EMID-702455

N3B-Los Alamos
1200 Trinity Drive, Suite 150
Los Alamos, New Mexico 87544
(505) 257-7690

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GROUND WATER
QUALITY BUREAU

Environmental Management
Los Alamos Field Office
1200 Trinity Drive, Suite 400
Los Alamos, New Mexico 87544
(240) 562-1122

Date: November 30, 2022
Refer To: N3B-2022-0481

Justin Ball, Chief
Ground Water Quality Bureau
New Mexico Environment Department
1190 S. St. Francis Drive
Santa Fe, NM 87502-5469

Subject: Submittal of the Quarterly Report for the Discharge of Treated Groundwater to the Regional Aquifer under Discharge Permit 1835, Calendar Year 2022 Quarter 3, Class V Underground Injection Control Wells

Dear Mr. Ball:

On August 31, 2016, the New Mexico Environment Department (NMED) issued Discharge Permit 1835 (DP-1835) to the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (LANS) for the discharge of treated groundwater to the regional aquifer from up to six Class V underground injection control (UIC) wells. On July 21, 2017, NMED approved minor updates to DP-1835. During the second quarter of calendar year (CY) 2018, ownership of the discharge permit transferred to Newport News Nuclear BWXT-Los Alamos, LLC (N3B) from LANS. Pursuant to Condition Number 10 of the above-referenced discharge permit, DOE/N3B are required to submit quarterly reports for the previous quarter to document the following:

1. influent and discharge volumes from the treatment systems,
2. quarterly groundwater and treated effluent sampling results, and
3. operations and maintenance activities.

Pursuant to Condition Numbers No. 11, 12, and 13 of DP-1835, the quarterly reports shall also contain general information, performance information, and monitoring data for treated effluent from each ion exchange treatment system. Condition Number 10 requires submission of a quarterly report to NMED by December 1, 2022, for the July 1 through September 30, 2022, discharge period.

During the CY 2022 Quarter 3 reporting period for DP-1835, discharge of treated groundwater to the regional aquifer occurred at five UIC wells: CrIN-1 through CrIN-5. Groundwater originated predominantly from five extraction wells: CrEX-1 through CrEX-5. The groundwater was treated by chromium treatment unit A (CTUA) and chromium treatment unit C (CTUC) before injection at the UIC wells.

The enclosed "Quarterly Report for the Discharge of Treated Groundwater to the Regional Aquifer under Discharge Permit 1835, Calendar Year 2022 Quarter 3," provides the information required under DP-1835 for this reporting period.

If you have questions, please contact Christian Maupin at (505) 695-4281 (christian.maupin@em-la.doe.gov) or Cheryl Rodriguez at (505) 414-0450 (cheryl.rodriguez@em.doe.gov).

Sincerely,

Robert Macfarlane
Program Manager
Environment, Safety, Health and Quality
N3B-Los Alamos

Sincerely,

ARTURO DURAN Digitally signed by ARTURO DURAN
Date: 2022.11.29 13:11:38 -07'00'

Arturo Q. Duran
Office of Quality and Regulatory Compliance
U.S. Department of Energy
Environmental Management
Los Alamos Field Office

Enclosure(s):
1. Two hard copies with electronic files – Quarterly Report for the Discharge of Treated Groundwater to the Regional Aquifer under Discharge Permit 1835, Calendar Year 2022 Quarter 3 (EM2022-0788)

cc (letter and enclosure[s] emailed):
Laurie King, EPA Region 6, Dallas, TX
Raymond Martinez, San Ildefonso Pueblo, NM
Dino Chavarria, Santa Clara Pueblo, NM
Steve Yanicak, NMED-DOE-OB
Patrick Longmire, NMED-GWQB
Andrew Romero, NMED-GWQB
Neelam Dhawan, NMED-HWB
Rick Shean, NMED-HWB
Chris Catechis, NMED-RPD
Shelly Lemon, NMED-SWQB
Jennifer Payne, LANL
Stephen Hoffman, NA-LA
M. Lee Bishop, EM-LA
John Evans, EM-LA
Thomas McCrory, EM-LA
Michael Mikolanis, EM-LA
David Nickless, EM-LA
Kenneth Ocker, EM-LA
Cheryl Rodriguez, EM-LA
Hai Shen, EM-LA
Felicia Aguilar, N3B
William Alexander, N3B
Ryan Flynn, N3B

Vicky Freedman, N3B
Debby Holgerson, N3B
Kim Lebak, N3B
Joseph Legare, N3B
Nancy McDuffie, N3B
Christian Maupin, N3B
Troy Thomson, N3B
Brinson Willis, N3B
emla.docs@em.doe.gov
n3brecords@em-la.doe.gov
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PRS website

December 2022
EM2022-0788

Quarterly Report for the Discharge of Treated Groundwater to the Regional Aquifer under Discharge Permit 1835, Calendar Year 2022 Quarter 3

N3B Los Alamos

Newport News Nuclear BWXT-Los Alamos, LLC (N3B), under the U.S. Department of Energy Office of Environmental Management Contract No. 89303318CEM000007 (the Los Alamos Legacy Cleanup Contract), has prepared this document. The public may copy and use this document without charge, provided that this notice and any statement of authorship are reproduced on all copies.

CONTENTS

Figures

Tables

1.0 INTRODUCTION

On August 31, 2016, the New Mexico Environment Department (NMED) issued Discharge Permit 1835 (DP-1835) to the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (LANS) for the discharge of treated groundwater to the regional aquifer through Class V underground injection control (UIC) wells. On July 21, 2017, NMED approved minor updates to DP-1835. During Quarter 3 of calendar year (CY) 2018, ownership of the discharge permit transferred from LANS to Newport News Nuclear BWXT-Los Alamos, LLC (N3B).

During the CY 2022 Quarter 3 reporting period for DP-1835, groundwater was extracted for treatment from five extraction wells: CrEX-1 through CrEX-5. The groundwater was treated by ion exchange (IX) in chromium treatment unit A (CTUA) and chromium treatment unit C (CTUC). Discharge of treated groundwater to the regional aquifer occurred at five UIC wells: CrIN-1 through CrIN-5.

Condition No. 10 of DP-1835 requires submission of a quarterly report to NMED by December 1 for the July 1 through September 30 discharge period. Several conditions within the permit identify information to be submitted in the quarterly report. These conditions are addressed in this report in the following requirements:

1. Influent and discharge volumes for the IX treatment systems (Condition No. 10)
2. Quarterly treated effluent sampling results from each IX treatment system (Conditions No. 10 and 13)
3. Quarterly depth-to-groundwater and groundwater-quality sampling results (Conditions No. 10 and 14)
4. Any operations/maintenance activities performed (Condition No. 10)
5. Any periodic test of mechanical integrity conducted (Condition No. 11.a)
6. Any replacement of primary or secondary IX vessels or associated treatment system infrastructure (Condition No. 11.b)
7. Any well workovers conducted (Condition No. 11.c)
8. Any additional operational changes with the potential to markedly affect the discharge (Condition No. 11.d)
9. Monthly average, maximum, and minimum values for flow rate and volume of treated effluent transferred to each UIC well (Condition No. 12.a)
10. Total monthly volume of treated effluent transferred to each UIC well (Condition No. 12.b)
11. Monthly average, maximum, and minimum values of injection water level (pressure head) above static level for each UIC well (Condition No. 12.c)
12. Daily volume injected at each UIC well (Condition No. 12.d)
13. Daily volume pumped from each extraction well (Condition No. 12.e)
14. Facility layout map (Condition No. 14)
15. Groundwater elevation contour map (Condition No. 15)

This report addresses each of these requirements.

2.0 REQUIREMENTS

2.1 Influent and Discharge Volumes for the Ion Exchange Treatment Systems (Requirement 1)

Table 2.1-1 provides the influent and discharge volumes for IX treatment systems CTUA and CTUC during CY 2022 Quarter 3 for activities completed under DP-1835.

Table 2.1-1
Total Influent and Discharge Volumes
for IX Treatment Systems – CY 2022 Quarter 3, DP-1835

Treatment Unit	Influent Volume[a] (gal.)	Effluent Volume[b] (gal.)
CTUA	36,415,910	20,883,420
CTUC		15,533,174

Note: Individual flow meter accurate to ±5%.

[a] Influent volume based on CrEX-1 through CrEX-5 extraction volumes.

[b] Effluent volume based on CTUA and CTUC flow-meter readings.

2.2 Quarterly Treated Effluent Sampling Results from Each IX Treatment System (Requirement 2)

Treated effluent analytical results from samples collected during CY 2022 Quarter 3 for activities completed under DP-1835 are summarized in Table 2.2-1. No sample results for total chromium, nitrate, perchlorate, sulfate, fluoride, chloride, or total dissolved solids exceeded 90% of the numeric standards of 20.6.2.3103 New Mexico Administrative Code (NMAC) or, for constituents not listed in 20.6.2.3103 NMAC, 90% of the numeric screening levels established for tap water in Table A-1 of the 2022 NMED "Risk Assessment Guidance for Site Investigations and Remediation Volume 1, Soil Screening Guidance for Human Health Risk Assessments" (NMED 2022). The 90% values for these seven analytes are as follows:

- Chloride 225 mg/L
- Chromium 45 µg/L
- Fluoride 1.44 mg/L
- Nitrate 9 mg/L
- Perchlorate 12.4 µg/L
- Sulfate 540 mg/L
- Total dissolved solids 900 mg/L

Table 2.2-1
Treated Effluent Analytical Results Summary Table – CY 2022 Quarter 3, DP-1835

Location ID	Sample ID	Sample Date[a]	Parameter Name	Result	Report Unit	90% of Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-252151	07-05-2022	Chloride	18.3	mg/L	225	n/a[b]	Y[c]	Y[d]	0.335
CTUA	CrTMT-22-252152	07-12-2022	Chloride	19.4	mg/L	225	n/a	Y	Y	0.335
CTUA	CrTMT-22-252153	07-19-2022	Chloride	17.6	mg/L	225	n/a	Y	Y	0.335
CTUA	CrTMT-22-252154	07-26-2022	Chloride	17.9	mg/L	225	n/a	Y	Y	0.335
CTUA	CrTMT-22-252155	08-02-2022	Chloride	18.2	mg/L	225	n/a	Y	Y	0.335
CTUA	CrTMT-22-252156	08-08-2022	Chloride	18.2	mg/L	225	n/a	Y	Y	0.335
CTUA	CrTMT-22-252157	08-16-2022	Chloride	19.0	mg/L	225	n/a	Y	Y	0.335
CTUA	CrTMT-22-252158	08-23-2022	Chloride	18.4	mg/L	225	n/a	Y	Y	0.335
CTUA	CrTMT-22-252159	08-31-2022	Chloride	17.9	mg/L	225	n/a	Y	Y	0.335
CTUA	CrTMT-22-252160	09-06-2022	Chloride	18.3	mg/L	225	n/a	Y	Y	0.335
CTUA	CrTMT-22-252161	09-13-2022	Chloride	17.9	mg/L	225	n/a	Y	Y	0.335
CTUA	CrTMT-22-259603	09-21-2022	Chloride	18.2	mg/L	225	n/a	Y	Y	0.335
CTUA	CrTMT-22-252162	09-27-2022	Chloride	18.6	µg/L	225	n/a	Y	Y	0.670
CTUA	CrTMT-22-252151	07-05-2022	Chromium	3.00	µg/L	45	U[e]	N[f]	Y	3.00
CTUA	CrTMT-22-252152	07-12-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUA	CrTMT-22-252153	07-19-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUA	CrTMT-22-252154	07-26-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUA	CrTMT-22-252155	08-02-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUA	CrTMT-22-252156	08-08-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUA	CrTMT-22-252157	08-16-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUA	CrTMT-22-252158	08-23-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUA	CrTMT-22-252159	08-31-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUA	CrTMT-22-252160	09-06-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUA	CrTMT-22-252161	09-13-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00

Table 2.2-1 (continued)

Location ID	Sample ID	Sample Date[a]	Parameter Name	Result	Report Unit	90% of Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-252162	09-27-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUA	CrTMT-22-252151	07-05-2022	Fluoride	0.252	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-252152	07-12-2022	Fluoride	0.389	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-252153	07-19-2022	Fluoride	0.360	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-252154	07-26-2022	Fluoride	0.365	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-252155	08-02-2022	Fluoride	0.353	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-252156	08-08-2022	Fluoride	0.248	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-252157	08-16-2022	Fluoride	0.400	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-252158	08-23-2022	Fluoride	0.292	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-252159	08-31-2022	Fluoride	0.423	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-252160	09-06-2022	Fluoride	0.227	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-252161	09-13-2022	Fluoride	0.430	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-259603	09-21-2022	Fluoride	0.377	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-252162	09-27-2022	Fluoride	0.401	mg/L	1.44	n/a	Y	Y	0.0330
CTUA	CrTMT-22-252151	07-05-2022	Nitrate-Nitrite as Nitrogen	3.39	mg/L	9	n/a	Y	Y	0.085
CTUA	CrTMT-22-252152	07-12-2022	Nitrate-Nitrite as Nitrogen	3.72	mg/L	9	n/a	Y	Y	0.085
CTUA	CrTMT-22-252153	07-19-2022	Nitrate-Nitrite as Nitrogen	3.21	mg/L	9	n/a	Y	Y	0.170
CTUA	CrTMT-22-252154	07-26-2022	Nitrate-Nitrite as Nitrogen	3.02	mg/L	9	n/a	Y	Y	0.170
CTUA	CrTMT-22-252155	08-02-2022	Nitrate-Nitrite as Nitrogen	3.13	mg/L	9	n/a	Y	Y	0.170
CTUA	CrTMT-22-252156	08-08-2022	Nitrate-Nitrite as Nitrogen	3.62	mg/L	9	n/a	Y	Y	0.085
CTUA	CrTMT-22-252157	08-16-2022	Nitrate-Nitrite as Nitrogen	3.60	mg/L	9	n/a	Y	Y	0.170
CTUA	CrTMT-22-252158	08-23-2022	Nitrate-Nitrite as Nitrogen	3.20	mg/L	9	n/a	Y	Y	0.085
CTUA	CrTMT-22-252159	08-31-2022	Nitrate-Nitrite as Nitrogen	3.15	mg/L	9	n/a	Y	Y	0.170
CTUA	CrTMT-22-252160	09-06-2022	Nitrate-Nitrite as Nitrogen	3.11	mg/L	9	n/a	Y	Y	0.170
CTUA	CrTMT-22-252161	09-13-2022	Nitrate-Nitrite as Nitrogen	3.13	mg/L	9	n/a	Y	Y	0.170
CTUA	CrTMT-22-259603	09-21-2022	Nitrate-Nitrite as Nitrogen	2.93	mg/L	9	n/a	Y	Y	0.1700

Table 2.2-1 (continued)

Location ID	Sample ID	Sample Date[a]	Parameter Name	Result	Report Unit	90% of Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-252162	09-27-2022	Nitrate-Nitrite as Nitrogen	3.25	mg/L	9	n/a	Y	Y	0.0850
CTUA	CrTMT-22-252151	07-05-2022	Perchlorate	0.471	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-252152	07-12-2022	Perchlorate	0.279	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-252153	07-19-2022	Perchlorate	0.280	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-252154	07-26-2022	Perchlorate	0.557	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-252155	08-02-2022	Perchlorate	0.266	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-252156	08-08-2022	Perchlorate	0.479	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-252157	08-16-2022	Perchlorate	0.204	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-252158	08-23-2022	Perchlorate	0.31	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-252159	08-31-2022	Perchlorate	0.3530	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-252160	09-06-2022	Perchlorate	0.4920	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-252161	09-13-2022	Perchlorate	0.5220	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-259603	09-21-2022	Perchlorate	0.9240	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-252162	09-27-2022	Perchlorate	0.9930	µg/L	12.4	n/a	Y	Y	0.0500
CTUA	CrTMT-22-252151	07-05-2022	Sulfate	24.9	mg/L	540	n/a	Y	Y	0.665
CTUA	CrTMT-22-252152	07-12-2022	Sulfate	19.6	mg/L	540	n/a	Y	Y	0.665
CTUA	CrTMT-22-252153	07-19-2022	Sulfate	24.5	mg/L	540	n/a	Y	Y	0.665
CTUA	CrTMT-22-252154	07-26-2022	Sulfate	24.9	mg/L	540	n/a	Y	Y	0.665
CTUA	CrTMT-22-252155	08-02-2022	Sulfate	25.0	mg/L	540	n/a	Y	Y	0.665
CTUA	CrTMT-22-252156	08-08-2022	Sulfate	22.8	mg/L	540	n/a	Y	Y	0.665
CTUA	CrTMT-22-252157	08-16-2022	Sulfate	16.1	mg/L	540	n/a	Y	Y	0.133
CTUA	CrTMT-22-252158	08-23-2022	Sulfate	25.100	mg/L	540	n/a	Y	Y	0.665
CTUA	CrTMT-22-252159	08-31-2022	Sulfate	25.0	mg/L	540	U	N	Y	0.665
CTUA	CrTMT-22-252160	09-06-2022	Sulfate	25.2	mg/L	540	n/a	Y	Y	0.665
CTUA	CrTMT-22-252161	09-13-2022	Sulfate	24.7	mg/L	540	n/a	Y	Y	0.665
CTUA	CrTMT-22-259603	09-21-2022	Sulfate	22.0	mg/L	540	n/a	Y	Y	0.665

Table 2.2-1 (continued)

