

**UICI-11**

**ANNUAL  
REPORT  
ADDENDUM**

**2021**

**From:** [Russell, Gary F.](#)  
**To:** [Chavez, Carl J, EMNRD](#)  
**Cc:** [Sidle, Daun M.](#)  
**Subject:** RE: [EXTERNAL] 2021 Annual Report - UICI-011 (WDW-2) Western Refining Southwest LLC - Bloomfield Terminal Action ID# 111134  
**Date:** Monday, June 20, 2022 1:26:23 PM  
**Attachments:** [image002.png](#)  
[2021 Annual Report WDW-2 Western Refining Addendum.pdf](#)

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Mr. Chavez,

Please see the attached Addendum for your review that is adding sections 3.4 and 3.5 to the 2021 Annual Report previously submitted on May 26. If you have any questions or require additional information, feel free to contact me.

Thank you very much for your consideration and patience.



Gary Russell, CHMM  
Sr. HES Professional  
L&S Terminals  
112 TownPark Dr, Suite 125  
Kennesaw, GA 30144  
Office: 678-594-6377  
Mobile: 210-970-1970  
Email: [gfrussell@marathonpetroleum.com](mailto:gfrussell@marathonpetroleum.com)

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**From:** Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>  
**Sent:** Monday, June 13, 2022 5:28 PM  
**To:** Russell, Gary F. <GFRussell@Marathonpetroleum.com>  
**Subject:** RE: [EXTERNAL] 2021 Annual Report - UICI-011 (WDW-2) Western Refining Southwest LLC - Bloomfield Terminal Action ID# 111134

Gary,

You should submit them as addendums to the applicable sections via an e-mail with attachments of the AR and I will get them into the admin. record.

Thank you.

**Carl J. Chavez • UIC Group**  
Engineering Bureau  
EMNRD - Oil Conservation Division  
5200 Oakland Avenue, N.E. Suite 100 | Albuquerque, NM 87113

505.660.7923  
[www.emnrd.nm.gov](http://www.emnrd.nm.gov)



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**From:** Russell, Gary F. <[GFRussell@Marathonpetroleum.com](mailto:GFRussell@Marathonpetroleum.com)>  
**Sent:** Monday, June 13, 2022 3:21 PM  
**To:** Chavez, Carl J, EMNRD <[CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)>  
**Subject:** RE: [EXTERNAL] 2021 Annual Report - UICI-011 (WDW-2) Western Refining Southwest LLC - Bloomfield Terminal Action ID# 111134

Mr. Chavez,

Thank you for the conditional approval of the annual report and the feedback. I will work on revising the details to include conclusions / recommendations as you have indicated.



Gary Russell, CHMM  
Sr. HES Professional  
L&S Terminals  
112 TownPark Dr, Suite 125  
Kennesaw, GA 30144  
Office: 678-594-6377  
Mobile: 210-970-1970  
Email: [gfrussell@marathonpetroleum.com](mailto:gfrussell@marathonpetroleum.com)

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**From:** Chavez, Carl J, EMNRD <[CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)>  
**Sent:** Friday, June 10, 2022 6:33 PM  
**To:** Russell, Gary F. <[GFRussell@Marathonpetroleum.com](mailto:GFRussell@Marathonpetroleum.com)>  
**Cc:** Sidle, Daun M. <[dmsidle@marathonpetroleum.com](mailto:dmsidle@marathonpetroleum.com)>  
**Subject:** RE: [EXTERNAL] 2021 Annual Report - UICI-011 (WDW-2) Western Refining Southwest LLC - Bloomfield Terminal Action ID# 111134

Gary, et al.,

Good afternoon. Just completing my review of the AR2021. I don't see where Marathon provides any "Conclusions/Recommendations" sections with the AR. These sections are crucial to OCD understanding the overall status for the intended sections of the AR.

2.I.2 Annual Report (Conclusions/Recommendations)

- Summary with interpretation of MITs, Fall-Off Tests, *etc.*, with conclusion(s) and recommendation(s);
- Summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations;

OCD will provide a condition of approval to include them for the above bulleted sections of the AR.

Thank you.

