



# Glenn Springs Holdings, Inc.

A subsidiary of Occidental Petroleum

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April 14, 2022

Reference No. 11208111

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 – Q1-2022**  
**EPA Docket No. RCRA-05-2020-0006**  
**Former Cities Refinery, East Chicago, Indiana**

This submission has been prepared on behalf of OXY USA Inc. (OXY) 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-05-2020-0006 with an effective date of January 24, 2020) for the Former Cities Refinery at 2500 Rear East Chicago Avenue, East Chicago, Indiana (EPA ID: INR000123927, formerly part of IND095267381) (Site).

This report is organized to address reporting requirements set out in Section VII of the AOC. This report summarizes the activities conducted for and at the Site from January 1, 2022 through March 31, 2022.

## 1. Summary of Work Performed during the Reporting Period (January 1, 2021 – March 31, 2021)

- Participated in project status calls including discussion on RFI progress and upcoming public meeting presentation with OXY, EPA, CITGO, and GHD on January 20<sup>th</sup>, February 17<sup>th</sup>, and March 17<sup>th</sup>, 2022.
- Conducted visual inspections of on-Site manhole structures on January 17<sup>th</sup>, 2022
- Conducted visual inspections of on-Site manhole structures on February 22<sup>nd</sup>, 2022
- Conducted visual inspections of on-Site manhole structures on March 30<sup>th</sup>, 2022
- Quarterly groundwater gauging and sampling event was conducted between March 14<sup>th</sup> - 18<sup>th</sup>, 2022.

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

- Q1 2021 Quarterly Progress Report submitted January 14<sup>th</sup>, 2022.
- EPA provided draft comments on the RFI January 19, 2022 via email, which were discussed during the monthly progress status call on January 20<sup>th</sup>, 2022. On January 31, 2022, a response to EPA's draft comments were submitted to memorialize the discussion on January 20<sup>th</sup>, 2022 which were approved by EPA on February 1, 2022.

## 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 31<sup>st</sup>, 2022.
- Figure 1 presents the groundwater contours for the March 2022 gauging event.

- Figure 2 presents a summary of exceedances of screening levels in groundwater, including the most recent quarterly groundwater monitoring event completed in December 2021. The March 2022 sampling event data is undergoing validation and will be provided in the next quarterly status report.
- Table 1 presents the validated groundwater sampling results from the December 2021 quarterly monitoring event.

#### **5. Anticipated Activities During the Next Reporting Period**

- Complete validation of Q1-2022 quarterly sampling data.
- Conduct Q2-2022 quarterly sampling event (June 2022).
- Complete periodic inspections of on-Site manhole structures and removal of LNAPL, as needed.
- Install two additional off-Site monitoring well downgradient of GSH-MW06-20. OXY is in the process of coordinating with relevant parties (land owners, utilities, etc.) to facilitate the installation of the off-Site wells. OXY will continue to collaborate with EPA on final well locations and a proposed schedule for installation.
- Pending EPA approval, implement on-Site LNAPL degradation pilot study work plan.
- Participation in public meeting.

#### **6. Project Schedule**

- Attachment A presents the currently anticipated project schedule completed in accordance with the AOC.

#### **7. Percent Project Completed**

- At the time of this report, the project is approximately 63% 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,

GLENN SPRINGS HOLDINGS, INC.

