



Stantec Consulting Services Inc.
725 East Fireweed Lane Suite 200, Anchorage AK 99503-2245

December 7, 2021

Stantec Project Number: 185705376

Danny Monson, Advanced HES Professional
ES&S-Waste and Remediation
Marathon Petroleum Company, LP
301 E. Ocean Blvd., Suite 1600
Long Beach, CA 90802

Reference: **Corrective Action Plan for 2022**
Former Tesoro 2Go Mart 101 and IFC (Speedway Store 5313)
3569 South Cushman Street, Fairbanks, Alaska
ADEC Facility ID #2960; ADEC File #100.26.022

Dear Mr. Monson:

This letter presents the 2022 (calendar year) Corrective Action Plan (CAP) for the monitoring of contamination at the above referenced site. The 2022 CAP is submitted on behalf of Tesoro Refining & Marketing Company (Tesoro) for Speedway Store #5313 (formerly known as Tesoro 2Go Mart 101) and IFC.

This 2022 CAP will be presented at the annual work session with the Alaska Department of Environmental Conservation (ADEC), Marathon Oil Company (MPC) and Stantec Consulting Services Inc. (Stantec). The work session is scheduled for December 7, 2021, and will be presented by Stantec to Pete Campbell, ADEC representative, in person at the Stantec Anchorage Alaska office or via Microsoft Teams app.

Attached to this letter are the project site plans and analytical test results for samples collected during the completion of the 2021 CAP tasks. The site plans, sampling test results and additional site documents for the subject site will be included in the presentation of the December 7 work session.

The following sections provide a summary of the work plan tasks that were completed under the current 2021 CAP and the proposed work plan tasks for the 2022 CAP.

2021 Work Plan Tasks

- *Task 1 –Groundwater Monitoring*
This task was completed in accordance with the approved 2021 CAP.
- *Task 2 – O&M Remediation System*
This task was completed in accordance with the approved 2021 CAP.

- Task 3 – Install additional 100-foot long drainfield to handle increased flow from wells CRW-2 and WRW 2020

This task was completed in accordance with the approved 2021 CAP.

Proposed Work Plan Tasks for 2022

- Task 1 –Groundwater Monitoring

Annual monitoring of the groundwater wells and the remediation free product recovery well will be conducted. Sampling locations and analyses for the groundwater monitoring wells and free product recovery wells are listed on the 2022 Work Plan Schedule below.

Work Plan Task		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Task 1	Monitoring Wells: MW-3, MW-4, MW-8, MW-14, MW-17, MW-19-1, MW-19-2, and Aeration Treatment Tank (influents from wells CRW-2 and WRW 2020 and effluent discharged to the drainfield)			V, G, D, P & I	
Task 2	O&M Free Product Recovery Systems in wells CRW-2 and WRW 2020. Includes pumping out sludge in Aeration Treatment Tank and Off-site treatment and disposal of sludge.	✓	✓	✓	✓
Task 3	The 40-cubic yard stockpile of contaminated soil generated from the construction of the new 2021 drainfield will be hauled to an ADEC approved off-site treatment facility for treatment and disposal.		✓	✓	
Task 4	Drill 6 Confirmation Soil Borings on IFC property and Speedway Store 5313.		✓	✓	
Task 5	Decommission 5 Abandoned Monitoring Wells.		✓	✓	

Key:

- AK – Alaska Test Method
- D – Diesel range organics by AK102.
- E – Drinking water parameters by EPA Method 524.1.
- G – Gasoline range organics by AK101.
- I – Intrinsic indicators consisting of dissolved oxygen, specific conductance, oxygen-reduction potential, pH, and temperature.

O&M – Operation and Maintenance
V – Volatile organic compounds by EPA Test Method 8260C.
S – Sodium analyzed by Metals (ICP) Method 6010C.
P – Polynuclear aromatic hydrocarbons (PAHs), i.e., semi-volatile organic compounds, by EPA Test Method 8270D Selective Ion Monitoring (SIM).

- **Task 2 – O&M Remediation System**

Perform quarterly maintenance on the free product recovery wells CRW-2 and WRW 2020. The O&M work will include quarterly maintenance on the free product recovery pumps, the groundwater drawdown pump, the aeration blower, the iMonnit sensors and extraction of free product with a peristaltic pump as necessary.

The submersible drawdown pumps are operated on a continuous basis (24 hours per day). The groundwater pumped with the two remediation wells' drawdown submersible pumps are operated on a continuous basis (24 hour per day). The drawdown water from both wells discharges to the on-site 1,500 gallon, 2 compartment aeration tank that flows into the drainfield Infiltrator® system for additional treatment. The accumulated iron precipitated sludge contained in the Aeration Treatment Tank will be removed/pumped out and hauled to an ADEC approved off-site thermal treatment facility for treatment and disposal.

The free product recovered from remediation wells CRW-2 and WRW 2020 will be collected and temporarily stored on-site in a double-walled drum that is equipped with an over-fill shut-off device. The volume of the stored free product will be measured and properly disposed of at an ADEC approved off-site treatment facility.

- **Task 3 – Transport and Treat Off-site 40-Cubic Yard Stockpile of Contaminated Soil**

- The 40-cubic yard stockpile of contaminated soil generated from the construction of the new 2021 drainfield will be hauled to an ADEC approved off-site treatment facility for treatment and disposal. Stantec will submit a request to ADEC to approve the transport and treatment of the soil stockpile.

- **Task 4 – Drill 6 Confirmation Soil Borings on IFC property and Speedway Store 5313**

This task consists of the drilling 6 soil confirmation borings (CSBs) located at strategic locations on IFC property and Speedway Store 5313. These CSBs will be used to assess the sites for the extent and characteristics of residual petroleum contamination, if any, in the subsurface soil and groundwater table. Stantec will prepare a work plan for the installation and sampling of the proposed CSBs and submit it to ADEC for review and approval.