Location ID	Sample ID	Sample Date[a]	Parameter Name	Result	Report Unit	90% of Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-252162	09-27-2022	Sulfate	26.0	mg/L	540	n/a	Y	Y	1.33
CTUA	CrTMT-22-252151	07-05-2022	Total Dissolved Solids	193	mg/L	900	n/a	Y	Y	3.40
CTUA	CrTMT-22-252152	07-12-2022	Total Dissolved Solids	217	mg/L	900	n/a	Y	Y	3.40
CTUA	CrTMT-22-252153	07-19-2022	Total Dissolved Solids	203	mg/L	900	n/a	Y	Y	3.40
CTUA	CrTMT-22-252154	07-26-2022	Total Dissolved Solids	221	mg/L	900	n/a	Y	Y	3.40
CTUA	CrTMT-22-252155	08-02-2022	Total Dissolved Solids	206	mg/L	900	n/a	Y	Y	2.38
CTUA	CrTMT-22-252156	08-08-2022	Total Dissolved Solids	214	mg/L	900	n/a	Y	Y	2.38
CTUA	CrTMT-22-252157	08-16-2022	Total Dissolved Solids	234	mg/L	900	n/a	Y	Y	2.38
CTUA	CrTMT-22-252158	08-23-2022	Total Dissolved Solids	217	mg/L	900	n/a	Y	Y	2.38
CTUA	CrTMT-22-252159	08-31-2022	Total Dissolved Solids	210	mg/L	900	n/a	Y	Y	2.38
CTUA	CrTMT-22-252160	09-06-2022	Total Dissolved Solids	217	mg/L	900	n/a	Y	Y	2.38
CTUA	CrTMT-22-252161	09-13-2022	Total Dissolved Solids	215	mg/L	900	n/a	Y	Y	2.38
CTUA	CrTMT-22-259603	09-21-2022	Total Dissolved Solids	211	mg/L	900	n/a	Y	Y	2.38
CTUA	CrTMT-22-252162	09-27-2022	Total Dissolved Solids	214	mg/L	900	n/a	Y	Y	2.38
CTUC	CrTMT-22-252133	07-05-2022	Chloride	17.3	mg/L	225	n/a	Y	Y	0.335
CTUC	CrTMT-22-252134	07-12-2022	Chloride	18.8	mg/L	225	n/a	Y	Y	0.335
CTUC	CrTMT-22-252135	07-19-2022	Chloride	17.8	mg/L	225	n/a	Y	Y	0.335
CTUC	CrTMT-22-252137	07-27-2022	Chloride	19.8	mg/L	225	n/a	Y	Y	0.335
CTUC	CrTMT-22-252138	08-02-2022	Chloride	18.5	mg/L	225	n/a	Y	Y	0.335
CTUC	CrTMT-22-252139	08-08-2022	Chloride	18.1	mg/L	225	n/a	Y	Y	0.335
CTUC	CrTMT-22-252140	08-16-2022	Chloride	18.4	mg/L	225	n/a	Y	Y	0.335
CTUC	CrTMT-22-252141	08-23-2022	Chloride	18.3	mg/L	225	n/a	Y	Y	0.335
CTUC	CrTMT-22-252142	08-31-2022	Chloride	19.9	mg/L	225	n/a	Y	Y	0.335
CTUC	CrTMT-22-252143	09-06-2022	Chloride	17.4	mg/L	225	n/a	Y	Y	0.335
CTUC	CrTMT-22-252144	09-13-2022	Chloride	17.9	mg/L	225	n/a	Y	Y	0.335
CTUC	CrTMT-22-252145	09-27-2022	Chloride	17.7	mg/L	225	n/a	Y	Y	0.67

Table 2.2-1 (continued)

Location ID	Sample ID	Sample Date[a]	Parameter Name	Result	Report Unit	90% of Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-252133	07-05-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUC	CrTMT-22-252134	07-12-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUC	CrTMT-22-252135	07-19-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUC	CrTMT-22-252137	07-27-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUC	CrTMT-22-252138	08-02-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUC	CrTMT-22-252139	08-08-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUC	CrTMT-22-252140	08-16-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUC	CrTMT-22-252141	08-23-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUC	CrTMT-22-252142	08-31-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUC	CrTMT-22-252143	09-06-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUC	CrTMT-22-252144	09-13-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUC	CrTMT-22-252145	09-27-2022	Chromium	3.00	µg/L	45	U	N	Y	3.00
CTUC	CrTMT-22-252133	07-05-2022	Fluoride	0.252	mg/L	1.44	n/a	Y	Y	0.033
CTUC	CrTMT-22-252134	07-12-2022	Fluoride	0.384	mg/L	1.44	n/a	Y	Y	0.033
CTUC	CrTMT-22-252135	07-19-2022	Fluoride	0.369	mg/L	1.44	n/a	Y	Y	0.033
CTUC	CrTMT-22-252137	07-27-2022	Fluoride	0.368	mg/L	1.44	n/a	Y	Y	0.033
CTUC	CrTMT-22-252138	08-02-2022	Fluoride	0.351	mg/L	1.44	n/a	Y	Y	0.033
CTUC	CrTMT-22-252139	08-08-2022	Fluoride	0.033	mg/L	1.44	U	N	Y	0.033
CTUC	CrTMT-22-252140	08-16-2022	Fluoride	0.247	mg/L	1.44	n/a	Y	Y	0.033
CTUC	CrTMT-22-252141	08-23-2022	Fluoride	0.292	mg/L	1.44	n/a	Y	Y	0.033
CTUC	CrTMT-22-252142	08-31-2022	Fluoride	0.3670	mg/L	1.44	n/a	Y	Y	0.033
CTUC	CrTMT-22-252143	09-06-2022	Fluoride	0.30	mg/L	1.44	n/a	Y	Y	0.033
CTUC	CrTMT-22-252144	09-13-2022	Fluoride	0.43	mg/L	1.44	n/a	Y	Y	0.033
CTUC	CrTMT-22-252145	09-27-2022	Fluoride	0.40	mg/L	1.44	n/a	Y	Y	0.033
CTUC	CrTMT-22-252133	07-05-2022	Nitrate-Nitrite as Nitrogen	3.37	mg/L	9	n/a	Y	Y	0.085
CTUC	CrTMT-22-252134	07-12-2022	Nitrate-Nitrite as Nitrogen	3.16	mg/L	9	n/a	Y	Y	0.085

Table 2.2-1 (continued)

Location ID	Sample ID	Sample Date[a]	Parameter Name	Result	Report Unit	90% of Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-252135	07-19-2022	Nitrate-Nitrite as Nitrogen	3.21	mg/L	9	n/a	Y	Y	0.170
CTUC	CrTMT-22-252137	07-27-2022	Nitrate-Nitrite as Nitrogen	4.39	mg/L	9	n/a	Y	Y	0.085
CTUC	CrTMT-22-252138	08-02-2022	Nitrate-Nitrite as Nitrogen	3.12	mg/L	9	n/a	Y	Y	0.170
CTUC	CrTMT-22-252139	08-08-2022	Nitrate-Nitrite as Nitrogen	3.50	mg/L	9	n/a	Y	Y	0.0850
CTUC	CrTMT-22-252140	08-16-2022	Nitrate-Nitrite as Nitrogen	3.13	mg/L	9	n/a	Y	Y	0.085
CTUC	CrTMT-22-252141	08-23-2022	Nitrate-Nitrite as Nitrogen	3.250	mg/L	9	n/a	Y	Y	0.0850
CTUC	CrTMT-22-252142	08-31-2022	Nitrate-Nitrite as Nitrogen	4.710	mg/L	9	n/a	Y	Y	0.1700
CTUC	CrTMT-22-252143	09-06-2022	Nitrate-Nitrite as Nitrogen	3.160	mg/L	9	n/a	Y	Y	0.1700
CTUC	CrTMT-22-252144	09-13-2022	Nitrate-Nitrite as Nitrogen	3.120	mg/L	9	n/a	Y	Y	0.1700
CTUC	CrTMT-22-252145	09-27-2022	Nitrate-Nitrite as Nitrogen	3.270	mg/L	9	n/a	Y	Y	0.0850
CTUC	CrTMT-22-252133	07-05-2022	Perchlorate	0.0930	µg/L	12.4	J[g]	Y	Y	0.0500
CTUC	CrTMT-22-252134	07-12-2022	Perchlorate	0.070	µg/L	12.4	J	Y	Y	0.0500
CTUC	CrTMT-22-252135	07-19-2022	Perchlorate	0.074	µg/L	12.4	J	Y	Y	0.0500
CTUC	CrTMT-22-252137	07-27-2022	Perchlorate	0.329	µg/L	12.4	n/a	Y	Y	0.0500
CTUC	CrTMT-22-252138	08-02-2022	Perchlorate	0.424	µg/L	12.4	n/a	Y	Y	0.0500
CTUC	CrTMT-22-252139	08-08-2022	Perchlorate	0.424	µg/L	12.4	n/a	Y	Y	0.0500
CTUC	CrTMT-22-252140	08-16-2022	Perchlorate	0.391	µg/L	12.4	n/a	Y	Y	0.050
CTUC	CrTMT-22-252141	08-23-2022	Perchlorate	0.372	µg/L	12.4	n/a	Y	Y	0.050
CTUC	CrTMT-22-252142	08-31-2022	Perchlorate	0.2	µg/L	12.4	n/a	Y	Y	0.050
CTUC	CrTMT-22-252143	09-06-2022	Perchlorate	0.5	µg/L	12.4	n/a	Y	Y	0.050
CTUC	CrTMT-22-252144	09-13-2022	Perchlorate	0.4	µg/L	12.4	n/a	Y	Y	0.050
CTUC	CrTMT-22-252145	09-27-2022	Perchlorate	0.4	µg/L	12.4	n/a	Y	Y	0.050
CTUC	CrTMT-22-252133	07-05-2022	Sulfate	23.3	mg/L	540	n/a	Y	Y	0.665
CTUC	CrTMT-22-252134	07-12-2022	Sulfate	27.3	mg/L	540	n/a	Y	Y	0.665
CTUC	CrTMT-22-252135	07-19-2022	Sulfate	24.8	mg/L	540	n/a	Y	Y	0.665
CTUC	CrTMT-22-252137	07-27-2022	Sulfate	0.7	mg/L	540	n/a	Y	Y	0.133

Table 2.2-1 (continued)

Location ID	Sample ID	Sample Date[a]	Parameter Name	Result	Report Unit	90% of Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-252138	08-02-2022	Sulfate	25.1	mg/L	540	n/a	Y	Y	0.665
CTUC	CrTMT-22-252139	08-08-2022	Sulfate	25	mg/L	540	n/a	Y	Y	0.665
CTUC	CrTMT-22-252140	08-16-2022	Sulfate	25	mg/L	540	n/a	Y	Y	0.665
CTUC	CrTMT-22-252141	08-23-2022	Sulfate	25	mg/L	540	n/a	Y	Y	0.665
CTUC	CrTMT-22-252142	08-31-2022	Sulfate	0	mg/L	540	U	N	Y	0.133
CTUC	CrTMT-22-252143	09-06-2022	Sulfate	23	mg/L	540	n/a	Y	Y	0.665
CTUC	CrTMT-22-252144	09-13-2022	Sulfate	25	mg/L	540	n/a	Y	Y	0.665
CTUC	CrTMT-22-252145	09-27-2022	Sulfate	25	mg/L	540	n/a	Y	Y	1.33
CTUC	CrTMT-22-252133	07-05-2022	Total Dissolved Solids	223	mg/L	900	n/a	Y	Y	3.40
CTUC	CrTMT-22-252134	07-12-2022	Total Dissolved Solids	186	mg/L	900	n/a	Y	Y	3.40
CTUC	CrTMT-22-252135	07-19-2022	Total Dissolved Solids	204	mg/L	900	n/a	Y	Y	3.40
CTUC	CrTMT-22-252137	07-27-2022	Total Dissolved Solids	213	mg/L	900	n/a	Y	Y	2.38
CTUC	CrTMT-22-252138	08-02-2022	Total Dissolved Solids	210	mg/L	900	n/a	Y	Y	2.38
CTUC	CrTMT-22-252139	08-08-2022	Total Dissolved Solids	226	mg/L	900	n/a	Y	Y	2.38
CTUC	CrTMT-22-252140	08-16-2022	Total Dissolved Solids	226	mg/L	900	n/a	Y	Y	2.38
CTUC	CrTMT-22-252141	08-23-2022	Total Dissolved Solids	215	mg/L	900	n/a	Y	Y	2.38
CTUC	CrTMT-22-252142	08-31-2022	Total Dissolved Solids	212	mg/L	900	n/a	Y	Y	2.38
CTUC	CrTMT-22-252143	09-06-2022	Total Dissolved Solids	222	mg/L	900	n/a	Y	Y	2.38
CTUC	CrTMT-22-252144	09-13-2022	Total Dissolved Solids	210	mg/L	900	n/a	Y	Y	2.38
CTUC	CrTMT-22-252145	09-27-2022	Total Dissolved Solids	220	mg/L	900	n/a	Y	Y	2.38

[a] In accordance with Condition No. 13 of DP-1835, analysis of the treated effluent from each IX unit is required only once every month for the CY 2022 Quarter 3 reporting period.

[b] n/a = Not applicable: no qualifiers applied.

[c] In the Detect Flag column, Y = detected.

[d] In the Filtered column, Y = filtered.

[e] U = Analyte is classified as not detected.

[f] N = No (not detected).

[g] J = Analyte is classified as estimated.

The pilot-scale molasses and sodium dithionite amendment studies began with NMED conditional approvals during CY 2017 Quarter 4 (NMED 2017a, NMED 2017b), and continued during CY 2022 Quarter 3. NMED determined that no permit was required for the deployment of these amendments. In accordance with the NMED conditional approvals, iron, manganese, and arsenic sampling in the treated water from extraction wells was completed, and the results were submitted in the quarterly monitoring reports under DP-1835. These results for CY 2022 Quarter 3 are provided in Table 2.2-2. No results for iron, manganese, or arsenic exceeded 90% of the numeric standards (900 µg/L, 180 µg/L, and 9 µg/L, respectively) as specified in 20.6.2.3103 NMAC.

DP-1835 Permit Condition No. 13 requires treated effluent to be analyzed annually for all water contaminants listed in 20.6.2.3103 NMAC and all toxic pollutants defined in 20.6.2.7.T(2) NMAC. The annual sample for CY 2022 was obtained during CY 2022 Quarter 3 and the results are provided in Table 2.2-3.

2.3 Quarterly Depth to Groundwater and Groundwater Quality Sampling Results (Requirement 3)

Depth to groundwater is expressed as the elevation of the groundwater above sea level. Figure 2.3-1 is the groundwater elevation map, and Table 2.3-1 provides the quarterly groundwater elevation measurements for a non-exhaustive selection of wells. An explanation of how the groundwater elevation map was generated is provided below. Quarterly groundwater analytical results from samples collected during CY 2022 Quarter 3 for the monitoring wells listed in Condition No. 14 are summarized in Table 2.3-2. Note that some analytes reported in this table exceed their corresponding groundwater standard or screening level.

Sample results for total chromium, nitrate, perchlorate, sulfate, fluoride, chloride, or total dissolved solids are compared with numeric standards of 20.6.2.3103 NMAC or, for constituents not listed in 20.6.2.3103 NMAC, the numeric screening levels established for tap water in Table A-1 of the 2022 NMED "Risk Assessment Guidance for Site Investigations and Remediation Volume 1, Soil Screening Guidance for Human Health Risk Assessments" (NMED 2022). The values for these seven analytes are as follows:

- Chloride 250 mg/L
- Perchlorate 13.8 µg/L
- Chromium 50 µg/L
- Fluoride 1.6 mg/L
- Nitrate 10 mg/L
- Sulfate 600 mg/L
- Total dissolved solids 1000 mg/L

The regional aquifer beneath the Pajarito Plateau, on which Los Alamos National Laboratory (LANL or the Laboratory) is situated, is a complex hydrogeological system. The shape of the regional water table is predominantly controlled by the areas of recharge to the west (the flanks of the Sierra de los Valles and the Pajarito fault zone) and discharge to the east (the Rio Grande and the White Rock Canyon Springs). At a more local scale, such as the chromium plume area, the structure of the regional water table and groundwater flow is also expected to be influenced by

- local infiltration zones and recharge areas (e.g., beneath canyons),
- heterogeneity and anisotropy in the aquifer properties, and
- extraction and injection locations (municipal water-supply wells and chromium interim measure [IM] extraction/injection wells).

