2.46	105.67	
09/14/20	14:37:20	0.52083		4581.61	-2.47	105.71	
09/14/20	14:38:35	0.54167		4581.60	-2.48	105.75	
09/14/20	14:39:50	0.56250		4581.59	-2.49	105.79	
09/14/20	14:41:10	0.58472		4581.58	-2.50	105.84	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/14/20	14:42:35	0.60833		4581.56	-2.52	105.89	
09/14/20	14:44:00	0.63194		4581.56	-2.52	105.93	
09/14/20	14:45:30	0.65694		4581.54	-2.54	105.99	
09/14/20	14:47:00	0.68194		4581.54	-2.54	106.04	
09/14/20	14:48:35	0.70833		4581.52	-2.56	106.10	
09/14/20	14:50:15	0.73611		4581.50	-2.58	106.16	
09/14/20	14:52:00	0.76528		4581.50	-2.58	106.22	
09/14/20	14:53:45	0.79444		4581.49	-2.59	106.27	
09/14/20	14:55:40	0.82639		4581.48	-2.60	106.33	
09/14/20	14:57:35	0.85833		4581.47	-2.61	106.39	
09/14/20	14:59:35	0.89167		4581.46	-2.62	106.46	
09/14/20	15:01:40	0.92639		4581.44	-2.64	106.53	
09/14/20	15:03:50	0.96250		4581.42	-2.66	106.60	
09/14/20	15:06:10	1.00139		4581.41	-2.67	106.67	
09/14/20	15:08:30	1.04028		4581.40	-2.68	106.74	
09/14/20	15:10:55	1.08056		4581.39	-2.69	106.82	
09/14/20	15:13:25	1.12222		4581.38	-2.70	106.90	
09/14/20	15:16:05	1.16667		4581.36	-2.72	106.97	
09/14/20	15:18:50	1.21250		4581.34	-2.74	107.05	
09/14/20	15:21:40	1.25972		4581.34	-2.74	107.14	
09/14/20	15:24:35	1.30833		4581.32	-2.76	107.23	
09/14/20	15:27:40	1.35972		4581.31	-2.77	107.31	
09/14/20	15:30:55	1.41389		4581.29	-2.79	107.40	
09/14/20	15:34:10	1.46806		4581.27	-2.81	107.49	
09/14/20	15:37:40	1.52639		4581.26	-2.82	107.58	
09/14/20	15:41:15	1.58611		4581.25	-2.83	107.68	
09/14/20	15:44:55	1.64722		4581.23	-2.85	107.78	
09/14/20	15:48:50	1.71250		4581.22	-2.86	107.88	
09/14/20	15:52:50	1.77917		4581.19	-2.89	107.99	
09/14/20	15:57:00	1.84861		4581.18	-2.90	108.10	
09/14/20	16:01:20	1.92083		4581.16	-2.92	108.20	
09/14/20	16:05:50	1.99583		4581.15	-2.93	108.31	
09/14/20	16:10:30	2.07361		4581.13	-2.95	108.43	
09/14/20	16:15:25	2.15556		4581.11	-2.97	108.54	
09/14/20	16:20:25	2.23889		4581.09	-2.99	108.66	
09/14/20	16:25:40	2.32639		4581.06	-3.02	108.77	
09/14/20	16:31:10	2.41806		4581.05	-3.03	108.89	
09/14/20	16:36:50	2.51250		4581.03	-3.05	109.03	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/14/20	16:42:45	2.61111		4581.01	-3.07	109.15	
09/14/20	16:48:50	2.71250		4580.98	-3.10	109.28	
09/14/20	16:55:15	2.81944		4580.97	-3.11	109.42	
09/14/20	17:01:50	2.92917		4580.94	-3.14	109.54	
09/14/20	17:08:45	3.04444		4580.93	-3.15	109.68	
09/14/20	17:15:50	3.16250		4580.90	-3.18	109.82	
09/14/20	17:23:15	3.28611		4580.88	-3.20	109.96	
09/14/20	17:31:00	3.41528		4580.84	-3.24	110.10	
09/14/20	17:39:00	3.54861		4580.82	-3.26	110.25	
09/14/20	17:47:20	3.68750		4580.80	-3.28	110.40	
09/14/20	17:56:00	3.83194		4580.77	-3.31	110.55	
09/14/20	18:05:00	3.98194		4580.74	-3.34	110.69	
09/14/20	18:14:20	4.13750		4580.71	-3.37	110.85	
09/14/20	18:24:05	4.30000		4580.69	-3.39	111.00	
09/14/20	18:34:10	4.46806		4580.65	-3.43	111.16	
09/14/20	18:44:40	4.64306		4580.62	-3.46	111.32	
09/14/20	18:55:30	4.82361		4580.60	-3.48	111.48	
09/14/20	19:06:50	5.01250		4580.56	-3.52	111.64	
09/14/20	19:18:35	5.20833		4580.53	-3.55	111.80	
09/14/20	19:30:50	5.41250		4580.50	-3.58	111.97	
09/14/20	19:43:30	5.62361		4580.47	-3.61	112.13	
09/14/20	19:56:45	5.84444		4580.43	-3.65	112.30	
09/14/20	20:10:25	6.07222		4580.40	-3.68	112.47	
09/14/20	20:24:40	6.30972		4580.36	-3.72	112.64	
09/14/20	20:39:30	6.55694		4580.33	-3.75	112.82	
09/14/20	20:54:55	6.81389		4580.30	-3.78	112.99	
09/14/20	21:10:55	7.08056		4580.26	-3.82	113.17	
09/14/20	21:27:30	7.35694		4580.23	-3.85	113.34	
09/14/20	21:44:45	7.64444		4580.19	-3.89	113.52	
09/14/20	22:02:45	7.94444		4580.16	-3.92	113.70	
09/14/20	22:21:25	8.25556		4580.12	-3.96	113.88	
09/14/20	22:40:45	8.57778		4580.09	-3.99	114.06	
09/14/20	23:00:55	8.91389		4580.06	-4.02	114.25	
09/14/20	23:21:50	9.26250		4580.03	-4.05	114.42	
09/14/20	23:43:35	9.62500		4580.00	-4.08	114.61	
09/15/20	00:06:10	10.00139		4579.97	-4.11	114.79	
09/15/20	00:29:35	10.39167		4579.94	-4.14	114.97	
