Environmental Site Assessment Report

Handy Mart – 1410 Ocean Beach Highway, Longview, Washington
HydroCon Project Number 2015-007.01
Ecology Cleanup No: 11294
VCP Project ID: SW1623

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1.0 INTRODUCTION

HydroCon Environmental, LLC (HydroCon) is pleased to present this Environmental Site Assessment (ESA) Report for the final characterization of the nature and extent of gasoline contaminated soil and groundwater associated with the July 1991 gasoline release from the underground storage tank (UST) system. The ESA report also includes a summary of cleanup and assessment activities performed at the Handy Mart located in Longview Washington. The site location is shown on Figure 1.

The purpose of the ESA is to collect additional soil and groundwater data to further characterize and delineate soil and groundwater contamination to obtain a no further action (NFA) determination for the 1991 unleaded gasoline release at the site. The ESA was conducted in accordance with the *Environmental Site Assessment Work Plan* dated January 24, 2019. The work plan was approved by Ecology in a letter dated September 6, 2019.

2.0 SITE BACKGROUND

2.1 Site Description

The subject property is located at 1410 Ocean Beach Highway in Longview, Washington. The Cowlitz County Assessor's Office identifies the subject site as Parcel 1029901 within Section 28 of Township 8 North and Range 2 West of the Willamette Meridian (Figure 1).

The site is located in a mixed residential and commercial area. Residential properties are located west and southwest of the site. Commercial properties are located to the north, east and south of the site. The property located to the east and adjacent to the subject site is a former Time Oil leaking underground storage tank (LUST) cleanup site (Cleanup Site ID 10877). This site received an NFA from Ecology in August 2012. The property located south of Ocean Beach Highway is an operating Chevron Station. This site (Cleanup Site ID 8810) had a soil only gasoline release and received an NFA from Ecology in August 2012.

The current site layout includes a convenience store building, carwash and underground storage tank (UST) system. The site only dispensed gasoline until 2005. In June 2005 the mid grade gasoline UST was converted to diesel fuel. The convenience store building is located in the northern portion of the site, the UST system is located on the central portion of the site and the carwash is located on the east portion of the site (Figure 2).

According to the Ecology UST Site/Tank Data Summary data base, the USTs at the site were installed in 1969 and continue to operate to date. The data base reports that the USTs are single wall steel tanks with interior linings. The current product piping is double wall, corrosion resistant flexible piping.

2.1.1 Site Geology

The soils that underlie the site are Quaternary age alluvial sediments. Based on a review of the site boring logs, the soils beneath the site consist of silts and silty sand to a depth of 20 feet below ground surface (bgs). Based on the current groundwater monitoring at the site, the depth to groundwater varies seasonally between 5 and 10 feet bgs.

2.2 1991 Release

In July 1991, soil and groundwater impacted with gasoline was discovered in borings advanced south of the USTs during an environmental site assessment conducted by Sweet Edwards/Emcon Inc. (EMCON). The EMCON soil and groundwater report was not available for review. The site assessment was conducted to facilitate the sale of the property from John Szkodyn to Wilson Oil. The source of the release was determined to be two loose bolts on the leak detector located in the unleaded turbine sump. This allowed for small releases of gasoline to occur when under pressure. The leak detector was repaired and additional soil borings were advanced to determine the extent of the release south of the USTs.

On October 18, 1991, Environmental Inspection Services (EIS)[1] supervised the excavation of approximately 140 cubic yards of soil from the southern end of the USTs. Four confirmation soil samples and one water sample were collected from the remedial excavation. The soil and the groundwater samples were analyzed for gasoline range petroleum hydrocarbons (GRPH) and benzene, toluene, ethylbenzene, and total xylenes (BTEX). The detected concentrations of GRPH in soil were all below the Model Toxics Control Act (MTCA) Method A Cleanup Level (CUL) (100 milligrams per kilogram [mg/kg]) and benzene was not detected in the samples submitted. The soil sample collected from the north wall of the excavation was analyzed for lead. Lead was not detected above the Method Reporting Limit (MRL) of 3 mg/kg. The water sample collected from the excavation pit had detections of GRPH and benzene with the resulting concentrations of 12,800 micrograms per liter (µg/L) and 22 µg/L, respectively. The soil sample locations and analytical results are shown on Figure 3 and Table 1.

While the water sample collected from excavation pit had concentrations that exceeded the MTCA Method A Cleanup Levels for GRPH and benzene, the soil had been successfully remediated and Ecology issued an NFA determination for the site on March 19, 1992. Although water samples collected from excavations can be utilized to confirm a release has occurred, it should be noted that samples collected from an excavation are not representative of actual groundwater conditions.

[1] Analytical Test Results, November 6, 1991, Environmental Inspection Services

2.3 2005 Phase I and Phase 2

A Phase I and Limited Phase 2 Environmental Site Assessment (ESA)[2] was conducted by 3 Kings Environmental, Inc (3 Kings) in February 2005 to facilitate a potential property sale. Ten soil borings (B1 through B10) were advanced at the site to assess soil and groundwater quality in the vicinity of the site UST system and assess the potential of off-site impacts from the former Time Oil cleanup property located east of the site.

The results of the ESA indicated that heavy oil (weathered motor oil) was detected in borings (B2, B4 and B5) located on the west side of the site, at concentrations below the CUL. Based on review of the boring logs, the subsurface soils have a relatively high organic content. It's possible that the organic material may have contributed to the heavy oil detections in the samples. The 3 Kings ESA reported that a waste oil tank had been removed from the site in the past; however, the location of waste oil tank is unknown. HydroCon reviewed the Phase I prepared by 3 Kings and found no reference to a waste oil tank at the site.

GRPH was detected at the soil water interface in a boring (B5) located adjacent to the south side of the USTs. The GRPH concentration in soil was 90 mg/kg, below the CUL of 100 mg/kg; benzene was not detected above the laboratory MRL. The soil sample locations and analytical results are included on Figure 3. A groundwater sample was collected from boring B5 and contained 4,410 µg/L of GRPH, however benzene was not detected above the laboratory MRL of 0.04 µg/L. The laboratory report notes that the soil and groundwater sample collected from B5 as weathered gasoline. The concentration of GRPH exceeded the CUL for groundwater. This concentration GRPH in the B5 sample was significantly less than the sample collected from the pit water inside the remedial excavation in 1991 (12,800 µg/L). The historical groundwater sample locations and analytical results are presented on Figure 4 and Table 2.

Ecology was provided the results of the February 2005 ESA and the site was reopened as a new release.

In May 2005, 3 Kings installed three 1-inch diameter groundwater monitoring wells (MW1, MW2, and MW3) in the vicinity of the USTs. Soil samples were collected from soil/water interface (10.5 feet bgs) in borings MW2 and MW3 located south of the UST basin. The soil sample collected from the MW3 boring had a detection of GRPH at 90 mg/kg. BTEX analysis was not conducted at that time due to the absence of benzene detections during the February 2005 Phase II. The monitoring wells were purged, sampled, and analyzed for GRPH and BTEX; 1,2-dibromoethane (EDB); 1,2-dichloroethane (EDC); isopropylbenzene; methyl-tert butyl ether (MTBE); naphthalene; n-propylbenzene; 1,2,4-trimethylbenzene; and 1,3,5-

[2] Phase I-II Environmental Site Assessment Report July 26, 2005, 3 Kings Environmental Inc.

trimethylbenzene. GRPH and BTEX were not detected above their respective MRLs in the groundwater samples collected from MW1 and MW2. GRPH was detected in MW3; however, the concentrations were below the CUL. Benzene was detected in MW3 at a concentration of 14 µg/L, n-propylbenzene at 2 µg/L, toluene at 3 µg/L and total xylenes at 8 µg/L. Only benzene exceeded the CUL for groundwater (5 µg/L).

Based on the groundwater monitoring results 3 Kings concluded that the detections in the soil and groundwater were from the 1991 documented release. Historical groundwater data collected during the 1991 remediation activities and the 2005 site assessment are summarized on Figure 4 and in Table 2.

3.0 GROUNDWATER MONITORING

Groundwater monitoring was conducted by 3 Kings on a bi-annual basis, beginning in December 2010 and ending in March 2012. HydroCon subsequently began quarterly groundwater sampling in September 2015 through June 2017.

3.1 Groundwater Flow Direction

Static water levels in the three wells seasonally range from 5.13 to 10.67 feet below the top of the well casing (btoc). The elevation of the groundwater in the wells was calculated using the elevation of the top of the casing (at the scribed reference mark) and subtracting the DTW measurement (Table 3).

Groundwater flowed in a northeast direction during the April 2016, August 2016 and March 2017 sampling events. During the November 2016 sampling event the groundwater flowed to the east and to the west during the June 2017 sampling event. The gradient at the site ranged from 0.004 foot per foot during the November 2016 event to 0.01 foot per foot during the June 2017 sampling event.

Static water levels were collected from the monitoring wells during the drilling activities on September 23, 2019. The depth to water ranged from 7.70 feet btoc at monitoring well MW03 to 9.00 feet btoc at monitoring well MW01. The groundwater flow direction was calculated to be to the southwest with a gradient of 0.003 foot per foot. The September 23, 2019 groundwater contours and flow direction are presented on Figure 5.

3.2 Monitoring Well Analytical Results

The groundwater analytical results are reported as parts per billion (µg/L) and are summarized on Table 4 and shown on Figure 6. The analytical results are summarized below.

GRPH has been historically detected in all wells; however, the detected concentrations have never exceeded the CUL of 800 µg/L. The highest GRPH concentration detected at the site, was in MW3 at a concentration of 499 µg/L, in 2005. GRPH has not been detected above the laboratory MRLs in monitoring wells MW-1 and MW-2 for the past five quarters and has been below the laboratory MRL for the past two quarters at MW-3.

The maximum concentration of benzene detected during the past five quarterly events was 3.7 µg/L in MW-1 during the April 2016 groundwater monitoring event. All detections of benzene during the last five quarterly monitoring events have been below the CUL of 5 µg/L.

4.0 CONCEPTUAL SITE MODEL

A conceptual site model (CSM) is a site-specific evaluation of potential contaminant sources, exposure pathways, and receptors available to the site based on the distribution of contaminants, and current and reasonably likely future land and water uses. Exposure pathways were assessed for the site utilizing soil and groundwater analytical data, hydrogeologic data, and current and potential future land and water uses. A graphic display of the conceptual site model (CSM) is included on Figure 7.

The site and the east, north and south adjacent properties are zoned as Central Business District (CBD) which is a commercial area intended for major retail, service, financial, professional, and cultural uses. The west adjacent property is zoned as Traditional Neighborhood Residential (TNR) and is characterized by predominately residential uses. This area of Longview is constructed with a grid pattern of streets with sidewalks. A review of the City of Longview's December 2006 Comprehensive Plan Future Land Use Map, the zoning of the site and surrounding properties is not anticipated to change. Based on historical soil and groundwater sampling analytical results, impacted media(s) are not located within 100 feet of a residential buildings and do not appear to be migrating offsite.

4.1 Contaminants and Media of Concern

Laboratory analysis was performed at the site for contaminants of potential concern (COPCs) including GRPH, DRPH, ORPH, BTEX, EDB, EDC, MTBE, naphthalene and total lead. A contaminate of concern (COC) is defined as a COPC which was ever detected at a concentration exceeding the CUL. Five soil samples were analyzed for BTEX during past investigations. Benzene was not detected above the MRLs for these samples however the MRL used in the analysis was above the current CUL of 0.03 mg/kg. Due to the lack of benzene detections in soil samples it was proposed that the GRPH CUL for the site is 100 mg/kg. The maximum detections of GRPH at the site were 90 mg/kg collected from borings B5 and MW3 located south of the UST excavation.

Ecology recently provided comments to HydroCon's *Environmental Summary Report*[3] in a letter dated May 7, 2018 and indicated that due to the elevated MRLs and limited number of soil samples analyzed for benzene, additional characterization would be needed to establish COC and CUL for GRPH. Based on Ecology's comments, GRPH and benzene are considered COCs for soil at the site.

Based on past CUL exceedances in groundwater, GRPH and benzene are considered historical COCs for the site.

HydroCon is aware that benzene was historically detected in groundwater at the site. The GRPH was released at the site over 28 years ago and has undergone significant biologic and physical weathering to the point where volatile compounds (BTEX) are no longer present. Based on the analytical results of the past 5 quarterly groundwater monitoring events as well as recent groundwater results of samples collected from temporary borings indicate that BTEX in groundwater is no longer detected above the MRL at the site. Additionally, benzene has not been detected above the MRL in any soil sample submitted for BTEX analysis. Based on these considerations, it's HydroCon's opinion that the 100 mg/kg CUL for GRPH in soil applies to this site.