- **Task 5 – Decommission 5 Abandoned Monitoring Wells.**

This task consists of decommissioning 5 abandoned monitoring wells that includes the following wells: MW G-1, MW-24, MW-26, MW-29 and MW-D2. These wells are no longer used for the assessment of the subject site. A site plan showing the locations of the wells will be presented at the December 7 work plan meeting. Stantec will prepare a work plan for the decommissioning of the monitoring wells and submit it to ADEC for review and approval.

The Corrective Action Work Plan for the year 2022 will be implemented by Stantec on behalf of Tesoro. Groundwater monitoring will be conducted to track migration and trends of contaminants that are present at the site. All sampling activities will be completed in accordance with ADEC's



Underground Storage Tanks Procedures Manual– Standard Sampling Procedures (March 22, 2017). The methods that will be used for conducting a monitoring event, unless otherwise noted in the monitoring report, will include:

- The static water levels in the monitoring wells will be measured with respect to the top of each well casing. The elevation of the static water level will be based on an arbitrary datum established on-site during a vertical control survey that will be completed by Stantec on an annual basis. The survey will be performed during the summer after the seasonal frost layer thaws.
- The monitoring wells will be purged of a minimum of three well bore volumes prior to collecting the water samples. A new, disposable, Teflon® bailer will be used to sample each well. The first bail of water removed from each well will be examined for petroleum odor, sheen, and any other unique physical features.
- Water samples will be collected in laboratory-supplied sample containers. The samples will be delivered to an ADEC-approved laboratory in accordance with standard chain-of-custody procedures.
- Additional water samples will be collected from the monitoring wells after the well has been purged, as described above, and tested in the field for chemical and physical intrinsic parameters listed in the 2022 Work Plan Schedule shown above.

If you have any questions or need additional information concerning this 2022 Corrective Action Work Plan, please contact us at (907) 248-8883.

Regards,

STANTEC CONSULTING SERVICES INC.

A handwritten signature in black ink that appears to read "M. Zidek".

