



March 24, 2022

Stantec Project Number 185705776

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

Re: Supplemental 2022 Work Plan for Task 4 – Drill 6 Confirmation Soil Borings (CSBs) and Task 5 - Decommission 5 Abandoned Groundwater Monitoring Wells Speedway Store 5313 (Former Tesoro 2Go Mart 101) and IFC
3569 South Cushman Street, Fairbanks, Alaska
ADEC Facility ID #2960; ADEC File #100.26.022

Dear Mr. Monson:

This letter presents the proposed work plan prepared by Stantec Consulting Services Inc. (Stantec) for the implementation of Tasks 4 & 5 that were proposed in the 2022 Corrective Active Plan (CAP) for the above referenced site.

- Task 4 proposed the installation of six confirmation soil borings (CSBs) to be located at strategic positions on the adjoining IFC property (currently owned by Crowley) and on the Speedway Store #5313 property just south of the on-site aeration treatment tank/drainfield.
- Task 5 proposed the decommissioning of the following abandoned groundwater monitoring wells: MW G-1, MW-24, MW-26, MW-29 and MW-D2.

Subject to your review and acceptance, this work plan will be submitted to the Alaska Department of Environmental Conservation (ADEC) on the behalf of Tesoro Refining and Marketing Company (Tesoro) for the Speedway Store #5313 and IFC.

Work Plan for Task 4 – Drill 6 CSBs

The proposed soil borings will be used to assess the site for the extent and characteristics of residual petroleum contamination in the subsurface soil and groundwater table associated with the former source area. The former source consisted of a fuel spill from a former fuel truck loading facility that was supplied by several underground storage tanks. The truck loading facility was used by IFC (Interior Fuel Company) in the 1970s and 1980s, and eventually was removed by 1993 or sooner. The IFC property was acquired in 2013 by Crowley Marine Service, Inc (Crowley) who is the current property owner.

The general location of the proposed borings will be placed within the area depicted on the attached site plan drawing (**Figure 1**). Four of the six proposed CSBs will be located at strategic locations around the existing Crowley garage that was built in 2002 in the northwest corner of the IFC property. The



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remaining two CSBs will be located in an area south of the existing aeration tank/drainfield located on the northeastern portion of the Speedway store property.

The following section describes the method that will be utilized to complete the installation of the CSBs:

- A Geoprobe® 7822DT drill rig or equivalent that utilizes a direct push drill method will be used to construct the soil borings.
- Dual Tube “DT45” tooling will be utilized in the monitoring well locations to continually classify soil and identify the depth to groundwater.
- Soil will be continuously collected in 3-inch diameter PVC liners in 5-foot intervals. Soil recovery will begin at the surface and continue to the depth of completion, or approximately 5-feet below the groundwater level at the time of drilling. Recovered soil will be visually/manually examined for lithology, color, density, moisture content, and indications of petroleum contamination.
- A photoionization detector (PID), calibrated before the start of each day with 100 parts per million by volume (ppmv) isobutylene gas standard, will be used to field screen the soil to determine zones of highest potential petroleum contamination. The screening samples will be placed into plastic Ziploc® bags to enhance volatilization prior to headspace screening. Headspace screening will be conducted in 2.5 feet increments or twice per PVC liner.
- A minimum of two discrete analytical soil samples will be collected from the soil boring. One will be collected from the location with the highest PID reading and one will be collected from the base of the boring. If PID readings are negligible then a sample will be collected from the “smear” zone or the non-saturated soil just above the groundwater level. The soil samples will be submitted to PACE Laboratories for the following analysis:
 - GRO by Alaska Test Method (AK) 101
 - DRO by AK102
 - VOCs by U.S. Environmental Protection Agency Solid Waste Method (SW) 8260
 - PAHs by SW8270 Selective ion Monitoring (SIM)
- Laboratory samples will be placed in clean, laboratory-supplied, sample containers with the prescribed preservative for each analytical method. They will be delivered in accordance with standard chain-of-custody procedures to PACE Laboratories. Required quality control samples consisting of a duplicate sample and trip blank sample will also be collected and analyzed.
- Prior to drilling the CSBs, pre-clearing bore hole will be performed by the driller to a minimum depth of 6-feet. An air knife and soil extraction/vacuum equipment will be used to pre-clear the bore hole. The extracted soil will be field screened with a PID to determine if petroleum



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contamination is present. Soil found to have elevated PID measurements (exceeding 25 ppmv) will be segregated and securely stored in placard drums. The remaining soil found to have non-elevated PID measurements (25 ppmv or below) will be used to backfill the soil boring hole.