4.2 Confirmed and Suspected Source Areas

The historical investigations confirmed elevated concentrations of COCs were present in groundwater in the vicinity of the UST excavation as a result of a release of unleaded gasoline.

4.2.1 Distribution of Contaminants in Soil

Petroleum-contaminated soil is generally detected south and west of the UST excavation and remedial excavation between 10 and 15 feet bgs. The distribution of the contaminated soil is shown on Figure 3.

4.2.2 Distribution of Contaminants in Groundwater

The area of petroleum-contaminated groundwater that resulted from the release of unleaded gasoline in the UST excavation generally coincides with the area of soil contamination. Recent groundwater analytical results indicate that the concentration of COCs in all site monitoring wells have remained below their respective MTCA Method A cleanup levels since at least April 2016 (minimum 5 consecutive quarterly groundwater sampling events).

[4] *Updated Process for Initially Assessing the Potential for Petroleum Vapor Intrusion,* Ecology March 2016

4.3 Contaminant Fate and Transport

4.3.1 Transport Mechanisms Affecting Distribution of Petroleum Hydrocarbons

The environmental transport mechanisms of TPH are related to its separate phases in the subsurface. The four phases of petroleum contamination in the subsurface are vapor (in soil gas), residual (sorbed contamination on soil particles), aqueous phase (contaminants dissolved in groundwater), and light non-aqueous phase liquids (LNAPL). At steady state conditions, each phase is in equilibrium with the other phases in the subsurface, and the relative ratio of total subsurface contamination by TPH between the four phases is controlled by dissolution, volatilization, and sorption.

TPH observed in soil and groundwater beneath the site have been transported from source areas and distributed throughout the Site primarily by dispersive transport mechanisms within the saturated zone and by soil vapor transport. As with other chemicals, petroleum hydrocarbons tend to spread out as groundwater flows away from the source area. The extent of the hydrocarbon plume depends on the volume of the release, soil density, particle size, and seepage velocity.

4.3.2 Environmental Fate

The significant processes controlling the fate of petroleum hydrocarbons in the environment are dissolution, volatilization, sorption, and bioattenuation. Petroleum hydrocarbons are comprised of hundreds of organic compounds that exhibit a wide range of physical and chemical properties. These compounds range from low molecular weight, low-boiling point compounds with high vapor pressure (i.e. highly volatile) exhibiting moderate aqueous solubility to those that exhibit a high molecular weight, high-boiling point, low vapor pressure, and extremely low aqueous solubility. Gasoline represents the lower molecular weight compounds that exhibit a higher relative capacity for dissolution, volatilization, and bioattenuation. These compounds are therefore more mobile in the environment and less persistent over time. The moderate molecular weight compounds representative of diesel fuel exhibit a lower relative capacity for dissolution, volatilization, and bioattenuation compared to gasoline.

4.4 Preliminary Exposure Assessment

The following is a summary of the potential migration pathways identified for the site and potential targets for COCs observed on the Property.

4.4.1 Soil-to-Groundwater Pathway

Based on the presence of residual soil petroleum hydrocarbons in soil at the site, the leaching to groundwater pathway is considered complete.

4.4.2 Direct Contact Pathway

Direct contact with COCs in soil and groundwater is limited to human receptors that come into close contact with the media via direct exposure, including dermal contact or ingestion of excavated soil or groundwater. The standard point of compliance for soil contamination beneath a site is approximately 15 feet bgs, which represents a reasonable estimate of the depth that could be accessed during normal site redevelopment activities (WAC §173-340-740[6][d]). Direct contact exposure to soil and groundwater unlikely with the exception of potential construction and excavation workers.

4.4.3 Vapor Pathway

To assess the soil-vapor risk, HydroCon referenced the evaluation process outlined in Ecology's update vapor intrusion process *Implementation Memorandum No. 14*[4]. According to the Memorandum and EPA guidance, if the buildings are greater than 30 horizontal feet from the contaminated soil the evaluation is complete. Low level concentration of GRPH is located south of the UST excavation. GRPH contaminated soil is located at a horizontal distance of over 70 feet south of the Handy Mart Store. In addition, Volatile COCs (BTEX) have not been detected during the recent groundwater monitoring or soil samples collected in the vicinity of the UST excavation. All recent soil and groundwater petroleum contamination concentrations are below CULs. Based on the distance to the site building and low-level detections remaining in soil, HydroCon concludes this pathway is incomplete.

4.4.4 Surface Water

The Columbia River is located approximately 2.8 mile southwest of the site and the Cowlitz River is approximately 0.8 miles east of the site. An unnamed drainage ditch is located approximately 300 feet north of the site. The ditch collects surface water/stormwater from the Cascade View and Columbia Heights neighborhoods north of the site and flows to Lake Sacajawea. Lake Sacajawea is located approximately 3,430 feet to the west of the site (Figure 1). Based on field observations, the ditch is unlined and is approximately 3 feet deep. The bottom of the ditch appears to be higher in elevation than the site ground level elevation. Depth to groundwater at the nearest site monitoring well (MW-1) ranges between 6 and 10 feet bgs. Based on the observed higher ditch elevation, HydroCon concludes that the unlined ditch is located in an upgradient position relative to the site. The majority of seasonal

[4] *Updated Process for Initially Assessing the Potential for Petroleum Vapor Intrusion,* Ecology March 2016

stormwater and excess irrigation water that enters this ditch discharges into Lake Sacajawea. Some of the water in the ditch infiltrates the underlying soil and recharges local flow systems.

Migration of on site contaminants via surface water infiltration and leaching to the subsurface is mitigated by the asphalt and concrete that covers the site. Therefore, this pathway is considered incomplete.

4.4.5 Groundwater/Drinking Water

Shallow groundwater in the vicinity of the Site is not developed as a significant drinking water resource and is not likely to be developed in the future due to presence of the City of Longview water system. The City of Longview obtains its drinking water from a deep well field located 2.25 miles southwest of the site (Mint Farm Industrial Park). HydroCon searched the Department of Ecology Well Report Viewer database for wells within 0.5 mile radius from the site. One domestic well was identified located approximately 2,800 feet southwest of the site at 2222 Ocean Beach Highway, Longview Washington. The total depth of the well is 38 feet bgs and is screened from 31 to 33 feet bgs. While adverse impacts to shallow groundwater at the Site have been confirmed, the potential for adverse impacts to the municipal water supply or private wells from contaminants migrating from the Site is very low.

5.0 PROPOSED CLEANUP STANDARDS

5.1 Contaminants and Media of Concern

The COCs for the site are those compounds that were detected at concentrations exceeding their respective CULs. The COCs identified in soil and groundwater at the site includes GRPH and benzene.

5.2 Cleanup Standards

The selected cleanup alternative must comply with the MTCA cleanup regulations specified in WAC §173-340 and with applicable state and federal laws. Although the site is zoned as CBD, which discourages residential use, the west adjacent property is zoned a TNR. As a result, the CULs selected for the site are the CULs for Unrestricted Land Use.

The proposed CULs for soil and groundwater beneath the Site are generally the CULs for Unrestricted Land Use for COCs that have a CUL.

The CULs for the media and COCs are presented in the tables below, including the source of the CUL.

Proposed CULs for Soil

Chemicals of Concern	Cleanup Level (milligrams per kilogram)	Source
GRPH[1]	100	MTCA Method A, Unrestricted; WAC §173-340-740(2)(b)(i)
Benzene	0.03	
Toluene	7	
Ethylbenzene	6	
Total xylenes	9	

[1] Weathered gasoline without benzene

Proposed CULs for Groundwater

Chemicals of Concern	Cleanup Level (micrograms per liter)	Source
GRPH[1]	800	MTCA Method A, Table Value; WAC §173-340-720(3)(b)(i)
Benzene	5	
Toluene	1,000	
Ethylbenzene	700	
Total xylenes	1,000	

[1]When benzene is present in groundwater

5.3 Points of Compliance

The point of compliance is the location where the enforcement limits that are set in accordance with WAC §173-200-050 will be measured and cannot be exceeded (WAC §173-200-060 and Ecology, 2005). Once the CULs have been attained at the defined points of compliance, the impacts present beneath the Site will no longer be considered a risk to human health or the environment.

5.3.1 Points of Compliance for Soil

In accordance with Ecology 2005, the points of compliance for soil depend on the CULs proposed for cleanup and the exposure pathways. Since Method A CULs are proposed for the Site and are considered protective of all potential soil exposure pathways, the standard point of compliance applies to cleanup actions at this Site. The standard point of compliance is defined as “throughout the site from ground surface to fifteen feet below the ground surface”.

5.3.2 Points of Compliance for Groundwater

In accordance with WAC §173-340-720(8)(a)(b), the point of compliance for groundwater is defined as the uppermost level of the saturated zone extending vertically to the lowest depth that potentially could be impacted by the COCs throughout the Site.

Existing monitoring wells (MW-1 through MW-3) will be used to evaluate whether compliance at the Site has been achieved.

6.0 TERRESTRIAL ECOLOGICAL EVALUATION

As required by Ecology's Voluntary Cleanup Program (VCP), a Terrestrial Ecological Evaluation (TEE) must be completed for each site. The purpose of the TEE is to protect land-based plants and animals from exposure to contaminated soil. Completion of a TEE will: determine if a release of hazardous substances may harm the plants and/or animals at a site; characterize the existing or potential threats to the plants and/or animals that may be exposed to hazardous substances in the soil; and establish cleanup standard to protect not only human health, but the plants and/or animals, and ecologically important functions of the soil biota. A TEE was completed for the site. Although the site does not appear to qualify for exclusion, it does qualify for a simplified evaluation. HydroCon completed the attached Terrestrial Ecological Evaluation Form and Simplified Terrestrial Ecological Evaluation (Table 749-1). .

To conduct the Simplified TEE, HydroCon prepared a 500 foot radius map (Figure 3) around the site to evaluate if continuous "undeveloped land" as defined by WAC 173-340-7491(1)(c)(iii) was in the vicinity of the site. Areas identified as "undeveloped land" included residential properties to the north and west of the site. Properties located south and east of the site are paved and primarily have commercial businesses structures.

The residential properties are divided by a rail road corridor that runs east to west and Cascade Way that runs north to south. The acreage of "undeveloped land" from the three residential areas was calculated using Cowlitz County online NetMaps. The largest areas of "undeveloped land" are the residential properties located west of the site. The total land area is 3.29 acres. HydroCon reviewed the Cowlitz County Assessor records for the individual properties to determine the square footage of structures and pavement. The total square footage of development in this area was 19,741 square feet or 0.45 acres. The developed area (0.45 acres) was subtracted from the total land area (3.29 acres) to calculate the total "undeveloped land" (2.84 acres). The value of 2.84 acres of undeveloped land was used for the Simplified TEE-Exposure Analysis Procedure Table 749-1 giving the site a score of 10 points. Questions 2 through 5 of the Simplified TEE-Exposure Analysis Procedure were answered based on the following information.

- Q2 The site is zoned commercial and is a gasoline station (score of 3)
- Q3 The habitat quality site (paved gas station) is low (score of 3)
- Q4 The "undeveloped land" residential property may attract wildlife (score of 1)
- Q5 The following soil contaminates are not present at the site. Chlorinated dibenzo-p-dioxins/dibenzofurans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene (score of 4).

The total of sum of the scores for questions 2 through 5 is 11. Since number is larger than the number in the box on line 1 (Score of 10), the simplified terrestrial ecological evaluation is ended under WAC173-340-7492 (2)(a)(ii). The completed form, simplified TEE table 794-1 and undeveloped land radius map are included in Attachment A.

7.0 FIELDWORK

The following fieldwork tasks were performed at the site:

7.1 Update Health and Safety Plan

HydroCon updated the site specific Health and Safety Plan to guide field safety protocols, in accordance with rules established by the Occupational Safety and Health Administration (OSHA) and Washington Industrial Safety and Health Act (WISHA).

7.2 Utility Locates

The Washington Utility Notification Center (WUNC) was contacted prior to conducting work at the site (ticket number 19413028). A private underground utility contractor (All County Locates) was also hired to clear proposed boring locations prior to initiating drilling.

7.3 Temporary Borings

On September 23, 2019, HydroCon contracted Anderson Environmental Contracting (AEC) to perform the direct-push drilling of 5 borings (HC01 through HC05) to a maximum depth of 20 feet bgs. The rational for the boring locations is provided below and boring locations are shown on Figure 8.