Table 2.2-2
Treated Effluent Analytical Results Summary Table Related to Molasses and Sodium Dithionite Pilot Studies under NMED Conditional Approval – CY 2022 Quarter 3, DP-1835

Location ID	Sample ID	Sample Date[a]	Parameter Name	Result	Report Unit	90% of Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-252151	07-05-2022	Arsenic	2.36	µg/L	9	J[b]	Y[c]	Y[d]	2.00
CTUA	CrTMT-22-252152	07-12-2022	Arsenic	2.87	µg/L	9	J	Y	Y	2.00
CTUA	CrTMT-22-252153	07-19-2022	Arsenic	2.47	µg/L	9	J	Y	Y	2.00
CTUA	CrTMT-22-252154	07-26-2022	Arsenic	3.01	µg/L	9	J	Y	Y	2.00
CTUA	CrTMT-22-252155	08-02-2022	Arsenic	2.47	µg/L	9	J	Y	Y	2.00
CTUA	CrTMT-22-252156	08-08-2022	Arsenic	2.00	µg/L	9	U[e]	N[f]	Y	2.00
CTUA	CrTMT-22-252157	08-16-2022	Arsenic	2.97	µg/L	9	J	Y	Y	2.00
CTUA	CrTMT-22-252158	08-23-2022	Arsenic	3.38	µg/L	9	J	Y	Y	2.00
CTUA	CrTMT-22-252159	08-31-2022	Arsenic	2.57	µg/L	9	J	Y	Y	2.00
CTUA	CrTMT-22-252160	09-06-2022	Arsenic	2.00	µg/L	9	U	N	Y	2.00
CTUA	CrTMT-22-252161	09-13-2022	Arsenic	2.00	µg/L	9	U	N	Y	2.00
CTUA	CrTMT-22-259603	09-21-2022	Arsenic	2.29	µg/L	9	J	Y	Y	2.00
CTUA	CrTMT-22-252162	09-27-2022	Arsenic	2.00	µg/L	9	U	N	Y	2.00
CTUC	CrTMT-22-252133	07-05-2022	Arsenic	2.35	µg/L	9	J	Y	Y	2.00
CTUC	CrTMT-22-252134	07-12-2022	Arsenic	2.00	µg/L	9	U	N	Y	2.00
CTUC	CrTMT-22-252135	07-19-2022	Arsenic	2.71	µg/L	9	J	Y	Y	2.00
CTUC	CrTMT-22-252137	07-27-2022	Arsenic	2.00	µg/L	9	U	N	Y	2.00
CTUC	CrTMT-22-252138	08-02-2022	Arsenic	3.11	µg/L	9	J	Y	Y	2.00
CTUC	CrTMT-22-252139	08-08-2022	Arsenic	2.00	µg/L	9	U	N	Y	2.00
CTUC	CrTMT-22-252140	08-16-2022	Arsenic	2.00	µg/L	9	U	N	Y	2.00
CTUC	CrTMT-22-252141	08-23-2022	Arsenic	3.04	µg/L	9	J	Y	Y	2.00
CTUC	CrTMT-22-252142	08-31-2022	Arsenic	2.78	µg/L	9	J	Y	Y	2.00
CTUC	CrTMT-22-252143	09-06-2022	Arsenic	2.00	µg/L	9	U	N	Y	2.00
CTUC	CrTMT-22-252144	09-13-2022	Arsenic	2.0	µg/L	9	U	N	Y	2.00

Table 2.2-2 (continued)

Location ID	Sample ID	Sample Date[a]	Parameter Name	Result	Report Unit	90% of Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-252145	09-27-2022	Arsenic	2.0	µg/L	900	U	N	Y	2.0
CTUA	CrTMT-22-252151	07-05-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUA	CrTMT-22-252152	07-12-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUA	CrTMT-22-252153	07-19-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUA	CrTMT-22-252154	07-26-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUA	CrTMT-22-252155	08-02-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUA	CrTMT-22-252156	08-08-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUA	CrTMT-22-252157	08-16-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUA	CrTMT-22-252158	08-23-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUA	CrTMT-22-252159	08-31-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUA	CrTMT-22-252160	09-06-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUA	CrTMT-22-252161	09-13-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUA	CrTMT-22-259603	09-21-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUA	CrTMT-22-252162	09-27-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUC	CrTMT-22-252133	07-05-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUC	CrTMT-22-252134	07-12-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUC	CrTMT-22-252135	07-19-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUC	CrTMT-22-252137	07-27-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUC	CrTMT-22-252138	08-02-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUC	CrTMT-22-252139	08-08-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUC	CrTMT-22-252140	08-16-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUC	CrTMT-22-252141	08-23-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUC	CrTMT-22-252142	08-31-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUC	CrTMT-22-252143	09-06-2022	Iron	30.0	µg/L	900	U	N	Y	30.0
CTUC	CrTMT-22-252144	09-13-2022	Iron	30.0	µg/L	180	U	N	Y	30.0

Table 2.2-2 (continued)

Location ID	Sample ID	Sample Date[a]	Parameter Name	Result	Report Unit	90% of Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-252145	09-27-2022	Iron	30.0	µg/L	180	U	N	Y	30.0
CTUA	CrTMT-22-252151	07-05-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252152	07-12-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252153	07-19-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252154	07-26-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252155	08-02-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252156	08-08-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252157	08-16-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252158	08-23-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252159	08-31-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252160	09-06-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252161	09-13-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-259603	09-21-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252162	09-27-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252133	07-05-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252134	07-12-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252135	07-19-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252137	07-27-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252138	08-02-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252139	08-08-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252140	08-16-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252158	08-23-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252159	08-31-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252160	09-06-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-252161	09-13-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUA	CrTMT-22-259603	09-21-2022	Manganese	2.00	µg/L	180	U	N	Y	2

Table 2.2-2 (continued)

Location ID	Sample ID	Sample Date[a]	Parameter Name	Result	Report Unit	90% of Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-252162	09-27-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252133	07-05-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252134	07-12-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252135	07-19-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252137	07-27-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252138	08-02-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252139	08-08-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252140	08-16-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252141	08-23-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252142	08-31-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252143	09-06-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252144	09-13-2022	Manganese	2.00	µg/L	180	U	N	Y	2
CTUC	CrTMT-22-252145	09-27-2022	Manganese	2.00	µg/L	180	U	N	Y	2

[a] In accordance with Condition No. 13 of DP-1835, analysis of the treated effluent from each IX unit is required only once every month for the CY 2022 Quarter 3 reporting period.

[b] J = Analyte is classified as estimated.

[c] In the Detect Flag column, Y = detected.

[d] In the Filtered column, Y = filtered.

[e] U = Analyte is classified as not detected.

[f] N = No (not detected).

Table 2.2-3
Treated Effluent Analytical Results Summary Table Annual Sample – 2022 Quarter 3, DP-1835

Location ID	Sample ID	Sample Date[a]	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-259602	9/21/2022	Perfluorohexanesulfonic Acid	0.632	ng/L	U[b]	N[c]	N[d]	0.632
CTUA	CrTMT-22-259602	9/21/2022	Perfluorooctanesulfonic Acid	0.767	ng/L	U	N	N	0.767
CTUA	CrTMT-22-259602	9/21/2022	Perfluorooctanoic Acid	0.767	ng/L	U	N	N	0.767
CTUA	CrTMT-22-259602	9/21/2022	Radium-226 and Radium-228	1.07	pCi/L	J[e]	N	N	0
CTUA	CrTMT-22-259602	9/21/2022	Hardness	95	mg/L	n/a[f]	Y[g]	N	0.453
CTUA	CrTMT-22-259602	9/21/2022	Aluminum	68	µg/L	U	N	N	68
CTUA	CrTMT-22-259602	9/21/2022	Barium	43	µg/L	n/a	Y	N	1
CTUA	CrTMT-22-259602	9/21/2022	Beryllium	1	µg/L	U	N	N	1
CTUA	CrTMT-22-259602	9/21/2022	Boron	19.4	µg/L	J	Y	N	15
CTUA	CrTMT-22-259602	9/21/2022	Calcium	25.2	mg/L	n/a	Y	N	50
CTUA	CrTMT-22-259602	9/21/2022	Cobalt	1	µg/L	U	N	N	1
CTUA	CrTMT-22-259602	9/21/2022	Copper	3	µg/L	U	N	N	3
CTUA	CrTMT-22-259602	9/21/2022	Iron	30	µg/L	U	N	N	30
CTUA	CrTMT-22-259602	9/21/2022	Magnesium	7.78	mg/L	n/a	Y	N	110
CTUA	CrTMT-22-259602	9/21/2022	Manganese	2	µg/L	U	N	N	2
CTUA	CrTMT-22-259602	9/21/2022	Potassium	1.61	mg/L	n/a	Y	N	50
CTUA	CrTMT-22-259602	9/21/2022	Silicon Dioxide	75.4	mg/L	n/a	Y	N	53
CTUA	CrTMT-22-259602	9/21/2022	Sodium	12	mg/L	n/a	Y	N	100
CTUA	CrTMT-22-259602	9/21/2022	Strontium	103	µg/L	n/a	Y	N	1
CTUA	CrTMT-22-259602	9/21/2022	Vanadium	1.43	µg/L	J	Y	N	1
CTUA	CrTMT-22-259602	9/21/2022	Zinc	47	µg/L	n/a	Y	N	3.3
CTUA	CrTMT-22-259602	9/21/2022	Antimony	1	µg/L	U	N	N	1

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-259602	9/21/2022	Arsenic	2.32	µg/L	J	Y	N	2
CTUA	CrTMT-22-259602	9/21/2022	Cadmium	0.3	µg/L	U	N	N	0.3
CTUA	CrTMT-22-259602	9/21/2022	Chromium	3	µg/L	U	N	N	3
CTUA	CrTMT-22-259602	9/21/2022	Lead	0.5	µg/L	U	N	N	0.5
CTUA	CrTMT-22-259602	9/21/2022	Molybdenum	0.2	µg/L	U	N	N	0.2
CTUA	CrTMT-22-259602	9/21/2022	Nickel	4.17	µg/L	n/a	Y	N	0.6
CTUA	CrTMT-22-259602	9/21/2022	Selenium	1.5	µg/L	U	N	N	1.5
CTUA	CrTMT-22-259602	9/21/2022	Silver	0.3	µg/L	U	N	N	0.3
CTUA	CrTMT-22-259602	9/21/2022	Thallium	0.6	µg/L	U	N	N	0.6
CTUA	CrTMT-22-259602	9/21/2022	Tin	1	µg/L	U	N	N	1
CTUA	CrTMT-22-259602	9/21/2022	Uranium	0.067	µg/L	U	N	N	0.067
CTUA	CrTMT-22-259602	9/21/2022	Mercury	0.067	µg/L	U	N	N	0.067
CTUA	CrTMT-22-259602	9/21/2022	Aldrin	0.00786	µg/L	U	N	N	0.00786
CTUA	CrTMT-22-259602	9/21/2022	BHC[h][alpha-]	0.00786	µg/L	U	N	N	0.00786
CTUA	CrTMT-22-259602	9/21/2022	BHC[beta-]	0.00786	µg/L	U	N	N	0.00786
CTUA	CrTMT-22-259602	9/21/2022	BHC[delta-]	0.00786	µg/L	U	N	N	0.00786
CTUA	CrTMT-22-259602	9/21/2022	BHC[gamma-]	0.00786	µg/L	U	N	N	0.00786
CTUA	CrTMT-22-259602	9/21/2022	Chlordane[alpha-]	0.00786	µg/L	U	N	N	0.00786
CTUA	CrTMT-22-259602	9/21/2022	Chlordane[gamma-]	0.00786	µg/L	U	N	N	0.00786
CTUA	CrTMT-22-259602	9/21/2022	DDD[i][4,4'-]	0.0118	µg/L	U	N	N	0.0118
CTUA	CrTMT-22-259602	9/21/2022	DDE[j][4,4'-]	0.0118	µg/L	U	N	N	0.0118
CTUA	CrTMT-22-259602	9/21/2022	DDT[k][4,4'-]	0.0118	µg/L	U	N	N	0.0118
CTUA	CrTMT-22-259602	9/21/2022	Dieldrin	0.0118	µg/L	U	N	N	0.0118
CTUA	CrTMT-22-259602	9/21/2022	Endosulfan I	0.00786	µg/L	U	N	N	0.00786
CTUA	CrTMT-22-259602	9/21/2022	Endosulfan II	0.0118	µg/L	U	N	N	0.0118
CTUA	CrTMT-22-259602	9/21/2022	Endosulfan Sulfate	0.0118	µg/L	U	N	N	0.0118

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-259602	9/21/2022	Endrin	0.0118	µg/L	U	N	N	0.0118
CTUA	CrTMT-22-259602	9/21/2022	Endrin Aldehyde	0.00786	µg/L	U	N	N	0.00786
CTUA	CrTMT-22-259602	9/21/2022	Endrin Ketone	0.0118	µg/L	U	N	N	0.0118
CTUA	CrTMT-22-259602	9/21/2022	Heptachlor	0.00786	µg/L	U	N	N	0.00786
CTUA	CrTMT-22-259602	9/21/2022	Heptachlor Epoxide	0.00786	µg/L	U	N	N	0.00786
CTUA	CrTMT-22-259602	9/21/2022	Methoxychlor[4,4'-]	0.0591	µg/L	U	N	N	0.0591
CTUA	CrTMT-22-259602	9/21/2022	Toxaphene (technical grade)	0.177	µg/L	U	N	N	0.177
CTUA	CrTMT-22-259602	9/21/2022	Aroclor-1016	0.0333	µg/L	U	N	N	0.0333
CTUA	CrTMT-22-259602	9/21/2022	Aroclor-1221	0.0333	µg/L	U	N	N	0.0333
CTUA	CrTMT-22-259602	9/21/2022	Aroclor-1232	0.0333	µg/L	U	N	N	0.0333
CTUA	CrTMT-22-259602	9/21/2022	Aroclor-1242	0.0333	µg/L	U	N	N	0.0333
CTUA	CrTMT-22-259602	9/21/2022	Aroclor-1248	0.0333	µg/L	U	N	N	0.0333
CTUA	CrTMT-22-259602	9/21/2022	Aroclor-1254	0.0333	µg/L	U	N	N	0.0333
CTUA	CrTMT-22-259602	9/21/2022	Aroclor-1260	0.0333	µg/L	U	N	N	0.0333
CTUA	CrTMT-22-259602	9/21/2022	Aroclor-1262	0.0333	µg/L	U	N	N	0.0333
CTUA	CrTMT-22-259602	9/21/2022	Acetone	4.77	µg/L	J	Y	N	1.74
CTUA	CrTMT-22-259602	9/21/2022	Acetonitrile	8.33	µg/L	U	N	N	8.33
CTUA	CrTMT-22-259602	9/21/2022	Acrolein	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Acrylonitrile	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Benzene	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Bromobenzene	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Bromochloromethane	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Bromodichloromethane	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Bromoform	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Bromomethane	0.337	µg/L	U	N	N	0.337
CTUA	CrTMT-22-259602	9/21/2022	Butanol[1-]	21.1	µg/L	U	N	N	21.1

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-259602	9/21/2022	Butanone[2-]	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Butylbenzene[n-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Butylbenzene[sec-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Butylbenzene[tert-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Carbon Disulfide	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Carbon Tetrachloride	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Chloro-1,3-Butadiene[2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Chloro-1-Propene[3-]	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Chlorobenzene	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Chlorodibromomethane	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Chloroethane	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Chloroform	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Chloromethane	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Chlorotoluene[2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Chlorotoluene[4-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dibromo-3-Chloropropane[1,2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dibromoethane[1,2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dibromomethane	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichlorobenzene[1,2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichlorobenzene[1,3-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichlorobenzene[1,4-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichlorodifluoromethane	0.355	µg/L	U	N	N	0.355
CTUA	CrTMT-22-259602	9/21/2022	Dichloroethane[1,1-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichloroethane[1,2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichloroethene[1,1-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichloroethene[cis/trans-1,2-]	0.667	µg/L	U	N	N	0.667

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-259602	9/21/2022	Dichloroethene[cis-1,2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichloroethene[trans-1,2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichloropropane[1,2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichloropropane[1,3-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichloropropane[2,2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichloropropene[1,1-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichloropropene[cis-1,3-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dichloropropene[trans-1,3-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Diethyl Ether	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Dioxane[1,4-]	16.7	µg/L	U	N	N	16.7
CTUA	CrTMT-22-259602	9/21/2022	Ethyl Methacrylate	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Ethylbenzene	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Hexachlorobutadiene	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Hexanone[2-]	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Iodomethane	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Isobutyl Alcohol	16.7	µg/L	U	N	N	16.7
CTUA	CrTMT-22-259602	9/21/2022	Isopropylbenzene	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Isopropyltoluene[4-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Methacrylonitrile	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Methyl Methacrylate	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Methyl tert-Butyl Ether	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Methyl-2-Pentanone[4-]	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Methylene Chloride	0.5	µg/L	U	N	N	0.5
CTUA	CrTMT-22-259602	9/21/2022	Propionitrile	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Propylbenzene[1-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Styrene	0.333	µg/L	U	N	N	0.333

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-259602	9/21/2022	Tetrachloroethane[1,1,1,2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Tetrachloroethane[1,1,2,2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Tetrachloroethene	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Toluene	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Trichloro-1,2,2-Trifluoroethane[1,1,2-]	2.98	µg/L	U	N	N	2.98
CTUA	CrTMT-22-259602	9/21/2022	Trichlorobenzene[1,2,3-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Trichlorobenzene[1,2,4-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Trichloroethane[1,1,1-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Trichloroethane[1,1,2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Trichloroethene	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Trichlorofluoromethane	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Trichloropropane[1,2,3-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Trimethylbenzene[1,2,4-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Trimethylbenzene[1,3,5-]	0.5	µg/L	U	N	N	0.5
CTUA	CrTMT-22-259602	9/21/2022	Vinyl Acetate	1.67	µg/L	U	N	N	1.67
CTUA	CrTMT-22-259602	9/21/2022	Vinyl Chloride	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Xylene[1,2-]	0.333	µg/L	U	N	N	0.333
CTUA	CrTMT-22-259602	9/21/2022	Xylene[1,3-]+Xylene[1,4-]	0.5	µg/L	U	N	N	0.5
CTUA	CrTMT-22-259602	9/21/2022	Acenaphthene	0.3	µg/L	U	N	N	0.3
CTUA	CrTMT-22-259602	9/21/2022	Acenaphthylene	0.3	µg/L	U	N	N	0.3
CTUA	CrTMT-22-259602	9/21/2022	Aniline	4.2	µg/L	U	N	N	4.2
CTUA	CrTMT-22-259602	9/21/2022	Anthracene	0.3	µg/L	U	N	N	0.3
CTUA	CrTMT-22-259602	9/21/2022	Atrazine	3	µg/L	U	N	N	3
CTUA	CrTMT-22-259602	9/21/2022	Azobenzene	3	µg/L	U	N	N	3
CTUA	CrTMT-22-259602	9/21/2022	Benzidine	3.9	µg/L	U	N	N	3.9
CTUA	CrTMT-22-259602	9/21/2022	Benzo(a)anthracene	0.3	µg/L	U	N	N	0.3