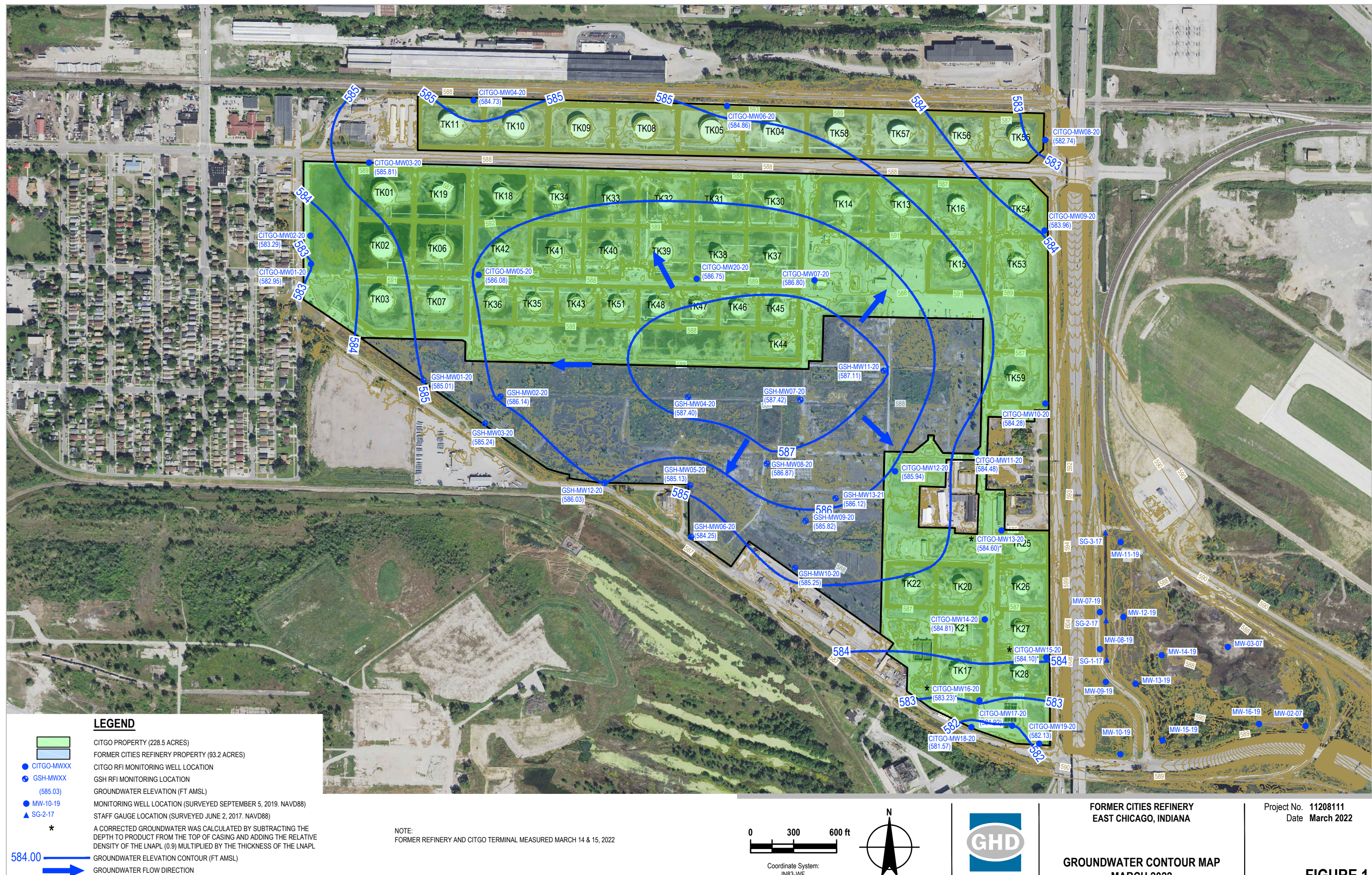


Rick Passmore, OXY Project Manager

JEP/kf/23

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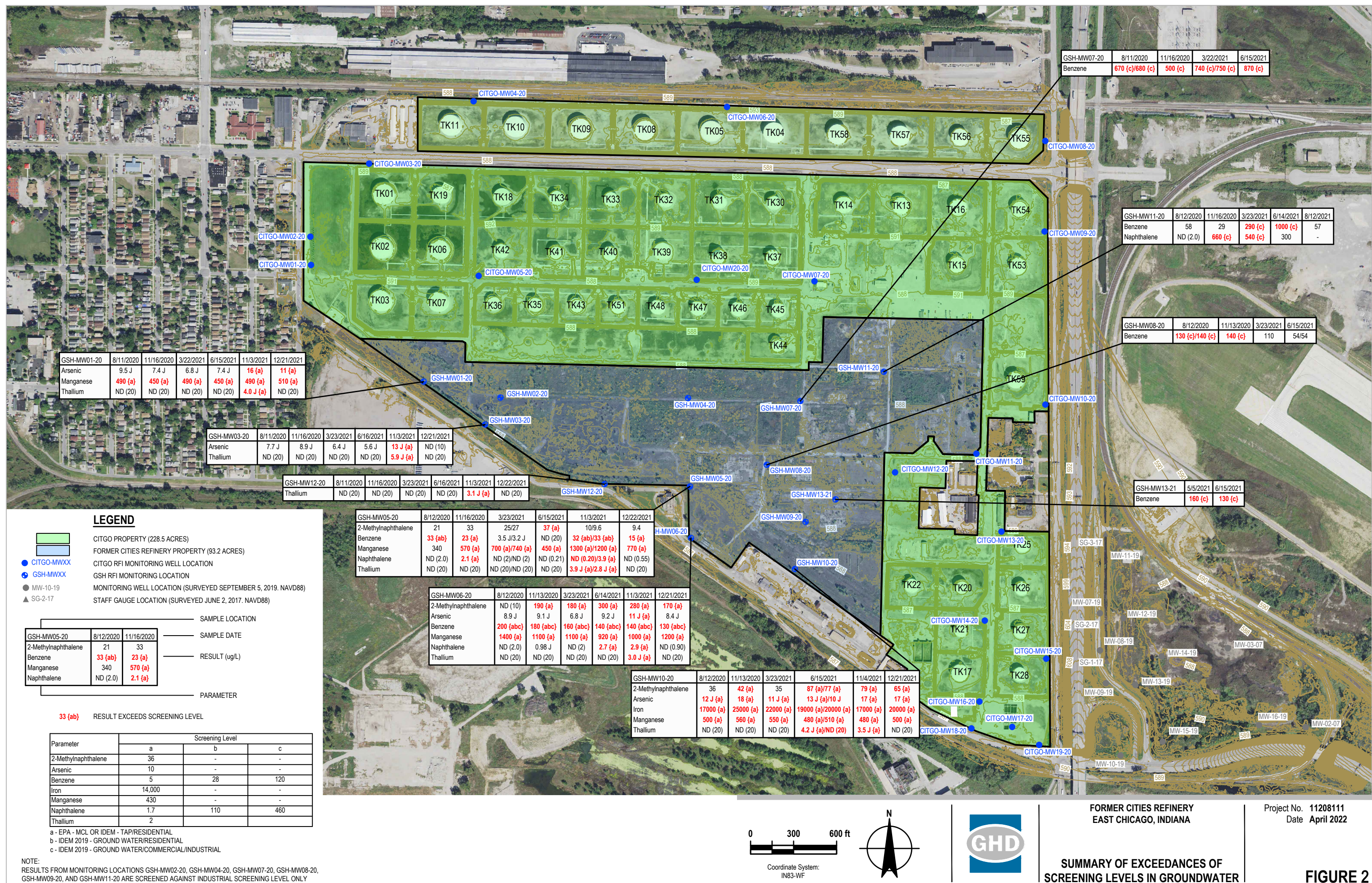




Table 1

**Former Cities Refinery  
Analytical Results Summary  
Sampling**

Location ID: Sample Name: Sample Date: Depth:		GSH-MW01-20 WG-122121-DS-15 12/21/2021 --	GSH-MW03-20 WG-122121-DS-16 12/21/2021 --	GSH-MW05-20 WG-122221-DS-18 12/22/2021 --	GSH-MW06-20 WG-122121-DS-14 12/21/2021 --	GSH-MW10-20 WG-122121-DS-12 12/21/2021 --	GSH-MW12-20 WG-122221-DS-17 12/22/2021 --
Parameters	Unit						
<b>Volatile Organic Compounds</b>							
Benzene	µg/L	2.6	1.0 U	15	130	1.6	1.0 U
<b>Semivolatile Organic Compounds</b>							
2-Methylnaphthalene	µg/L	0.54 U	0.18 U	9.4	170	65	0.18 U
Naphthalene	µg/L	0.54 U	0.18 U	0.55 U	0.90 U	0.90 U	0.18 U
<b>Metals</b>							
Arsenic	µg/L	11	10 U	10 U	8.4 J	17	10 U
Iron	µg/L	14000	4000	8100	6000	20000	2000
Manganese	µg/L	510	380	770	1200	500	200
Thallium	µg/L	20 U	20 U	20 U	20 U	20 U	20 U

