



July 14, 2023

Reference No. 11209494

Renee Wawczak – Project Manager
United States Environmental Protection Agency
Region 5 [Mail Code LU-16J]
77 W. Jackson Boulevard
Chicago, Illinois 60604-3590

Send Via E-mail
(Wawczak.Renee@epa.gov)

Dear Renee:

**Re: Quarterly Progress Report – Q2-2023
EPA Docket No. RCRA-05-2020-0005
CITGO Terminal, East Chicago, Indiana**

This submission has been prepared on behalf of CITGO Petroleum Corporation (CITGO) in accordance with the Section 3008(h) Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6928(h) Administrative Order on Consent (AOC) (RCRA Docket No: RCRA-05-2020-0005 with an effective date of January 24, 2020) for the CITGO Terminal at 2500 East Chicago Avenue, East Chicago, Indiana (EPA ID: IND 095267381) (Site).

This report is organized to address reporting requirements set out in Section VII of the AOC. This report summarizes the activities conducted at the Site from April 1, 2023 through June 30, 2023.

1. Summary of Work Performed during the Reporting Period

- Participated in monthly project status calls including discussion on RFI progress with EPA, OXY, CITGO, and GHD on April 20th and May 25th, 2023.
- Quarterly groundwater gauging and sampling event was conducted between June 12th to June 19th, 2023.
- Based on discussion with EPA on December 15th 2022, and in accordance with the January 18th 2023 workplan, CITGO completed a transmissivity test on CITGO-MW16-20 on April 13th, 2023.

2. Summary of Reports, and Other Deliverables Completed During the Reporting Period

- Submitted Q1 2022 Quarterly Progress Report on April 12th, 2023.
- Submitted a letter summarizing the results of the CITGO-MW16-20 transmissivity test on May 26th, 2023.
- Received EPA comments on the CMP Report on April 20, 2023. CITGO is evaluating and revising the CMP based on these comments and will resubmit the CMP within the next reporting period.

3. Summary of Problems Encountered and Planned Resolutions

- None

4. Summary of Results of Sampling, Tests, or Other Data Received or Generated

- RFI field activities were completed in accordance with the plan outlined in the RFI Report submitted October 1, 2021, and slightly modified based on the response to EPA comments on the RFI dated January 31st, 2022.
- Figure 1 presents the groundwater contours for the June 2023 gauging event.



- Figure 2 and Figure 3 present a summary of exceedances of groundwater screening criteria including up to the quarterly groundwater monitoring event completed in March 2023. The June 2023 sampling event data is undergoing data validation and will be provided in the next quarterly status report.
- Table 1 presents the validated groundwater sampling results from the March 2023 quarterly monitoring event.

5. Anticipated Activities During the Next Reporting Period

- Complete validation of Q2-2023 quarterly sampling data
- As requested by EPA, the two years of additional post-RFI quarterly groundwater monitoring is complete as of the Q2-2023 quarterly sampling event. There are currently no additional scheduled groundwater sampling events. Upon review and submittal of the Q2-2023 sampling event data, the necessity for additional monitoring will be evaluated and discussed with EPA.

6. Project Schedule

- Attachment A presents the currently anticipated project schedule.

7. Percent Project Completed

- At the time of this report, the project is approximately 90% completed.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Should you have any questions on the above, please do not hesitate to contact us.