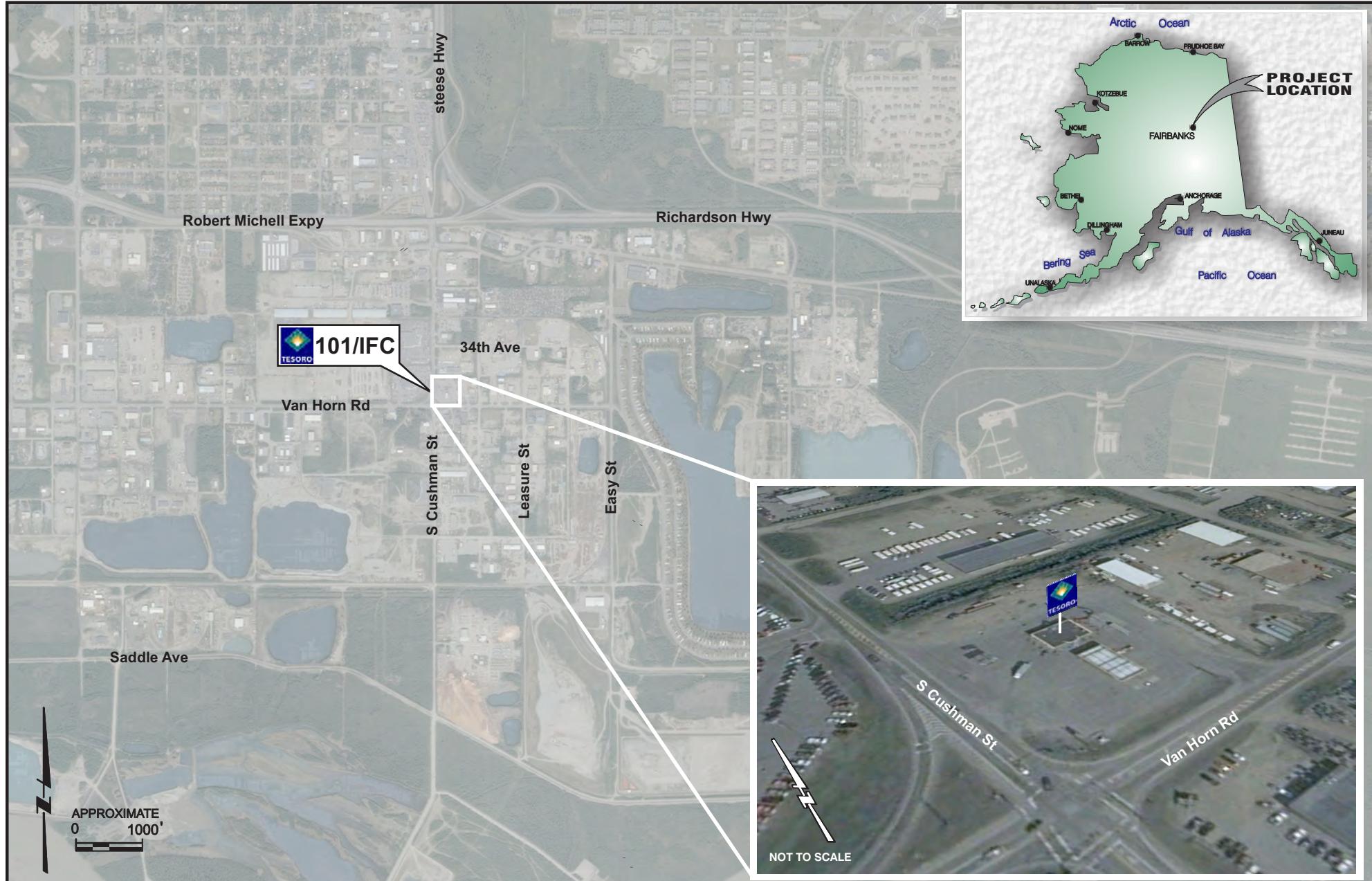
Michael A. Zidek, PMP
Project Manager

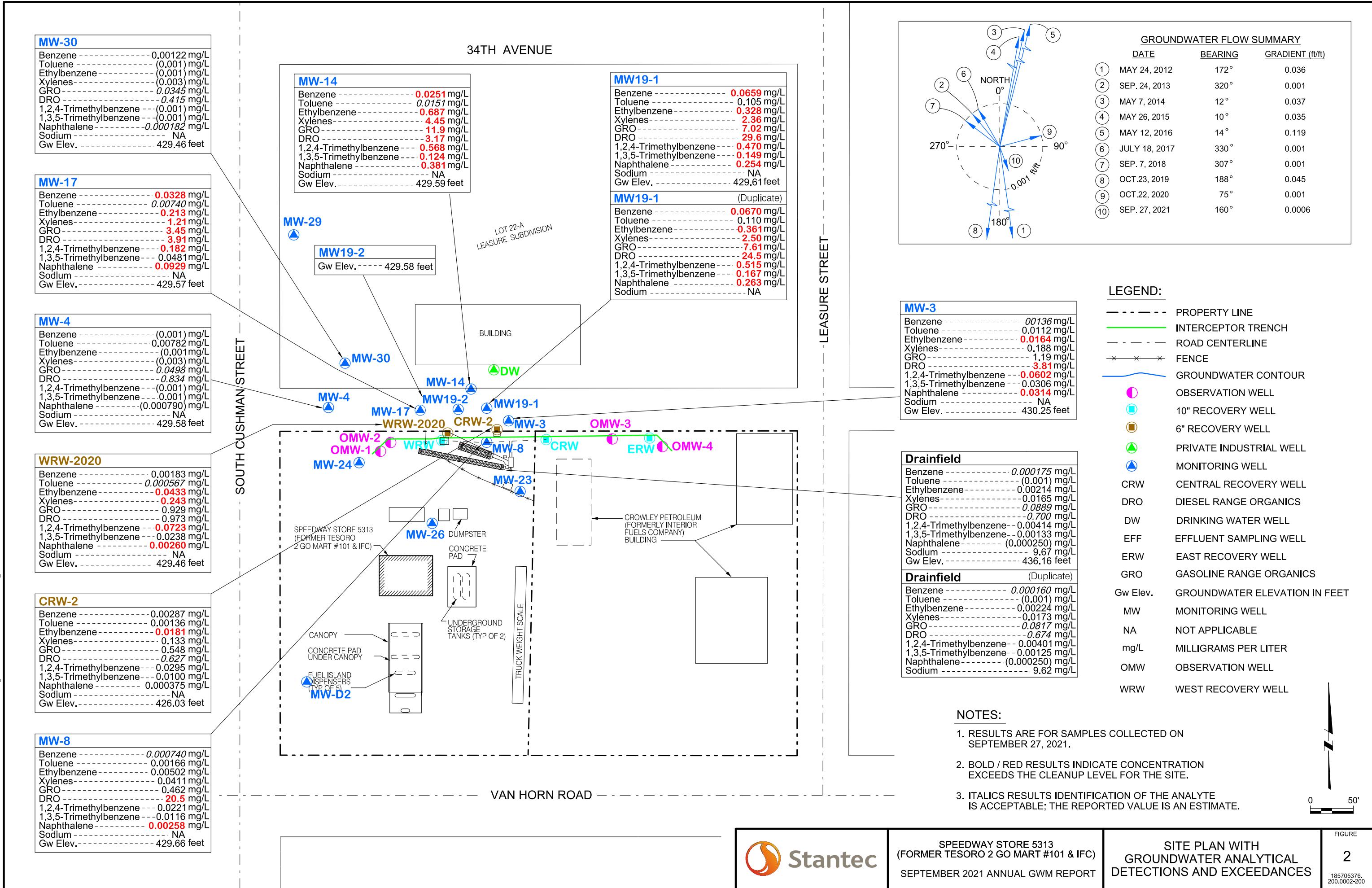
A handwritten signature in black ink that appears to read "Bob E. Gilfilian".

Bob Gilfilian, P.E.
Project Technical Lead

Attachments: Location and Vicinity Map and Site Plan

Site Plan with Groundwater Analytical Results
Analytical Test Results (historical tables)





Appendix D
Tables of Historical Groundwater Monitoring Data
Monitoring Well MW-1

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
04-Nov-91	0.016	NS	NS	431.01	430.91	430.99
29-Jan-92	NS	NS	NS	432.03	430.34	431.69
12-Apr-95	NS	NS	NS	432.17	426.20	430.98
19-Jul-95	0.278	NS	NS	NA	432.84	NA
22-May-96	NS	NS	NS	NA	NM	NA
06-Nov-96	NS	NS	NS	NA	NM	NA
29-Apr-98	NS	NS	NS	NA	NM	NA
13-Oct-98	0.149	10	47.8	NA	431.47	NA
28-Jan-00	NS	NS	NS	429.52	427.88	429.19
24-Apr-02	NS	NS	NS	NA	NM	NA
20-Aug-02				Well Destroyed		
GCL	0.0046	2.2	1.5	NA	NA	NA

Not sampled Jan. 29. 1992- April 12, 1995

Not Sampled Jan. 28, 2000 to April 24, 2002

Monitoring Well MW-2

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
04-Nov-91	U	NS	NS	NA	431.31	NA
17-Nov-97	U	U	NS	NA	431.01	NA
29-Apr-98	U	U	0.203	NA	428.85	NA
13-Oct-98	U	U	0.278	NA	431.18	NA
27-Jul-00	U	U	0.314	NA	431.71	NA
08-Mar-01	NS	NS	NS	NA	431.08	NA
04-Jun-01	U	U	U	NA	431.32	NA
30-Nov-01	NS	NS	NS	NA	NM	NA
04-Jun-08	NS	NS	NS	NA	NM	NA
13-May-09	U (0.0005)	U (0.05)	U (0.467)	NA	NM	NA
15-Jun-10	NS	NS	NS	NA	NM	NA
04-Oct-11				Well Decommissioned		
GCL	0.0046	2.2	1.5	NA	NA	NA