Rationale for Selected Boring Locations

BORING NUMBER	RATIONALE FOR BORING
HC01	North of MW01 to characterize soil and groundwater north of the USTs.
HC02	Northwest of the UST excavation to characterize soil and groundwater.
HC03	West of MW03 to further delineate soil and groundwater west of the USTs.
HC04	Near boring B5 to evaluate natural attenuation of soil in remedial excavation area.
HC05	Assess soil and groundwater quality south of UST and remedial soil excavation

Each boring was be drilled using the direct-push drilling method. Soil samples were collected on a continuous basis using the macro core samplers equipped with 5-foot length of PVC liners. Soil samples were observed by the field geologist and field screened using visual and olfactory observations as wells as a photoionization detector (PID) which measures relative organic vapor concentrations. The soil was logged by a geologist using the Unified Soil Classification System. All soil types, sampling information, field screening results, drilling information, and other pertinent data were recorded on a field boring log. Boring logs are presented in Appendix B.

7.4 Field Screening

Field screening consisted of volatile organic vapor measurements using a photoionization detector (PID), sheen testing, visual observations (staining, etc.), and olfactory observations. The PID was calibrated before use at the site to a test gas standard consisting of 100 ppm isobutylene. A portion of each soil sample was placed in a sealable plastic baggie. The tip of the PID was inserted into the plastic bag in the airspace above the soil sample and the PID measurement was recorded on boring logs. Sheen testing consisted of placing a small portion of soil in clear water and observing the water for the presence of hydrocarbon sheen.

7.5 Soil Sampling

Up to three soil samples per boring were submitted to the laboratory based on field screening results, lithologic composition, and depth. The selected soil samples were removed from the polyethylene tubing using a new pair of disposable gloves and placed directly into labeled laboratory prepared jars and sealed with Teflon-lined lids. Soil samples were placed into laboratory supplied containers (4-ounce jars for TPH-Dx analysis and VOAs utilizing 5035A field preservation for TPH-Gx and BTEX) and immediately placed in an ice filled cooler along with chain-of-custody documentation for shipment to APEX Laboratory in Tigard, Oregon.

7.6 Groundwater Sampling – Temporary Borings

Groundwater samples were collected from a temporary well constructed using new 1-inch diameter PVC blank riser pipe attached to a 10-foot length of slotted well screen. The well screen was placed across the vadose and water bearing zone. A new length of low density polyethylene (LDPE) tubing was placed down the temporary well and attached to a peristaltic pump. Water was purged from each respective boring until no further improvement in water clarity is observed. Samples were placed directly into the laboratory-prepared sample jars and stored in a chilled cooler along with chain-of-custody documentation for shipment to APEX Laboratory in Tigard, Oregon.

7.7 Analytical Methods

A total of 11 soil samples and five groundwater samples were collected for laboratory analysis. Each sample was analyzed for the following set of parameters:

- GRPH will be analyzed using Northwest Method NWTPH-Gx
- DRPH and ORPH using Northwest Method NWTPH-Dx with and without silica gel cleanup for soil samples only.
- BTEX was analyzed using EPA Method 8260C
- Soil samples utilized 5035A preservation.

7.8 Management of Investigation Derived Waste

Soil and water generated during the investigation were placed in separate labeled 55-gallon drums. The drums are being temporarily stored on site pending disposal to a licensed disposal facility.

8.0 INVESTIGATION RESULTS

8.1 Soil Boring Subsurface Conditions

The borings were advanced through a 3-inch thick asphalt surface and 12-inch thick base rock at borings HC01 through HC04. Top soil was encountered in the top 6 inches of boring HC05 located in the landscape strip. The soil encountered was primarily silt and fine grain sand to a depth of 20 feet bgs. The water levels measured in the temporary wells ranged from 8.05 to 9.35 feet bgs. A cross section illustrating the site lithology is presented on Figure 9.

8.2 Field Screening Results

Because several factors can affect PID readings (e.g. moisture, temperature, and background conditions, etc.), HydroCon determined that a value of 2 ppm or greater may indicate the presence of organic vapors originating from contaminants at the site.

The field screening results are summarized on the attached boring logs. Elevated PID readings (i.e. above 2.0 ppm) were detected at two borings:

- HC03 – Soil with PID measurements ranging from 2 ppm to 6.1 ppm was observed from 7 to 19 feet bgs. The highest PID measurement was recorded at 19 feet bgs. A petroleum odor was noted at a depth of 14 feet bgs.
- HC04 – Soil with PID measurements ranging from 4.7 ppm to 10.7 ppm was observed from 10 to 12 feet bgs. The highest PID measurement was recorded at 10 feet bgs. A slight petroleum odor was noted at a depth of 10 feet bgs.

8.3 Analytical Results

The laboratory results were compared to the CULs presented in Section 5.2. The following sections describe the results of the testing. The complete laboratory report is included as Appendix C.

8.3.1 Soil Analytical Results

Soil analytical results are reported as milligrams per kilograms (mg/kg) and are summarized in Table 5 and Figure 8. A total of 11 soil samples were submitted for analysis. Soil results from samples collected from boring HC02, HC03 and HC05 were all below the MRL. BTEX compounds were not detected above the MRL in any of the soil borings.

Soil results from borings HC01 and HC04 had detections above the MRL and are summarized below.

- The soil sample collected at 7 feet bgs from boring HC01 had a detection of ORPH of 1,210 mg/kg. Follow up result with silica gel clean up was 1,330 mg/kg for the same sample. These results are below the CUL of 2,000 mg/kg.
- The soil sample collected at 10 feet bgs from boring HC04 had a detection of GRPH of 64.2 mg/kg. The laboratory noted “the chromatographic pattern does not resemble the fuel standard used for quantification”. Further review by the Apex chemist determined “the material is consistent with highly weathered gasoline”[5]. The GRPH result is below the CUL of 100 mg/kg.

[5] Email correspondence with Apex and HydroCon September 30, 2019

8.3.2 Groundwater Analytical Results

Groundwater analytical results are reported as micrograms per liter (µg/L) and are summarized in Table 6 and Figure 10. A total of five water samples were submitted for analysis. Water results from samples collected from temporary wells in boring HC01 and HC05 were all below the MRL. BTEX compounds were not detected above the MRL in any of the temporary wells.

Groundwater results from borings HC02, HC03 and HC04 had detections above the MRL and are summarized below.

- The groundwater sample collected from HC02 had a detection of ORPH at a concentration of 178 µg/L. The ORPH result is below the CUL of 500 µg/L. GRPH and DRPH was not detected above the MRL.
- HC03 and HC04 had detections of GRPH at concentrations of 123 µg/L and 147 µg/L respectively. These concentrations are below the CUL of 800 µg/L. DRPH and ORPH were not detected above the MRL in either sample.

9.0 DISCUSSION

9.1 Soil Conditions

Based on the laboratory analysis, a relatively low concentration of ORPH was observed in the soil samples collected between 7 and 10 feet bgs at concentrations ranging from 143 mg/kg to 1,330 mg/kg. These results are below the CUL of 2,000 mg/kg. The source of the ORPH is unknow but may be the result of urban runoff or organic material in the subsurface. Only one location (HC02) located south of the UST excavation had a detection of ORPH of 178 µg/L. The boring location HC01 that had the maximum ORPH detection of ORPH of 1,330 mg/kg did not detect any ORPH above the MRL in the groundwater sample collected from this boring. This ORPH contamination does not appear to adversely impact groundwater at the site.

GRPH was detected below the CUL of 100 mg/kg in the soil sample collected from HC04. The laboratory reported that the GRPH is “consistent with highly weathered gasoline”. This boring is located near the southern limit of the UST remedial excavation. GRPH was not detected above the MRL at soil borings HC01, HC03, HC04 and HC05. BTEX compounds were not detected above the MRL in any of the soil samples collected during this investigation. Based on these results it’s HydroCon’s opinion that the site soils have been adequately characterized.

9.2 Groundwater Conditions

GRPH has been historically detected in all wells; however, the detected concentrations have never exceeded the CUL of 800 µg/L. The highest GRPH concentration detected at the site, was in MW3 at a concentration of 499 µg/L, in 2005. GRPH has not been detected above the MRL in monitoring wells MW-1 and MW-2 for the past five quarters and has been below the MRL for the past two quarters at MW-3.

The maximum concentration of benzene detected during the past five quarterly events was 3.7 µg/L in MW-1 during the April 2016 groundwater monitoring event. All detections of benzene during the last five quarterly monitoring events have been below the CUL of 5 µg/L.

During the September 2019 ESA investigation low concentrations of GRPH were detected in water samples collected from borings HC03 (123 µg/L) and HC04 (147 µg/L) and are below the CUL of 800 µg/L. BTEX was not detected above the MRL in any of the groundwater samples collected from the borings (H01 through HC05). Based on these results it's HydroCon's opinion that the site groundwater has been adequately characterized.

The concentration of ORPH and DRPH in the site monitoring wells have been below their respective CUL with the exception of MW01. During the initial groundwater monitoring event in December 2017 the sample collected from MW01 had DRPH at a concentration of 851 µg/L, which exceeds the CUL. HydroCon performed well development on MW01 on March 2, 2018 to reduce the sediment in the well that was thought to be responsible for the elevated DRPH concentration. The well development proved successful as the DRPH concentration in MW01 remained below the CUL for four consecutive quarters.

GRPH has only been detected once above the MRL in the site monitoring wells during the quarterly groundwater monitoring events. GRPH (117 µg/L) was detected in MW02 during the initial December 2017 groundwater sampling event. This concentration is below the CUL of 800 µg/L.

10.0 CONCLUSIONS

Based on the soil and groundwater results collected to date, HydroCon concludes that the gasoline release from the UST system has been successfully characterized and remediated below applicable CULs. If Ecology is in agreement with HydroCon's conclusions HydroCon requests, on behalf of Wilcox and Flegel, that the site be considered for a No Further Action Determination.

11.0 QUALIFICATIONS

HydroCon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. HydroCon makes no warranties, either expressed or implied, regarding the findings, conclusions or recommendations. Please note that HydroCon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report.

Findings and conclusions resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this monitoring. Subsurface conditions may vary from those encountered at specific sampling locations or during other surveys, tests, assessments, investigations, or exploratory services; the data, interpretations and findings are based solely upon data obtained at the time and within the scope of these services.

This report is intended for the sole use of Wilcox & Flegel. This report may not be used or relied upon by any other party without the written consent of HydroCon. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user.

The conclusions presented in this report are, in part, based upon subsurface sampling performed at selected locations and depths. There may be conditions between borings or samples that differ significantly from those presented in this report and which cannot be predicted by this study.

Signature:

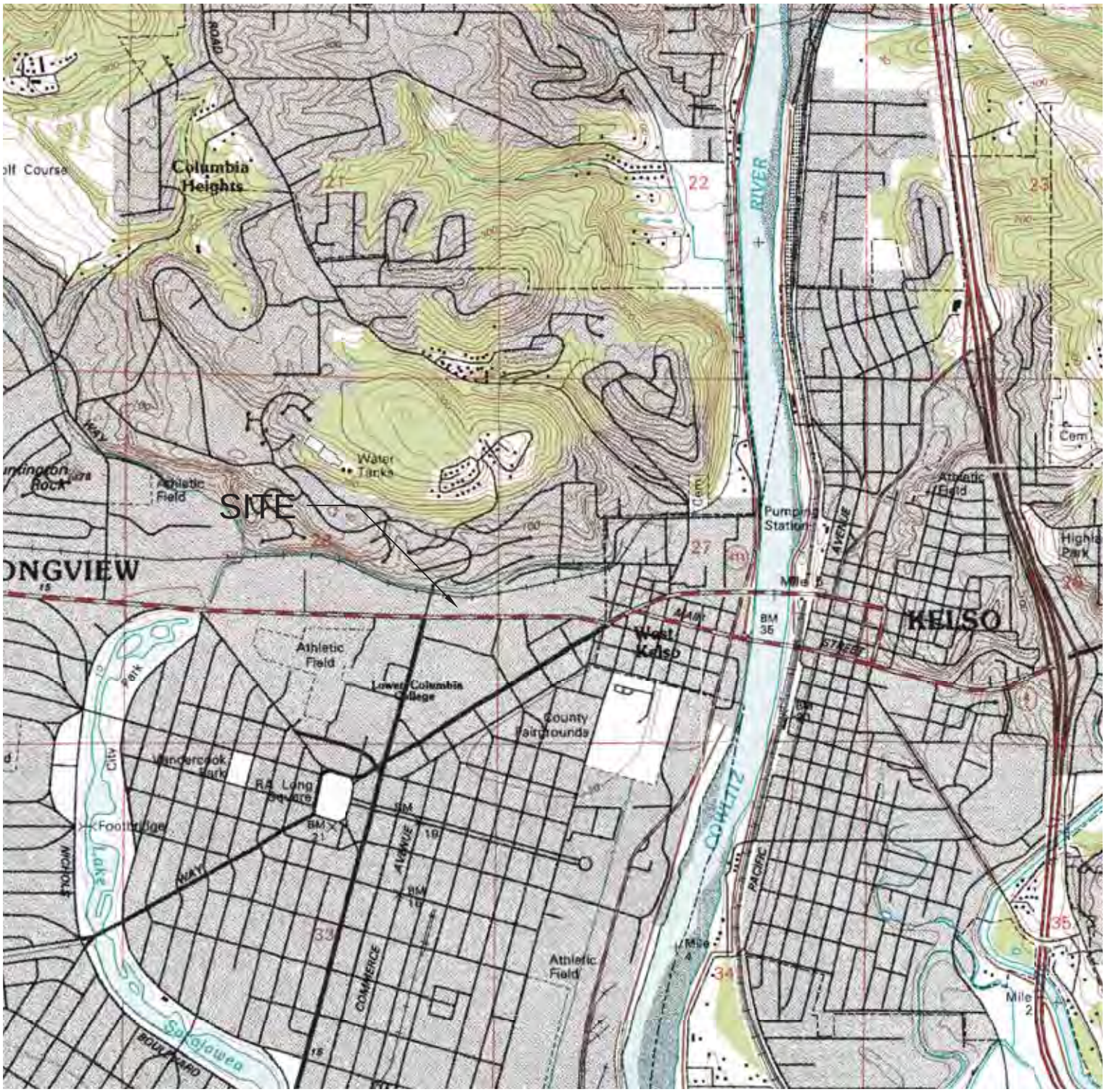
Report Prepared By:

Brian J Pletcher
Project Manager

State of Washington
Hydrogeologist
1809
Licensed Geologist
CRAIG HULTGREN

Report Reviewed By:

Craig Hultgren, LHG
Principal Geologist



NOTE(S):

1. USGS, KELSO QUADRANGLE
   WASHINGTON
   7.5 MINUTE SERIES (TOPOGRAPHIC)

N
W E
S

0 2000 4000
SCALE IN FEET
1" = 2000'

HydroCon
501 Allen St Suite B, Kelso WA Ph: (360) 706-6079

DATE: 03-20-17
DWN: JH
CHK: JH
APPROVED:
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 1
SITE LOCATION
HANDY MART
WILCOX & FLEGEL
1410 OCEAN BEACH HWY
LONGVIEW, WA

CONVENIENCE STORE

CAR WASH

DISPENSER ISLAND

B1
B2
B3
B4
B5
B6
B7
B8
B9
B10
MW-1
MW-2
MW-3
#1
#2
#3
#4

LEGEND

- PROPERTY BOUNDARY
- BUILDING
- APPROXIMATE EXTENT OF 1991 REMEDIAL EXCAVATION
- MW-1 — MONITORING WELL LOCATION
- B1 — BORING LOCATION
- #1 — EXCAVATION SAMPLE LOCATION

N W E S

0 30 60

SCALE IN FEET
1" = 30'

HydroCon
510 Allen St. Suite B Kelso, WA 98626, Ph (360) 703-6079

DATE: 05-23-18
DWN: JH
CHK: BP
APPROVED: BP
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 2
SITE FEATURES
HANDY MART
WILCOX & FLEGEL
1410 OCEAN BEACH HWY
LONGVIEW, WA

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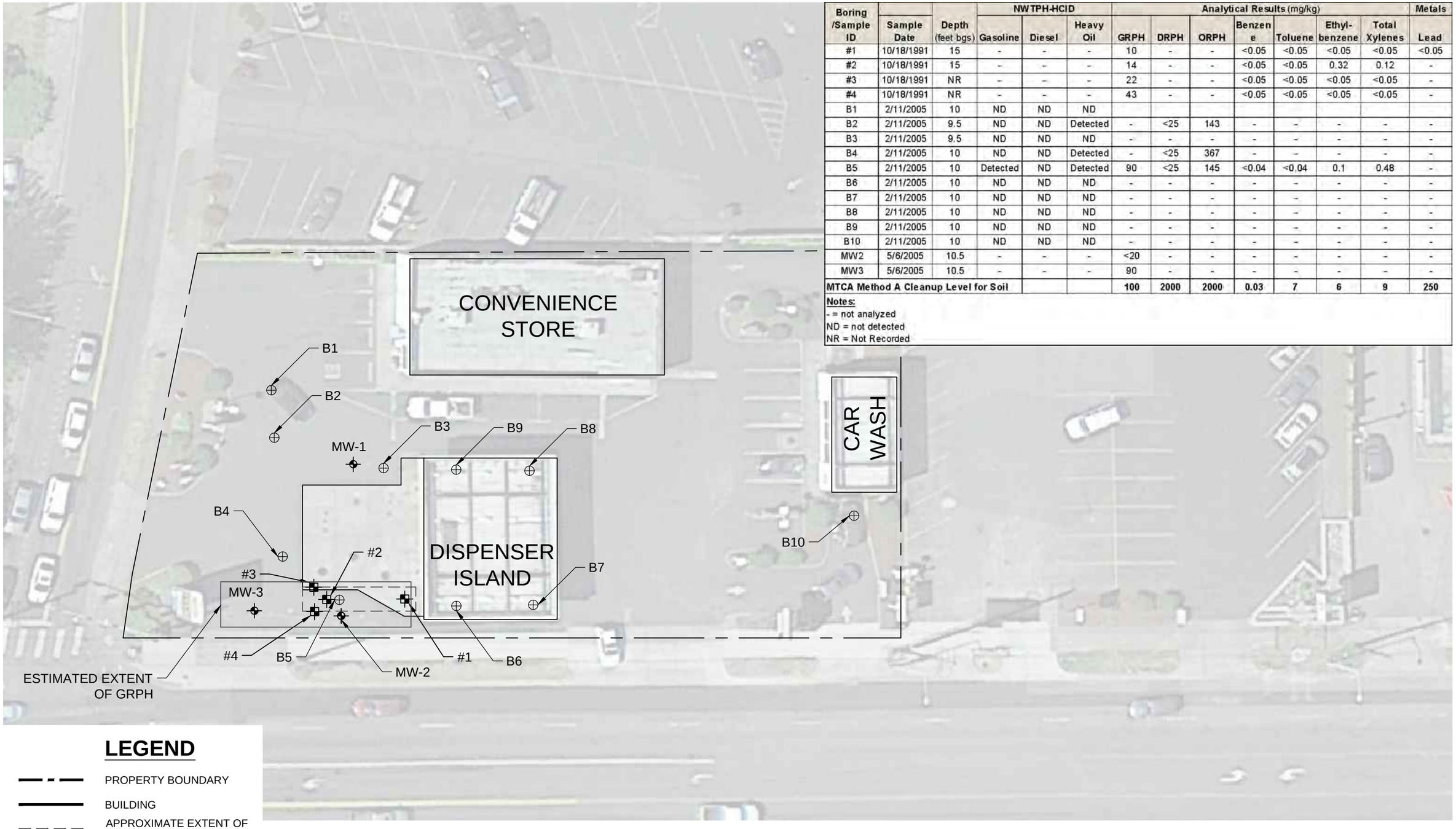
Boring /Sample ID	Sample Date	Depth (feet bgs)	NWTPH-HCID			Analytical Results (mg/kg)							Metals
			Gasoline	Diesel	Heavy Oil	GRPH	DRPH	ORPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Lead
#1	10/18/1991	15	-	-	-	10	-	-	<0.05	<0.05	<0.05	<0.05	<0.05
#2	10/18/1991	15	-	-	-	14	-	-	<0.05	<0.05	0.32	0.12	-
#3	10/18/1991	NR	-	-	-	22	-	-	<0.05	<0.05	<0.05	<0.05	-
#4	10/18/1991	NR	-	-	-	43	-	-	<0.05	<0.05	<0.05	<0.05	-
B1	2/11/2005	10	ND	ND	ND								
B2	2/11/2005	9.5	ND	ND	Detected	-	<25	143	-	-	-	-	-
B3	2/11/2005	9.5	ND	ND	ND	-	-	-	-	-	-	-	-
B4	2/11/2005	10	ND	ND	Detected	-	<25	367	-	-	-	-	-
B5	2/11/2005	10	Detected	ND	Detected	90	<25	145	<0.04	<0.04	0.1	0.48	-
B6	2/11/2005	10	ND	ND	ND	-	-	-	-	-	-	-	-
B7	2/11/2005	10	ND	ND	ND	-	-	-	-	-	-	-	-
B8	2/11/2005	10	ND	ND	ND	-	-	-	-	-	-	-	-
B9	2/11/2005	10	ND	ND	ND	-	-	-	-	-	-	-	-
B10	2/11/2005	10	ND	ND	ND	-	-	-	-	-	-	-	-
MW2	5/6/2005	10.5	-	-	-	<20	-	-	-	-	-	-	-
MW3	5/6/2005	10.5	-	-	-	90	-	-	-	-	-	-	-
MTCA Method A Cleanup Level for Soil						**100**	**2000**	**2000**	**0.03**	**7**	**6**	**9**	**250**

Notes:
- = not analyzed
ND = not detected
NR = Not Recorded



LEGEND

- PROPERTY BOUNDARY
- BUILDING
- APPROXIMATE EXTENT OF 1991 REMEDIAL EXCAVATION
- MW-01 — MONITORING WELL LOCATION
- B1 — BORING LOCATION
- #1 — EXCAVATION SAMPLE LOCATION

N W E S

0 30 60
SCALE IN FEET
1" = 30'

Hydro Con
510 Allen St. Suite B Kelso, WA 98626, Ph (360) 703-6079

DATE: 05-22-18
DWN: JH
CHK: BP
APPROVED: BP
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 3
SUMMARY OF HISTORICAL SOIL ANALYTICAL RESULTS
HANDY MART
WILCOX & FLEGEL
1410 OCEAN BEACH HWY
LONGVIEW, WA

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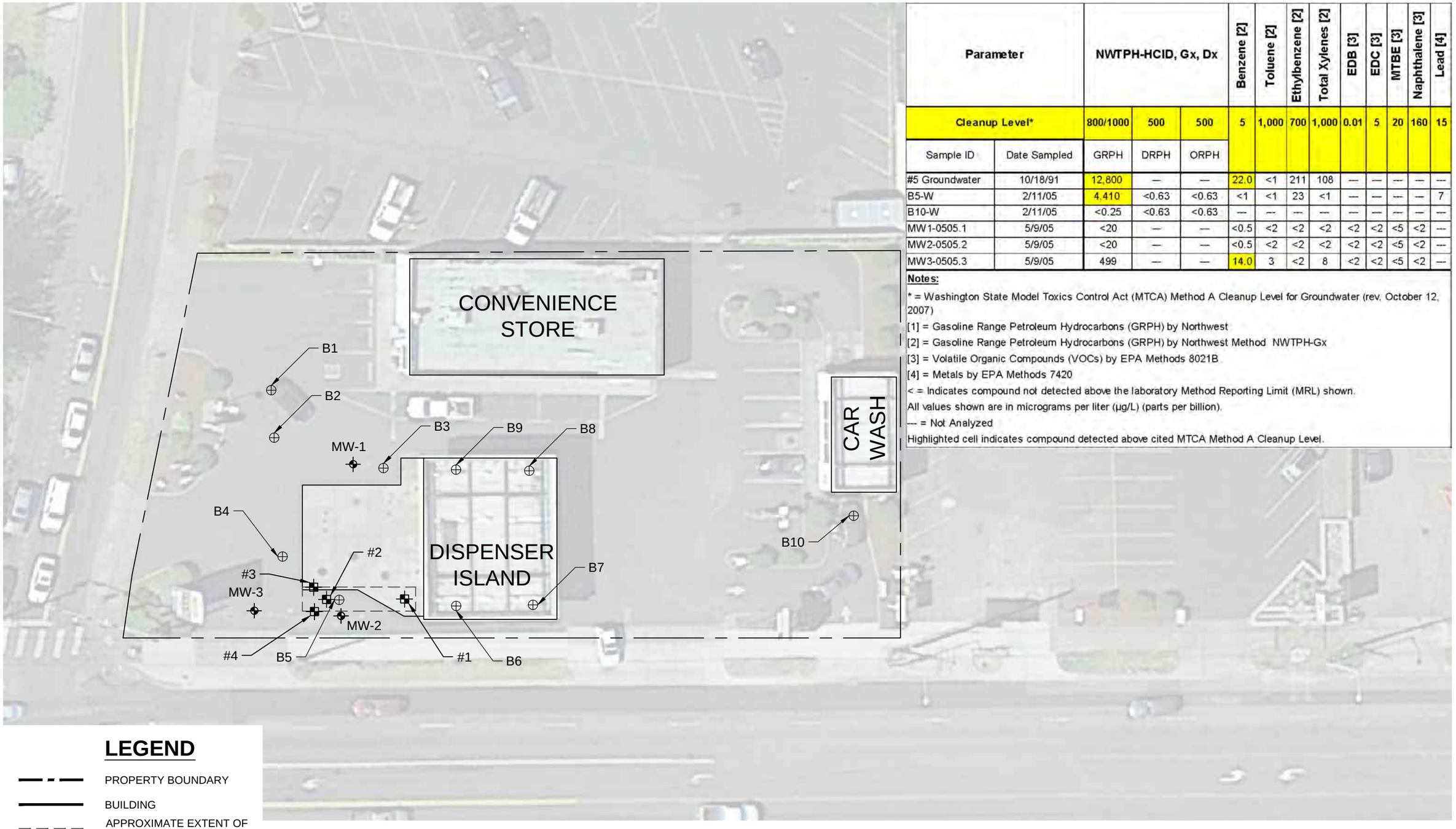