09/15/20	00:54:00	10.79861		4579.92	-4.16	115.16	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/15/20	01:19:20	11.22083		4579.90	-4.18	115.34	
09/15/20	01:45:40	11.65972		4579.87	-4.21	115.53	
09/15/20	02:13:05	12.11667		4579.85	-4.23	115.72	
09/15/20	02:41:30	12.59028		4579.83	-4.25	115.90	
09/15/20	03:11:05	13.08333		4579.81	-4.27	116.08	
09/15/20	03:41:45	13.59444		4579.79	-4.29	116.27	
09/15/20	04:13:40	14.12639		4579.77	-4.31	116.46	
09/15/20	04:46:50	14.67917		4579.74	-4.34	116.64	
09/15/20	05:21:15	15.25278		4579.71	-4.37	116.83	
09/15/20	05:57:05	15.85000		4579.68	-4.40	117.02	
09/15/20	06:34:15	16.46944		4579.64	-4.44	117.20	
09/15/20	07:12:55	17.11389		4579.60	-4.48	117.39	
09/15/20	07:53:05	17.78333		4579.55	-4.53	117.57	
09/15/20	08:34:50	18.47917		4579.50	-4.58	117.76	
09/15/20	09:18:15	19.20278		4579.45	-4.63	117.94	
09/15/20	10:03:20	19.95417		4579.40	-4.68	118.13	
09/15/20	10:50:10	20.73472		4579.36	-4.72	118.31	
09/15/20	11:38:50	21.54583		4579.31	-4.77	118.50	
09/15/20	12:29:25	22.38889		4579.28	-4.80	118.68	
09/15/20	13:21:55	23.26389		4579.26	-4.82	118.86	
09/15/20	14:16:35	24.17500		4579.24	-4.84	119.05	
09/15/20	15:13:15	25.11944		4579.23	-4.85	119.23	
09/15/20	16:12:15	26.10278		4579.22	-4.86	119.42	
09/15/20	17:13:30	27.12361		4579.21	-4.87	119.60	
09/15/20	18:17:10	28.18472		4579.18	-4.90	119.78	
09/15/20	19:23:20	29.28750		4579.14	-4.94	119.96	
09/15/20	20:32:05	30.43333		4579.09	-4.99	120.14	
09/15/20	21:43:30	31.62361		4579.03	-5.05	120.32	
09/15/20	22:57:45	32.86111		4578.98	-5.10	120.49	
09/16/20	00:14:55	34.14722		4578.93	-5.15	120.67	
09/16/20	01:35:05	35.48333		4578.90	-5.18	120.84	
09/16/20	02:58:20	36.87083		4578.89	-5.19	121.02	
09/16/20	04:24:55	38.31389		4578.88	-5.20	121.19	
09/16/20	05:54:50	39.81250		4578.85	-5.23	121.37	
09/16/20	07:28:15	41.36944		4578.81	-5.27	121.55	
09/16/20	07:59:45	41.89444		4578.78	-5.30	121.60	Casing Pressure = 238 psig.
09/16/20	07:59:50	41.89583	100	4578.78	-5.30	121.60	POOH making static gradient stops.
09/16/20	07:59:55	41.89722		4570.60		121.61	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/16/20	08:00:00	41.89861		4531.34		122.22	
09/16/20	08:01:00	41.91528		4445.63		135.66	Arrived at 10000 ft stop.
09/16/20	08:02:00	41.93194		4445.10		135.27	
09/16/20	08:03:00	41.94861		4445.20		135.24	
09/16/20	08:04:00	41.96528		4445.27		135.20	
09/16/20	08:05:00	41.98194		4445.23		135.22	
09/16/20	08:06:00	41.99861		4445.23		135.28	
09/16/20	08:07:00	42.01528		4445.31		135.30	
09/16/20	08:07:35	42.02500		4445.30		135.31	Left 10000 ft stop.
09/16/20	08:08:00	42.03194		4405.70		134.90	
09/16/20	08:09:00	42.04861		4268.35		130.83	
09/16/20	08:10:00	42.06528		4141.50		130.18	
09/16/20	08:11:00	42.08194		4016.24		126.42	Arrived at 9000 ft stop.
09/16/20	08:12:00	42.09861		4012.08		125.47	
09/16/20	08:13:00	42.11528		4011.88		125.40	
09/16/20	08:14:00	42.13194		4011.81		125.36	
09/16/20	08:15:00	42.14861		4011.76		125.34	
09/16/20	08:16:00	42.16528		4011.74		125.33	
09/16/20	08:17:00	42.18194		4011.73		125.32	
09/16/20	08:17:30	42.19028		4011.72		125.32	Left 9000 ft stop.
09/16/20	08:18:00	42.19861		3955.79		125.08	
09/16/20	08:19:00	42.21528		3814.93		122.94	
09/16/20	08:20:00	42.23194		3672.96		120.26	
09/16/20	08:20:50	42.24583		3579.77		117.64	Arrived at 8000 ft stop.
09/16/20	08:21:00	42.24861		3578.35		117.34	
09/16/20	08:22:00	42.26528		3577.28		117.11	
09/16/20	08:23:00	42.28194		3577.14		117.06	
09/16/20	08:24:00	42.29861		3577.04		117.03	
09/16/20	08:25:00	42.31528		3577.06		117.02	
09/16/20	08:26:00	42.33194		3577.03		117.01	
09/16/20	08:27:00	42.34861		3577.02		117.01	
09/16/20	08:27:30	42.35694		3577.02		117.00	Left 8000 ft stop.
09/16/20	08:28:00	42.36528		3514.30		116.65	
09/16/20	08:29:00	42.38194		3368.52		114.09	
09/16/20	08:30:00	42.39861		3217.27		111.60	
09/16/20	08:30:30	42.40694		3145.41		110.42	Arrived at 7000 ft stop.
09/16/20	08:31:00	42.41528		3142.57		109.87	
09/16/20	08:32:00	42.43194		3142.38		109.79	