- Excess soils derived during the drilling of the soil borings that have PID field screening measurements below 25 ppmv will be used to backfill the soil boring hole. The remaining soil “cuttings” found to have elevated PID measurements above 25 ppm will be stored in drums and labeled with their contents. The drums containing suspected contamination will be placed in a secure area on the north end of the Speedway store property inside a locked fenced area.
- After analytical results are received from the laboratory, drums of soil found to be contaminated above the ADEC SCLs will be disposed/treated at an appropriate disposal facility approved by ADEC. Soil found to be non-contaminated (below SCLs) will be land spread on-site within the fenced area of the Speedway store property.
- The CSBs will be horizontally surveyed by swing-tie measurements in relation with existing wells and site improvements.

Work Plan for Task 5 – Decommission 5 Abandoned Groundwater Monitoring Wells

As noted in the ADEC approved 2022 Correction Action Plan for this site, Task 5 proposed the decommissioning the following 5 groundwater monitoring wells: MW G-1, MW-24, MW-26, MW-29, and MW D-2. Since the presentation of the 2022 Corrective Action Plan, Stantec has reconsidered the list of wells and proposes to retain MW G-1 for possible future monitoring of groundwater levels. In lieu of MW G-1, Stantec recommends the decommissioning of monitoring well MW-6. The 5 designated wells are no longer used for the assessment of the subject site. Based on sampling records, the last time these wells were sampled and reported to the ADEC was as follows: MW-6 sampled in 2001; MW-24 sampled in 2006; MW-26 sampled in 2005; MW 29 sampled in 2005; and MW-D2 sampled in 2000.

Given the age of the wells, i.e., 15 to 22 years since the last sampling event, there is a possibility some of the wells may not be recoverable. With the exception of MW-6, the locations of these wells are shown on **Figure 2** - a site plan that was used in the September 2021 Annual Groundwater Monitoring Report for the subject site (see attached). The following summarizes the approximate locations of the designated monitoring wells to be decommissioned:

MW 24 – located approximately 40-feet north of the northeast corner of the Speedway store.

MW 26 – located approximately 25-feet southwest of existing OMW-1 at the west end of the Interceptor Trench.



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MW 29 – located approximately 220-feet of the northwest corner of the Speedway store property along the east side of Cushman Street on Lot 22-A Leasure Subdivision.

MW D-2 – located approximately 100-feet west of the fuel dispenser islands.

MW 6 – not shown on Figure 2, approximately located along the south edge of 34th Avenue approximately 100-feet east of South Cushman Street.

The following outlines the approach Stantec proposes to use to address the decommissioning of these wells:

- Under the direction of Stantec, a drill rig operated by a qualified drilling contractor will be utilized for decommissioning (removal) of the 2” or 4” diameter PVC wells. A cable loop will be wrapped around the top of the PVC well casing in an attempt to pull up the entire casing with the drill rig’s winch.
- Initially, the casing will be pulled up approximately 12 inches and a drill rod with a spike welded to the bottom section will be dropped down into the well to break out the bottom of the casing.
- The casing will be filled with 3/8-inch diameter bentonite chips that will be hydrated to seal the borehole cavity as the well casing is extracted. The bentonite chips will be hydrated during the process of extracting the well casing and the driller will use a drill rod to “push down” (compact) the bentonite chips to the bottom of the void as the well casing is being extracted to ensure complete filling of the borehole (void) with bentonite.
- A Stantec field person will be on-site to monitor and document the entire process. They will make measurements to verify that there is not “bridging” of the hydrated chips and the borehole void is properly filled for well decommissioning compliance. Photographs of the decommissioning process will also be taken to document the work.
- The existing protective well casing at the ground surface will be removed. The remaining depression at the surface will be filled with gravel material and/or concrete and leveled to match the existing surface material. The ground surface will be sloped to drain away from the former well location.

Upon completion of the above described tasks, Stantec will prepare a report that will provide documentation on the field work performed to complete Tasks 4 & 5. The report will be submitted to ADEC upon completion of the tasks. A copy of the report will also be sent to Tesoro c/o MPC for their records.



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If you have any questions or need additional information concerning this 2022 Supplemental Work Plan for Tasks 4 & 5, please contact us at (907) 227-9883.

Regards,

STANTEC CONSULTING SERVICES, INC.