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-259602	9/21/2022	Benzo(a)pyrene	0.3	µg/L	U	N	N	0.3
CTUA	CrTMT-22-259602	9/21/2022	Benzo(b)fluoranthene	0.3	µg/L	U	N	N	0.3
CTUA	CrTMT-22-259602	9/21/2022	Benzo(g,h,i)perylene	0.3	µg/L	U	N	N	0.3
CTUA	CrTMT-22-259602	9/21/2022	Benzo(k)fluoranthene	0.3	µg/L	U	N	N	0.3
CTUA	CrTMT-22-259602	9/21/2022	Benzoic Acid	6	µg/L	U	N	N	6
CTUA	CrTMT-22-259602	9/21/2022	Benzyl Alcohol	3	µg/L	U	N	N	3
CTUA	CrTMT-22-259602	9/21/2022	Bis(2-chloroethoxy)methane	3	µg/L	U	N	N	3
CTUA	CrTMT-22-259602	9/21/2022	Bis(2-chloroethyl)ether	3	µg/L	U	N	N	3
CTUA	CrTMT-22-259602	9/21/2022	Bis(2-ethylhexyl)phthalate	0.3	µg/L	U	N	N	0.3
CTUA	CrTMT-22-259602	9/21/2022	Bromophenyl-Phenylether[4-]	3	µg/L	U	N	N	3
CTUA	CrTMT-22-259602	9/21/2022	Butylbenzylphthalate	0.3	µg/L	U	N	N	0.3
CTUA	CrTMT-22-259602	9/21/2022	Carbazole	0.3	µg/L	U	N	N	0.3
CTUA	CrTMT-22-259602	9/21/2022	Chloro-3-Methylphenol[4-]	3	µg/L	U	N	N	3
CTUA	CrTMT-22-259602	9/21/2022	Chloroaniline[4-]	3.3	µg/L	U	N	N	3.3
CTUA	CrTMT-22-259602	9/21/2022	Chloronaphthalene[2-]	0.41	µg/L	U	N	N	0.41
CTUA	CrTMT-22-259602	9/21/2022	Chrysene	0.0368	µg/L	U	N	N	0.0368
CTUA	CrTMT-22-259602	9/21/2022	Dibenz(a,h)anthracene	0.0368	µg/L	U	N	N	0.0368
CTUA	CrTMT-22-259602	9/21/2022	Fluoranthene	0.0368	µg/L	U	N	N	0.0368
CTUA	CrTMT-22-259602	9/21/2022	Fluorene	0.0368	µg/L	U	N	N	0.0368
CTUA	CrTMT-22-259602	9/21/2022	Indeno(1,2,3-cd)pyrene	0.0368	µg/L	U	N	N	0.0368
CTUA	CrTMT-22-259602	9/21/2022	Methylnaphthalene[1-]	0.0368	µg/L	U	N	N	0.0368
CTUA	CrTMT-22-259602	9/21/2022	Methylnaphthalene[2-]	0.0368	µg/L	U	N	N	0.0368
CTUA	CrTMT-22-259602	9/21/2022	Naphthalene	0.0368	µg/L	U	N	N	0.0368
CTUA	CrTMT-22-259602	9/21/2022	Phenanthrene	0.0368	µg/L	U	N	N	0.0368
CTUA	CrTMT-22-259602	9/21/2022	Pyrene	0.0368	µg/L	U	N	N	0.0368
CTUA	CrTMT-22-259602	9/21/2022	2,4-Diamino-6-Nitrotoluene	0.609	µg/L	U	N	N	0.609

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUA	CrTMT-22-259602	9/21/2022	2,6-Diamino-4-Nitrotoluene	0.609	µg/L	U	N	N	0.609
CTUA	CrTMT-22-259602	9/21/2022	3,5-Dinitroaniline	0.366	µg/L	U	N	N	0.366
CTUA	CrTMT-22-259602	9/21/2022	Amino-2,6-Dinitrotoluene[4-]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	Amino-4,6-Dinitrotoluene[2-]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	Dinitrobenzene[1,3-]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	Dinitrotoluene[2,4-]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	Dinitrotoluene[2,6-]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	DNX[l]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	HMX[m]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	MNX[n]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	Nitrobenzene	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	Nitrotoluene[2-]	0.1	µg/L	U	N	N	0.1
CTUA	CrTMT-22-259602	9/21/2022	Nitrotoluene[3-]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	Nitrotoluene[4-]	0.183	µg/L	U	N	N	0.183
CTUA	CrTMT-22-259602	9/21/2022	PETN[o]	0.122	µg/L	U	N	N	0.122
CTUA	CrTMT-22-259602	9/21/2022	RDX[p]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	TATB[q]	0.366	µg/L	U	N	N	0.366
CTUA	CrTMT-22-259602	9/21/2022	Tetryl	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	TNX[r]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	Trinitrobenzene[1,3,5-]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	Trinitrotoluene[2,4,6-]	0.0975	µg/L	U	N	N	0.0975
CTUA	CrTMT-22-259602	9/21/2022	Tris (o-cresyl) Phosphate	0.366	µg/L	U	N	N	0.366
CTUA	CrTMT-22-259602	9/21/2022	Cyanide (total)	0.00167	mg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Perfluorohexanesulfonic Acid	0.587	ng/L	U	N	N	0.587
CTUC	CrTMT-22-259604	9/21/2022	Perfluorooctanesulfonic Acid	0.711	ng/L	U	N	N	0.711
CTUC	CrTMT-22-259604	9/21/2022	Perfluorooctanoic Acid	0.711	ng/L	U	N	N	0.711

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-259604	9/21/2022	Radium-226 and Radium-228	1.01	pCi/L	U	N	N	0
CTUC	CrTMT-22-259604	9/21/2022	Hardness	93	mg/L	n/a	Y	N	0.453
CTUC	CrTMT-22-259604	9/21/2022	Aluminum	68	µg/L	U	N	N	68
CTUC	CrTMT-22-259604	9/21/2022	Barium	42	µg/L	n/a	Y	N	1
CTUC	CrTMT-22-259604	9/21/2022	Beryllium	1	µg/L	U	N	N	1
CTUC	CrTMT-22-259604	9/21/2022	Boron	18.1	µg/L	J	Y	N	15
CTUC	CrTMT-22-259604	9/21/2022	Calcium	24.7	mg/L	n/a	Y	N	50
CTUC	CrTMT-22-259604	9/21/2022	Cobalt	1	µg/L	U	N	N	1
CTUC	CrTMT-22-259604	9/21/2022	Copper	3	µg/L	U	N	N	3
CTUC	CrTMT-22-259604	9/21/2022	Iron	30	µg/L	U	N	N	30
CTUC	CrTMT-22-259604	9/21/2022	Magnesium	7.62	mg/L	n/a	Y	N	110
CTUC	CrTMT-22-259604	9/21/2022	Manganese	2	µg/L	U	N	N	2
CTUC	CrTMT-22-259604	9/21/2022	Potassium	1.54	mg/L	n/a	Y	N	50
CTUC	CrTMT-22-259604	9/21/2022	Silicon Dioxide	69.9	mg/L	n/a	Y	N	53
CTUC	CrTMT-22-259604	9/21/2022	Sodium	11.8	mg/L	n/a	Y	N	100
CTUC	CrTMT-22-259604	9/21/2022	Strontium	101	µg/L	n/a	Y	N	1
CTUC	CrTMT-22-259604	9/21/2022	Vanadium	5.25	µg/L	n/a	Y	N	1
CTUC	CrTMT-22-259604	9/21/2022	Zinc	24	µg/L	n/a	Y	N	3.3
CTUC	CrTMT-22-259604	9/21/2022	Antimony	1	µg/L	U	N	N	1
CTUC	CrTMT-22-259604	9/21/2022	Arsenic	2.01	µg/L	J	Y	N	2
CTUC	CrTMT-22-259604	9/21/2022	Cadmium	0.3	µg/L	U	N	N	0.3
CTUC	CrTMT-22-259604	9/21/2022	Chromium	3	µg/L	U	N	N	3
CTUC	CrTMT-22-259604	9/21/2022	Lead	0.5	µg/L	U	N	N	0.5
CTUC	CrTMT-22-259604	9/21/2022	Molybdenum	0.936	µg/L	J	Y	N	0.2
CTUC	CrTMT-22-259604	9/21/2022	Nickel	3.45	µg/L	n/a	Y	N	0.6
CTUC	CrTMT-22-259604	9/21/2022	Selenium	1.5	µg/L	U	N	N	1.5

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-259604	9/21/2022	Silver	0.3	µg/L	U	N	N	0.3
CTUC	CrTMT-22-259604	9/21/2022	Thallium	0.6	µg/L	U	N	N	0.6
CTUC	CrTMT-22-259604	9/21/2022	Tin	1	µg/L	U	N	N	1
CTUC	CrTMT-22-259604	9/21/2022	Uranium	0.067	µg/L	U	N	N	0.067
CTUC	CrTMT-22-259604	9/21/2022	Mercury	0.067	µg/L	U	N	N	0.067
CTUC	CrTMT-22-259604	9/21/2022	Aldrin	0.00665	µg/L	U	N	N	0.00665
CTUC	CrTMT-22-259604	9/21/2022	BHC[alpha-]	0.00665	µg/L	U	N	N	0.00665
CTUC	CrTMT-22-259604	9/21/2022	BHC[beta-]	0.00665	µg/L	U	N	N	0.00665
CTUC	CrTMT-22-259604	9/21/2022	BHC[delta-]	0.00665	µg/L	U	N	N	0.00665
CTUC	CrTMT-22-259604	9/21/2022	BHC[gamma-]	0.00665	µg/L	U	N	N	0.00665
CTUC	CrTMT-22-259604	9/21/2022	Chlordane[alpha-]	0.00665	µg/L	U	N	N	0.00665
CTUC	CrTMT-22-259604	9/21/2022	Chlordane[gamma-]	0.00665	µg/L	U	N	N	0.00665
CTUC	CrTMT-22-259604	9/21/2022	DDD[4,4'-]	0.01	µg/L	U	N	N	0.01
CTUC	CrTMT-22-259604	9/21/2022	DDE[4,4'-]	0.01	µg/L	U	N	N	0.01
CTUC	CrTMT-22-259604	9/21/2022	DDT[4,4'-]	0.01	µg/L	U	N	N	0.01
CTUC	CrTMT-22-259604	9/21/2022	Dieldrin	0.01	µg/L	U	N	N	0.01
CTUC	CrTMT-22-259604	9/21/2022	Endosulfan I	0.00665	µg/L	U	N	N	0.00665
CTUC	CrTMT-22-259604	9/21/2022	Endosulfan II	0.01	µg/L	U	N	N	0.01
CTUC	CrTMT-22-259604	9/21/2022	Endosulfan Sulfate	0.01	µg/L	U	N	N	0.01
CTUC	CrTMT-22-259604	9/21/2022	Endrin	0.01	µg/L	U	N	N	0.01
CTUC	CrTMT-22-259604	9/21/2022	Endrin Aldehyde	0.00665	µg/L	U	N	N	0.00665
CTUC	CrTMT-22-259604	9/21/2022	Endrin Ketone	0.01	µg/L	U	N	N	0.01
CTUC	CrTMT-22-259604	9/21/2022	Heptachlor	0.00665	µg/L	U	N	N	0.00665
CTUC	CrTMT-22-259604	9/21/2022	Heptachlor Epoxide	0.00665	µg/L	U	N	N	0.00665
CTUC	CrTMT-22-259604	9/21/2022	Methoxychlor[4,4'-]	0.05	µg/L	U	N	N	0.05
CTUC	CrTMT-22-259604	9/21/2022	Toxaphene (technical grade)	0.15	µg/L	U	N	N	0.15

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-259604	9/21/2022	Aroclor-1016	0.0404	µg/L	U	N	N	0.0404
CTUC	CrTMT-22-259604	9/21/2022	Aroclor-1221	0.0404	µg/L	U	N	N	0.0404
CTUC	CrTMT-22-259604	9/21/2022	Aroclor-1232	0.0404	µg/L	U	N	N	0.0404
CTUC	CrTMT-22-259604	9/21/2022	Aroclor-1242	0.0404	µg/L	U	N	N	0.0404
CTUC	CrTMT-22-259604	9/21/2022	Aroclor-1248	0.0404	µg/L	U	N	N	0.0404
CTUC	CrTMT-22-259604	9/21/2022	Aroclor-1254	0.0404	µg/L	U	N	N	0.0404
CTUC	CrTMT-22-259604	9/21/2022	Aroclor-1260	0.0404	µg/L	U	N	N	0.0404
CTUC	CrTMT-22-259604	9/21/2022	Aroclor-1262	0.0404	µg/L	U	N	N	0.0404
CTUC	CrTMT-22-259604	9/21/2022	Acetone	6.32	µg/L	n/a	Y	N	1.74
CTUC	CrTMT-22-259604	9/21/2022	Acetonitrile	8.33	µg/L	U	N	N	8.33
CTUC	CrTMT-22-259604	9/21/2022	Acrolein	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Acrylonitrile	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Benzene	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Bromobenzene	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Bromochloromethane	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Bromodichloromethane	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Bromoform	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Bromomethane	0.337	µg/L	U	N	N	0.337
CTUC	CrTMT-22-259604	9/21/2022	Butanol[1-]	21.1	µg/L	U	N	N	21.1
CTUC	CrTMT-22-259604	9/21/2022	Butanone[2-]	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Butylbenzene[n-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Butylbenzene[sec-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Butylbenzene[tert-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Carbon Disulfide	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Carbon Tetrachloride	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Chloro-1,3-Butadiene[2-]	0.333	µg/L	U	N	N	0.333

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-259604	9/21/2022	Chloro-1-Propene[3-]	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Chlorobenzene	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Chlorodibromomethane	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Chloroethane	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Chloroform	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Chloromethane	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Chlorotoluene[2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Chlorotoluene[4-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dibromo-3-Chloropropane[1,2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dibromoethane[1,2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dibromomethane	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichlorobenzene[1,2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichlorobenzene[1,3-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichlorobenzene[1,4-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichlorodifluoromethane	0.355	µg/L	U	N	N	0.355
CTUC	CrTMT-22-259604	9/21/2022	Dichloroethane[1,1-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichloroethane[1,2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichloroethene[1,1-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichloroethene[cis/trans-1,2-]	0.667	µg/L	U	N	N	0.667
CTUC	CrTMT-22-259604	9/21/2022	Dichloroethene[cis-1,2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichloroethene[trans-1,2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichloropropane[1,2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichloropropane[1,3-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichloropropane[2,2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichloropropene[1,1-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dichloropropene[cis-1,3-]	0.333	µg/L	U	N	N	0.333

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-259604	9/21/2022	Dichloropropene[trans-1,3-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Diethyl Ether	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Dioxane[1,4-]	16.7	µg/L	U	N	N	16.7
CTUC	CrTMT-22-259604	9/21/2022	Ethyl Methacrylate	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Ethylbenzene	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Hexachlorobutadiene	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Hexanone[2-]	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Iodomethane	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Isobutyl Alcohol	16.7	µg/L	U	N	N	16.7
CTUC	CrTMT-22-259604	9/21/2022	Isopropylbenzene	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Isopropyltoluene[4-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Methacrylonitrile	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Methyl Methacrylate	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Methyl tert-Butyl Ether	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Methyl-2-Pentanone[4-]	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Methylene Chloride	0.5	µg/L	U	N	N	0.5
CTUC	CrTMT-22-259604	9/21/2022	Propionitrile	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Propylbenzene[1-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Styrene	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Tetrachloroethane[1,1,1,2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Tetrachloroethane[1,1,2,2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Tetrachloroethene	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Toluene	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Trichloro-1,2,2-trifluoroethane[1,1,2-]	2.98	µg/L	U	N	N	2.98
CTUC	CrTMT-22-259604	9/21/2022	Trichlorobenzene[1,2,3-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Trichlorobenzene[1,2,4-]	0.333	µg/L	U	N	N	0.333

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-259604	9/21/2022	Trichloroethane[1,1,1-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Trichloroethane[1,1,2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Trichloroethene	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Trichlorofluoromethane	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Trichloropropane[1,2,3-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Trimethylbenzene[1,2,4-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Trimethylbenzene[1,3,5-]	0.5	µg/L	U	N	N	0.5
CTUC	CrTMT-22-259604	9/21/2022	Vinyl Acetate	1.67	µg/L	U	N	N	1.67
CTUC	CrTMT-22-259604	9/21/2022	Vinyl Chloride	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Xylene[1,2-]	0.333	µg/L	U	N	N	0.333
CTUC	CrTMT-22-259604	9/21/2022	Xylene[1,3-]+Xylene[1,4-]	0.5	µg/L	U	N	N	0.5
CTUC	CrTMT-22-259604	9/21/2022	Acenaphthene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Acenaphthylene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Aniline	4.07	µg/L	U	N	N	4.07
CTUC	CrTMT-22-259604	9/21/2022	Anthracene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Atrazine	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Azobenzene	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Benzidine	3.78	µg/L	U	N	N	3.78
CTUC	CrTMT-22-259604	9/21/2022	Benzo(a)anthracene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Benzo(a)pyrene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Benzo(b)fluoranthene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Benzo(g,h,i)perylene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Benzo(k)fluoranthene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Benzoic Acid	5.81	µg/L	U	N	N	5.81
CTUC	CrTMT-22-259604	9/21/2022	Benzyl Alcohol	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Bis(2-chloroethoxy)methane	2.91	µg/L	U	N	N	2.91

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-259604	9/21/2022	Bis(2-chloroethyl)ether	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Bis(2-ethylhexyl)phthalate	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Bromophenyl-phenylether[4-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Butylbenzylphthalate	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Carbazole	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Chloro-3-Methylphenol[4-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Chloroaniline[4-]	3.2	µg/L	U	N	N	3.2
CTUC	CrTMT-22-259604	9/21/2022	Chloronaphthalene[2-]	0.397	µg/L	U	N	N	0.397
CTUC	CrTMT-22-259604	9/21/2022	Chlorophenol[2-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Chlorophenyl-Phenyl[4-] Ether	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Chrysene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Dibenz(a,h)anthracene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Dibenzofuran	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Dichlorobenzene[1,2-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Dichlorobenzene[1,3-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Dichlorobenzene[1,4-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Dichlorobenzidine[3,3'-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Dichlorophenol[2,4-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Diethylphthalate	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Dimethyl Phthalate	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Dimethylphenol[2,4-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Di-n-Butylphthalate	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Dinitro-2-Methylphenol[4,6-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Dinitrophenol[2,4-]	4.84	µg/L	U	N	N	4.84
CTUC	CrTMT-22-259604	9/21/2022	Dinitrotoluene[2,4-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Dinitrotoluene[2,6-]	2.91	µg/L	U	N	N	2.91

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-259604	9/21/2022	Di-n-Octylphthalate	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Dinoseb	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Dioxane[1,4-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Diphenylamine	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Fluoranthene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Fluorene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Hexachlorobenzene	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Hexachlorobutadiene	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Hexachlorocyclopentadiene	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Hexachloroethane	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Indeno(1,2,3-cd)pyrene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Isophorone	3.39	µg/L	U	N	N	3.39
CTUC	CrTMT-22-259604	9/21/2022	Methylnaphthalene[1-]	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Methylnaphthalene[2-]	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Methylphenol[2-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Methylphenol[3-,4-]	3.58	µg/L	U	N	N	3.58
CTUC	CrTMT-22-259604	9/21/2022	Naphthalene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Nitroaniline[2-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Nitroaniline[3-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Nitroaniline[4-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Nitrobenzene	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Nitrophenol[2-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Nitrophenol[4-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Nitrosodiethylamine[N-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Nitrosodimethylamine[N-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Nitroso-di-n-Butylamine[N-]	2.91	µg/L	U	N	N	2.91