## Footnotes:

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



ATTACHMENT A  
Project Schedule



Draft Project Schedule - AOC Former Cities Refinery East Chicago, IN																	
ID	Task Name	Duration	Start	Finish	2022 Q1	Q2	Q3	Q4	2023 Q1	Q2	Q3	Q4	2024 Q1	Q2	Q3		
1	<b><u>Administrative</u></b>	<b>965 days</b>	<b><u>Fri 1/24/20</u></b>	<b><u>Mon 10/16/23</u></b>													
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	<b><u>RFI</u></b>	<b>444 days</b>	<b><u>Fri 10/1/21</u></b>	<b><u>Thu 6/15/23</u></b>													
19	On-going Quarterly Groundwater Monitoring and Off-Site Investigation (Exact Dates TBD)	262 days	Wed 6/15/22	Thu 6/15/23													
25	Additional RFI Work Plan(s), as needed	1 day	Fri 7/1/22	Fri 7/1/22													
26	EPA Review and Approval of RFI Work Plan(s), as needed	1 day	Fri 7/1/22	Fri 7/1/22													
27	RFI Field Activities, as needed	1 day	Fri 7/1/22	Fri 7/1/22													
28	Submit RFI Report - No later than October 1, 2021	1 day	Fri 10/1/21	Fri 10/1/21													
29	<b><u>Interim Corrective Measures, as needed</u></b>	<b>1 day</b>	<b><u>Fri 7/1/22</u></b>	<b><u>Fri 7/1/22</u></b>													
30	Interim Corrective Measures Work Plan(s), as needed	1 day	Fri 7/1/22	Fri 7/1/22													
31	Interim Corrective Measures Implementation, as needed (90 days following submittal of Interim Corrective Measures Work Plan and Schedule)	1 day	Fri 7/1/22	Fri 7/1/22													
32	Interim Corrective Measures Report (Either prior to or as part of the Environmental Indicators Report)	1 day	Fri 7/1/22	Fri 7/1/22													
33	<b><u>Final Corrective Measures</u></b>	<b>570 days</b>	<b><u>Mon 5/16/22</u></b>	<b><u>Fri 7/19/24</u></b>													
34	Public Meeting, including 30-Day Comment Period (Exact Date TBD)	30 days	Mon 5/16/22	Fri 6/24/22													
35	Environmental Indicators Report(s) - 60 Days following EPA Final Comments on RFI	1 day	Mon 8/22/22	Mon 8/22/22													
36	Installation of Off-Site Monitoring Wells (Estimated Schedule)	2 days	Wed 6/1/22	Thu 6/2/22													
37	Final Corrective Measures Proposal - Within 90 Days following 2 quarters of Data from Off-Site Monitoring Wells	1 day	Fri 12/9/22	Fri 12/9/22													
38	EPA review and comments, supplemental information / investigation request (if needed)	3 mons	Mon 12/12/22	Fri 3/3/23													
39	Public review and comment	2 mons	Mon 3/6/23	Fri 4/28/23													
40	EPA Final Decision	2 mons	Mon 5/1/23	Fri 6/23/23													
41	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	Mon 6/26/23	Fri 5/24/24													
42	Final Remedy Construction Completion Report (Including an Operation and Maintenance Plan)	2 mons	Mon 5/27/24	Fri 7/19/24													
Project: Former Cities Refinery, East Chicago, IN Date: Wed 4/13/223:35 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 <b>DRAFT</b>																	
Privledged and Confidential - Prepared at the Request of Counsel																	