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/16/20	08:33:00	42.44861		3142.41		109.75	
09/16/20	08:34:00	42.46528		3142.28		109.74	
09/16/20	08:35:00	42.48194		3142.34		109.73	
09/16/20	08:36:00	42.49861		3142.31		109.72	
09/16/20	08:37:00	42.51528		3142.30		109.72	
09/16/20	08:37:50	42.52917		3142.30		109.71	Left 7000 ft stop.
09/16/20	08:38:00	42.53194		3126.90		109.69	
09/16/20	08:39:00	42.54861		3028.13		108.26	
09/16/20	08:40:00	42.56528		2930.00		106.78	
09/16/20	08:41:00	42.58194		2829.34		105.58	
09/16/20	08:42:00	42.59861		2727.75		104.96	
09/16/20	08:42:15	42.60278		2712.52		104.77	Arrived at 6000 ft stop.
09/16/20	08:43:00	42.61528		2707.20		104.54	
09/16/20	08:44:00	42.63194		2707.05		104.52	
09/16/20	08:45:00	42.64861		2707.07		104.51	
09/16/20	08:46:00	42.66528		2707.05		104.50	
09/16/20	08:47:00	42.68194		2707.03		104.50	
09/16/20	08:48:00	42.69861		2707.03		104.50	
09/16/20	08:48:45	42.71111		2707.02		104.50	Left 6000 ft stop.
09/16/20	08:49:00	42.71528		2687.54		104.46	
09/16/20	08:50:00	42.73194		2592.48		103.65	
09/16/20	08:51:00	42.74861		2500.94		102.71	
09/16/20	08:52:00	42.76528		2406.69		101.72	
09/16/20	08:53:00	42.78194		2312.48		100.44	
09/16/20	08:53:30	42.79028		2273.16		99.90	Arrived at 5000 ft stop.
09/16/20	08:54:00	42.79861		2272.45		99.73	
09/16/20	08:55:00	42.81528		2272.37		99.70	
09/16/20	08:56:00	42.83194		2272.38		99.69	
09/16/20	08:57:00	42.84861		2272.36		99.69	
09/16/20	08:58:00	42.86528		2272.36		99.68	
09/16/20	08:59:00	42.88194		2272.34		99.67	
09/16/20	09:00:00	42.89861		2272.34		99.67	
09/16/20	09:00:30	42.90694		2272.33		99.67	Left 5000 ft stop.
09/16/20	09:01:00	42.91528		2229.25		99.48	
09/16/20	09:02:00	42.93194		2134.37		98.67	
09/16/20	09:03:00	42.94861		2039.28		97.79	
09/16/20	09:04:00	42.96528		1942.02		96.76	
09/16/20	09:05:00	42.98194		1844.90		96.02	Arrived at 4000 ft stop.