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-259604	9/21/2022	Nitroso-di-n-Propylamine[N-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Nitrosopyrrolidine[N-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Oxybis(1-chloropropane)[2,2'-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Pentachlorobenzene	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Pentachlorophenol	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Phenanthrene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Phenol	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Prometon	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Pyrene	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Pyridine	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Sulfolane	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Tetrachlorobenzene[1,2,4,5]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Tetrachlorophenol[2,3,4,6-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Trichlorobenzene[1,2,4-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Trichlorophenol[2,4,5-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Trichlorophenol[2,4,6-]	2.91	µg/L	U	N	N	2.91
CTUC	CrTMT-22-259604	9/21/2022	Acenaphthene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Acenaphthylene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Anthracene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Benzo(a)anthracene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Benzo(a)pyrene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Benzo(b)fluoranthene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Benzo(g,h,i)perylene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Benzo(k)fluoranthene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Chloronaphthalene[2-]	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Chrysene	0.03	µg/L	U	N	N	0.03

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-259604	9/21/2022	Dibenz(a,h)anthracene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Fluoranthene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Fluorene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Indeno(1,2,3-cd)pyrene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Methylnaphthalene[1-]	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Methylnaphthalene[2-]	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Naphthalene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Phenanthrene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	Pyrene	0.03	µg/L	U	N	N	0.03
CTUC	CrTMT-22-259604	9/21/2022	2,4-Diamino-6-Nitrotoluene	0.485	µg/L	U	N	N	0.485
CTUC	CrTMT-22-259604	9/21/2022	2,6-Diamino-4-Nitrotoluene	0.485	µg/L	U	N	N	0.485
CTUC	CrTMT-22-259604	9/21/2022	3,5-Dinitroaniline	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Amino-2,6-Dinitrotoluene[4-]	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	Amino-4,6-Dinitrotoluene[2-]	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	Dinitrobenzene[1,3-]	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	Dinitrotoluene[2,4-]	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	Dinitrotoluene[2,6-]	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	DNX	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	HMX	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	MNX	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	Nitrobenzene	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	Nitrotoluene[2-]	0.0796	µg/L	U	N	N	0.0796
CTUC	CrTMT-22-259604	9/21/2022	Nitrotoluene[3-]	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	Nitrotoluene[4-]	0.146	µg/L	U	N	N	0.146
CTUC	CrTMT-22-259604	9/21/2022	PETN	0.097	µg/L	U	N	N	0.097
CTUC	CrTMT-22-259604	9/21/2022	RDX	0.0776	µg/L	U	N	N	0.0776

Table 2.2-3 (continued)

Location ID	Sample ID	Sample Date	Parameter Name	Result	Report Unit	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CTUC	CrTMT-22-259604	9/21/2022	TATB	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Tetryl	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	TNX	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	Trinitrobenzene[1,3,5-]	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	Trinitrotoluene[2,4,6-]	0.0776	µg/L	U	N	N	0.0776
CTUC	CrTMT-22-259604	9/21/2022	Tris (o-cresyl) Phosphate	0.291	µg/L	U	N	N	0.291
CTUC	CrTMT-22-259604	9/21/2022	Cyanide (total)	0.00167	mg/L	U	N	N	1.67

[a] In accordance with Condition No. 13 of DP-1835, analysis of the treated effluent from each IX unit is required only once every month for the CY 2022 Quarter 3 reporting period.

[b] U = Analyte is classified as not detected.

[c] In the Detect Flag column, N = not detected.

[d] In the Filtered column, N = not filtered.

[e] J = Analyte is classified as estimated.

[f] n/a = Not applicable: no qualifiers applied.

[g] In the Detect Flag column, Y = detected.

[h] BHC = Benzene hexachloride.

[i] DDD = Dichlorodiphenyldichloroethane.

[j] DDE = Dichlorodiphenyldichloroethylene.

[k] DDT = Dichlorodiphenyltrichloroethane.

[l] DNX = Hexahydro-1,3-dinitro-5-nitro-1,3,5-triazine.

[m] HMX = Her Majesty's Explosive ((octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine).

[n] MNX = Hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine.

[o] PETN = Pentaerythritol tetranitrate.

[p] RDX = Royal Demolition Explosive (hexahydro-1,3,5-trinitro-1,3,5-triazine).

[q] TATB = Triaminotrinitrobenzene.

[r] TNX = 2,4,6-trinitroxylene.

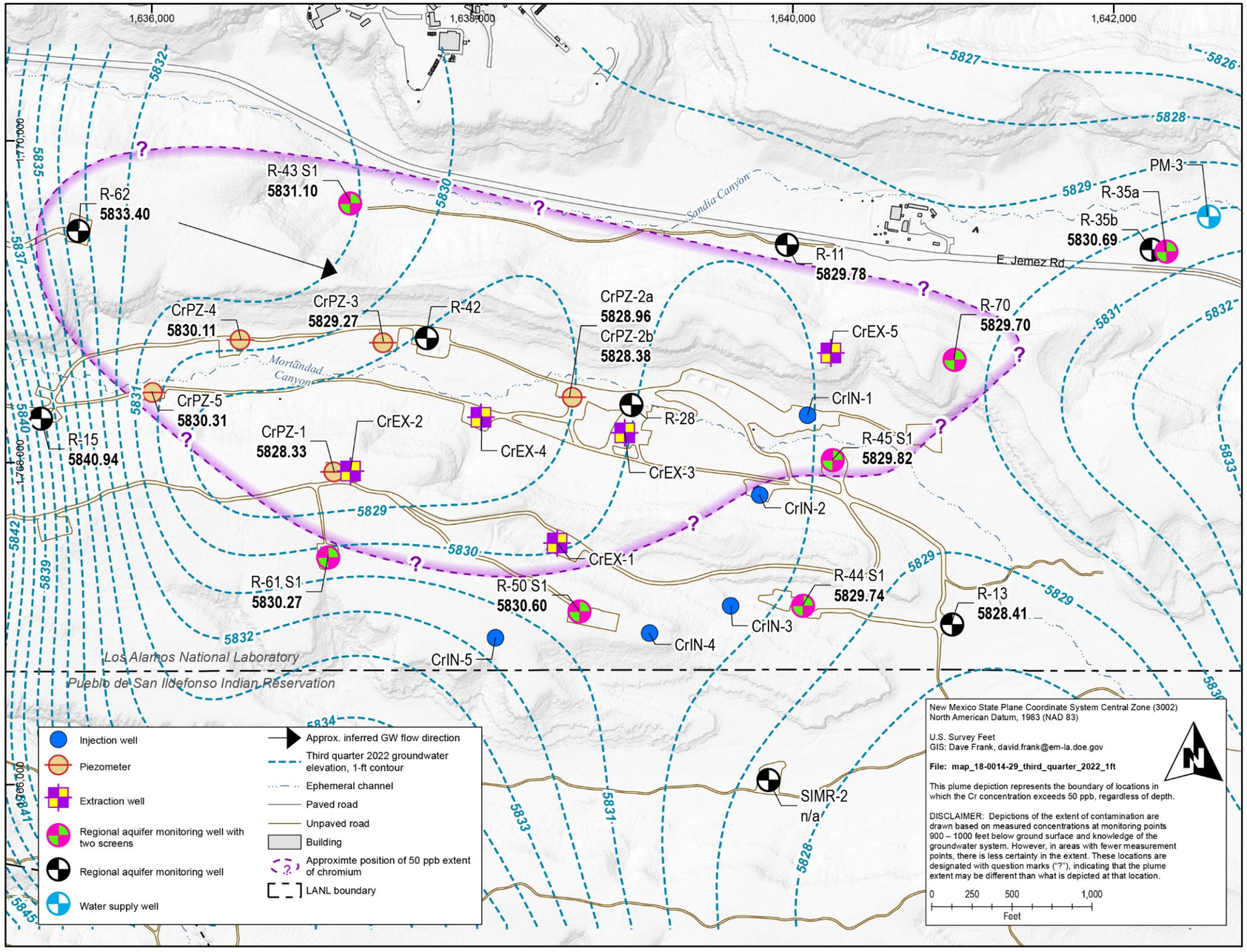

Figure 2.3-1 Groundwater elevation contour map – CY 2022 Quarter 3, DP-1835

Table 2.3-1
Groundwater Elevations Summary for
Groundwater Monitoring Wells – CY 2022 Quarter 3, DP-1835

Monitoring Well	Groundwater Elevation[a] (ft)
CrPZ-1 (CrCH-1)	5828.53
CrPZ-2a (CrCH-2a)	5828.98
CrPZ-2b (CrCH-2b)	5828.39
CrPZ-3 (CrCH-3)	5829.28
CrPZ-4 (CrCH-4)	5830.17
CrPZ-5 (CrCH-5)	5830.34
R-11	5829.77
R-13	5828.42
R-43 S1[b]	5831.14
R-43 S2[c]	5830.51
R-44 S1	5829.75
R-44 S2	5829.10
R-45 S1	5829.84
R-45 S2	5829.30
R-50 S1	5830.60
R-50 S2	5829.37
R-61 S1	5830.32
R-61 S2	5830.14
R-62	5833.39
SIMR-2[d]	5830.14

[a] Groundwater elevations provided are based on average July 2022 values from transducers.

[b] S1 = Screen 1.

[c] S2 = Screen 2.

[d] SIMR-2 data are reported here in accordance with the memorandum of agreement and protocol agreement between San Ildefonso Pueblo and DOE.

Table 2.3-2
Groundwater Monitoring Wells Analytical Results Summary Table – CY 2022 Quarter 3, DP-1835

Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Unit	Standard or Screening Level	Exceeds Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CASA-22-252035	R-11	07/05/2022	Chloride	3.79	mg/L	250	No	n/a[a]	Y[b]	Y[c]	0.200
CASA-22-252035	R-11	07/05/2022	Perchlorate	0.793	µg/L	13.8	No	n/a	Y	Y	0.200
CASA-22-252035	R-11	07/05/2022	Chromium	11.8	µg/L	50	No	n/a	Y	Y	10.0
CASA-22-252035	R-11	07/05/2022	Fluoride	0.459	mg/L	1.6	No	n/a	Y	Y	0.100
CASA-22-252035	R-11	07/05/2022	Nitrate-Nitrite as Nitrogen	6.81	mg/L	10	No	n/a	Y	Y	0.500
CASA-22-252035	R-11	07/05/2022	Sulfate	9.67	mg/L	600	No	n/a	Y	Y	0.400
CASA-22-252035	R-11	07/05/2022	Total Dissolved Solids	179	mg/L	1000	No	n/a	Y	Y	14.3
CASA-22-253904	R-11	08/09/2022	Chloride	4.14	mg/L	250	No	n/a	Y	Y	0.200
CASA-22-253904	R-11	08/09/2022	Perchlorate	0.759	µg/L	13.8	No	n/a	Y	Y	0.200
CASA-22-253904	R-11	08/09/2022	Chromium	10.9	µg/L	50	No	n/a	Y	Y	10.0
CASA-22-253904	R-11	08/09/2022	Fluoride	0.459	mg/L	1.6	No	n/a	Y	Y	0.100
CASA-22-253904	R-11	08/09/2022	Nitrate-Nitrite as Nitrogen	6.95	mg/L	10	No	n/a	Y	Y	0.250
CASA-22-253904	R-11	08/09/2022	Sulfate	9.32	mg/L	600	No	n/a	Y	Y	0.400
CASA-22-253904	R-11	08/09/2022	Total Dissolved Solids	185	mg/L	1000	No	n/a	Y	Y	10.0
CASA-22-258267	R-11	09/06/2022	Chloride	3.43	mg/L	250	No	n/a	Y	Y	0.200
CASA-22-258267	R-11	09/06/2022	Perchlorate	0.756	µg/L	13.8	No	n/a	Y	Y	0.200
CASA-22-258267	R-11	09/06/2022	Chromium	10.4	µg/L	50	No	n/a	Y	Y	10.0
CASA-22-258267	R-11	09/06/2022	Fluoride	0.458	mg/L	1.6	No	n/a	Y	Y	0.100
CASA-22-258267	R-11	09/06/2022	Nitrate-Nitrite as Nitrogen	6.90	mg/L	10	No	n/a	Y	Y	0.250
CASA-22-258267	R-11	09/06/2022	Sulfate	9.44	mg/L	600	No	n/a	Y	Y	0.400
CASA-22-258267	R-11	09/06/2022	Total Dissolved Solids	192	mg/L	1000	No	n/a	Y	Y	14.3
CAMO-22-251959	R-13	07/14/2022	Chloride	2.94	mg/L	250	No	n/a	Y	Y	0.200
CAMO-22-251959	R-13	07/14/2022	Perchlorate	0.377	µg/L	13.8	No	n/a	N[d]	Y	0.200
CAMO-22-251959	R-13	07/14/2022	Chromium	4.02	µg/L	50	No	J[e]	Y	Y	10.0
CAMO-22-251959	R-13	07/14/2022	Fluoride	0.413	mg/L	1.6	No	n/a	Y	Y	0.100

Table 2.3-2 (continued)

Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Unit	Standard or Screening Level	Exceeds Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CAMO-22-251959	R-13	07/14/2022	Nitrate-Nitrite as Nitrogen	0.960	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-251959	R-13	07/14/2022	Sulfate	3.60	mg/L	600	No	n/a	Y	Y	0.400
CAMO-22-251959	R-13	07/14/2022	Total Dissolved Solids	167	mg/L	1000	No	n/a	Y	Y	14.3
CASA-22-252049	R-43 S1[f]	07/13/2022	Chloride	7.70	mg/L	250	No	n/a	Y	Y	0.200
CASA-22-252049	R-43 S1	07/13/2022	Perchlorate	0.720	µg/L	13.8	No	n/a	Y	Y	0.200
CASA-22-252049	R-43 S1	07/13/2022	Chromium	178	µg/L	50	Yes	n/a	Y	Y	10.0
CASA-22-252049	R-43 S1	07/13/2022	Fluoride	0.296	mg/L	1.6	No	n/a	Y	Y	0.100
CASA-22-252049	R-43 S1	07/13/2022	Nitrate-Nitrite as Nitrogen	4.63	mg/L	10	No	n/a	Y	Y	0.250
CASA-22-252049	R-43 S1	07/13/2022	Sulfate	16.1	mg/L	600	Yes	n/a	Y	Y	0.400
CASA-22-252049	R-43 S1	07/13/2022	Total Dissolved Solids	166	mg/L	1000	No	n/a	Y	Y	14.3
CASA-22-252558	R-43 S1	07/13/2022	Chloride	0.215	mg/L	250	No	n/a	Y	N[g]	0.200
CASA-22-252558	R-43 S1	07/13/2022	Perchlorate	0.0500	µg/L	13.8	No	U[h]	N	N	0.200
CASA-22-252558	R-43 S1	07/13/2022	Chromium	3.00	µg/L	50	No	U	N	N	10.0
CASA-22-252558	R-43 S1	07/13/2022	Fluoride	0.0330	mg/L	1.6	No	U	N	N	0.100
CASA-22-252558	R-43 S1	07/13/2022	Nitrate-Nitrite as Nitrogen	0.0170	mg/L	10	No	U	N	N	0.0500
CASA-22-252558	R-43 S1	07/13/2022	Sulfate	0.133	mg/L	600	No	U	N	N	0.400
CASA-22-252558	R-43 S1	07/13/2022	Total Dissolved Solids	4.29	mg/L	1000	No	J	Y	N	14.3
CASA-22-252052	R-43 S2[i]	07/05/2022	Chloride	7.01	mg/L	250	No	n/a	Y	Y	0.200
CASA-22-252052	R-43 S2	07/05/2022	Perchlorate	0.831	µg/L	13.8	No	n/a	Y	Y	0.200
CASA-22-252052	R-43 S2	07/05/2022	Chromium	31.6	µg/L	50	No	n/a	Y	Y	10.0
CASA-22-252052	R-43 S2	07/05/2022	Fluoride	0.374	mg/L	1.6	No	n/a	Y	Y	0.100
CASA-22-252052	R-43 S2	07/05/2022	Nitrate-Nitrite as Nitrogen	3.86	mg/L	10	No	n/a	Y	Y	0.250
CASA-22-252052	R-43 S2	07/05/2022	Sulfate	10.2	mg/L	600	No	n/a	Y	Y	0.400
CASA-22-252052	R-43 S2	07/05/2022	Total Dissolved Solids	153	mg/L	1000	No	n/a	Y	Y	14.3
CAMO-22-251969	R-44 S1	07/12/2022	Chloride	20.9	mg/L	250	No	n/a	Y	Y	1.00
CAMO-22-251969	R-44 S1	07/12/2022	Perchlorate	0.404	µg/L	13.8	No	n/a	Y	Y	0.200

Table 2.3-2 (continued)

Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Unit	Standard or Screening Level	Exceeds Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CAMO-22-251969	R-44 S1	07/12/2022	Chromium	3.00	µg/L	50	No	U	N	Y	10.0
CAMO-22-251969	R-44 S1	07/12/2022	Fluoride	0.288	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-251969	R-44 S1	07/12/2022	Nitrate-Nitrite as Nitrogen	3.01	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-251969	R-44 S1	07/12/2022	Sulfate	20.5	mg/L	600	No	n/a	Y	Y	2.00
CAMO-22-251969	R-44 S1	07/12/2022	Total Dissolved Solids	204	mg/L	1000	No	n/a	Y	Y	14.3
CAMO-22-252554	R-44 S1	07/12/2022	Chloride	0.283	mg/L	250	No	n/a	Y	N	0.200
CAMO-22-252554	R-44 S1	07/12/2022	Perchlorate	0.0500	µg/L	13.8	No	U	N	N	0.200
CAMO-22-252554	R-44 S1	07/12/2022	Chromium	3.00	µg/L	50	No	U	N	N	10.0
CAMO-22-252554	R-44 S1	07/12/2022	Fluoride	0.0330	mg/L	1.6	No	U	N	N	0.100
CAMO-22-252554	R-44 S1	07/12/2022	Nitrate-Nitrite as Nitrogen	0.0170	mg/L	10	No	U	N	N	0.0500
CAMO-22-252554	R-44 S1	07/12/2022	Sulfate	0.133	mg/L	600	No	U	N	N	0.400
CAMO-22-252554	R-44 S1	07/12/2022	Total Dissolved Solids	3.40	mg/L	1000	No	U	N	N	14.3
CAMO-22-253918	R-44 S1	08/18/2022	Chloride	21.2	mg/L	250	No	n/a	Y	Y	1.00
CAMO-22-253918	R-44 S1	08/18/2022	Perchlorate	0.381	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-253918	R-44 S1	08/18/2022	Chromium	3.00	µg/L	50	No	U	N	Y	10.0
CAMO-22-253918	R-44 S1	08/18/2022	Fluoride	0.212	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-253918	R-44 S1	08/18/2022	Nitrate-Nitrite as Nitrogen	2.86	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-253918	R-44 S1	08/18/2022	Sulfate	20.3	mg/L	600	No	n/a	Y	Y	2.00
CAMO-22-253918	R-44 S1	08/18/2022	Total Dissolved Solids	196	mg/L	1000	No	n/a	Y	Y	10.0
CAMO-22-258280	R-44 S1	09/15/2022	Chloride	21.2	mg/L	250	No	n/a	Y	Y	2.00
CAMO-22-258280	R-44 S1	09/15/2022	Perchlorate	0.380	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-258280	R-44 S1	09/15/2022	Chromium	3.00	µg/L	50	No	U	N	Y	10.0
CAMO-22-258280	R-44 S1	09/15/2022	Fluoride	0.315	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-258280	R-44 S1	09/15/2022	Nitrate-Nitrite as Nitrogen	2.85	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-258280	R-44 S1	09/15/2022	Sulfate	21.4	mg/L	600	No	n/a	Y	Y	4.00
CAMO-22-258280	R-44 S1	09/15/2022	Total Dissolved Solids	201	mg/L	1000	No	n/a	Y	Y	10.0

Table 2.3-2 (continued)

Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Unit	Standard or Screening Level	Exceeds Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CAMO-22-258283	R-44 S1	09/15/2022	Chloride	21.1	mg/L	250	No	n/a	Y	Y	2.00
CAMO-22-258283	R-44 S1	09/15/2022	Perchlorate	0.386	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-258283	R-44 S1	09/15/2022	Chromium	3.00	µg/L	50	No	U	N	Y	10.0
CAMO-22-258283	R-44 S1	09/15/2022	Fluoride	0.316	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-258283	R-44 S1	09/15/2022	Nitrate-Nitrite as Nitrogen	2.83	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-258283	R-44 S1	09/15/2022	Sulfate	21.3	mg/L	600	No	n/a	Y	Y	4.00
CAMO-22-258283	R-44 S1	09/15/2022	Total Dissolved Solids	202	mg/L	1000	No	n/a	Y	Y	10.0
CAMO-22-258284	R-44 S1	09/15/2022	Chloride	0.161	mg/L	250	No	J	Y	N	0.200
CAMO-22-258284	R-44 S1	09/15/2022	Perchlorate	0.0500	µg/L	13.8	No	U	N	N	0.200
CAMO-22-258284	R-44 S1	09/15/2022	Chromium	3.00	µg/L	50	No	U	N	N	10.0
CAMO-22-258284	R-44 S1	09/15/2022	Fluoride	0.0330	mg/L	1.6	No	U	N	N	0.100
CAMO-22-258284	R-44 S1	09/15/2022	Nitrate-Nitrite as Nitrogen	0.0170	mg/L	10	No	U	N	N	0.0500
CAMO-22-258284	R-44 S1	09/15/2022	Sulfate	0.198	mg/L	600	No	J	Y	N	0.400
CAMO-22-258284	R-44 S1	09/15/2022	Total Dissolved Solids	2.38	mg/L	1000	No	U	N	N	10.0
CAMO-22-251973	R-44 S2	07/12/2022	Chloride	2.57	mg/L	250	No	n/a	Y	Y	0.200
CAMO-22-251973	R-44 S2	07/12/2022	Perchlorate	0.349	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-251973	R-44 S2	07/12/2022	Chromium	8.96	µg/L	50	No	J	Y	Y	10.0
CAMO-22-251973	R-44 S2	07/12/2022	Fluoride	0.549	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-251973	R-44 S2	07/12/2022	Nitrate-Nitrite as Nitrogen	0.952	mg/L	10	No	n/a	Y	Y	0.0500
CAMO-22-251973	R-44 S2	07/12/2022	Sulfate	3.02	mg/L	600	No	n/a	Y	Y	0.400
CAMO-22-251973	R-44 S2	07/12/2022	Total Dissolved Solids	109	mg/L	1000	No	n/a	Y	Y	14.3
CAMO-22-253921	R-44 S2	08/18/2022	Chloride	2.89	mg/L	250	No	n/a	Y	Y	0.200
CAMO-22-253921	R-44 S2	08/18/2022	Perchlorate	0.323	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-253921	R-44 S2	08/18/2022	Chromium	9.35	µg/L	50	No	J	Y	Y	10.0
CAMO-22-253921	R-44 S2	08/18/2022	Fluoride	0.425	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-253921	R-44 S2	08/18/2022	Nitrate-Nitrite as Nitrogen	0.930	mg/L	10	No	n/a	Y	Y	0.0500

Table 2.3-2 (continued)

Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Unit	Standard or Screening Level	Exceeds Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CAMO-22-253921	R-44 S2	08/18/2022	Sulfate	3.14	mg/L	600	No	n/a	Y	Y	0.400
CAMO-22-253921	R-44 S2	08/18/2022	Total Dissolved Solids	132	mg/L	1000	No	n/a	Y	Y	10.0
CAMO-22-258286	R-44 S2	09/15/2022	Chloride	2.62	mg/L	250	No	n/a	Y	Y	0.200
CAMO-22-258286	R-44 S2	09/15/2022	Perchlorate	0.333	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-258286	R-44 S2	09/15/2022	Chromium	9.51	µg/L	50	No	J	Y	Y	10.0
CAMO-22-258286	R-44 S2	09/15/2022	Fluoride	0.466	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-258286	R-44 S2	09/15/2022	Nitrate-Nitrite as Nitrogen	0.923	mg/L	10	No	n/a	Y	Y	0.0500
CAMO-22-258286	R-44 S2	09/15/2022	Sulfate	3.07	mg/L	600	Yes	n/a	Y	Y	0.400
CAMO-22-258286	R-44 S2	09/15/2022	Total Dissolved Solids	135	mg/L	1000	No	n/a	Y	Y	10.0
CAMO-22-251976	R-45 S1	07/07/2022	Chloride	20.1	mg/L	250	No	n/a	Y	Y	1.00
CAMO-22-251976	R-45 S1	07/07/2022	Perchlorate	0.480	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-251976	R-45 S1	07/07/2022	Chromium	3.60	µg/L	50	No	J	Y	Y	10.0
CAMO-22-251976	R-45 S1	07/07/2022	Fluoride	0.357	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-251976	R-45 S1	07/07/2022	Nitrate-Nitrite as Nitrogen	3.22	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-251976	R-45 S1	07/07/2022	Sulfate	20.4	mg/L	600	Yes	n/a	Y	Y	2.00
CAMO-22-251976	R-45 S1	07/07/2022	Total Dissolved Solids	199	mg/L	1000	No	n/a	Y	Y	14.3
CAMO-22-253925	R-45 S1	08/11/2022	Chloride	20.5	mg/L	250	No	n/a	Y	Y	1.00
CAMO-22-253925	R-45 S1	08/11/2022	Perchlorate	0.787	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-253925	R-45 S1	08/11/2022	Chromium	3.07	µg/L	50	No	J	Y	Y	10.0
CAMO-22-253925	R-45 S1	08/11/2022	Fluoride	0.271	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-253925	R-45 S1	08/11/2022	Nitrate-Nitrite as Nitrogen	3.32	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-253925	R-45 S1	08/11/2022	Sulfate	20.0	mg/L	600	Yes	n/a	Y	Y	2.00
CAMO-22-253925	R-45 S1	08/11/2022	Total Dissolved Solids	211	mg/L	1000	No	n/a	Y	Y	10.0
CAMO-22-258289	R-45 S1	09/07/2022	Chloride	20.4	mg/L	250	No	n/a	Y	Y	1.00
CAMO-22-258289	R-45 S1	09/07/2022	Perchlorate	0.353	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-258289	R-45 S1	09/07/2022	Chromium	3.00	µg/L	50	No	U	N	Y	10.0

Table 2.3-2 (continued)

Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Unit	Standard or Screening Level	Exceeds Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CAMO-22-258289	R-45 S1	09/07/2022	Fluoride	0.215	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-258289	R-45 S1	09/07/2022	Nitrate-Nitrite as Nitrogen	2.97	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-258289	R-45 S1	09/07/2022	Sulfate	19.5	mg/L	600	No	n/a	Y	Y	2.00
CAMO-22-258289	R-45 S1	09/07/2022	Total Dissolved Solids	207	mg/L	1000	No	n/a	Y	Y	10.0
CAMO-22-251979	R-45 S2	07/07/2022	Chloride	7.56	mg/L	250	No	n/a	Y	Y	0.200
CAMO-22-251979	R-45 S2	07/07/2022	Perchlorate	0.504	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-251979	R-45 S2	07/07/2022	Chromium	61.3	µg/L	50	No	n/a	Y	Y	10.0
CAMO-22-251979	R-45 S2	07/07/2022	Fluoride	0.588	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-251979	R-45 S2	07/07/2022	Nitrate-Nitrite as Nitrogen	1.59	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-251979	R-45 S2	07/07/2022	Sulfate	9.65	mg/L	50	No	n/a	Y	Y	0.400
CAMO-22-251979	R-45 S2	07/07/2022	Total Dissolved Solids	161	mg/L	1000	No	n/a	Y	Y	14.3
CAMO-22-253928	R-45 S2	08/11/2022	Chloride	7.95	mg/L	250	No	n/a	Y	Y	0.200
CAMO-22-253928	R-45 S2	08/11/2022	Perchlorate	0.891	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-253928	R-45 S2	08/11/2022	Chromium	64.9	µg/L	50	Yes	n/a	Y	Y	10.0
CAMO-22-253928	R-45 S2	08/11/2022	Fluoride	0.350	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-253928	R-45 S2	08/11/2022	Nitrate-Nitrite as Nitrogen	1.15	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-253928	R-45 S2	08/11/2022	Sulfate	10.1	mg/L	600	No	n/a	Y	Y	0.400
CAMO-22-253928	R-45 S2	08/11/2022	Total Dissolved Solids	162	mg/L	1000	No	n/a	Y	Y	10.0
CAMO-22-258292	R-45 S2	09/07/2022	Chloride	8.15	mg/L	250	No	n/a	Y	Y	0.200
CAMO-22-258292	R-45 S2	09/07/2022	Perchlorate	0.463	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-258292	R-45 S2	09/07/2022	Chromium	67.6	µg/L	50	Yes	n/a	Y	Y	10.0
CAMO-22-258292	R-45 S2	09/07/2022	Fluoride	0.285	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-258292	R-45 S2	09/07/2022	Nitrate-Nitrite as Nitrogen	1.55	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-258292	R-45 S2	09/07/2022	Sulfate	10.2	mg/L	600	No	n/a	Y	Y	0.400
CAMO-22-258292	R-45 S2	09/07/2022	Total Dissolved Solids	168	mg/L	1000	No	n/a	Y	Y	10.0
CAMO-22-251982	R-50 S1	07/12/2022	Chloride	22.1	mg/L	250	No	n/a	Y	Y	1.00

Table 2.3-2 (continued)

Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Unit	Standard or Screening Level	Exceeds Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CAMO-22-251982	R-50 S1	07/12/2022	Perchlorate	0.416	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-251982	R-50 S1	07/12/2022	Chromium	8.63	µg/L	50	No	J	Y	Y	10.0
CAMO-22-251982	R-50 S1	07/12/2022	Fluoride	0.308	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-251982	R-50 S1	07/12/2022	Nitrate-Nitrite as Nitrogen	3.21	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-251982	R-50 S1	07/12/2022	Sulfate	21.5	mg/L	600	No	n/a	Y	Y	2.00
CAMO-22-251982	R-50 S1	07/12/2022	Total Dissolved Solids	203	mg/L	1000	No	n/a	Y	Y	14.3
CAMO-22-253931	R-50 S1	08/16/2022	Chloride	21.4	mg/L	250	No	n/a	Y	Y	1.00
CAMO-22-253931	R-50 S1	08/16/2022	Perchlorate	0.365	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-253931	R-50 S1	08/16/2022	Chromium	8.31	µg/L	50	No	J	Y	Y	10.0
CAMO-22-253931	R-50 S1	08/16/2022	Fluoride	0.287	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-253931	R-50 S1	08/16/2022	Nitrate-Nitrite as Nitrogen	3.04	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-253931	R-50 S1	08/16/2022	Sulfate	21.1	mg/L	600	No	n/a	Y	Y	2.00
CAMO-22-253931	R-50 S1	08/16/2022	Total Dissolved Solids	223	mg/L	1000	No	n/a	Y	Y	10.0
CAMO-22-258295	R-50 S1	09/13/2022	Chloride	21.2	mg/L	250	No	n/a	Y	Y	1.00
CAMO-22-258295	R-50 S1	09/13/2022	Perchlorate	0.355	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-258295	R-50 S1	09/13/2022	Chromium	7.44	µg/L	50	No	J	Y	Y	10.0
CAMO-22-258295	R-50 S1	09/13/2022	Fluoride	0.199	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-258295	R-50 S1	09/13/2022	Nitrate-Nitrite as Nitrogen	2.78	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-258295	R-50 S1	09/13/2022	Sulfate	19.9	mg/L	600	Yes	n/a	Y	Y	2.00
CAMO-22-258295	R-50 S1	09/13/2022	Total Dissolved Solids	209	mg/L	1000	No	n/a	Y	Y	10.0
CAMO-22-251987	R-50 S2	07/12/2022	Chloride	2.48	mg/L	250	No	n/a	Y	Y	0.200
CAMO-22-251987	R-50 S2	07/12/2022	Perchlorate	0.325	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-251987	R-50 S2	07/12/2022	Chromium	3.98	µg/L	50	No	J	Y	Y	10.0
CAMO-22-251987	R-50 S2	07/12/2022	Fluoride	0.466	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-251987	R-50 S2	07/12/2022	Nitrate-Nitrite as Nitrogen	0.644	mg/L	10	No	n/a	Y	Y	0.0500
CAMO-22-251987	R-50 S2	07/12/2022	Sulfate	2.61	mg/L	600	No	n/a	Y	Y	0.400

Table 2.3-2 (continued)

Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Unit	Standard or Screening Level	Exceeds Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CAMO-22-251987	R-50 S2	07/12/2022	Total Dissolved Solids	110	mg/L	1000	No	n/a	Y	Y	14.3
CAMO-22-253934	R-50 S2	08/16/2022	Chloride	2.18	mg/L	250	No	n/a	Y	Y	0.200
CAMO-22-253934	R-50 S2	08/16/2022	Perchlorate	0.297	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-253934	R-50 S2	08/16/2022	Chromium	4.23	µg/L	50	No	J	Y	Y	10.0
CAMO-22-253934	R-50 S2	08/16/2022	Fluoride	0.539	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-253934	R-50 S2	08/16/2022	Nitrate-Nitrite as Nitrogen	0.607	mg/L	10	No	n/a	Y	Y	0.0500
CAMO-22-253934	R-50 S2	08/16/2022	Sulfate	2.61	mg/L	600	No	n/a	Y	Y	0.400
CAMO-22-253934	R-50 S2	08/16/2022	Total Dissolved Solids	141	mg/L	1000	No	n/a	Y	Y	10.0
CAMO-22-258298	R-50 S2	09/13/2022	Chloride	2.08	mg/L	250	No	n/a	Y	Y	0.200
CAMO-22-258298	R-50 S2	09/13/2022	Perchlorate	0.298	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-258298	R-50 S2	09/13/2022	Chromium	4.08	µg/L	50	No	J	Y	Y	10.0
CAMO-22-258298	R-50 S2	09/13/2022	Fluoride	0.406	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-258298	R-50 S2	09/13/2022	Nitrate-Nitrite as Nitrogen	0.558	mg/L	10	No	n/a	Y	Y	0.0500
CAMO-22-258298	R-50 S2	09/13/2022	Sulfate	2.45	mg/L	600	No	n/a	Y	Y	0.400
CAMO-22-258298	R-50 S2	09/13/2022	Total Dissolved Solids	128	mg/L	1000	No	n/a	Y	Y	10.0
CAMO-22-251992	R-62	07/25/2022	Chloride	16.6	mg/L	250	No	n/a	Y	Y	1.00
CAMO-22-251992	R-62	07/25/2022	Perchlorate	0.818	µg/L	13.8	No	n/a	Y	Y	0.200
CAMO-22-251992	R-62	07/25/2022	Chromium	265	µg/L	50	Yes	n/a	Y	Y	10.0

Table 2.3-2 (continued)

Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Unit	Standard or Screening Level	Exceeds Standard or Screening Level	Lab Qualifier	Detect Flag	Filtered	Method Detection Limit
CAMO-22-251992	R-62	07/25/2022	Fluoride	0.238	mg/L	1.6	No	n/a	Y	Y	0.100
CAMO-22-251992	R-62	07/25/2022	Nitrate-Nitrite as Nitrogen	2.30	mg/L	10	No	n/a	Y	Y	0.250
CAMO-22-251992	R-62	07/25/2022	Sulfate	28.6	mg/L	600	No	n/a	Y	Y	2.00
CAMO-22-251992	R-62	07/25/2022	Total Dissolved Solids	190	mg/L	1000	No	n/a	Y	Y	14.3

[a] n/a = Not applicable: no qualifiers applied.

[b] In the Detect Flag column, Y = detected.

[c] In the Filtered column, Y = filtered.

[d] In the Detect Flag column, N = not detected.

[e] J = Analyte is classified as estimated.

[f] S1 = Screen 1.

[g] In the Filtered column, N = not filtered.

[h] U =Analyte is classified as not detected.