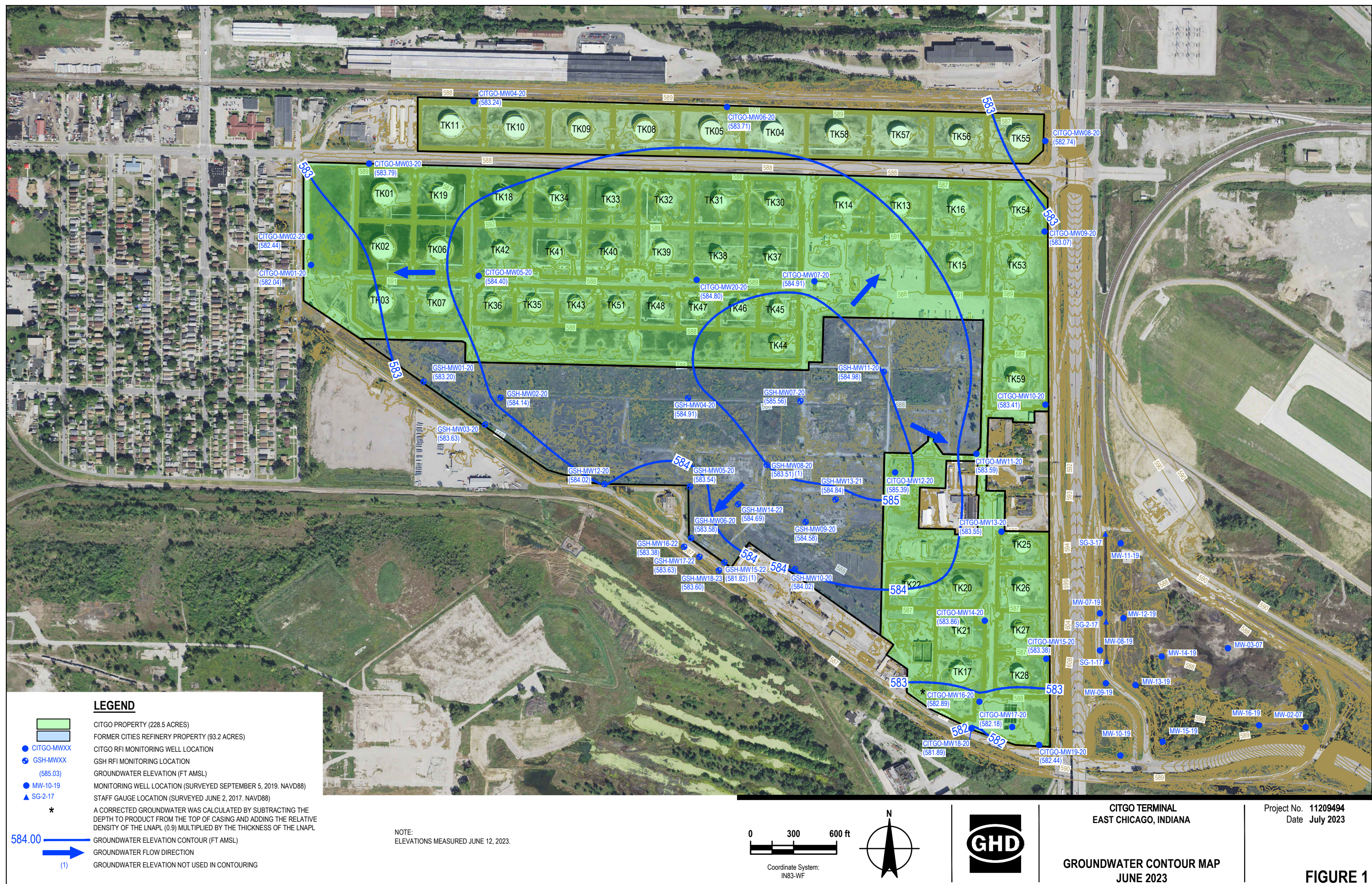
Respectfully submitted,

CITGO Petroleum Corporation

Scott Buckner, CITGO Project Manager

JEP/kf/21

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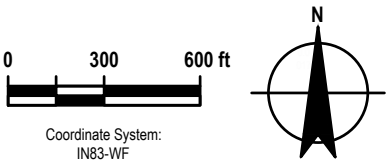




a - EPA - MCL OR IDEM - TAP/RESIDENTIAL
b - IDEM 2019 - GROUND WATER/RESIDENTIAL
c - IDEM 2019 - GROUND WATER/COMMERCIAL/INDUSTRIAL

Filename: N:\CA\Waterloo\Projects\662\11209494\Digital_Design\ACAD 2020\Figures\PRE009\11209494-GHD-00-00-PRE-EN-D101_WA-009.DWG
Plot Date: 02 May 2023 10:37 AM