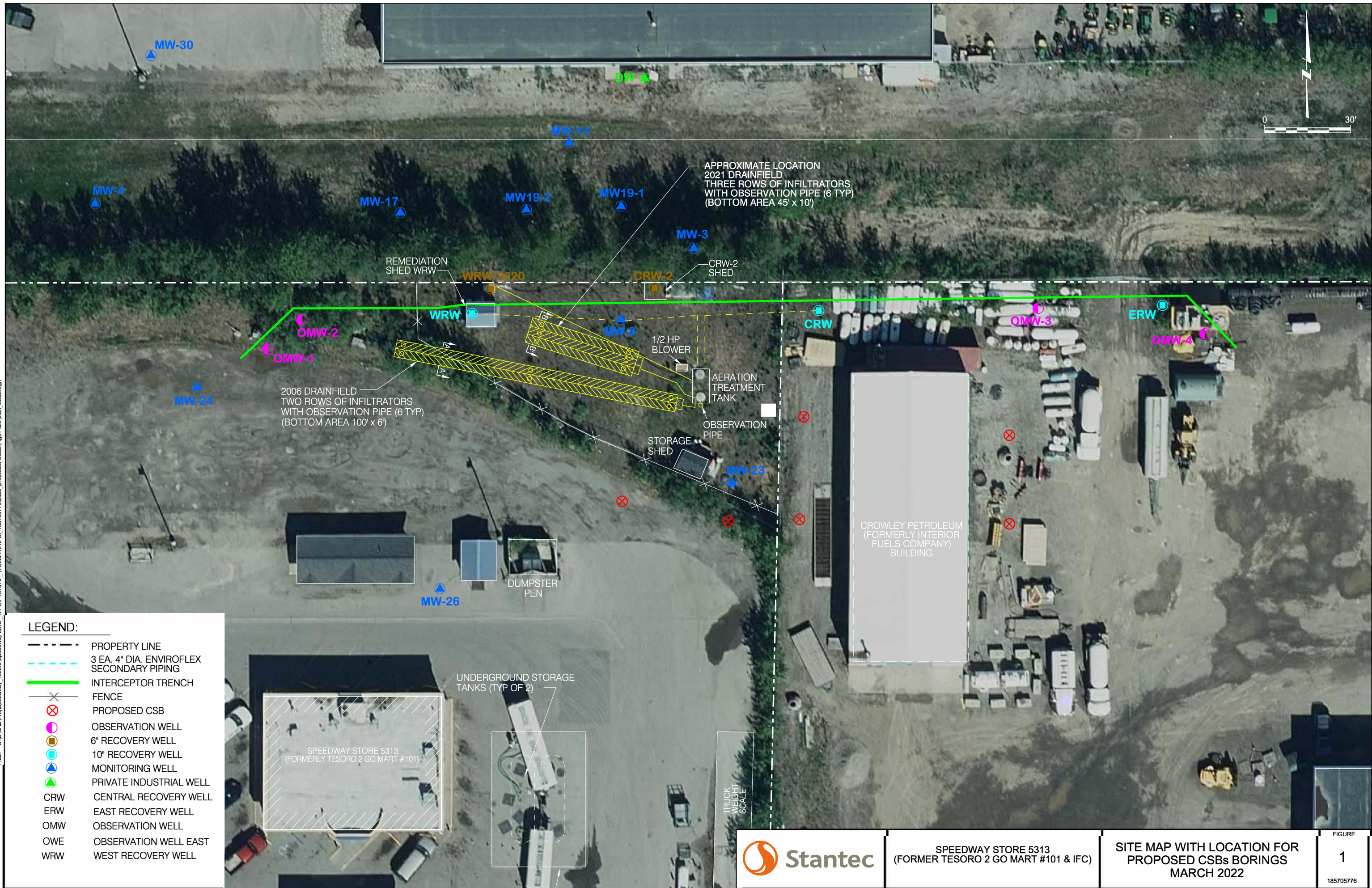
A handwritten signature in black ink, appearing to read "Bob E. Gilfilian".