Parameter		NWTPH-HCID, Gx, Dx			Benzene [2]	Toluene [2]	Ethylbenzene [2]	Total Xylenes [2]	EDB [3]	EDC [3]	MTBE [3]	Naphthalene [3]	Lead [4]
Cleanup Level*		800/1000	500	500	5	1,000	700	1,000	0.01	5	20	160	15
Sample ID	Date Sampled	GRPH	DRPH	ORPH									
#5 Groundwater	10/18/91	12,800	—	—	22.0	<1	211	108	—	—	—	—	—
B5-W	2/11/05	4,410	<0.63	<0.63	<1	<1	23	<1	—	—	—	—	7
B10-W	2/11/05	<0.25	<0.63	<0.63	—	—	—	—	—	—	—	—	—
MW1-0505.1	5/9/05	<20	—	—	<0.5	<2	<2	<2	<2	<2	<5	<2	—
MW2-0505.2	5/9/05	<20	—	—	<0.5	<2	<2	<2	<2	<2	<5	<2	—
MW3-0505.3	5/9/05	499	—	—	14.0	3	<2	8	<2	<2	<5	<2	—

Notes:

* = Washington State Model Toxics Control Act (MTCA) Method A Cleanup Level for Groundwater (rev. October 12, 2007)

[1] = Gasoline Range Petroleum Hydrocarbons (GRPH) by Northwest

[2] = Gasoline Range Petroleum Hydrocarbons (GRPH) by Northwest Method NWTPH-Gx

[3] = Volatile Organic Compounds (VOCs) by EPA Methods 8021B

[4] = Metals by EPA Methods 7420

< = Indicates compound not detected above the laboratory Method Reporting Limit (MRL) shown.

All values shown are in micrograms per liter (µg/L) (parts per billion).

--- = Not Analyzed

Highlighted cell indicates compound detected above cited MTCA Method A Cleanup Level.

LEGEND

- PROPERTY BOUNDARY
- BUILDING
- APPROXIMATE EXTENT OF 1991 REMEDIAL EXCAVATION
- MW-01 — MONITORING WELL LOCATION
- B1 — BORING LOCATION
- #1 — EXCAVATION SAMPLE LOCATION

N W E S

0 30 60

SCALE IN FEET
1" = 30'

HydroCon
510 Allen St. Suite B Kelso, WA 98626, Ph (360) 703-6079

DATE: 05-22-18
DWN: JH
CHK: BP
APPROVED: BP
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 4
SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
HANDY MART - WILCOX & FLEGEL
1410 OCEAN BEACH HWY
LONGVIEW, WA

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CONVENIENCE STORE

CAR WASH

DISPENSER ISLAND

MW-1
(12.12)

12.10

12.06

12.02

11.98

MW-3
(11.93)

11.94

MW-2
(11.96)

LEGEND

- PROPERTY BOUNDARY
- BUILDING
- MW-01 (xx.xx) — MONITORING WELL (GROUNDWATER ELEVATION)
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER CONTOUR ELEVATION

N
W E
S

0 30 60
SCALE IN FEET
1" = 30'

Hydro Con
314 W 15th St. Suite 300 Vancouver, WA 98660, Ph(360) 703-6079

DATE: 10-08-19
DWN: DB
CHK: CD
APPROVED: BP
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 5
GROUNDWATER ELEVATIONS AND CONTOUR MAP
SEPTEMBER 2019
WILCOX & FLEGEL - HANDY MART
1410 OCEAN BEACH HWY
LONGVIEW, WA

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Parameter		GRPH [1]	Benzene [2]	Toluene [2]	Ethylbenzene [2]	Total Xylenes [2]
Cleanup Level*		**800**	**5**	**1,000**	**700**	**1,000**
Monitoring Well ID	Date Sampled					
MW-1	3/16/15	<100	15	1.3	<1	<3
	9/24/15	460	<1	4.4	<1	3.5
	2/2/16	<100	2.7	<1	<1	<3
	4/14/16	<100	1.41	<1	<0.5	<1.5
	8/10/16	<100	<0.2	<1	<0.5	<1.5
	11/17/16	<100	<0.2	<1	<0.5	<1.5
	3/15/17	<100	<0.2	<1	<0.5	<1.5
	6/30/17	<100	<0.2	<1	<0.5	<1.5
MW-2	3/16/15	310	7.0	3.5	3.3	25
	9/24/15	<100	<1	<1	<1	<3
	2/2/16	210	<1	3.7	<1	<3
	4/14/16	310	<0.2	<1	<0.5	<1.5
	8/10/16	326	<0.2	<1	<0.5	<1.5
	11/17/16	329	<0.2	<1	<0.5	<1.5
	3/15/17	<100	<0.2	<1	<0.5	<1.5
	6/30/17	<100	<0.2	<1	<0.5	<1.5
MW-3	3/16/15	<100	1.6	<1	<1	<3
	9/24/15	<100	6.1	<1	<1	<3
	2/2/16	<100	6.6	<1	<1	<3
	4/14/16	<100	3.7	<1	<0.5	<1.5
	8/10/16	<100	2.2	<1	<0.5	<1.5
	11/17/16	<100	0.314	<1	<0.5	<1.5
	3/15/17	<100	<0.2	<1	<0.5	<1.5
	6/30/17	<100	<0.2	<1	<0.5	<1.5

LEGEND

- PROPERTY BOUNDARY
- BUILDING
- APPROXIMATE EXTENT OF 1991 REMEDIAL EXCAVATION
- MW-01 MONITORING WELL LOCATION

N W E S

0 30 60

SCALE IN FEET
1" = 30'

HydroCon
510 Allen St. Suite B Kelso, WA 98626, Ph (360) 703-6079

DATE: 06-04-18
DWN: JH
CHK: CD
APPROVED: BP
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 6
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
JUNE 2017
WILCOX & FLEGEL - HANDY MART
1410 OCEAN BEACH HWY
LONGVIEW, WA

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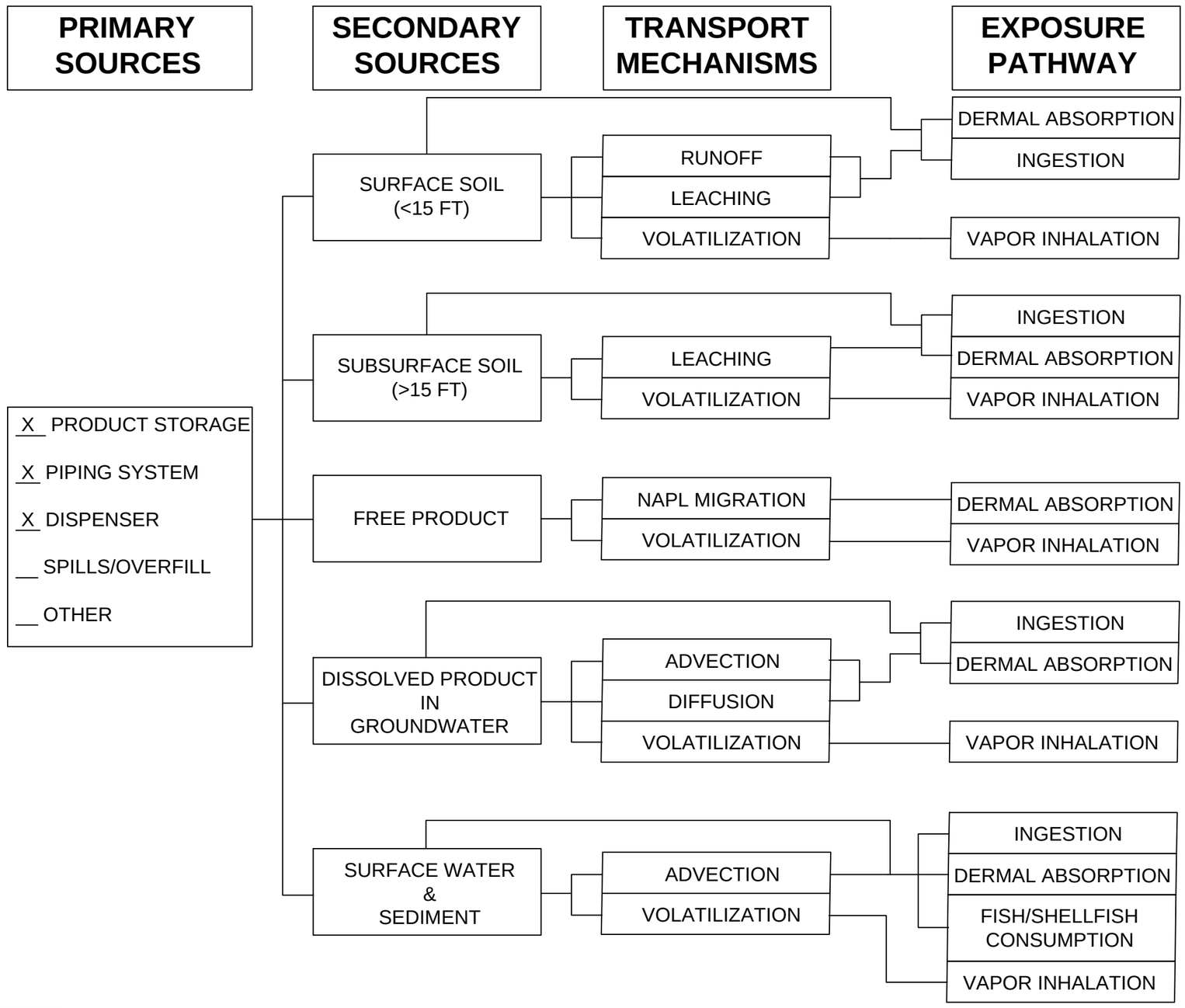

POTENTIAL RECEPTORS

N RESIDENTS/CHILDREN
N COMMERCIAL WORKERS
N INDUSTRIAL WORKERS
Y CONSTRUCTION WORKERS
Y SOIL BIOTA
N PLANTS
N ANIMALS

NA RESIDENTS/CHILDREN
NA COMMERCIAL WORKERS
NA INDUSTRIAL WORKERS
NA CONSTRUCTION WORKERS

NA RESIDENTS/CHILDREN
NA COMMERCIAL WORKERS
NA INDUSTRIAL WORKERS
NA CONSTRUCTION WORKERS
NA SOIL BIOTA
NA PLANTS
NA ANIMALS

N RESIDENTS/CHILDREN
N COMMERCIAL WORKERS
N INDUSTRIAL WORKERS
Y CONSTRUCTION WORKERS
Y SOIL BIOTA
N PLANTS
N ANIMALS

N RESIDENTS/CHILDREN
N RECREATIONAL USERS
N BENTHIC ORGANISMS
N FISH

HydroCon
510 Allen St. Suite B Kelso, WA 98626, Ph(360) 703-6079

DATE: 05-23-18
DWN: JH
CHK: BP
APPROVED: DB
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 7
CONCEPTUAL SITE MODEL
HANDY MART
WILCOX & FLEGEL
1410 OCEAN BEACH HIGHWAY
LONGVIEW, WA