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/16/20	09:06:00	42.99861		1837.49		95.84	
09/16/20	09:07:00	43.01528		1837.50		95.83	
09/16/20	09:08:00	43.03194		1837.44		95.82	
09/16/20	09:09:00	43.04861		1837.46		95.81	
09/16/20	09:10:00	43.06528		1837.45		95.81	
09/16/20	09:11:00	43.08194		1837.44		95.81	
09/16/20	09:11:55	43.09722		1837.43		95.80	Left 4000 ft stop.
09/16/20	09:12:00	43.09861		1835.92		95.80	
09/16/20	09:13:00	43.11528		1739.07		95.21	
09/16/20	09:14:00	43.13194		1636.57		94.47	
09/16/20	09:15:00	43.14861		1534.47		93.70	
09/16/20	09:16:00	43.16528		1432.76		93.26	
09/16/20	09:16:20	43.17083		1403.59		92.93	Arrived at 3000 ft stop.
09/16/20	09:17:00	43.18194		1402.75		92.74	
09/16/20	09:18:00	43.19861		1402.78		92.72	
09/16/20	09:19:00	43.21528		1402.75		92.71	
09/16/20	09:20:00	43.23194		1402.74		92.70	
09/16/20	09:21:00	43.24861		1402.74		92.69	
09/16/20	09:22:00	43.26528		1402.72		92.69	
09/16/20	09:22:35	43.27500		1402.56		92.69	Left 3000 ft stop.
09/16/20	09:23:00	43.28194		1362.05		92.54	
09/16/20	09:24:00	43.29861		1256.14		91.82	
09/16/20	09:25:00	43.31528		1152.19		90.98	
09/16/20	09:26:00	43.33194		1043.02		90.41	
09/16/20	09:26:45	43.34444		970.69		89.86	Arrived at 2000 ft stop.
09/16/20	09:27:00	43.34861		970.06		89.62	
09/16/20	09:28:00	43.36528		969.64		89.51	
09/16/20	09:29:00	43.38194		969.65		89.50	
09/16/20	09:30:00	43.39861		969.62		89.49	
09/16/20	09:31:00	43.41528		969.61		89.49	
09/16/20	09:32:00	43.43194		969.61		89.48	
09/16/20	09:33:00	43.44861		969.59		89.47	
09/16/20	09:33:50	43.46250		969.59		89.46	Left 2000 ft stop.
09/16/20	09:34:00	43.46528		955.10		89.44	
09/16/20	09:35:00	43.48194		847.12		88.73	
09/16/20	09:36:00	43.49861		739.52		87.75	
09/16/20	09:37:00	43.51528		627.65		86.86	
09/16/20	09:37:50	43.52917		536.64		85.90	Arrived at 1000 ft stop.