Analytes undetected/Not Sampled Nov. 04, 1991 to Nov. 17, 1997

Not activity involving well Nov. 30, 2001- June 04, 2008

Appendix D
Tables of Historical Groundwater Monitoring Data
Monitoring Well MW-3

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
6-Nov-91	NS	NS	NS	431.53	428.98	431.02
12-Mar-95	NS	NS	NS	430.86	427.70	430.23
13-Apr-95	0.090	NS	NS	432.05	429.12	431.46
19-Jul-95	NS	NS	NS	432.76	430.53	432.31
25-Oct-95	0.480	NS	200	432.11	430.18	431.72
22-May-96	0.050	NS	NS	431.27	429.80	430.98
06-Nov-96	NS	NS	NS	430.86	427.68	430.22
19-Mar-97	0.095	NS	NS	430.22	426.72	429.52
17-Nov-97	0.0421	2.2	NS	432.89	430.96	432.50
29-Apr-98	0.0273	2.3	118	430.62	428.17	430.13
13-Oct-98	NS	NS	NS	432.25	431.07	432.01
08-Nov-04	NA	NA	NA	430.45	429.45	430.25
01-Apr-05	NS	NS	NS	NA	NM	NA
27-Sep-05	NS	NS	NS	432.46	431.08	432.18
16-May-06	NS	NS	NS	0.5 feet thick	NM	NA
14-Sep-06	NS	NS	NS	Several inches	NM	NA
14-May-07	NS	NS	NS	430.10	429.70	430.02
04-Jun-08	NS	NS	NS	NM	NM	NA
24-May-12	NS	NS	NS	NA	NM	NA
12-Aug-13	NS	NS	NS	0.6 feet thick	NM	NA
06-May-14	U (0.0005)	0.072	1.1	NA	NM	NA
26-May-15	NS	NS	NS	NA	Frozen	NA
12-May-16	NS	NS	NS	428.32	428.08	428.27
07-Sep-17	0.024	3.7	160	429.65	429.64	429.65
07-Sep-18	0.0033	1.3	60	NA	430.78	NA
23-Oct-19	0.0047	3.1	210	NA	429.33	NA
21-Oct-20	0.00735	1.37	2.67	NA	429.26	NA
27-Sep-21	0.00136	1.19	3.81	NA	433.27	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

Free product evident, Not sampled Nov. 6, 1991 to March 12, 1995

Not monitored June 4, 2008 to May 24, 2012

Appendix D
Tables of Historical Groundwater Monitoring Data
Monitoring Well MW-4

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
04-Nov-91	0.17	NS	NS	NA	430.94	NA
03-Jan-92	NS	NS	NS	NA	430.70	NA
28-Jan-92	0.16	NS	NS	NA	430.83	NA
09-Mar-92	NS	NS	NS	NA	430.61	NA
23-Apr-92	0.11	NS	NS	NA	431.00	NA
16-Jul-92	U	NS	NS	NA	433.04	NA
11-Aug-92	0.13	NS	NS	NA	432.88	NA
10-Sep-92	0.15	NS	NS	NA	432.08	NA
07-Oct-92	0.11	NS	NS	NA	431.43	NA
21-Dec-92	0.11	NS	NS	NA	430.31	NA
09-Mar-93	0.093	NS	NS	NA	430.36	NA
23-Sep-94	U	NS	NS	NA	431.72	NA
17-Nov-97	U	U	NS	NA	430.61	NA
29-Apr-98	U	U	0.405	NA	428.37	NA
13-Oct-98	U	U	0.511	NA	430.78	NA
05-Nov-99	U	U	0.688	NA	430.16	NA
27-Jul-00	NS	NS	NS	NA	NM	NA
08-Mar-01	NS	NS	NS	NA	430.58	NA
04-Jun-01	U	U	0.915	NA	430.81	NA
30-Nov-01	U	U	0.955	NA	430.56	NA
24-Apr-02	NS	NS	NS	NA	430.28	NA
20-Aug-02	U	U	3.31	NA	432.83	NA
06-Nov-02	NS	NS	NS	NA	431.14	NA
27-Sep-05	NS	NS	NS	NA	NM	NA
16-May-06	U (0.0005)	U (0.050)	0.616	NA	430.29	NA
14-Sep-06	U (0.0005)	2.17	1.38	NA	431.37	NA
14-May-07	U (0.0005)	U	U	NA	431.86	NA
04-Jun-08	U (0.0005)	0.308	0.581	NA	430.46	NA
13-May-09	U (0.0005)	U (0.05)	U (0.417)	NA	431.46	NA
15-Jun-10	U (0.0005)	U (0.05)	U (0.455)	NA	429.00	NA
26-May-11	U (0.0005)	U (0.05)	0.439	NA	430.81	NA
24-May-12	U (0.0005)	U (0.05)	0.565	NA	428.69	NA
12-Aug-13	U (0.0005)	U (0.05)	U (0.400)	NA	428.95	NA
06-May-14	U (0.0005)	U (0.05)	U (0.41)	NA	428.80	NA
26-May-15	U (0.001)	U (0.05)	U (0.21)	NA	428.60	NA
12-May-16	U (0.0020)	U (0.1)	0.78	NA	428.17	NA
07-Sep-17	U (0.00040)	U (0.150)	0.59	NA	429.50	NA
07-Sep-18	U (0.00040)	U (0.150)	U (0.28)	NA	430.61	NA
23-Oct-19	U (0.003)	U (0.25)	0.33 H	NA	431.53	NA
21-Oct-20	U (0.001)	0.595	0.95	NA	NA	NA
27-Sep-21	U (0.001)	0.0498	0.834	NA	432.6	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