[i] S2 = Screen 2.

Long-term water-level data, contaminant transport observations (travel times and direction of migration), and calibrated model results are lines of evidence that suggest that the water table was relatively flat in the area of the chromium plume before the implementation of CrEX extraction and CrIN injection wells. Steeper gradients are found to the west because of the mountain-front recharge and to the east toward the Rio Grande. The low ambient gradient in the chromium plume area could be related to any or all of the following:

- the relatively high permeability of the Puye Formation and Miocene pumiceous sediments
- anisotropy of the regional aquifer
- localized recharge along the canyons above the regional aquifer, faults, or other lineaments that affect regional-scale hydraulic conductivity
- nearby water-supply pumping

Although it is difficult to infer absolute groundwater flow directions from the relatively flat contours in the chromium plume area, the general flow of groundwater can be determined. Groundwater elevation data and contaminant transport observations indicated that before operation of the IM, the groundwater flowed generally toward the east-southeast. The current groundwater flows generally towards the southeast, with the influence of IM operations being seen mainly in the vicinity of the extraction wells CrEX-1, CrEX-2, CrEX-3, and CrEX-4. Local flow direction near these wells is inward because of the extraction-induced depression in potentiometric surface.

Water table elevations in the chromium plume area can vary temporally as a result of transient effects that include injection into, and extraction from, the chromium IM infrastructure wells, and pumping of Los Alamos County's water-supply wells. This is discussed for the case of CY 2022 Quarter 3 below.

Effects on flow direction from water-supply pumping are small compared with the local effects of extraction and injection at chromium IM wells. Transience in the water levels at time scales of hours to days observed at the monitoring wells within the plume area does not appear to be substantially affected by the water-supply pumping at the nearby production wells (PM-2, PM-3, PM-4, PM-5, and O-4) (LANL 2009). Impacts of production well pumping are observed over seasonal to yearly time scales and overall have led to a fairly uniform decline in the water table across the plume area, in contrast to IM extraction and injection impacts.

A long-term decline of approximately 0.2 to 0.5 ft/yr in the regional water levels has been observed throughout the aquifer beneath the Pajarito Plateau. The decline could be caused by long-term changes in the aquifer recharge and discharge conditions. Because of the long-term declines and pumping transience described above, the water-level data and the respective water table contour maps are variable over time; each map therefore represents a specific period of time. Figure 2.3-1 depicts the average water-level data and water table contours for July 2022. General flow direction is indicated by the vector.

To generate this quarterly contour map, average water levels are calculated with a default of using values from the middle month of the 3-month reporting period. In quarters where the middle month may not be representative, e.g., due to an IM well pumping hiatus, water-level values from times other than the middle month are selected. Monitoring wells within and surrounding the plume are used, including wells not presented on the map (e.g., R-21, R-31, R-32, R-37, and R-40) or in Table 2.3-1. Water levels in wells surrounding the plume provide useful control points for contouring along the edges of the area of interest for this report.

Simple interpolation methods for water table data from a complex heterogeneous site could produce maps that do not represent physically realistic hydrological systems. This water table map is contoured by incorporating process knowledge of groundwater hydraulics (e.g., flownet conformity rules) as well as conceptual models of groundwater flow in the project area as described above. Key inputs to the conceptual model include knowledge of long-term operations of extraction and injection wells, water-level elevations in monitoring wells near extraction and injection points, and cross-hole tracer data between injection wells and monitoring wells.

In 2018 and 2019, water table maps for DP-1835 were generated using an interpolation method called Thin-Plate Spline (TPS) (e.g., https://www.jstor.org/stable/2241837). TPS is a special case of universal kriging. In 2020, an interpolation method called Bayesian Canonical Correlation Regression (BCCR) (Carson 2020) was implemented. BCCR increased efficiency of map-making by using prior knowledge of water levels to generate an initial water table map of the expected surface given quarterly water levels. Kriging was then used to update the map using residuals between the water levels and the expected surface for a given quarter. In CY 2022 Quarter 3, the interpolation method used reverted to TPS. This change was made because of the greater representation of TPS in the scientific literature. Maps generated with the two methods are analogous because both methods use kriging-based interpolation; the primary difference between the two methods is the incorporation of prior information as an initial estimate of water levels.

Because of the spatial coverage of wells and piezometers and the regional structure of significantly steeper gradients to the east and west of the chromium plume area, surrounding wells (e.g., R-21, R-31, R-32, R-37, and R-40) and control points based on expert opinion are used to provide estimated water-level elevations in areas that do not have sufficient data to provide constraints (EPA 2008). As additional analysis is performed using historical and developing data sets from existing wells and data that will be collected from proposed wells, the use of these control points is being reanalyzed, adjusted, or discontinued based on additional supporting data and contouring methods.

Over the course of operating the chromium IM system, changes to water table elevation occur depending upon how the system has been operating. A quarter-by-quarter account of the water table elevations is not provided as part of this quarterly report. Each quarterly report previously submitted provides information of the water table elevation near the chromium IM wells along with possible causes for water-level variations for that specific quarter. Information on the quarterly depth to groundwater for CY 2022 Quarter 3 is provided below.

In the current reporting period of CY 2022 Quarter 3, IM pumping was generally consistent. A testing period occurred in late July, during which the extraction and injection rates oscillated between 0 and a commonly used rate for each well. Given consistent pumping, data from August was employed to make the water table map in Figure 2.3-1, as per the default selection discussed above. Data availability was hindered by equipment breakages; notably, SIMR-2 water-level data were not available and R-70 only had a small number of manually measured water-levels due to damaged cables. Also, data from R-42, in the central region, east of CrPZ-3, were not available because of a broken transducer. Therefore, Figure 2.3-1 should be interpreted cautiously, especially in the southeast area of the map where SIMR-2 is located (not plotted in Figure 2.3-1 due to lack of data) and in the region near R-70. Compared with the prior quarter (CY 2022 Quarter 2), water levels decreased at multiple wells in the central region of the map, including CrPZ-1, CrPZ-2a, CrPZ-3, and CrPZ-4. The central depression shifted upgradient (i.e., west) and a closed 5829-ft contour is newly plotted. Data at or below 5829 ft were recorded at CrPZ-2 and CrPZ-1.

2.4 Any Operations/Maintenance Activities Performed (Requirement 4)

Extraction, treatment, and injection operations continued during CY 2022 Quarter 3. Operations and maintenance activities completed during CY 2022 Quarter 3 are listed in Table 2.4-1 for the extraction, treatment, and injection system.

Table 2.4-1
Operations and Maintenance Activity Summary Table – CY 2022 Quarter 3

Maintenance Date	Elements Impacted	Operation/Maintenance Description
7/1/2022 through 7/6/2022	CrEX-1, CrEX-3, CrEX-4, CrEX-5, CTUA, CTUC, CrIN-1, CrIN-2, CrIN-3, CrIN-4, CrIN-5	Extraction, treatment, and injection of treated groundwater occurred per operational plan.
7/6/2022	CTU-A	IX vessel exchanges were completed as follows because of an increase in the amount of hexavalent chromium at the primary IX vessel effluent as determined via Hach instrument analysis: • Treatment train A – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. • Treatment train B – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. • Treatment train C – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. Both influent filter bags replaced.
	CrEX-2	CrEX-2 turned on after replacing uninterruptible power supply unit.
7/6/2022 through 7/23/2022	CrEX-1, CrEX-2, CrEX-3, CrEX-4, CrEX-5, CTUA, CTUC, CrIN-1, CrIN-2, CrIN-3, CrIN-4, CrIN-5	Extraction, treatment, and injection of treated groundwater occurred per operational plan.
7/23/2022	CTU-C	IX vessel exchanges were completed as follows because of an increase in the amount of hexavalent chromium at the primary IX vessel effluent as determined via Hach instrument analysis: • Treatment train A – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. • Treatment train B – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. Both influent filter bags replaced.
7/23/2022 through 7/30/2022	CrEX-1, CrEX-2, CrEX-3, CrEX-4, CrEX-5, CTUA, CTUC, CrIN-1, CrIN-2, CrIN-3, CrIN-4, CrIN-5	Extraction, treatment, and injection of treated groundwater occurred per operational plan.
7/30/2022	Entire system	All extraction wells, injection wells, and treatment units shut off due to power outage caused by thunderstorms.
7/31/2022 through 8/2/2022	CrEX-1, CrEX-2, CrEX-3, CrEX-4, CrEX-5, CTUA, CTUC, CrIN-1, CrIN-2, CrIN-3, CrIN-4, CrIN-5	Extraction, treatment, and injection of treated groundwater occurred per operational plan.

Table 2.4-1 (continued)

Maintenance Date	Elements Impacted	Operation/Maintenance Description
8/2/2022	CTU-A	IX vessel exchanges were completed as follows because of an increase in the amount of hexavalent chromium at the primary IX vessel effluent as determined via Hach instrument analysis: • Treatment train A – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. Both influent and all three effluent filter bags replaced.
8/2/2022 through 8/10/2022	CrEX-1, CrEX-2, CrEX-3, CrEX-4, CrEX-5, CTUA, CTUC, CrIN-1, CrIN-2, CrIN-3, CrIN-4, CrIN-5	Extraction, treatment, and injection of treated groundwater occurred per operational plan.
8/10/2022	CTU-A	IX vessel exchanges were completed as follows because of an increase in the amount of hexavalent chromium at the primary IX vessel effluent as determined via Hach instrument analysis: • Treatment train A – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. • Treatment train B – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. • Treatment train C – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. Both influent filter bags replaced.
8/10/2022 through 8/27/2022	CrEX-1, CrEX-2, CrEX-3, CrEX-4, CrEX-5, CTUA, CTUC, CrIN-1, CrIN-2, CrIN-3, CrIN-4, CrIN-5	Extraction, treatment, and injection of treated groundwater occurred per operational plan.
8/27/2022	CTU-C	IX vessel exchanges were completed as follows because of an increase in the amount of hexavalent chromium at the primary IX vessel effluent as determined via Hach instrument analysis: • Treatment train A – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. Treatment train B – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed.
8/27/2022 through 9/14/2022	CrEX-1, CrEX-2, CrEX-3, CrEX-4, CrEX-5, CTUA, CTUC, CrIN-1, CrIN-2, CrIN-3, CrIN-4, CrIN-5	Extraction, treatment, and injection of treated groundwater occurred per operational plan.

Table 2.4-1 (continued)

Maintenance Date	Elements Impacted	Operation/Maintenance Description
9/14/2022	CTU-A	IX vessel exchanges were completed as follows because of an increase in the amount of hexavalent chromium at the primary IX vessel effluent as determined via Hach instrument analysis: • Treatment train A – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. • Treatment train B – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. • Treatment train C – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. Both influent filter bags replaced.
9/14/2022 through 9/28/2022	CrEX-1, CrEX-2, CrEX-3, CrEX-4, CrEX-5, CTUA, CTUC, CrIN-1, CrIN-2, CrIN-3, CrIN-4, CrIN-5	Extraction, treatment, and injection of treated groundwater occurred per operational plan.
9/28/2022	CTU-C	IX vessel exchanges were completed as follows because of an increase in the amount of hexavalent chromium at the primary IX vessel effluent as determined via Hach instrument analysis: • Treatment train A – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. • Treatment train B – replaced primary IX vessel with the secondary IX vessel; new secondary IX vessel installed. Both influent filter bags replaced.
9/28/2022 through 9/30/2022	CrEX-1, CrEX-2, CrEX-3, CrEX-4, CrEX-5, CTUA, CTUC, CrIN-1, CrIN-2, CrIN-3, CrIN-4, CrIN-5	Extraction, treatment, and injection of treated groundwater occurred per operational plan.

2.5 Any Periodic Test of Mechanical Integrity Conducted (Requirement 5)

Periodic testing of mechanical integrity was not conducted or reported to NMED during CY 2022 Quarter 3. Mechanical integrity testing was performed and reported to NMED during the CY 2019 Quarter 3 reporting period. In accordance with Condition No. 3, mechanical integrity testing will occur at least once every 5 yr unless a UIC well is reconfigured. Under this scenario, a mechanical integrity test before reinjection of treated effluent at a specific reconfigured well will be completed pursuant to Condition No. 3.

2.6 Any Replacement of Primary or Secondary IX Vessels or Associated Treatment System Infrastructure (Requirement 6)

New primary and secondary IX vessels were installed at various times for treatment unit CTUA (all three treatment trains) and at CTUC (both treatment trains) during the reporting period, as cited in section 2.4.

2.7 Any Well Workovers Conducted (Requirement 7)

No well workovers were conducted during CY 2022 Quarter 3.

2.8 Any Additional Operational Changes with the Potential to Markedly Affect the Discharge (Requirement 8)

During the reporting period, the pilot-scale molasses amendment and sodium dithionite amendment studies continued. In accordance with NMED's conditional approval of these studies, analytical results from iron, manganese, and arsenic testing of the treated water from the extraction wells during the study are being provided in the quarterly monitoring reports under DP-1835. These results for CY 2022 Quarter 3 are provided in Table 2.2-2.

No results for arsenic, iron, or manganese exceeded 90% of the numeric standards of 20.6.2.3103 NMAC or 90% of the numeric standards established for tap water in Table A-1 of the 2022 NMED risk assessment guidance (NMED 2022) for constituents not listed in 20.6.2.3103 NMAC. The 90% values for arsenic, iron, and manganese are 9 µg/L, 900 µg/L, and 180 µg/L, respectively.

Other than the activities cited in section 2.4, no additional operational changes occurred during the reporting period.

2.9 Monthly Average, Maximum, and Minimum Values for Flow Rate and Volume of Treated Effluent Transferred to Each UIC Well (Requirement 9)

Table 2.9-1 provides the monthly average, maximum, and minimum values for flow rate and volume of treated effluent transferred to each well in CY 2022 Quarter 3.

Table 2.9-1
Flows and Volumes of Treated Effluent Injected – CY 2022 Quarter 3, DP-1835

Injection Well	Flow rate (gpm[a])			Daily Volume (gal.)			Total Volume (gal.)
	Average[b]	Maximum	Minimum[c]	Average	Maximum	Minimum	
July 2022							
CrIN-1	56.8	63.3	31.8	81,791	91,165	45,756	2,535,535
CrIN-2	59.0	64.2	31.6	84,952	92,385	45,475	2,633,497
CrIN-3	37.4	57.0	17.0	53,863	82,098	24,542	1,669,739
CrIN-4	57.6	62.6	32.1	82,883	90,171	46,238	2,569,377
CrIN-5	58.6	63.4	31.6	84,398	91,291	45,537	2,616,340
August 2022							
CrIN-1	57.9	61.6	53.5	83,446	88,650	76,971	2,586,813
CrIN-2	60.5	63.0	57.6	87,113	90,716	82,967	2,700,513
CrIN-3	41.2	51.5	31.4	59,273	74,090	45,242	1,837,469
CrIN-4	60.1	64.0	51.6	86,581	92,206	74,240	2,684,014
CrIN-5	60.7	63.5	52.6	87,379	91,386	75,763	2,708,743

Table 2.9-1 (continued)

Injection Well	Flow rate (gpm[a])			Daily Volume (gal.)			Total Volume (gal.)
	Average[b]	Maximum	Minimum[c]	Average	Maximum	Minimum	
September 2022							
CrIN-1	59.5	62.7	57.7	85,737	90,353	83,037	2,572,118
CrIN-2	59.9	63.0	55.3	86,243	90,734	79,642	2,587,296
CrIN-3	42.4	45.0	40.8	61,085	64,818	58,790	1,832,563
CrIN-4	58.4	62.2	50.0	84,080	89,549	71,987	2,522,414
CrIN-5	59.5	61.0	51.2	85,611	87,895	73,739	2,568,344

[a] gpm = Gallons per minute.

[b] Average flow rate and daily volume represent arithmetic mean values of results provided during periods when treated groundwater was being injected.

[c] Minimum values represent the minimum daily value recorded during days when pumping occurred.

2.10 Total Monthly Volume of Treated Effluent Transferred to Each UIC Well (Requirement 10)

Table 2.9-1 provides total monthly volumes of treated effluent transferred to each well. As previously identified, injection occurred at UIC wells CrIN-1 through CrIN-5 during CY 2022 Quarter 3.

2.11 Monthly Average, Maximum, and Minimum Values of Injection Water Level (Pressure Head) Above Static Level for Each UIC Well (Requirement 11)

Table 2.11-1 provides the monthly average, maximum, and minimum values for injection water level above static level for each UIC well.

Table 2.11-1
Water-Level Values Above Static Level by UIC Well – CY 2022 Quarter 3, DP-1835

UIC Well	July 2022			August 2022			September 2022		
	Average* (ft)	Maximum (ft)	Minimum (ft)	Average (ft)	Maximum (ft)	Minimum (ft)	Average (ft)	Maximum (ft)	Minimum (ft)
CrIN-1	7.2	8.6	0.0	7.3	8.2	0.4	7.6	8.7	1.3
CrIN-2	10.3	11.5	0.0	10.6	12.2	0.2	10.6	11.9	3.7
CrIN-3	2.5	4.0	0.0	2.7	4.8	0.1	2.9	3.6	0.7
CrIN-4	15.0	18.5	0.0	15.6	17.0	0.5	15.1	16.8	0.2
CrIN-5	20.5	23.2	0.0	21.3	23.1	0.4	21.0	23.3	0.0

* Average values provided represent arithmetic mean values of maximum daily values during periods when treated groundwater was being injected.

2.12 Daily Volume Injected at Each UIC Well (Requirement 12)

Daily volumes of groundwater injected (following treatment) during CY 2022 Quarter 3 are presented in Table 2.12-1.