FESCO, Ltd.

1000 Fesco Ave. - Alice, Texas 78332

RESERVOIR PRESSURE FALLOFF TEST

Company: Petrotek Corporation
Well: Navajo Refining Waste Disposal Well No. 4
Field: Davonia
Location: Eddy County, NM
Perfs: 10327 - 10700 ft (MD)
Formation: Unavailable

Test Date: 09/14 - 09/16/2020
Gauge Depth: 10307 ft
Gauge Type: Electronic
Gauge SN: DC-4587
Gauge Range: 15000 psi
Gauge OD: 1.2500"

Test Date mm/dd/yy	Real Time hh:mm:ss	Delta Time hours	WHP psia	BHP psia	Delta BHP psi	Temp. °F	Comments
09/16/20	09:38:00	43.53194		536.05		85.79	
09/16/20	09:39:00	43.54861		535.76		85.74	
09/16/20	09:40:00	43.56528		535.80		85.73	
09/16/20	09:41:00	43.58194		535.80		85.73	
09/16/20	09:42:00	43.59861		535.79		85.72	
09/16/20	09:43:00	43.61528		535.79		85.71	
09/16/20	09:44:00	43.63194		535.78		85.71	
09/16/20	09:44:30	43.64028		535.76		85.71	Left 1000 ft stop.
09/16/20	09:45:00	43.64861		490.25		85.53	
09/16/20	09:46:00	43.66528		378.23		87.39	
09/16/20	09:47:00	43.68194		261.83		85.36	
09/16/20	09:48:00	43.69861		143.25		85.65	
09/16/20	09:48:15	43.70278		114.03		84.54	Gauge at surface.
09/16/20	09:49:00	43.71528		104.86		80.69	
09/16/20	09:50:00	43.73194		102.23		79.29	
09/16/20	09:51:00	43.74861		102.06		79.03	
09/16/20	09:52:00	43.76528		101.94		78.69	
09/16/20	09:53:00	43.78194		101.93		78.53	
09/16/20	09:54:00	43.79861		101.97		78.44	
09/16/20	09:55:00	43.81528		102.12		78.33	
09/16/20	09:56:00	43.83194		101.61		78.13	
09/16/20	09:56:15	43.83611	100	101.35		78.07	Surface stop.
09/16/20	09:58:00	43.86528		92.11		83.07	
09/16/20	10:00:00	43.89861		91.64		83.76	
09/16/20	10:01:25	43.92222	100	101.41		85.13	Pressured down lubricator.
09/16/20	10:05:00	43.98194		12.71		83.00	
09/16/20	10:10:00	44.06528		13.63		79.48	
09/16/20	10:12:30	44.10694		14.97		80.02	Powered down gauge.