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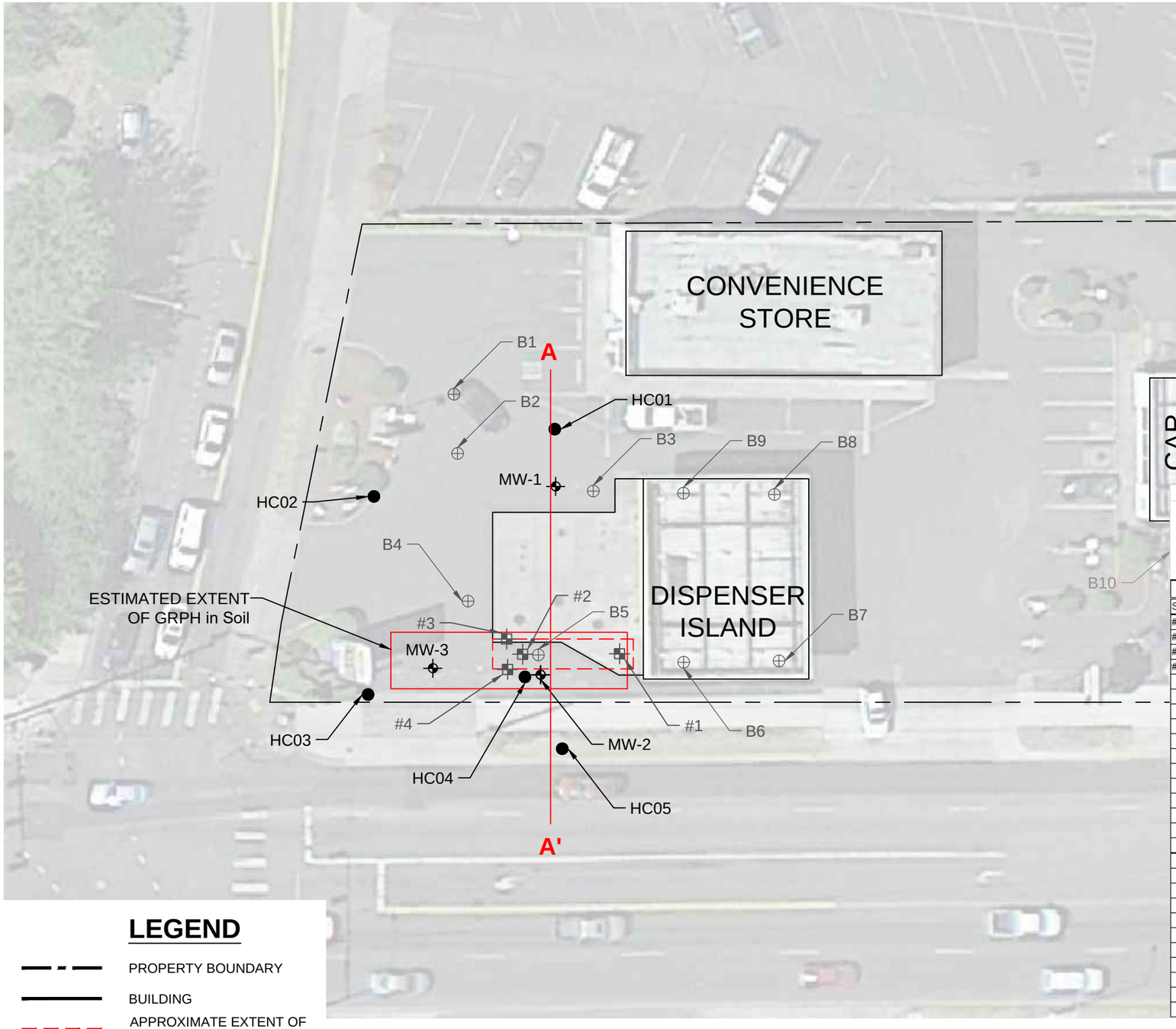


	Fuels			BTEX			
	GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MTCA Method A Cleanup Level*	**100**	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**
Sample ID	Depth in Feet bgs	Date Sampled	Results in mg/kg				
#1 - Riser 1 Bottom	15	10/18/91	**10**	---	---	<0.05 ec	<0.05	<0.05	<0.05
#2 - Riser 2 Bottom	15	10/18/91	**14**	---	---	<0.05 ec	<0.05	0.3	0.1
#3 - North Sidewall	-	10/18/91	**22**	---	---	<0.05 ec	<0.05	<0.05	<0.05
#4 - South Sidewall	-	10/18/91	**43**	---	---	<0.05 ec	<0.05	<0.05	<0.05
B1-10'	10	2/11/05	<20	<50	<100	---	---	---	---
B2-9.5'	9.5	2/11/05	<20	<25	**143**	---	---	---	---
B3-9.5'	9.5	2/11/05	<20	<50	<100	---	---	---	---
B4-10'	10	2/11/05	<20	<25	**367**	---	---	---	---
B5-10'	10	2/11/05	**90**	<25	**145**	<0.04 ec	<0.04	0.10	0.48
B6-10'	10	2/11/05	<20	<50	<100	---	---	---	---
B7-10'	10	2/11/05	<20	<50	<100	---	---	---	---
B8-10'	10	2/11/05	<20	<50	<100	---	---	---	---
B9-10'	10	2/11/05	<20	<50	<100	---	---	---	---
B10-10'	10	2/11/05	<20	<50	<100	---	---	---	---
MW2-10.5'	10.5	5/6/05	<20	<50	<100	---	---	---	---
MW-3-10.5'	10.5	5/6/05	90	<50	<100	---	---	---	---
HC01	7	9/23/19	<7.31	<457	**1,210/1,330'**	<0.0146	<0.0731	<0.0366	<0.110
HC01	9	9/23/19	<7.75	<25.8	<51.5	<0.0155	<0.0775	<0.0388	<0.116
HC02	5	9/23/19	<6.59	<25.0	<50.0	<0.0132	<0.0659	<0.0329	<0.0988
HC02	8.5	9/23/19	<7.12	<26.8	<53.6	<0.0142	<0.0712	<0.0356	<0.107
HC03	8	9/23/19	<6.79	<25.0	<50.0	<0.0135	<0.0676	<0.0338	<0.101
HC03	15	9/23/19	<7.19	<25.2	<50.3	<0.0144	<0.0719	<0.0359	<0.108
HC03	19	9/23/19	<6.97	<25.9	<51.9	<0.0139	<0.0697	<0.0349	<0.105
HC04	10	9/23/19	**64.2**	<27.3	<54.5	<0.0171	<0.0855	<0.0427	<0.128
HC04	12.5	9/23/19	<12.8	<25.0	<50.0	<0.0257	<0.128	<0.0642	<0.193
HC04	18	9/23/19	<12.2	<25.3	<50.6	<0.0245	<0.122	<0.0612	<0.184
HC05	8	9/23/19	<6.36	<25.0	<50.0	<0.0127	<0.0636	<0.0318	<0.0954

LEGEND

- PROPERTY BOUNDARY
- BUILDING
- APPROXIMATE EXTENT OF 1991 REMEDIAL EXCAVATION
- MW-1 — MONITORING WELL LOCATION
- B1 — BORING LOCATION
- #1 — EXCAVATION SAMPLE LOCATION
- HC01 — PROPOSED BORING LOCATION
- CROSS SECTION LOCATION A-A'

N W E S

0 30 60

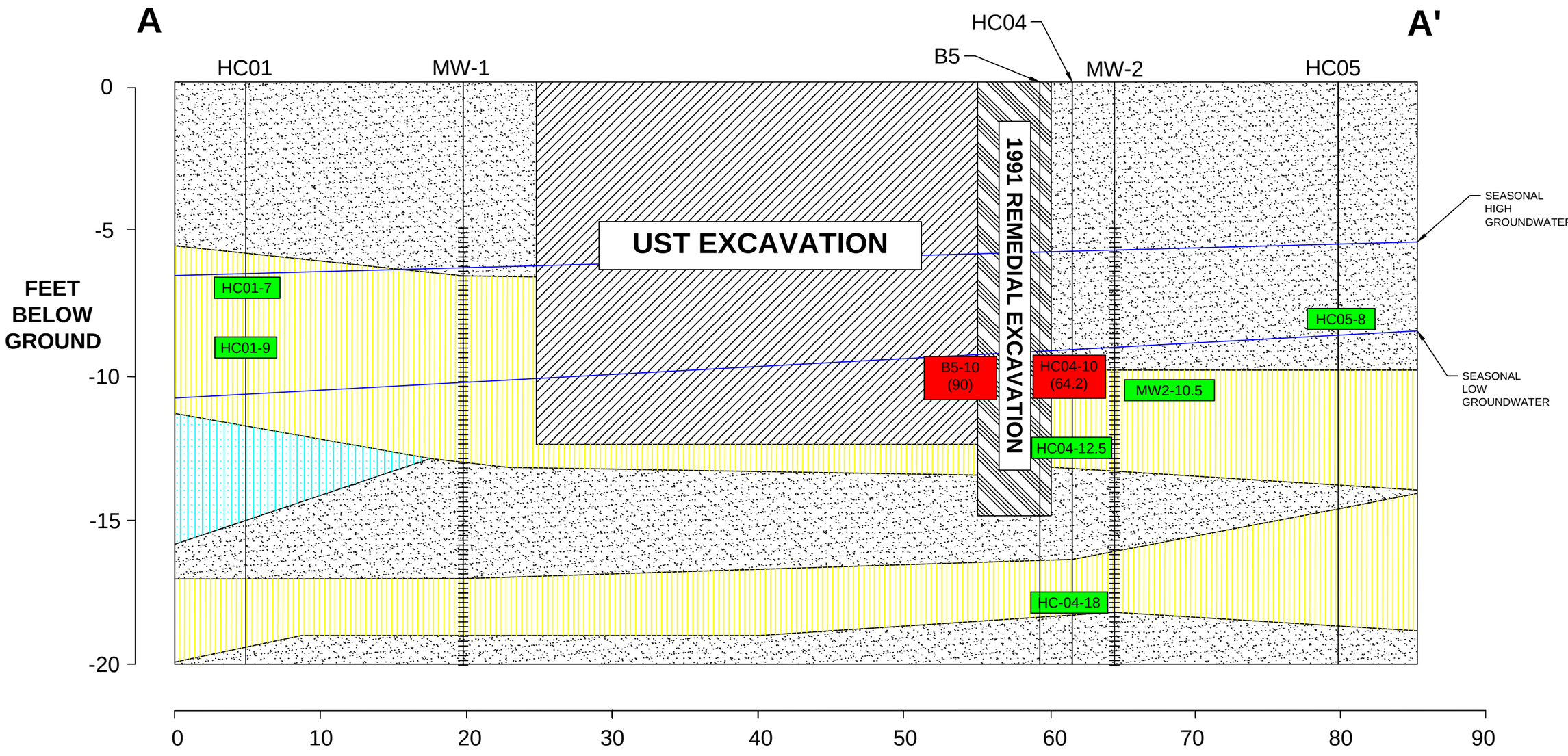
SCALE IN FEET
1" = 30'

Hydro Con
314 W 15th St. Suite 300 Vancouver, WA 98660, Ph(360) 703-6079

DATE: 10-09-19
DWN: DB
CHK: BP
APPROVED: BP
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 8
SOIL ANALYTICAL RESULTS SUMMARY
HANDY MART
WILCOX & FLEGEL
1410 OCEAN BEACH HWY
LONGVIEW, WA

\\SBSSERVER\RedirectedFolders\jonathanh\Desktop\Drafting 2019\2015-007-01\2015-007-1.dwg 2.17.2014



LEGEND

- SEASONAL GROUNDWATER DEPTH
- HC01 ● SOIL SAMPLE LOCATION AND DESIGNATION
- SAND (SP)
- SANDY SILT (SM)
- SILT (ML)
- EXCAVATION LIMITS
- GRPH NOT DETECTED ABOVE MRL (ND)
- GRPH DETECTION (IN MG/KG)