Robert (Bob) Gilfilian, P.E.
Project Technical Lead
Principal Senior Civil Engineer

Attachments: Figure 1 - Site Plan with proposed locations for Confirmation Soil Borings (CSBs)

Figure 2 – Site Plan for September 2021 Annual Groundwater Monitoring Report

FILE: C:\D\CAD\Prof\Speedway_Tesoro\Speedway_5313_MPC#_157575_(TGMart101FC)_185705776\2022_proposed CSBs\Fig01-site plan_CSBs.dgn
 TIME: 17-MAR-2022 19:38



LEGEND:

- PROPERTY LINE
- 3 EA. 4" DIA. ENVIROFLEX SECONDARY PIPING
- INTERCEPTOR TRENCH
- ⊗ FENCE
- ⊗ PROPOSED CSB
- OBSERVATION WELL
- 6" RECOVERY WELL
- 10" RECOVERY WELL
- MONITORING WELL
- PRIVATE INDUSTRIAL WELL
- CRW CENTRAL RECOVERY WELL
- ERW EAST RECOVERY WELL
- OMW OBSERVATION WELL
- OWE OBSERVATION WELL EAST
- WRW WEST RECOVERY WELL



SPEEDWAY STORE 5313
 (FORMER TESORO 2 GO MART #101 & IFC)

SITE MAP WITH LOCATION FOR
 PROPOSED CSBs BORINGS
 MARCH 2022

MW-30

Benzene	0.00122 mg/L
Toluene	(0.001) mg/L
Ethylbenzene	(0.001) mg/L
Xylenes	(0.003) mg/L
GRO	0.0345 mg/L
DRO	0.415 mg/L
1,2,4-Trimethylbenzene	(0.001) mg/L
1,3,5-Trimethylbenzene	(0.001) mg/L
Naphthalene	0.000182 mg/L
Sodium	NA
Gw Elev.	429.46 feet

MW-17

Benzene	0.0328 mg/L
Toluene	0.00740 mg/L
Ethylbenzene	0.213 mg/L
Xylenes	1.21 mg/L
GRO	3.45 mg/L
DRO	3.91 mg/L
1,2,4-Trimethylbenzene	0.182 mg/L
1,3,5-Trimethylbenzene	0.0481 mg/L
Naphthalene	0.0929 mg/L
Sodium	NA
Gw Elev.	429.57 feet

MW-4

Benzene	(0.001) mg/L
Toluene	0.00782 mg/L
Ethylbenzene	(0.001) mg/L
Xylenes	(0.003) mg/L
GRO	0.0498 mg/L
DRO	0.834 mg/L
1,2,4-Trimethylbenzene	(0.001) mg/L
1,3,5-Trimethylbenzene	(0.001) mg/L
Naphthalene	(0.000790) mg/L
Sodium	NA
Gw Elev.	429.58 feet

WRW-2020

Benzene	0.00183 mg/L
Toluene	0.000567 mg/L
Ethylbenzene	0.0433 mg/L
Xylenes	0.243 mg/L
GRO	0.929 mg/L
DRO	0.973 mg/L
1,2,4-Trimethylbenzene	0.0723 mg/L
1,3,5-Trimethylbenzene	0.0238 mg/L
Naphthalene	0.00260 mg/L
Sodium	NA
Gw Elev.	429.46 feet

CRW-2

Benzene	0.00287 mg/L
Toluene	0.00136 mg/L
Ethylbenzene	0.0181 mg/L
Xylenes	0.133 mg/L
GRO	0.548 mg/L
DRO	0.627 mg/L
1,2,4-Trimethylbenzene	0.0295 mg/L
1,3,5-Trimethylbenzene	0.0100 mg/L
Naphthalene	0.000375 mg/L
Sodium	NA
Gw Elev.	426.03 feet

MW-8

Benzene	0.000740 mg/L
Toluene	0.00166 mg/L
Ethylbenzene	0.00502 mg/L
Xylenes	0.0411 mg/L
GRO	0.462 mg/L
DRO	20.5 mg/L
1,2,4-Trimethylbenzene	0.0221 mg/L
1,3,5-Trimethylbenzene	0.0116 mg/L
Naphthalene	0.00258 mg/L
Sodium	NA
Gw Elev.	429.66 feet

MW-14

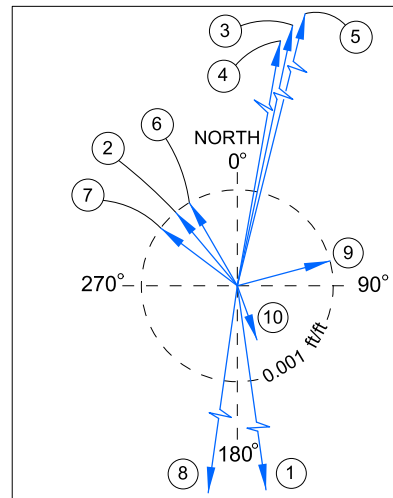
Benzene	0.0251 mg/L
Toluene	0.0151 mg/L
Ethylbenzene	0.687 mg/L
Xylenes	4.45 mg/L
GRO	11.9 mg/L
DRO	3.17 mg/L
1,2,4-Trimethylbenzene	0.568 mg/L
1,3,5-Trimethylbenzene	0.124 mg/L
Naphthalene	0.381 mg/L
Sodium	NA
Gw Elev.	429.59 feet