NOTE:
RESULTS FROM MONITORING LOCATIONS CITGO-MW05-20, CITGO-MW07-20, CITGO-MW12-20, CITGO-MW14-20, CITGO-MW16-20, CITGO-MW17-20, AND CITGO-MW20-20 ARE SCREENED AGAINST INDUSTRIAL SCREENING LEVELS ONLY



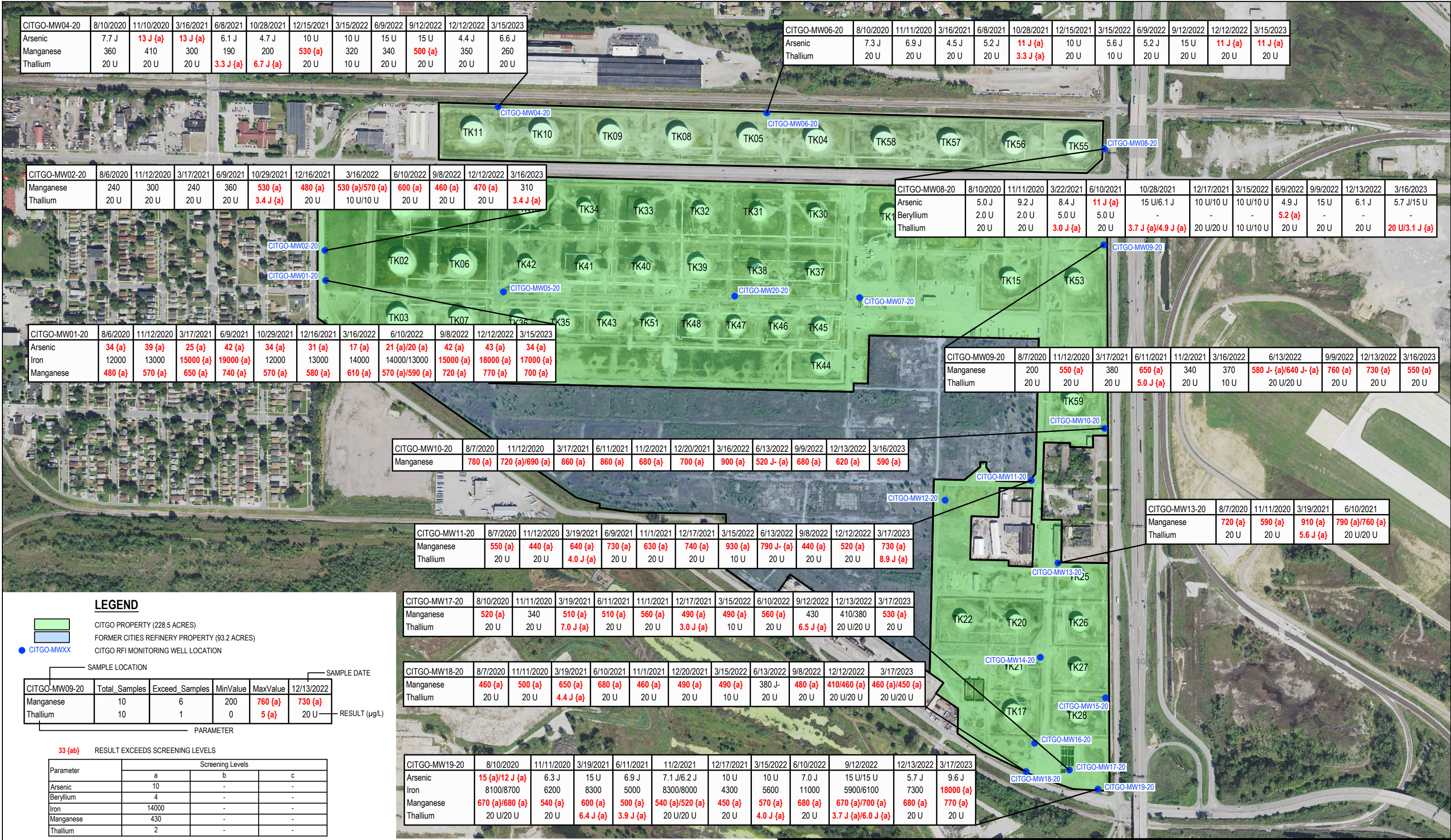
CITGO TERMINAL
EAST CHICAGO, INDIANA

SUMMARY OF SCREENING LEVEL
EXCEEDANCES IN GROUNDWATER
(ORGANIC)