Undetected levels of Analytes September 23, 1994 to Nov. 17, 1997

Undetected levels of Analytes or Not Sampled Nov. 6, 2002 to Sept. 27, 2005

Appendix D
Tables of Historical Groundwater Monitoring Data

Monitoring Well MW-5

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
04-Nov-91	U	NS	NS	NA	431.47	NA
17-Nov-97	U	U	NS	NA	431.22	NA
29-Apr-98	U	U	0.106	NA	429.11	NA
13-Oct-98	U	U	0.129	NA	431.41	NA
04-Nov-99	U	U	U	NA	430.95	NA
26-May-11	NS	NS	NS	NA	NM	NA
04-Oct-11				Well Decommissioned		
GCL	0.0046	2.2	1.5	NA	NA	NA

Analytes Undetected/Not Sampled Nov. 4, 1991- Nov. 17, 1997

Analytes Undetected/Not Sampled Nov. 4, 1999- May. 26, 2011

Monitoring Well MW-6

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
28-Jan-92	U	NS	NS	NA	430.59	NA
17-Nov-97	U	U	NS	NA	430.37	NA
29-Apr-98	U	U	0.119	NA	427.95	NA
13-Oct-98	U	U	0.151	NA	430.33	NA
27-Jul-00	U	U	0.331	NA	431.15	NA
08-Mar-01	NS	NS	NS	NA	NM	NA
04-Jun-01	NS	NS	NS	NA	NM	NA
30-Nov-01	U	U	1.61	NA	430.13	NA
14-May-07				Well Destroyed		
GCL	0.0046	2.2	1.5	NA	NA	NA

Analytes Undetected/Not Sampled Jan. 28, 1992 to Nov. 17, 1997

Monitoring Well MW-7

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
28-Jan-92	U	NS	NS	NA	430.59	NA
17-Nov-97	U	U	NS	NA	430.43	NA
29-Apr-98	0.00223	U	0.132	NA	428.18	NA
13-Oct-98	NS	NS	NS	NA	NM	NA
07-Jun-00				Well Destroyed		
GCL	0.0046	2.2	1.5	NA	NA	NA

Analytes Undetected/Not Sampled Jan. 28, 1992 to Nov. 17, 1997

Appendix D
Tables of Historical Groundwater Monitoring Data
Monitoring Well MW-8

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
29-Jan-92	NS	NS	NS	431.54	428.79	430.99
18-Aug-04	NS	NS	NS	NA	431.86	NA
30-Aug-04	0.00516	0.329	1.69	NA	NM	NA
08-Nov-04	NS	NS	NS	NA	430.70	NA
01-Apr-05	NS	NS	NS	NA	NM	NA
27-Sep-05	U (0.0005)	U (0.05)	U (0.4)	NA	430.21	NA
16-May-06	0.000695	0.0766	4.12	NA	430.59	NA
14-Sep-06	0.00645	0.284	0.956	NA	431.52	NA
14-May-07	NS	NS	NS	430.04	430.00	430.03
04-Jun-08	0.00188	0.450	5.81	430.61	430.60	430.61
13-May-09	0.00238	0.740	12.6	NA	430.98	NA
15-Jun-10	0.00467	1.390	2.45	NA	428.96	NA
26-May-11	0.00188	1.10	13.1	NA	431.01	NA
24-May-12	0.00134	0.524	1.88	NA	428.91	NA
12-Aug-13	NS	NS	NS	428.42	428.40	428.42
07-May-14	0.00067	2.2	43	NA	428.42	NA
26-May-15	0.0025	2.8	65	NA	428.87	NA
12-May-16	0.00087	0.86	12	NA	428.34	NA
07-Sep-17	0.016	0.390	27	NA	429.69	NA
07-Sep-18	0.00067	0.280	20	NA	430.79	NA
23-Oct-19	U (0.003)	0.45	12	NA	429.39	NA
21-Oct-20	0.000695	0.126	8.97	NA	429.3	NA
27-Sep-21	0.00074	0.462	20.5	NA	442.68	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

Anaylites undected/Not Sampled Jan. 29, 1992 to Aug. 18, 2004

Monitoring Well MW-9

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
16-May-03	NS	NS	NS	431.36	431.16	431.32
04-Aug-03	NS	NS	NS	NA	NM	NA
24-Nov-03	NS	NS	NS	NA	NM	NA
10-Feb-04	NS	NS	NS	NA	NM	NA
03-May-04	NS	NS	NS	430.87	429.21	430.54
18-Aug-04	NS	NS	NS	432.19	430.59	431.87
08-Nov-04	NS	NS	NS	430.09	430.04	430.08
01-Apr-05	NS	NS	NS	NA	NM	NA
26-May-11	NS	NS	NS	NA	NM	NA
04-Oct-11	Well Decommissioned					
GCL	0.0046	2.2	1.5	NA	NA	NA

Monitoring Wells MW-10, MW-11, and MW-12 consist of steel pipe casings, and are typically frozen.

Monitoring Well MW-12 has been destroyed. Data for Monitoring Wells MW-10, MW-11, and MW-12 is not included.