MW19-1

Benzene	0.0659 mg/L
Toluene	0.105 mg/L
Ethylbenzene	0.328 mg/L
Xylenes	2.36 mg/L
GRO	7.02 mg/L
DRO	29.6 mg/L
1,2,4-Trimethylbenzene	0.470 mg/L
1,3,5-Trimethylbenzene	0.149 mg/L
Naphthalene	0.254 mg/L
Sodium	NA
Gw Elev.	429.61 feet

MW19-1 (Duplicate)

Benzene	0.0670 mg/L
Toluene	0.110 mg/L
Ethylbenzene	0.361 mg/L
Xylenes	2.50 mg/L
GRO	7.61 mg/L
DRO	24.5 mg/L
1,2,4-Trimethylbenzene	0.515 mg/L
1,3,5-Trimethylbenzene	0.167 mg/L
Naphthalene	0.263 mg/L
Sodium	NA



GROUNDWATER FLOW SUMMARY

DATE	BEARING	GRADIENT (ft/ft)
1 MAY 24, 2012	172°	0.036
2 SEP. 24, 2013	320°	0.001
3 MAY 7, 2014	12°	0.037
4 MAY 26, 2015	10°	0.035
5 MAY 12, 2016	14°	0.119
6 JULY 18, 2017	330°	0.001
7 SEP. 7, 2018	307°	0.001
8 OCT.23, 2019	188°	0.045
9 OCT.22, 2020	75°	0.001
10 SEP. 27, 2021	160°	0.0006

- LEGEND:**
- PROPERTY LINE
 - INTERCEPTOR TRENCH
 - ROAD CENTERLINE
 - FENCE
 - GROUNDWATER CONTOUR
 - OBSERVATION WELL
 - 10" RECOVERY WELL
 - 6" RECOVERY WELL
 - ▲ PRIVATE INDUSTRIAL WELL
 - ▲ MONITORING WELL
 - CRW CENTRAL RECOVERY WELL
 - DRO DIESEL RANGE ORGANICS
 - DW DRINKING WATER WELL
 - EFF EFFLUENT SAMPLING WELL
 - ERW EAST RECOVERY WELL
 - GRO GASOLINE RANGE ORGANICS
 - Gw Elev. GROUNDWATER ELEVATION IN FEET
 - MW MONITORING WELL
 - NA NOT APPLICABLE
 - mg/L MILLIGRAMS PER LITER
 - OMW OBSERVATION WELL
 - WRW WEST RECOVERY WELL

MW-3

Benzene	0.0136 mg/L
Toluene	0.0112 mg/L
Ethylbenzene	0.0164 mg/L
Xylenes	0.188 mg/L
GRO	1.19 mg/L
DRO	3.81 mg/L
1,2,4-Trimethylbenzene	0.0602 mg/L
1,3,5-Trimethylbenzene	0.0306 mg/L
Naphthalene	0.0314 mg/L
Sodium	NA
Gw Elev.	430.25 feet