MONITORING WELL DIAGRAM

- CASED INTERVAL
- SCREENED INTERVAL

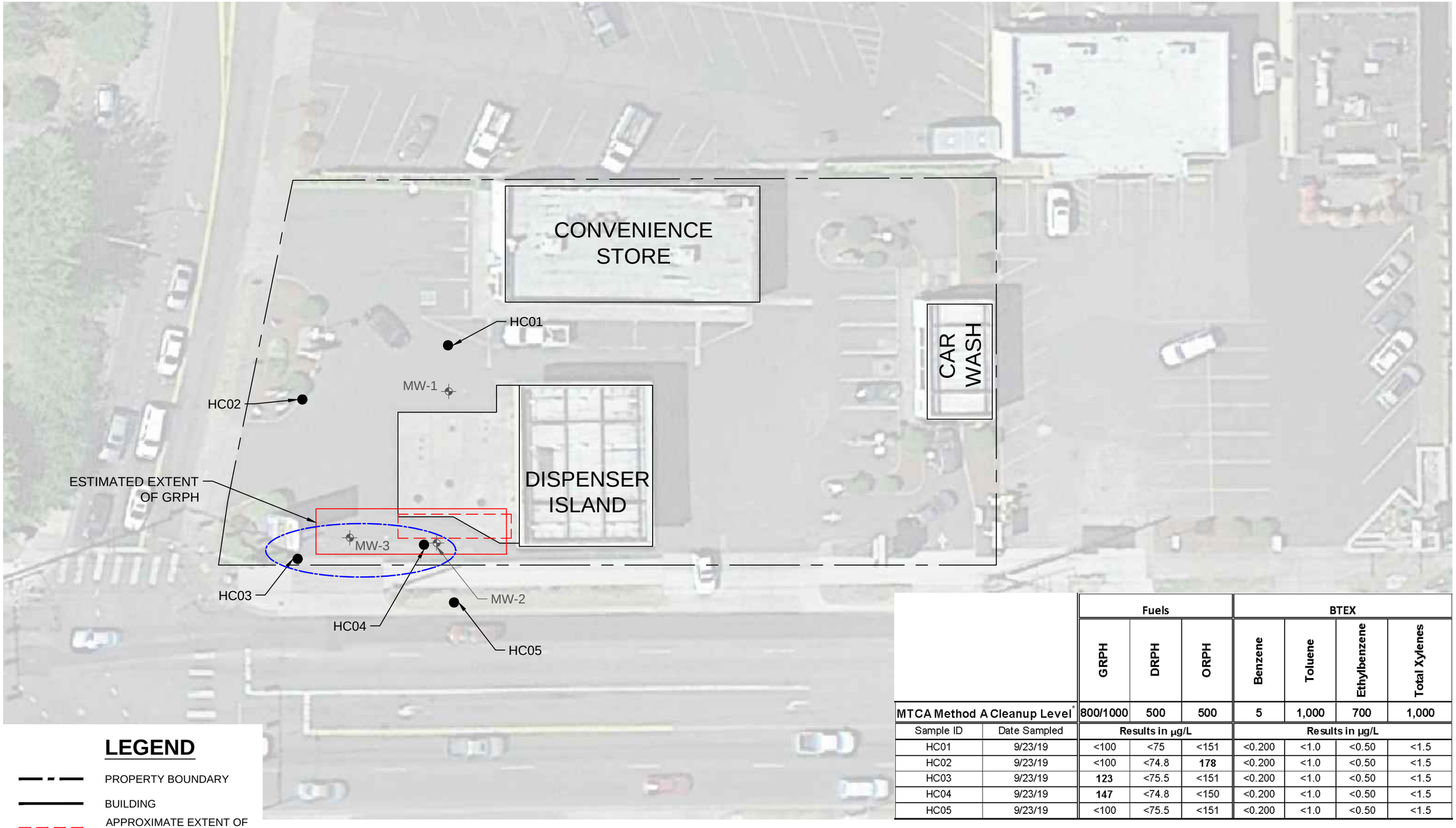
SCALE AS SHOWN

HydroCon
510 Allen St. Suite B Kelso, WA 98626, Ph (360) 703-6079

DATE: 10-10-19
DWN: DB
CHK: BP
APPROVED: BP
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 9
CROSS SECTION A-A'
HANDY MART
WILCOX & FLEGEL
1410 OCEAN BEACH HWY
LONGVIEW, WA

\\SBSSERVER\RedirectedFolders\jonathanh\Desktop\Drafting 2019\2015-007-01\2015-007-1.dwg 2.17.2014



		Fuels			BTEX			
		GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MTCA Method A Cleanup Level*		800/1000	500	500	5	1,000	700	1,000
Sample ID	Date Sampled	Results in µg/L			Results in µg/L			
HC01	9/23/19	<100	<75	<151	<0.200	<1.0	<0.50	<1.5
HC02	9/23/19	<100	<74.8	**178**	<0.200	<1.0	<0.50	<1.5
HC03	9/23/19	**123**	<75.5	<151	<0.200	<1.0	<0.50	<1.5
HC04	9/23/19	**147**	<74.8	<150	<0.200	<1.0	<0.50	<1.5
HC05	9/23/19	<100	<75.5	<151	<0.200	<1.0	<0.50	<1.5

LEGEND

- PROPERTY BOUNDARY
- BUILDING
- APPROXIMATE EXTENT OF 1991 REMEDIAL EXCAVATION
- MW-1 — MONITORING WELL LOCATION
- HC01 — BORING LOCATION
- APPROXIMATE EXTENT OF GRPH IN GROUNDWATER

N W E S

0 30 60

SCALE IN FEET
1" = 30'

HydroCon
314 W 15th St. Suite 300 Vancouver, WA 98660, Ph(360) 703-6079

DATE: 10-10-19
DWN: DB
CHK: BP
APPROVED: BP
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 10
GROUNDWATER ANALYTICAL RESULTS SUMMARY
HANDY MART
WILCOX & FLEGEL
1410 OCEAN BEACH HWY
LONGVIEW, WA

\\SBSSERVER\RedirectedFolders\jonathanh\Desktop\Drafting 2019\2015-007-01\2015-007-1.dwg 2.17.2014

Table 1
Summary of Historic Soil Sample Results
Handy Mart, Longview Washington

		Fuels			BTEX				Metals
		GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	Lead
MTCA Method A Cleanup Level*		**100**	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**	**250**
Sample ID	Date Sampled								
#1 - Riser 1 Bottom	10/18/91	10	---	---	<0.05 ec	<0.05	<0.05	<0.05	---
#2 - Riser 2 Bottom	10/18/91	14	---	---	<0.05 ec	<0.05	0.3	0.1	---
#3 - North Sidewall	10/18/91	22	---	---	<0.05 ec	<0.05	<0.05	<0.05	<3
#4 - South Sidewall	10/18/91	43	---	---	<0.05 ec	<0.05	<0.05	<0.05	---
Soil Pile #1	1/18/92	---	---	---	<0.05 ec	<0.05	0.08	0.19	---
B1-10'	2/11/05	<20	<50	<100	---	---	---	---	---
B2-9.5'	2/11/05	<20	<25	143	---	---	---	---	---
B3-9.5'	2/11/05	<20	<50	<100	---	---	---	---	---
B4-10'	2/11/05	<20	<25	367	---	---	---	---	---
B5-10'	2/11/05	90	<25	145	<0.04 ec	<0.04	0.10	0.48	NA
B6-10'	2/11/05	<20	<50	<100	---	---	---	---	---
B7-10'	2/11/05	<20	<50	<100	---	---	---	---	---
B8-10'	2/11/05	<20	<50	<100	---	---	---	---	---
B9-10'	2/11/05	<20	<50	<100	---	---	---	---	---
B10-10'	2/11/05	<20	<50	<100	---	---	---	---	---
MW2-10.5'	5/6/05	<20	<50	<100	---	---	---	---	---
MW-3-10.5'	5/6/05	90	<50	<100	---	---	---	---	---

Notes:

* = Washington State Model Toxics Control Act (MTCA) Method A Cleanup Level for Soil (rev. October 12, 2007)

< = Indicates compound not detected above the laboratory Method Reporting Limit (MRL) shown.

ec = The MRL exceeds the applicable cleanup level

Gasoline Range Petroleum Hydrocarbons (GRPH) by Northwest Method NWTPH-Gx

Diesel Range Petroleum Hydrocarbons (DRPH) and Oil Range Petroleum Hydrocarbons by Northwest Method NWTPH-Dx

BTEX by EPA Methods 8021B and 8260

Metals by EPA Methods 7420

All values shown are in micrograms per kilogram (mg/kg) (parts per million).

--- = Not Analyzed

Table 2
Summary of Historical Groundwater Analytical Results
Handy Mart, Washington

		Fuels			BTEX				VOCs				Metals
		GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	EDB	EDC	MTBE	Naphthalene	Lead
MTCA Method A Cleanup Lev		**800/1000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**0.01**	**5**	**20**	**160**	**15**
Sample ID	Date Sampled												
#5 Groundwater	10/18/91	**12,800**	---	---	**22.0**	<1	211	108	---	---	---	---	---
B5-W	2/11/05	**4,410**	<0.63	<0.63	<1	<1	23	<1	---	---	---	---	7
B10-W	2/11/05	<0.25	<0.63	<0.63	---	---	---	---	---	---	---	---	---
MW1-0505.1	5/9/05	<20	---	---	<0.5	<2	<2	<2	<2	<2	<5	<2	---
MW2-0505.2	5/9/05	<20	---	---	<0.5	<2	<2	<2	<2	<2	<5	<2	---
MW3-0505.3	5/9/05	499	---	---	**14.0**	3	<2	8	<2	<2	<5	<2	---

Notes:

* = Washington State Model Toxics Control Act (MTCA) Method A Cleanup Level for Groundwater (rev. October 12, 2007)
Gasoline Range Petroleum Hydrocarbons (GRPH) by Northwest Method NWTPH-Gx
Diesel and Oil Range Petroleum Hydrocarbons (DRPH and ORPH) by Northwest Method NWTPH-Dx and NWTPH-HCID
Volatile Organic Compounds (VOCs) by EPA Methods 8021B and 8260
Metals by EPA Methods 7420
< = Indicates compound not detected above the laboratory Method Reporting Limit (MRL) shown.
All values shown are in micrograms per liter (µg/L) (parts per billion).
--- = Not Analyzed
Highlighted cell indicates results exceeds referenced MTCA Method A Cleanup Level

Table 3

HydroCon

Summary of Historic Groundwater Elevations
Handy Mart
Longview, Washington

Monitoring Well ID	Date	TOC Elevation	Depth to Water	Groundwater Elevation
MW-1	4/14/16	21.12	8.03	13.09
	8/10/16		10.45	10.67
	11/17/16		7.93	13.19
	3/15/17		6.78	14.34
	6/30/17		8.01	13.11
MW-2	4/14/16	19.98	6.79	13.19
	8/10/16		8.41	11.57
	11/17/16		6.83	13.15
	3/15/17		5.58	14.40
	6/30/17		6.77	13.21
MW-3	4/14/16	19.63	6.41	13.22
	8/10/16		8.02	11.61
	11/17/16		6.37	13.26
	3/15/17		5.13	14.50
	6/30/17		6.73	12.90

Notes:
TOC = Top of well casing

Table 4

Summary of Groundwater Analytical Results
Handy Mart
Longview, Washington

		Fuels	BTEX			
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MTCA Method A Cleanup Level*		**800/1,000**	**5**	**1,000**	**700**	**1,000**
Well Identification	**Date Sampled**					
MW-1	5/6/05	<250	<0.5	<2	<2	<2
	12/10/10	<50	<5.0	<5.0	<5.0	<10.0
	3/25/11	<50	<5.0	<5.0	<5.0	<10.0
	9/22/11	92.8	<5.0	<5.0	<5.0	16.8
	3/9/12	104	<5.0	<5.0	<5.0	<10.0
	9/24/15	<100	**6.1**	<1	<1	<3
	2/2/16	<100	**6.6**	<1	<1	<3
	4/14/16	<100	3.7	<1	<0.5	<1.5
	8/10/16	<100	2.2	<1	<0.5	<1.5
	11/17/16	<100	0.314	<1	<0.5	<1.5
	3/15/17	<100	<0.2	<1	<0.5	<1.5
	6/30/17	<100	<0.2	<1	<0.5	<1.5
MW-2	5/6/05	<250	<0.5	<2	<2	<2
	12/10/10	<50	<5.0	<5.0	<5.0	<10.0
	3/25/11	73	<5.0	<5.0	<5.0	<10.0
	9/22/11	76.5	<5.0	5.7	<5.0	<10.0
	3/9/12	513	**15.5**	26.0	5.13	7.6
	9/24/15	460	<1	4.4	<1	3.5
	2/2/16	<100	2.7	<1	<1	<3
	4/14/16	<100	1.41	<1	<0.5	<1.5
	8/10/16	<100	<0.2	<1	<0.5	<1.5
	11/17/16	<100	<0.2	<1	<0.5	<1.5
	3/15/17	<100	<0.2	<1	<0.5	<1.5
	6/30/17	<100	<0.2	<1	<0.5	<1.5
MW-3	5/6/05	499	**14**	3.0	<2	8
	12/10/10	230	<5.0	<5.0	<5.0	<10.0
	3/25/11	180	<5.0	<5.0	<5.0	<10.0
	9/22/11	242	<5.0	<5.0	<5.0	<10.0
	3/9/12	95.8	<5.0	<5.0	<5.0	<10.0
	9/24/15	<100	<1	<1	<1	<3
	2/2/16	210	<1	3.7	<1	<3
	4/14/16	310	<0.2	<1	<0.5	<1.5
	8/10/16	326	<0.2	<1	<0.5	<1.5
	11/17/16	329	<0.2	<1	<0.5	<1.5
	3/15/17	<100	<0.2	<1	<0.5	<1.5
	6/30/17	<100	<0.2	<1	<0.5	<1.5

Notes:
* = Washington Model Toxics Control Act (MTCA) Method A Cleanup Level for Groundwater (rev. October 12, 2007)
Gasoline Range Petroleum Hydrocarbons (GRPH) by Northwest Method NWTPH-Gx
Volatile Organic Compounds (VOCs) by EPA Methods 8021B or 8260B
< = Indicates compound not detected above the laboratory Method Reporting Limit (MRL) shown.
All values shown are in micrograms per liter (µg/L) (parts per billion).
Highlighted cell indicates compound detected above referenced MTCA Method A Cleanup Level.