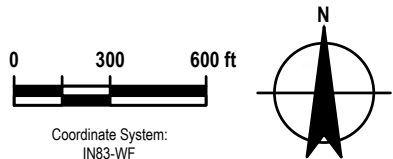
Project No. 11209494
Date May 2023

FIGURE 2

Source: AERIAL IMAGE, 2016 NAIP; MONITORING WELL SURVEY BY CM LAVOIE DATED JULY 30, 2020.



a - EPA - MCL OR IDEM - TAP/RESIDENTIAL
b - IDEM 2019 - GROUND WATER/RESIDENTIAL
c - IDEM 2019 - GROUND WATER/COMMERCIAL/INDUSTRIAL



CITGO TERMINAL
EAST CHICAGO, INDIANA

**SUMMARY OF SCREENING LEVEL
EXCEEDANCES IN GROUNDWATER
(INORGANIC)**

Project No. 11209494
Date May 2023

FIGURE 3

Table 1

Analytical Results Summary - March 2023
CITGO Terminal
East Chicago, Indiana

Sample Location:		CITGO-MW01-20	CITGO-MW02-20	CITGO-MW03-20	CITGO-MW04-20	CITGO-MW06-20	CITGO-MW08-20	CITGO-MW08-20	CITGO-MW09-20
Sample ID:		WG-031523-AC-02	WG-031623-AC-04	WG-031623-AC-06	WG-031523-NN-01	WG-031523-NN-03	WG-031623-AC-09	WG-031623-AC-08	WG-031623-NN-05
Sample Date:		3/15/2023	3/16/2023	3/16/2023	3/15/2023	3/15/2023	3/16/2023 (Duplicate)	3/16/2023	3/16/2023
Parameters	Units								
Volatiles									
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Semi-Volatiles									
2-Methylnaphthalene	ug/L	0.20 U	0.27	0.20 U	0.19 U	0.20 U	0.19 U	0.19 U	0.20 U
Naphthalene	ug/L	0.20 U	0.39	0.20 U	0.19 U	0.20 U	0.37	0.45	0.65
Metals									
Arsenic	ug/L	34	15 U	15 U	6.6 J	11 J	15 U	5.7 J	15 U
Iron	ug/L	17000	6100	460	1200	1400	4800	8000	2300
Manganese	ug/L	700	310	27	260	410	260	300	550
Thallium	ug/L	20 U	3.4 J	20 U	20 U	20 U	20 U	3.1 J	20 U

Footnotes:

- U Not detected at the associated reporting limit.
J Estimated concentration.

Table 1
Analytical Results Summary - March 2023
CITGO Terminal
East Chicago, Indiana

Sample Location:		CITGO-MW10-20	CITGO-MW11-20	CITGO-MW17-20	CITGO-MW18-20	CITGO-MW18-20	CITGO-MW19-20
Sample ID:		WG-031623-NN-07	WG-031723-NN-10	WG-031723-AC-11	WG-031723-NN-13	WG-031723-NN-12	WG-031723-AC-14
Sample Date:		3/16/2023	3/17/2023	3/17/2023	3/17/2023 (Duplicate)	3/17/2023	3/17/2023
Parameters	Units						
Volatiles							
Benzene	ug/L	1.0 U	1.2	1.9	1.0 U	1.0 U	1.0 U
Semi-Volatiles							
2-Methylnaphthalene	ug/L	0.19 U	0.20 U	5.1	0.20 U	0.20 U	0.19 U
Naphthalene	ug/L	0.19 U	0.20 U	0.46	0.20 U	0.20 U	0.19 U
Metals							
Arsenic	ug/L	15 U	9.4 J	5.6 J	5.9 J	4.9 J	9.6 J
Iron	ug/L	4700	5300	8000	10000	11000	18000
Manganese	ug/L	590	730	530	450	460	770
Thallium	ug/L	20 U	8.9 J	20 U	20 U	20 U	20 U

Footnotes:

- U Not detected at the associated reporting limit.
J Estimated concentration.