Appendix D
Tables of Historical Groundwater Monitoring Data
Monitoring Well MW-13

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
04-Nov-99	0.00468	0.096	1.26	NA	NM	NA
27-Jul-00	0.012	0.32	0.848	NA	NM	NA
08-Mar-01	NS	NS	NS	NA	430.69	430.69
04-Jun-01	0.00276	U	0.831	NA	430.93	430.93
04-Oct-11				Well Decommissioned		
GCL	0.0046	2.2	1.5	NA	NA	NA

Monitoring Well MW-14

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
10-Apr-00	NS	NS	NS	NA	428.72	NA
08-Nov-04	NS	NS	NS	NA	428.18	NA
01-Apr-05	0.0162	2.16	22	NA	429.39	NA
27-Sep-05	0.0194	1.07	4.34	NA	429.31	NA
16-May-06	NS	NS	NS	NA	NM	NA
14-Sep-06	0.00323	0.457	1.51	NA	NR	NA
14-May-07	NS	NS	NS	NA	NM	NA
04-Jun-08	0.0128	0.964	3.02	NA	430.57	NA
13-May-09	0.0267	2.18	1.77	NA	430.88	NA
15-Jun-10	0.0119	1.15	1.89	NA	429.05	NA
26-May-11	0.0103	1.23	3.78	NA	430.92	NA
24-May-12	0.00271	0.284	2.72	NA	428.79	NA
12-Aug-13	0.0442	3.77	120	NA	429.18	NA
06-May-14	0.027	12	67	NA	426.53	NA
26-May-15	0.020	3.6	6.4	NA	426.47	NA
Ice Plug				Ice Plug		
07-Sep-17	0.050	6.5	14	NA	429.60	NA
07-Sep-18	0.074	U (7.5)	26	NA	430.73	NA
23-Oct-19	0.054	12	15 H	NA	429.64	NA
21-Oct-20	0.0585	6.68	4.75	NA	429.21	NA
27-Sep-21	0.0251	11.9	3.17	NA	432.61	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

Not sampled April 10, 2000 to Nov. 8, 2004

Monitoring Well MW-15

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
04-Nov-99	0.106	12.0	8.51	NA	NM	NA
28-Jan-00	NS	NS	NS	NA	429.29	NA
27-Jul-00	NS	NS	NS	431.69	431.03	431.56
08-Mar-01	NS	NS	NS	431.04	430.44	430.88
04-Jun-01	NS	NS	NS	NA	Frozen	NA
30-Nov-01				Well Destroyed		
GCL	0.0046	2.2	1.5	NA	NA	NA

Appendix D
Tables of Historical Groundwater Monitoring Data
Monitoring Well MW-16

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
04-Nov-99	U	2.4	1.83	NA	NS	NA
10-Apr-00	NS	NS	NS	429.23	428.88	429.16
27-Jul-00	NS	NS	NS	431.64	431.65	431.64
08-Mar-01	NS	NS	NS	431.03	430.62	430.92
04-Jun-01	U	U	1.61	NA	431.29	NA
30-Nov-01	NS	NS	NS	NA	430.98	NA
24-Apr-02	NS	NS	NS	NA	NM	NA
20-Aug-02	0.0006	1.63	1.22	NA	433.03	NA
06-Nov-02	NS	NS	NS	NA	431.36	NA
27-Sep-05	NS	NS	NS	NA	NM	NA
16-May-06	U (0.0005)	U (0.050)	1.06	NA	430.08	NA
14-Sep-06	U (0.0005)	0.237	0.908	NA	431.63	NA
14-May-07	U (0.0005)	U (0.050)	1.12	429.56	429.20	429.24
04-Jun-08	U (0.0005)	U (0.050)	U (0.4)	NA	430.74	NA
13-May-09	NS	NS	NS	NA	NM	NA
15-Jun-10	NS	NS	NS	NA	NM	NA
04-Oct-11	Well Decommissioned					
GCL	0.0046	2.2	1.5	NA	NA	NA

Not Sampled Nov. 6, 2002 to Sept. 27, 2005

Appendix D
Tables of Historical Groundwater Monitoring Data
Monitoring Well MW-17

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
04-Nov-99	NS	NS	NS	NA	NM	NA
28-Jan-00	NS	NS	NS	NA	429.08	NA
10-Apr-00	NS	NS	NS	429.97	427.06	429.39
27-Jul-00	0.07	6.8	57.6	431.45	431.44	431.45
08-Mar-01	NS	NS	NS	NA	430.41	NA
16-May-03	NS	NS	NS	NA	431.76	NA
04-Aug-03	0.0016	0.535	4.5	NA	433.63	NA
24-Nov-03	NS	NS	NS	NA	431.29	NA
10-Feb-04	NS	NS	NS	NA	430.53	NA
03-May-04	0.0823	1.14	65.2	NA	431.26	NA
18-Aug-04	NS	NS	NS	NA	432.18	NA
08-Nov-04	NS	NS	NS	NA	430.40	NA
01-Apr-05	0.0148	5.37	118	NA	430.61	NA
27-Sep-05	0.00422	0.204	6.53	NA	432.54	NA
16-May-06	0.000652	0.633	51.2	NA	430.95	NA
14-Sep-06	0.00634	0.642	9.33	NA	431.46	NA
14-May-07	0.00182	0.467	74.1	NA	429.79	NA
04-Jun-08	0.00054	0.213	3.49	NA	430.54	NA
13-May-09	U (0.0005)	U (0.05)	1.11	NA	433.54	NA
15-Jun-10	0.00384	0.148	3.7	NA	428.82	NA
26-May-11	U (0.0005)	U (0.05)	0.963	NA	431.19	NA
24-May-12	U (0.0005)	0.122	1.05	NA	428.13	NA
12-Aug-13	U (0.0005)	1.68	114	NA	429.15	NA
06-May-14	U (0.0005)	1.2	28	NA	426.33	NA
26-May-15	U (0.0010)	3.9	32	NA	426.17	NA
12-May-16	U (0.00026)	3.3	74	NA	427.12	NA
07-Sep-17	0.0059	2.4	47	NA	429.61	NA
07-Sep-18	0.0064	2.9	24	NA	430.60	NA
23-Oct-19	0.0077	0.38	14	NA	429.31	NA
21-Oct-20	0.0732	3.2	17.7	NA	429.28	NA
27-Sep-21	0.0328	3.45	3.91	NA	432.59	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

Not Sampled Jun. 04, 2001 to May 16, 2003

Monitoring Well MW-18

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
04-Nov-99	U	3.4	24.6	NA	NM	NA
10-Apr-00	NS	NS	NS	429.21	429.12	429.19
27-Jul-00	U	U	6.06	NA	432.73	NA
08-Mar-01	NS	NS	NS	NA	430.95	NA
04-Jun-01	U	1.42	11.6	NA	431.29	NA
30-Nov-01	NS	NS	NS	NA	430.81	NA
26-May-11	NS	NS	NS	NA	NM	NA
04-Oct-11					Well Decommissioned	
GCL	0.0046	2.2	1.5	NA	NA	NA