Remarks: MIRU slickline. RIH with electronic memory gauge making injecting gradient stops to 10307 ft. Flow well for 36 minutes. SI well for 41.9 hr falloff test. POOH making static gradient stops to surface. RDMO.

Certified: FESCO, Ltd. - Ozona, Texas

By: Tom Anderson
District Manager - (325) 392-3773

Job No.: J202009160804.001A

Attachment 6
Falloff Test Summary

Petrotek

Attachment 6 - Falloff Test Summary

Input Values

Thickness =	330	feet
Porosity =	25	percent
Viscosity =	0.52	cP
cf =	3.5000E-06	1/psi
ct =	6.2000E-06	1psi
Bw =	1.00	bbl/stb
rw=	0.3532	feet
Pwf =	4,583.80	psia
qfinal =	4,525.7	bwpd
	132.0	gpm

Horner Analysis Outputs

Tranmissibility =	816,283	md-ft
Mobility =	1,569,774	md-ft/cp
Permeability =	2,474.0	md
Skin =	-1.9	
DeltaP Skin =	-0.76	psi
Start Time of Line =	0.1514	hr
End Time of Line =	0.5319	hr
P1hour, line =	4,581.24	psia
P1hr, raw =	4,581.20	psia
P end of radial =	4,581.38	psia
P* =	4,578.96	psia

Model Analysis Outputs

Model Type: Radial Composite

Tranmissibility =	1,578,240	md-ft
Mobility =	3,035,077	md-ft/cp
Permeability =	4,782.5	md
Total Skin =	3.1	
Modeled Pi =	4,573.76	psia
Composite Radius =	991	feet
Outer Permeability =	672	md

Petrotek

Attachment 7
Annulus Pressure Gauge Certification

Petrotek

JMC INSTRUMENTS INC.
9829 E. Easter Ave. • Centennial, CO 80112
303.794.8833 • Fax 303.730.1220
Toll Free 1.800.327.7257
www.jmcinstruments.com

CERTIFIED CALIBRATION

CUSTOMER Petrotek ORDER NO. _____

ITEM Digital Gauge RANGE 0-5000PSIG ITEM NO. 5035-2

TRUE VALUE	INDICATED VALUE	
PSIG	INCREASING READINGS	DECREASING READINGS
0.00	0	
500.00	499.5	499.6
1000.00	999.3	999.5
1500.00	1498.9	1498.9
2000.00	1999.2	1998.8
2500.00	2497.9	2497.5
3000.00	2997.7	2997.4
3500.00	3496.5	3495.7
4000.00	3995.8	3994.2
4500.00	4495.4	4494.0
5000.00	4995.3	4995.3

Tested On: Deadweight Tester S/N# 1GA4474

Traceable to National Institute of Standards and Technology certificate # 17-043

Tested By: BMZ Date 17 January 2020

Remarks:

Crystal	XP2i	SN 901241
Accuracy is +/-		% of Full Scale or Better
Test Conditions	70 °F; 612	mmHg Atm. Pressure

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 152657

COMMENTS

Operator: NAVAJO REFINING COMPANY LLC 100 Crescent Court, Suite 1600 Dallas , TX 752016927	OGRID: 255554
	Action Number: 152657
	Action Type: [C-103] Sub. General Sundry (C-103Z)

COMMENTS

Created By	Comment	Comment Date
cchavez	UICI-8-4 (WDW-4) Fall-Off Test 2020	10/21/2022

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

CONDITIONS

Action 152657

CONDITIONS

Operator: NAVAJO REFINING COMPANY LLC 100 Crescent Court, Suite 1600 Dallas , TX 752016927	OGRID: 255554
	Action Number: 152657
	Action Type: [C-103] Sub. General Sundry (C-103Z)

CONDITIONS

Created By	Condition	Condition Date
cchavez	Conditions of Approval are the same as for UICI-8-4 (WDW-4) Fall-Off Test 2022 (Action ID# 141214) processed by the OCD on 10/20/2022	10/21/2022