CITGO Petroleum Corporation

2316 Terminal Drive
Arlington Heights, IL 60005

ATTACHMENT A

Project Schedule

Project Schedule - AOC CITGO Terminal East Chicago, IN																					
ID	Task Name	Duration	Start	Finish	2022 Q1	Q2	Q3	Q4	2023 Q1	Q2	Q3	Q4	2024 Q1	Q2	Q3	Q4	2025 Q1	Q2	Q3		
1	<u>Administrative</u>	965 days	<u>Fri 1/24/20</u>	<u>Mon 10/16/23</u>																	
2	Effective Date of AOC	1 day	Fri 1/24/20	Fri 1/24/20																	
3	Semi-Annual Meetings - Meeting with EPA either by phone or in person on at least a semi-annual basis	261 days	Fri 7/29/22	Fri 7/28/23																	
7	Quarterly Reports - Fifteenth day of the month after the end of each quarter	392 days	Fri 4/15/22	Mon 10/16/23																	
15	Financial Assurance Update (Updated annually and/or with subsequent work plans)	523 days	Mon 9/20/21	Thu 9/21/23																	
18	<u>RFI</u>	765 days	<u>Wed 7/1/20</u>	<u>Thu 6/15/23</u>																	
19	RFI Field Activities	12 mons	Wed 7/1/20	Wed 6/9/21																	
20	RFI Report Submitted	1 day	Fri 10/1/21	Fri 10/1/21																	
21	Public Meeting, including 30-Day Comment Period	1 mon	Wed 6/1/22	Tue 6/28/22																	
22	EPA Final Comments and Approval of RFI Report	1 day	Mon 8/1/22	Mon 8/1/22																	
23	Quarterly Groundwater Monitoring	262 days	Wed 6/15/22	Thu 6/15/23																	
29	Environmental Indicators Report(s) - 60 Days following EPA Final Comments on RFI	1 day	Fri 12/23/22	Fri 12/23/22																	
30	<u>Final Corrective Measures</u>	646 days	<u>Wed 12/14/22</u>	<u>Wed 6/4/25</u>																	
31	Final Corrective Measures Proposal Submitted	1 day	Wed 12/14/22	Wed 12/14/22																	
32	Corrective Measures Proposal - EPA review and comments / CITGO Revisions (Schedule Timeframe Estimated)	9 mons	Thu 12/15/22	Wed 8/23/23																	
33	Public Meeting, including 30-Day Comment Period (Schedule Timeframe Estimated)	2 mons	Thu 1/18/24	Wed 3/13/24																	
34	EPA Final Decision (Schedule Timeframe Estimated)	2 mons	Thu 3/14/24	Wed 5/8/24																	
35	Final Corrective Measures Implementation - (According to the schedule in the Final Decision, i.e. much of the construction completed within one year, or within a reasonable period of time after EPA selects the final corrective measures)	12 mons	Thu 5/9/24	Wed 4/9/25																	
36	Final Remedy Construction Completion Report (Including an Operation and Maintenance Plan)	2 mons	Thu 4/10/25	Wed 6/4/25																	
Project: CITGO Terminal, East Chicago, IN Date: Fri 7/14/233:00 PM		Expected Timeframe Expected Date Contingent Timeframe Fixed Date		Summary Manual Progress																	
Note: Per AOC, 'days' refers to calendar days Schedule subject to change based on regulatory reviews/approvals, weather, and other factors beyond Respondent's control																					