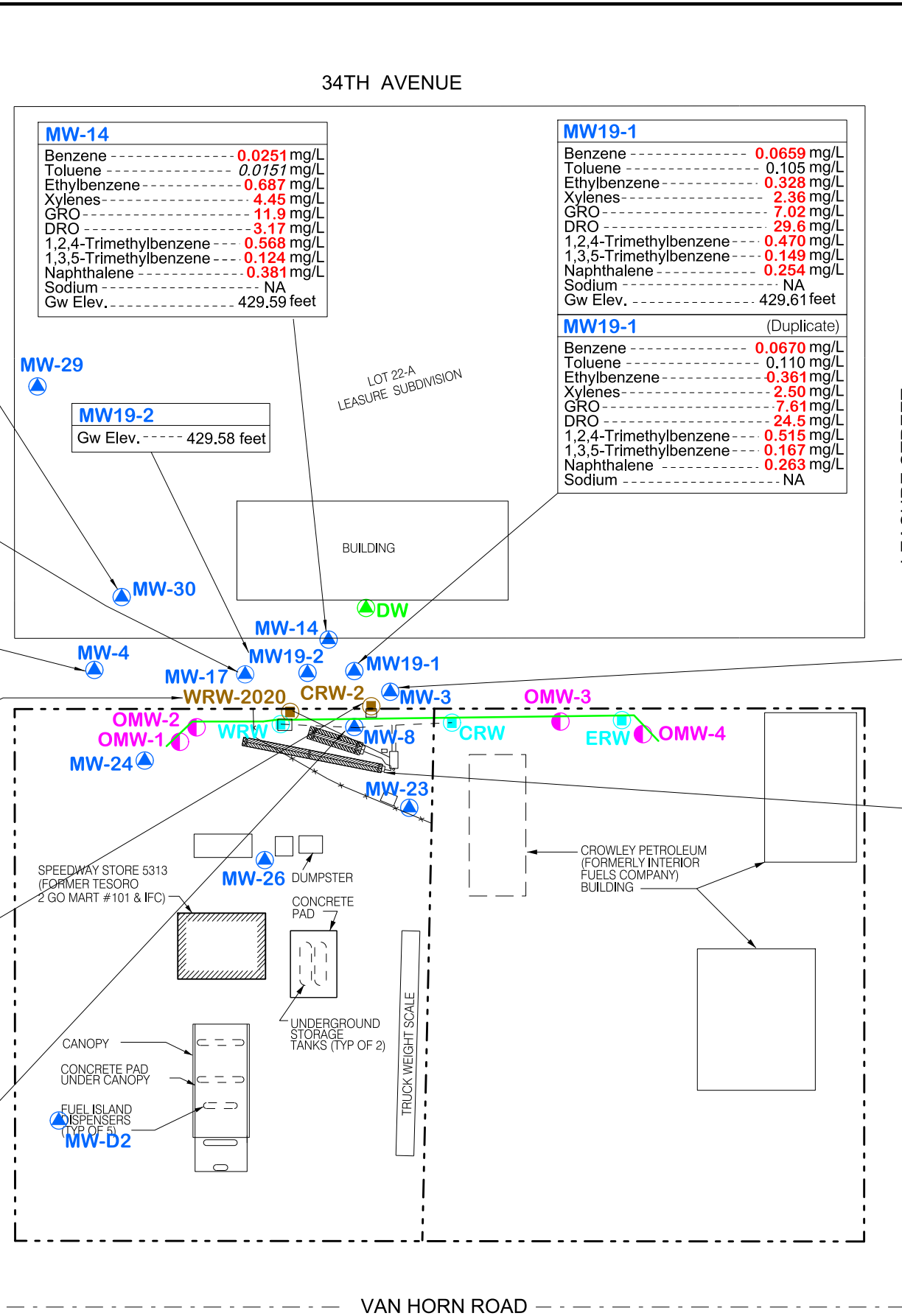
Drainfield

Benzene	0.000175 mg/L
Toluene	(0.001) mg/L
Ethylbenzene	0.00214 mg/L
Xylenes	0.0165 mg/L
GRO	0.0889 mg/L
DRO	0.700 mg/L
1,2,4-Trimethylbenzene	0.00414 mg/L
1,3,5-Trimethylbenzene	0.00133 mg/L
Naphthalene	(0.000250) mg/L
Sodium	9.67 mg/L
Gw Elev.	436.16 feet

Drainfield (Duplicate)

Benzene	0.000160 mg/L
Toluene	(0.001) mg/L
Ethylbenzene	0.00224 mg/L
Xylenes	0.0173 mg/L
GRO	0.0817 mg/L
DRO	0.674 mg/L
1,2,4-Trimethylbenzene	0.00401 mg/L
1,3,5-Trimethylbenzene	0.00125 mg/L
Naphthalene	(0.000250) mg/L
Sodium	9.62 mg/L

- NOTES:**
- RESULTS ARE FOR SAMPLES COLLECTED ON SEPTEMBER 27, 2021.
 - BOLD / RED RESULTS INDICATE CONCENTRATION EXCEEDS THE CLEANUP LEVEL FOR THE SITE.
 - ITALICS RESULTS IDENTIFICATION OF THE ANALYTE IS ACCEPTABLE; THE REPORTED VALUE IS AN ESTIMATE.



SPEEDWAY STORE 5313
 (FORMER TESORO 2 GO MART #101 & IFC)
 SEPTEMBER 2021 ANNUAL GWM REPORT

SITE PLAN WITH
 GROUNDWATER ANALYTICAL
 DETECTIONS AND EXCEEDANCES