**Carl J. Chavez • UIC Group**

Engineering Bureau

EMNRD - Oil Conservation Division

5200 Oakland Avenue, N.E. Suite 100 | Albuquerque, NM 87113

505.660.7923

[www.emnrd.nm.gov](http://www.emnrd.nm.gov)



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**From:** Russell, Gary F. <[GFRussell@Marathonpetroleum.com](mailto:GFRussell@Marathonpetroleum.com)>

**Sent:** Thursday, May 26, 2022 12:52 PM

**To:** Chavez, Carl J, EMNRD <[CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)>

**Cc:** Sidle, Daun M. <[dmsidle@marathonpetroleum.com](mailto:dmsidle@marathonpetroleum.com)>

**Subject:** [EXTERNAL] 2021 Annual Report - UICI-011 (WDW-2) Western Refining Southwest LLC - Bloomfield Terminal

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Mr. Chavez,

Pursuant to Permit Condition 2.I.2. of UICI-011 (WDW-2) Discharge Permit, Western Refining Southwest LLC – Bloomfield Terminal has submitted the **2021 Annual Class I Non-Hazardous Waste Disposal Well (WDW-2) Report** documenting the facility operations during calendar year 2021. The report was uploaded to the OCD Permitting website using form UF-DP in 6 parts to fit the website file size restrictions. The submitted report can be found under Action ID 111134.

Let me know if you have any trouble accessing the report and if you need anything additional from me. A hard copy will be placed in the mail to you. Thank you very much.

Gary Russell, CHMM  
Sr. HES Professional  
L&S Terminals  
112 TownPark Dr, Suite 125



Kennesaw, GA 30144  
Office: 678-594-6377  
Mobile: 210-970-1970  
Email: [gfrussell@marathonpetroleum.com](mailto:gfrussell@marathonpetroleum.com)

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**Western Refining Southwest, LLC**

539 South Main Street  
Findlay, OH 45840  
Tel: 419.422.2121

June 17, 2022

Carl Chavez  
New Mexico Oil Conservation Division  
Environmental Bureau  
5200 Oakland Avenue, NE  
Albuquerque, NM 87113

RE: **Addendum** - 2021 ANNUAL CLASS I NON-HAZAROUS WASTE DISPOSAL WELL (WDW-2) REPORT

Western Refining Southwest LLC (Western) is submitting the following addendum to Section 3 of the 2021 ANNUAL CLASS I NON-HAZAROUS WASTE DISPOSAL WELL (WDW-2) REPORT.

### **3.4 Summary of MITs, Fall-Off Tests, etc., with conclusion(s) and recommendation(s)**

A pressure fall-off test (FOT) analysis was performed in September of 2021. The test was conducted in accordance with United States Environmental Protection Agency (USEPA) 40 CFR 146.13, State of New Mexico Fall-Off Test Guidelines, dated December 3, 2007, and EPA Region 6 Pressure Falloff Testing Guidelines, Third Revision, dated August 8, 2002. The test took place over a 238-hour period and the pressure data obtained during the fall-off test were analyzed using pressure transient analysis software and were able to provide a good determination of reservoir permeability.

Slope changes seen on the derivative log-log plot caused by formation thickness, porosity, and fluid viscosity were observed during the entire duration of the FOT. The reservoir permeability was determined from the pseudo-radial flow region of the superposition semi-log plot. The superposition time function was used to account for all rate changes during the injection period used in the analysis of the data.

Skin permeability for the well as measured by the 2021 FOT was 1.03 millidarcies (md). The 2020 FOT skin permeability was 1.14 md. The estimated mobility-thickness for the reservoir was determined to be 269.75 md-ft/cp in 2021. The mobility-thickness from 2020 was 297.64 md-ft/cp. The final false extrapolated pressure was 3735.42 psia. The 2020 false extrapolated pressure was 3632.37 psia. The 2021 FOT test results show a well skin of -5.12. The 2020 FOT test results showed a well skin of -5.05.

A bottom-hole static pressure gradient survey was conducted in September of 2021 following the completion of the FOT activities. Static gradient stops were at 7312 feet, 7000 feet, 6000 feet, 5000 feet, 4000 feet, 3000 feet, 2000 feet, 1000 feet, and at the surface. The bottom-hole pressure and temperature, after 238 hours of shut-in at 7312 feet were 3903.28 psia and 179.93°F.

Western concludes that the results of the FOT and bottom-hole static pressure gradient survey were typical of this injection well compared to previous year's testing, and the results do not indicate any abnormalities with reservoir permeability. No pressure or temperature anomalies were noted in the data analysis. The completed testing and reporting fulfill the requirements of the USEPA State of New Mexico Fall-Off Test Guidelines, dated December 3, 2007, and EPA Region 6 Pressure Falloff Testing Guidelines, Third Revision, dated August 8, 2002.

Based on the above criteria, there are no recommendations for changes to operational activities. The hydrogeologic characteristics of the injection well and formation do not conflict with estimated injection volumes.

No Mechanical Integrity Test (MIT) was conducted in 2021.

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**Western Refining Southwest, LLC**

539 South Main Street  
Findlay, OH 45840  
Tel: 419.422.2121

**3.5 Summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations**

No major facility activities or events took place in 2021.