Not Sampled Nov. 30, 2001 to May 26, 2011

Appendix D

Tables of Historical Groundwater Monitoring Data

Monitoring Well MW-19

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
27-Jul-00	0.044	U	1.14	NA	NST	NA
08-Mar-01	NS	NS	NS	NA	430.57	NA
04-Jun-01	0.0037	0.271	1.05	NA	430.82	NA
30-Nov-01				Well Destroyed		
GCL	0.0046	2.2	1.5	NA	NA	NA

Monitoring Well MW 19-1

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
26-Jun-19	0.048	5.2	2.0 H	NA	NM	NM
23-Oct-19	0.085	8.6	42 H	NA	NC	NA
22-Oct-20	NS	NS	NS	NM	NM	NM
27-Sep-21	0.0659	7.02	29.6	NA	432.63	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

Monitoring Well MW 19-2

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
26-Jun-19	0.074	7.4	5.0 H	NA	NM	NM
23-Oct-19	NS	NS	NS	NC	NC	NC
22-Oct-20	NS	NS	NS	NM	NM	NM
27-Sep-21	NS	NS	NS	429.61	432.6	429.6
GCL	0.0046	2.2	1.5	NA	NA	NA

Monitoring Well MW-20

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
27-Jul-00	U	U	0.997	NA	NST	NA
08-Mar-01	NS	NS	NS	NA	NM	NA
04-Jun-01	NS	NS	NS	NA	NM	NA
30-Nov-01				Well Destroyed		
GCL	0.0046	2.2	1.5	NA	NA	NA

Monitoring Well MW-21

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
27-Jul-00	0.028	U	1.55	NA	NST	NA
08-Mar-01	NS	NS	NS	NA	NM	NA
04-Jun-01	NS	NS	NS	NA	NM	NA
30-Nov-01				Well Destroyed		
GCL	0.0046	2.2	1.5	NA	NA	NA

Appendix D
Tables of Historical Groundwater Monitoring Data

Monitoring Well MW-22

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
27-Jul-00	U	U	0.008	NA	NST	NA
08-Mar-01	NS	NS	NS	NA	NM	NA
04-Jun-01	NS	NS	NS	NA	NM	NA
30-Nov-01				Well Destroyed		
GCL	0.0046	2.2	1.5	NA	NA	NA

Monitoring Well MW-23

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
30-Nov-01	NS	NS	NS	NA	NM	NA
24-Apr-02	NS	NS	NS	430.71	430.59	430.69
20-Aug-02	NS	NS	NS	NA	433.01	NA
06-Nov-02	NS	NS	NS	NA	431.59	NA
20-Mar-03	NS	NS	NS	NA	432.00	NA
16-May-03	NS	NS	NS	NA	432.06	NA
04-Aug-03	NS	NS	NS	NA	433.38	NA
16-Oct-03				Well damaged during site work and removed.		
GCL	0.0046	2.2	1.5	NA	NA	NA

Monitoring Well MW-24

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
30-Nov-01	0.0142	0.230	0.714	NA	NST	NA
24-Apr-02	0.0144	0.213	0.686	NA	430.35	NA
20-Aug-02	U	U	U	NA	433.01	NA
06-Nov-02	NS	NS	NS	NA	431.34	NA
20-Mar-03	NS	NS	NS	NA	430.92	NA
16-May-03	NS	NS	NS	NA	431.11	NA
04-Aug-03	0.0007	0.115	U	NA	432.99	NA
24-Nov-03	NS	NS	NS	NA	NM	NA
10-Feb-04	NS	NS	NS	NA	429.75	NA
03-May-04	0.0342	1.12	4.32	NA	430.11	NA
18-Aug-04	NS	NS	NS	NA	431.74	NA
08-Nov-04	NS	NS	NS	NA	429.94	NA
01-Apr-05	0.0147	2.0	17.6	NA	429.87	NA
27-Sep-05	U (0.0005)	U (0.05)	1.29	NA	431.88	NA
16-May-06	NS	NS	NS	NA	NM	NA
14-Sep-06	0.00270	0.0520	1.15	NA	431.46	NA
14-May-07	NS	NS	NS	NA	NM	NA
22-Oct-20	NS	NS	NS	NA	NM	NA
27-Sep-21	NS	NS	NS	NA	NM	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

Not sampled May 14, 2007 to October 22, 2020

Appendix D
Tables of Historical Groundwater Monitoring Data
Monitoring Well MW-25

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
30-Nov-01	U	U	U	NA	NST	NA
26-May-11	NS	NS	NS	NA	NM	NA
04-Oct-11				Well Decommissioned		
GCL	0.0046	2.2	1.5	NA	NA	NA

Historically frozen, not sampled since monitored since Nov. 30, 2001

Monitoring Well MW-26

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
30-Nov-01	NS	NS	NS	NA	NST	NA
24-Apr-02	0.0024	0.0909	1.42	NA	416.97	NA
01-Apr-05	NS	NS	NS	NA	NM	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

Historically frozen, not sampled since monitored since April 24, 2002

Monitoring Well MW-27

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
30-Nov-01	U	U	U	NA	NST	NA
24-Apr-02	U	U	U	NA	431.69	NA
20-Aug-02	U	U	0.54	NA	433.58	NA
06-Nov-02	NS	NS	NS	NA	432.9	NA
20-Mar-03	NS	NS	NS	NA	432.43	NA
16-May-03	NS	NS	NS	NA	432.75	NA
04-Aug-03	U	U	0.589	NA	434.62	NA
24-Nov-03	NS	NS	NS	NA	432.28	NA
26-May-11	NS	NS	NS	NA	NM	NA
04-Oct-11				Well Decommissioned		
GCL	0.0046	2.2	1.5	NA	NA	NA