Table 2.12-1
Daily Injection Summary Table – CY 2021 Quarter 3, DP-1835

Date	CrIN-1 (gal.)	CrIN-2 (gal.)	CrIN-3 (gal.)	CrIN-4 (gal.)	CrIN-5 (gal.)	Total (gal.)
7/1/2022	74,842	80,180	38,434	82,263	83,806	359,526
7/2/2022	76,355	80,273	38,354	82,212	83,985	361,178
7/3/2022	79,258	82,463	38,230	82,011	83,512	365,473
7/4/2022	79,141	82,083	38,721	82,013	83,522	365,480
7/5/2022	79,247	82,128	38,499	82,125	83,498	365,497
7/6/2022	72,605	75,566	56,062	82,234	89,411	375,878
7/7/2022	81,716	82,215	82,098	83,370	91,291	420,691
7/8/2022	86,849	82,322	77,413	85,088	87,267	418,939
7/9/2022	84,132	88,176	79,366	85,067	83,794	420,536
7/10/2022	87,477	85,837	66,061	86,900	85,555	411,831
7/11/2022	89,158	86,380	56,222	89,207	87,800	408,767
7/12/2022	88,907	86,757	53,171	87,785	87,358	403,978
7/13/2022	87,038	92,044	50,515	90,171	86,391	406,159
7/14/2022	90,887	92,385	53,497	85,279	88,372	410,421
7/15/2022	91,165	92,242	51,749	85,293	88,573	409,023
7/16/2022	86,425	91,147	57,948	85,396	86,316	407,231
7/17/2022	82,526	91,382	60,404	85,518	87,391	407,221
7/18/2022	82,045	90,800	60,292	85,185	87,940	406,262
7/19/2022	82,166	91,350	58,501	84,978	88,299	405,294
7/20/2022	82,050	91,672	57,640	85,012	89,013	405,387
7/21/2022	82,557	91,926	57,610	85,069	87,143	404,304
7/22/2022	87,796	91,696	57,523	84,851	85,791	407,656
7/23/2022	79,084	90,837	52,565	85,860	87,872	396,217
7/24/2022	87,613	91,065	53,896	87,054	87,843	407,471
7/25/2022	87,550	90,384	54,442	87,165	88,125	407,666
7/26/2022	87,198	90,368	57,915	86,798	88,315	410,594
7/27/2022	87,314	90,566	56,408	86,938	87,558	408,784
7/28/2022	88,462	85,522	60,198	86,547	86,654	407,382
7/29/2022	87,593	86,465	52,066	85,519	87,133	398,776
7/30/2022	50,624	51,793	24,542	50,232	51,274	228,466
7/31/2022	45,756	45,475	29,394	46,238	45,537	212,399
8/1/2022	83,674	85,095	45,242	85,267	84,935	384,213
8/2/2022	76,971	87,854	47,228	87,280	87,175	386,508
8/3/2022	80,406	89,979	55,472	88,309	87,802	401,969
8/4/2022	81,715	88,918	50,536	88,056	87,932	397,158
8/5/2022	82,606	89,407	54,571	85,807	89,840	402,231
8/6/2022	82,062	87,264	56,894	83,614	88,919	398,753

Table 2.12-1 (continued)

Date	CrIN-1 (gal.)	CrIN-2 (gal.)	CrIN-3 (gal.)	CrIN-4 (gal.)	CrIN-5 (gal.)	Total (gal.)
8/7/2022	86,565	88,584	58,769	85,724	86,919	406,560
8/8/2022	85,237	88,362	58,787	86,027	88,750	407,163
8/9/2022	85,112	88,664	56,096	92,206	87,073	409,151
8/10/2022	79,820	82,967	55,282	85,780	88,171	392,020
8/11/2022	86,647	86,846	63,341	85,348	88,703	410,885
8/12/2022	83,096	84,536	67,326	86,463	88,226	409,648
8/13/2022	82,875	88,285	72,308	89,214	88,727	421,410
8/14/2022	83,462	90,700	66,007	90,735	89,453	420,357
8/15/2022	83,848	90,716	64,386	90,717	89,927	419,594
8/16/2022	82,874	85,353	57,641	90,572	89,666	406,105
8/17/2022	84,976	83,395	56,036	89,219	89,458	403,084
8/18/2022	85,206	83,590	59,009	89,252	89,258	406,315
8/19/2022	85,026	83,268	57,322	89,975	89,323	404,914
8/20/2022	84,115	84,345	54,860	90,305	89,328	402,953
8/21/2022	88,650	89,867	56,603	83,089	87,963	406,172
8/22/2022	83,486	88,744	55,713	86,548	91,386	405,878
8/23/2022	83,460	85,852	56,164	87,859	90,030	403,365
8/24/2022	83,459	84,541	55,476	88,366	86,366	398,208
8/25/2022	82,661	85,060	67,956	84,991	85,145	405,814
8/26/2022	82,185	86,085	74,090	82,353	84,085	408,798
8/27/2022	82,415	88,202	69,461	74,240	75,763	390,081
8/28/2022	81,869	86,486	62,480	83,804	88,553	403,192
8/29/2022	82,575	87,680	58,509	84,332	81,811	394,905
8/30/2022	84,907	89,254	59,987	84,530	84,226	402,905
8/31/2022	84,850	90,615	63,916	84,031	83,831	407,242
9/1/2022	85,312	85,523	64,818	84,058	83,728	403,439
9/2/2022	87,981	88,150	64,810	84,952	83,317	409,210
9/3/2022	86,670	83,831	64,803	84,965	83,541	403,809
9/4/2022	84,960	88,382	62,501	84,976	83,630	404,448
9/5/2022	87,034	89,203	61,568	84,858	82,878	405,541
9/6/2022	88,580	81,122	59,097	84,951	87,511	401,262
9/7/2022	88,636	83,200	59,731	85,370	87,166	404,104
9/8/2022	86,355	86,926	62,028	85,228	86,373	406,911
9/9/2022	85,296	83,849	62,889	85,705	85,753	403,493
9/10/2022	86,447	83,831	60,647	85,973	86,311	403,208
9/11/2022	85,859	85,065	60,536	86,508	86,780	404,749
9/12/2022	84,951	81,812	61,109	86,358	86,956	401,186
9/13/2022	85,030	84,661	60,999	86,382	87,273	404,346
9/14/2022	85,065	82,277	61,293	77,713	78,903	385,252

Table 2.12-1 (continued)

Date	CrIN-1 (gal.)	CrIN-2 (gal.)	CrIN-3 (gal.)	CrIN-4 (gal.)	CrIN-5 (gal.)	Total (gal.)
9/15/2022	85,040	80,850	60,668	86,588	87,829	400,975
9/16/2022	85,077	79,642	59,308	87,211	87,857	399,096
9/17/2022	86,339	84,124	58,790	85,993	85,754	400,999
9/18/2022	89,291	89,361	60,535	84,669	86,276	410,131
9/19/2022	83,690	90,175	60,472	85,030	86,598	405,965
9/20/2022	83,037	90,564	60,380	84,901	86,916	405,798
9/21/2022	83,859	89,841	60,541	85,100	85,716	405,056
9/22/2022	90,353	90,734	64,738	80,853	85,592	412,270
9/23/2022	84,941	89,613	60,788	80,582	87,450	403,374
9/24/2022	84,870	89,402	60,015	80,667	87,789	402,744
9/25/2022	84,971	88,181	60,446	80,669	87,782	402,048
9/26/2022	84,893	87,798	60,573	80,605	87,895	401,764
9/27/2022	84,942	88,009	60,497	80,663	87,809	401,920
9/28/2022	85,167	88,104	59,279	71,987	73,739	378,276
9/29/2022	83,750	86,279	59,053	89,549	86,438	405,070
9/30/2022	83,720	86,786	59,651	89,349	86,785	406,291
Total 36,624,774						

2.13 Daily Volume Pumped from Each Extraction Well (Requirement 13)

Daily volumes of groundwater pumped from extraction wells during 2021 Quarter 3 are presented in Table 2.13-1.

Table 2.13-1
Daily Extraction Summary Table – CY 2022 Quarter 3, DP-1835

Date	CrEX-1 (gal.)	CrEX-2 (gal.)	CrEX-3 (gal.)	CrEX-4 (gal.)	CrEX-5 (gal.)	Total (gal.)
7/1/2022	111,486	0	54,099	81,997	110,104	357,686
7/2/2022	116,629	0	53,395	80,633	109,584	360,242
7/3/2022	116,569	0	55,271	83,586	108,952	364,378
7/4/2022	115,743	0	55,403	84,716	108,271	364,133
7/5/2022	115,443	0	58,401	82,982	108,816	365,643
7/6/2022	110,500	33,789	52,709	75,763	99,994	372,755
7/7/2022	106,569	86,440	49,292	79,199	100,454	421,954
7/8/2022	106,500	86,353	49,866	79,256	98,090	420,066
7/9/2022	105,791	86,020	45,902	79,035	98,399	415,147
7/10/2022	110,053	87,004	41,001	79,213	92,629	409,900
7/11/2022	113,928	86,990	36,603	80,492	85,163	403,176
7/12/2022	111,313	85,444	38,391	81,545	83,351	400,044
7/13/2022	111,039	86,506	36,789	80,918	93,825	409,077

Table 2.13-1 (continued)

Date	CrEX-1 (gal.)	CrEX-2 (gal.)	CrEX-3 (gal.)	CrEX-4 (gal.)	CrEX-5 (gal.)	Total (gal.)
7/14/2022	110,868	86,413	34,114	80,817	94,920	407,132
7/15/2022	110,963	86,681	33,104	80,603	94,707	406,059
7/16/2022	110,714	86,339	32,627	80,615	94,255	404,550
7/17/2022	110,883	86,260	31,612	80,526	94,042	403,323
7/18/2022	112,856	86,198	31,088	79,360	93,777	403,278
7/19/2022	112,937	85,343	29,642	79,207	96,158	403,287
7/20/2022	113,429	84,855	29,979	78,066	97,782	404,111
7/21/2022	113,766	84,971	28,827	77,771	97,616	402,951
7/22/2022	114,361	85,833	29,565	77,750	96,142	403,651
7/23/2022	111,162	78,737	27,609	79,736	96,360	393,604
7/24/2022	112,886	87,278	30,303	81,285	95,243	406,994
7/25/2022	114,422	86,845	29,820	80,727	94,829	406,643
7/26/2022	114,473	86,731	29,366	80,793	94,924	406,288
7/27/2022	114,708	86,863	29,035	81,108	95,027	406,740
7/28/2022	114,401	84,998	29,264	79,493	96,581	404,737
7/29/2022	112,273	85,203	29,644	79,111	95,125	401,356
7/30/2022	65,546	50,222	17,459	46,416	52,636	232,278
7/31/2022	56,920	44,177	14,318	39,708	42,511	197,634
8/1/2022	113,091	75,405	31,278	77,741	84,537	382,052
8/2/2022	103,060	79,097	31,076	78,401	87,213	378,847
8/3/2022	111,500	87,913	35,466	78,642	91,319	404,840
8/4/2022	105,116	89,152	34,607	82,287	89,130	400,292
8/5/2022	104,921	88,328	36,890	85,557	86,712	402,408
8/6/2022	105,039	89,337	29,091	85,447	84,750	393,664
8/7/2022	111,067	88,035	33,895	78,369	89,456	400,822
8/8/2022	111,854	87,174	34,745	76,127	94,208	404,109
8/9/2022	110,796	86,171	43,372	72,736	94,329	407,404
8/10/2022	105,414	77,630	40,031	76,326	85,515	384,916
8/11/2022	103,668	87,746	44,632	80,166	95,210	411,421
8/12/2022	103,714	87,864	44,655	80,654	95,100	411,988
8/13/2022	103,482	87,304	44,614	79,969	100,652	416,019
8/14/2022	102,899	86,897	44,646	79,630	102,480	416,552
8/15/2022	103,094	87,207	44,793	79,305	98,560	412,959
8/16/2022	100,523	87,292	47,007	76,021	96,371	407,214
8/17/2022	93,011	88,077	46,470	73,986	97,381	398,925
8/18/2022	90,019	87,889	46,100	76,407	98,982	399,397
8/19/2022	92,345	87,135	45,356	78,648	98,522	402,005
8/20/2022	97,836	86,256	44,599	77,695	98,003	404,389

Table 2.13-1 (continued)

Date	CrEX-1 (gal.)	CrEX-2 (gal.)	CrEX-3 (gal.)	CrEX-4 (gal.)	CrEX-5 (gal.)	Total (gal.)
8/21/2022	98,061	86,339	44,645	77,709	97,867	404,621
8/22/2022	97,897	84,826	44,649	77,704	97,897	402,972
8/23/2022	97,931	84,968	44,041	76,896	97,610	401,446
8/24/2022	92,091	85,640	43,271	76,509	95,353	392,864
8/25/2022	96,796	88,715	40,209	79,481	96,887	402,087
8/26/2022	101,086	86,425	38,001	81,491	97,735	404,738
8/27/2022	91,073	76,370	39,467	81,835	100,775	389,520
8/28/2022	102,576	88,251	39,511	78,978	98,448	407,764
8/29/2022	95,863	90,048	41,838	77,078	93,747	398,574
8/30/2022	92,157	90,286	43,427	77,005	92,364	395,238
8/31/2022	94,359	89,552	40,182	79,766	97,411	401,269
9/1/2022	96,014	89,216	34,323	81,728	100,695	401,976
9/2/2022	96,384	89,003	34,871	82,104	100,368	402,730
9/3/2022	96,493	89,107	36,004	82,082	100,398	404,085
9/4/2022	96,385	88,905	35,625	82,046	100,217	403,178
9/5/2022	95,612	88,516	35,421	81,371	100,237	401,157
9/6/2022	95,034	88,984	35,848	80,644	99,874	400,384
9/7/2022	95,009	88,232	35,439	80,587	99,735	399,002
9/8/2022	99,842	87,211	33,808	83,442	98,690	402,993
9/9/2022	102,314	86,263	34,160	81,150	98,210	402,097
9/10/2022	102,394	86,479	36,464	78,005	98,262	401,604
9/11/2022	102,253	86,382	37,443	77,747	97,985	401,810
9/12/2022	102,301	86,446	37,472	78,478	98,082	402,780
						Total 36,415,910

2.14 Facility Layout Map (Requirement 14)

Figure 2.14-1 is the facility layout map for CY 2022 Quarter 3, showing the location and number of each well.

2.15 Groundwater Elevation Contour Map (Requirement 15)

Figure 2.3-1 provides the groundwater elevation contour map. Section 2.3 provides an explanation of how this map was generated.

3.0 REFERENCES

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NMED (New Mexico Environment Department) June 2022. "Risk Assessment Guidance for Site Investigations and Remediation, Volume 1, Soil Screening Guidance for Human Health Risk Assessments," Hazardous Waste Bureau and Ground Water Quality Bureau, Santa Fe, New Mexico (NMED 2022).

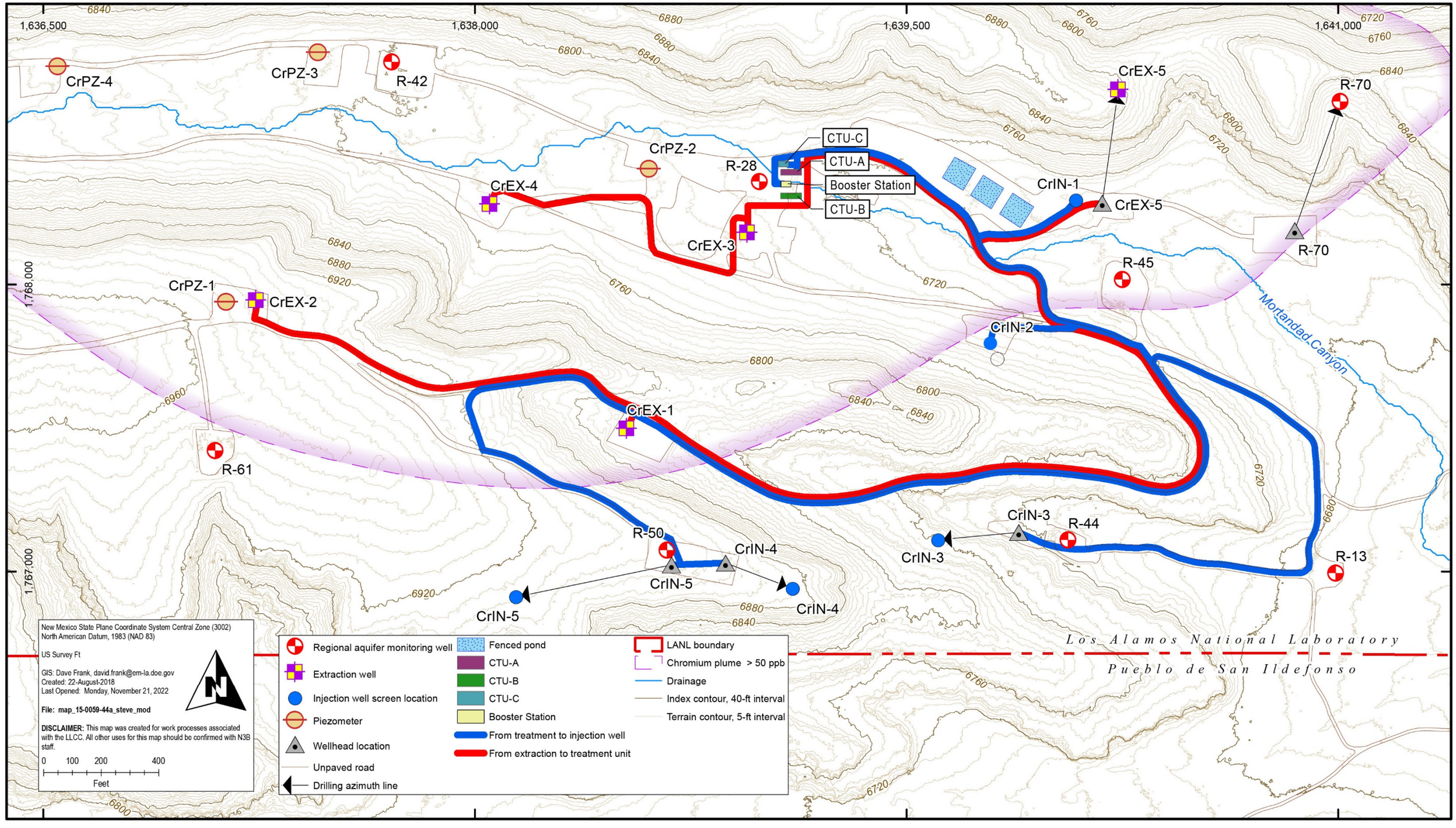

Figure 2.14-1 Facility layout map – CY 2022 Quarter 3, DP-1835