Not Sampled Nov. 24, 2003 to May 26, 2011

Monitoring Well MW-28

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
30-Nov-01	0.003	U	0.747	NA	NST	NA
24-Apr-02	U	U	0.570	NA	430.89	NA
20-Aug-02	0.004	U	0.878	NA	433.31	NA
06-Nov-02	NS	NS	NS	NA	431.64	NA
26-May-11	NS	NS	NS	NA	NM	NA
04-Oct-11				Well Decommissioned		
GCL	0.0046	2.2	1.5	NA	NA	NA

Not Sampled Nov. 06, 2002 to May 26, 2011

Appendix D
Tables of Historical Groundwater Monitoring Data
Monitoring Well G-1

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
Mar-01	NS	NS	NS	NA	NST	NA
May-01	U	U	U	NA	NST	NA
30-Nov-01	U	U	U	NA	429.16	NA
24-Apr-02	U	U	U	NA	430.30	NA
04-Jun-02	NS	NS	NS	NA	430.30	NA
20-Aug-02	U	U	U	NA	432.87	NA
06-Nov-02	NS	NS	NS	NA	431.12	NA
20-Mar-03	NS	NS	NS	NA	431.06	NA
16-May-03	NS	NS	NS	NA	431.26	NA
04-Aug-03	U	U	U	NA	433.22	NA
24-Nov-03	NS	NS	NS	NA	430.81	NA
22-Oct-20	NS	NS	NS	NA	NM	NA
22-Oct-20	NS	NS	NS	NA	NM	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

Not sampled Nov. 24, 2003 to October 22, 2020

Monitoring Well MW-29

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
16-Oct-03	U	U	U	NA	431.56	NA
24-Nov-03	NS	NS	NS	NA	430.49	NA
10-Feb-04	NS	NS	NS	NA	429.66	NA
03-May-04	U	U	U	NA	430.01	NA
18-Aug-04	NS	NS	NS	NA	NM	NA
08-Nov-04	NS	NS	NS	NA	NM	NA
01-Apr-05	NS	NS	NS	NA	NM	NA
27-Sep-05	U (0.0005)	U (0.05)	U (0.403)	NA	431.49	NA
16-May-06	NS	NS	NS	NA	NM	NA
27-Sep-21	NS	NS	NS	NA	NM	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

Not sampled May 16, 2006 to October 22, 2020

Monitoring Well MW-30

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
16-Oct-03	U	U	U	NA	431.98	NA
24-Nov-03	NS	NS	NS	NA	430.74	NA
10-Feb-04	NS	NS	NS	NA	429.98	NA
03-May-04	U	U	U	NA	430.31	NA
18-Aug-04	NS	NS	NS	NA	NM	NA
08-Nov-04	NS	NS	NS	NA	429.70	NA
01-Apr-05	NS	NS	NS	NA	428.69	NA
27-Sep-05	NS	NS	NS	NA	NM	NA
22-Oct-20	NS	NS	NS	NA	NM	NA
27-Sep-21	0.00122	0.0345	0.415	NA	432.48	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

Not sampled Sept. 27, 2005 to October 22, 2020

Appendix D

Tables of Historical Groundwater Monitoring Data

IFC Aeration Tank Effluent

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
24-May-12	0.00486	0.532	0.478	NA	NM	NA
12-Aug-13	NS	NS	NS	NA	NM	NA
06-May-14	NS	NS	NS	NA	NM	NA
26-May-15	0.0065	0.59	21	NA	NM	NA
12-May-16	0.005	0.21	U (0.43)	NA	NM	NA
07-Sep-17	U (0.00040)	U (0.150)	0.74	NA	430.91	NA
07-Sep-18	U (0.00040)	U (0.150)	0.28	NA	NM	NA
23-Oct-19	U (0.003)	U (0.25)	0.37	NA	NM	NA
22-Oct-20	0.000701	0.0861	0.988	NA	NM	NA
27-Sep-21	0.000175	0.0889	0.7	NA	NM	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

CRW-2

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
24-Sep-13	U (0.0005)	U (0.05)	U (0.439)	NA	NM	NA
07-May-14	0.0014	0.05	1.2	NA	NM	NA
26-May-15	NS	NS	NS	NA	NM	NA
12-May-16	NS	NS	NS	426.91	425.10	426.55
07-Sep-17	0.016	0.350	0.96	429.60	423.60	428.40
07-Sep-18	0.013	0.910	2.8	430.70	NM	NM
23-Oct-19	0.011	0.99	1.4	NA	NM	NA
22-Oct-20	0.00739	0.385	1.51	NA	NM	NA
27-Sep-21	0.00287	0.548	0.627	NA	429.05	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

WRW-2020

Date	Benzene (mg/L)	GRO (mg/L)	DRO (mg/L)	Product Elevation (feet)	Measured GW Elevation (feet)	Corrected GW Elevation (feet)
16-Jul-20	10.6	NS	NS	NA	NM	NA
22-Oct-20	0.00339	0.588	1.05	NA	NM	NA
27-Sep-21	0.00183	0.929	0.973	NA	432.48	NA
GCL	0.0046	2.2	1.5	NA	NA	NA

Key:

DRO - diesel range organics

GCL - groundwater cleanup levels

GRO - gasoline range organics

GW - groundwater

H - Sampled was prepped or analyzed beyond the specific holding time

mg/L - milligrams per liter

NA - not applicable

NC - not calculated

NM - not measured

NS - not sampled

NST - Not surveyed at time of monitoring.

U - Undetected above practical quantitation limits (PQLs).

Density of product assumed 800 kg/m³

Appendix D

Tables of Historical Groundwater Monitoring Data

Bold, shade indicates concentration exceeds the GCL or, if not detected, the PQL exceeds the GCL

italicized cells indicate lab estimated values