Table 5
September 2019 Soil Sample Results
Handy Mart, Longview Washington

			Fuels			BTEX			
			GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MTCA Method A Cleanup Level*			**100**	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**
Boring ID	Depth in Feet bgs	Date Sampled	**Results in mg/kg**						
HC01	7	9/23/19	<7.31	<457	**1,210/1,330[1]**	<0.0146	<0.0731	<0.0366	<0.110
HC01	9	9/23/19	<7.75	<25.8	<51.5	<0.0155	<0.0775	<0.0388	<0.116
HC02	5	9/23/19	<6.59	<25.0	<50.0	<0.0132	<0.0659	<0.0329	<0.0988
HC02	8.5	9/23/19	<7.12	<26.8	<53.6	<0.0142	<0.0712	<0.0356	<0.107
HC03	8	9/23/19	<6.79	<25.0	<50.0	<0.0135	<0.0676	<0.0338	<0.101
HC03	15	9/23/19	<7.19	<25.2	<50.3	<0.0144	<0.0719	<0.0359	<0.108
HC03	19	9/23/19	<6.97	<25.9	<51.9	<0.0139	<0.0697	<0.0349	<0.105
HC04	10	9/23/19	**64.2**	<27.3	<54.5	<0.0171	<0.0855	<0.0427	<0.128
HC04	12.5	9/23/19	<12.8	<25.0	<50.0	<0.0257	<0.128	<0.0642	<0.193
HC04	18	9/23/19	<12.2	<25.3	<50.6	<0.0245	<0.122	<0.0612	<0.184
HC05	8	9/23/19	<6.36	<25.0	<50.0	<0.0127	<0.0636	<0.0318	<0.0954

Notes:

* = Washington State Model Toxics Control Act (MTCA) Method A Cleanup Level for Soil (rev. October 12, 2007)

< = Indicates compound not detected above the laboratory Method Reporting Limit (MRL) shown.

Gasoline Range Petroleum Hydrocarbons (GRPH) by Northwest Method NWTPH-Gx

Diesel Range Petroleum Hydrocarbons (DRPH) and Oil Range Petroleum Hydrocarbons by Northwest Method NWTPH-Dx

1=ORPH results with Acid/Silica Gel Cleanup

BTEX by EPA Methods 8021B and 8260

Metals by EPA Methods 7420

All values shown are in micrograms per kilogram (mg/kg) (parts per million).

--- = Not Analyzed

Table 6
September 2019 Groundwater Analytical Results
Handy Mart, Washington

		Fuels			BTEX			
		GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MTCA Method A Cleanup Level*		**800/1000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**
Sample ID	Date Sampled	**Results in µg/L**			**Results in µg/L**			
HC01	9/23/19	<100	<75	<151	<0.200	<1.0	<0.50	<1.5
HC02	9/23/19	<100	<74.8	**178**	<0.200	<1.0	<0.50	<1.5
HC03	9/23/19	**123**	<75.5	<151	<0.200	<1.0	<0.50	<1.5
HC04	9/23/19	**147**	<74.8	<150	<0.200	<1.0	<0.50	<1.5
HC05	9/23/19	<100	<75.5	<151	<0.200	<1.0	<0.50	<1.5

Notes:

* = Washington State Model Toxics Control Act (MTCA) Method A Cleanup Level for Groundwater (rev. October 12, 2007)
Gasoline Range Petroleum Hydrocarbons (GRPH) by Northwest Method NWTPH-Gx
Diesel and Oil Range Petroleum Hydrocarbons (DRPH and ORPH) by Northwest Method NWTPH-Dx and NWTPH-HCID
Volatile Organic Compounds (VOCs) by EPA Methods 8021B and 8260
Metals by EPA Methods 7420
< = Indicates compound not detected above the laboratory Method Reporting Limit (MRL) shown.
All values shown are in micrograms per liter (µg/L) (parts per billion).
--- = Not Analyzed
Red Highlighted cell indicates results exceeds referenced MTCA Method A Cleanup Level

APPENDIX A
TERRESTRIAL ECOLOGICAL EVALUATION DOCUMENTATION

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm.

Step 1: IDENTIFY HAZARDOUS WASTE SITE	
Please identify below the hazardous waste site for which you are documenting an evaluation.	
Facility/Site Name: Handy Mart (aka /John's Shell)	
Facility/Site Address: 1410 Ocean Bach HWY, Longview Washington	
Facility/Site No: 98186449	VCP Project No.: SW1623

Step 2: IDENTIFY EVALUATOR			
Please identify below the person who conducted the evaluation and their contact information.			
Name: Brian Pletcher		Title: Senior Project Manager	
Organization: HydroCon Environmental LLC			
Mailing address: 314 W 15th Street Suite 300			
City: Vancouver	State: WA	Zip code: 98660	
Phone: 360.703.6079	Fax: NA	E-mail: bpletcher@hydroconllc.net	

Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

A. Exclusion from further evaluation.

1. Does the Site qualify for an exclusion from further evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 2**.*

☒ No or Unknown *If you answered **"NO" or "UKNOWN,"** then skip to **Step 3B** of this form.*

2. What is the basis for the exclusion? *Check all that apply. Then skip to **Step 4** of this form.*

Point of Compliance: WAC 173-340-7491(1)(a)

☐ All soil contamination is, or will be,* at least 15 feet below the surface.

☐ All soil contamination is, or will be,* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

☐ All contaminated soil, is or will be,* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

☐ There is less than 0.25 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.

☐ For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

☐ Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

[±] "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

[#] "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

B. Simplified evaluation.

1. Does the Site qualify for a simplified evaluation?

- ■ Yes — *If you answered **"YES,"** then answer **Question 2** below.*
- ☐ No or Unknown — *If you answered **"NO"** or **"UNKNOWN,"** then skip to **Step 3C** of this form.*

2. Did you conduct a simplified evaluation?

- ☐ Yes — *If you answered **"YES,"** then answer **Question 3** below.*
- ☐ No — *If you answered **"NO,"** then skip to **Step 3C** of this form.*

3. Was further evaluation necessary?

- ☐ Yes — *If you answered **"YES,"** then answer **Question 4** below.*
- ☐ No — *If you answered **"NO,"** then answer **Question 5** below.*

4. If further evaluation was necessary, what did you do?

- ☐ Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*
- ☐ Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

5. If no further evaluation was necessary, what was the reason? *Check all that apply. Then skip to **Step 4** of this form.*

Exposure Analysis: WAC 173-340-7492(2)(a)

- ☐ Area of soil contamination at the Site is not more than 350 square feet.
- ☒ Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

Pathway Analysis: WAC 173-340-7492(2)(b)

- ☐ No potential exposure pathways from soil contamination to ecological receptors.

Contaminant Analysis: WAC 173-340-7492(2)(c)

- ☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.
- ☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.
- ☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.
- ☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

C. Site-specific evaluation. A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. *See* WAC 173-340-7493(1)(c).

1. Was there a problem? *See* WAC 173-340-7493(2).

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No *If you answered **"NO,"** then identify the reason here and then skip to **Question 5** below:*

- ☐ No issues were identified during the problem formulation step.
- ☐ While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

2. What did you do to resolve the problem? *See* WAC 173-340-7493(3).

☐ Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*

☐ Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

3. If you conducted further site-specific evaluations, what methods did you use?
Check all that apply. See WAC 173-340-7493(3).

- ☐ Literature surveys.
- ☐ Soil bioassays.
- ☐ Wildlife exposure model.
- ☐ Biomarkers.
- ☐ Site-specific field studies.
- ☐ Weight of evidence.
- ☐ Other methods approved by Ecology. If so, please specify:

4. What was the result of those evaluations?

- ☐ Confirmed there was no problem.
- ☐ Confirmed there was a problem and established site-specific cleanup levels.

5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?

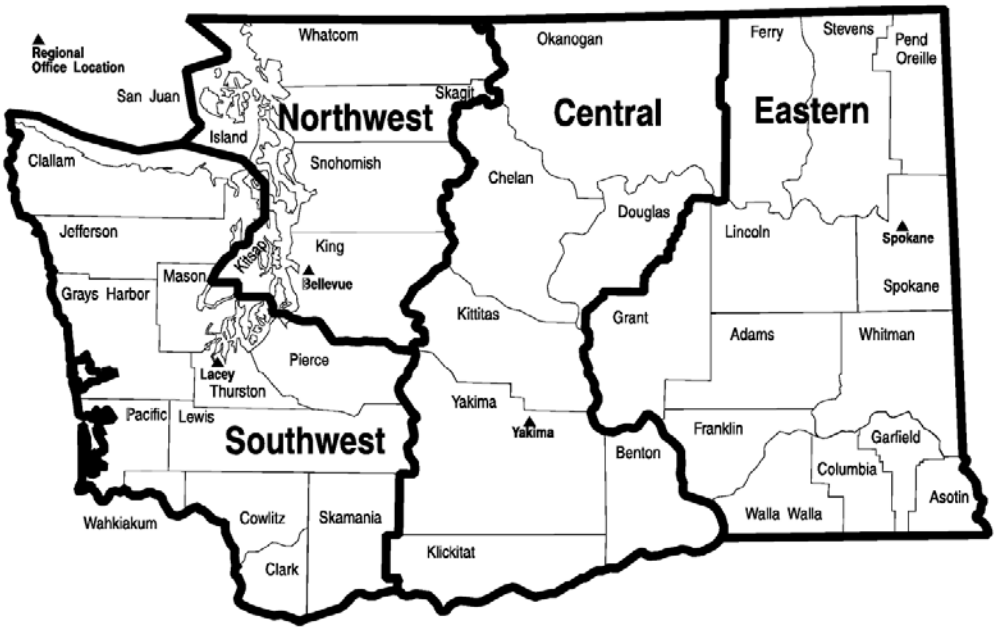
☐ Yes If so, please identify the Ecology staff who approved those steps:

☐ No

Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.

Northwest Region: Attn: VCP Coordinator 3190 160th Ave. SE Bellevue, WA 98008-5452	**Central Region:** Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009
Southwest Region: Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	**Eastern Region:** Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295



Cowlitz County NetMaps
Printed: Friday, April 20, 2018 1:03:22 PM

TEE 500 foot radius

undeveloped land

Handy Mart Simplified TEE VCP Project No: SW1623

Table 749-1

Simplified Terrestrial Ecological

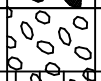
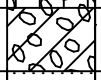
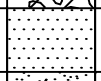
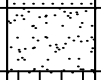
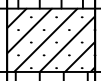
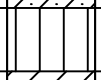
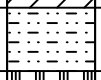
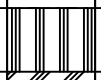
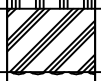
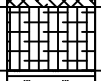
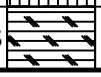
Evaluation - Exposure Analysis Procedure

under WAC 173-340-7492 (2)(a)(ii).a

Estimate the area of contiguous (connected) undeveloped land on the site or within 500 feet of any area of the site to the nearest 1/2 acre (1/4 acre if the area is less than 0.5 acre). "Undeveloped land" means land that is not covered by existing buildings, roads, paved areas or other barriers that will prevent wildlife from feeding on plants, earthworms, insects or other food in or on the soil.	
1) From the table below, find the number of points corresponding to the area and enter this number in the box to the right.	
Area (acres) — Points 0.25 or less — 4 0.5 — 5 1 — 6 1.5 — 7 2 — 8 2.5 — 9 3 — 10 3.5 — 11 4.0 or more — 12	10
2) Is this an industrial or commercial property? See WAC 173-340-7490 (3)(c). If yes, enter a score of 3 in the box to the right. If no, enter a score of 1.	3
3) Enter a score in the box to the right for the habitat quality of the site, using the rating system shown below[b]. (High = 1, Intermediate = 2, Low = 3)	3
4) Is the undeveloped land likely to attract wildlife? If yes, enter a score of 1 in the box to the right. If no, enter a score of 2. See footnote c.	1
5) Are there any of the following soil contaminants present: Chlorinated dibenzo-p-dioxins/dibenzofurans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, pentachlorobenzene? If yes, enter a score of 1 in the box to the right. If no, enter a score of 4.	4
6) Add the numbers in the boxes on lines 2 through 5 and enter this number in the box to the right. If this number is larger than the number in the box on line 1, the simplified terrestrial ecological evaluation may be ended under WAC173-340-7492 (2)(a)(ii).	11

APPENDIX B
BORING LOGS

GUIDE TO BOREHOLE LOGS**

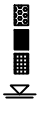
MAJOR DIVISIONS		SYMBOLS		TYPICAL NAMES
		GW		Well-graded gravels or gravel-sand mixtures, little to no fines.
COARSE GRAINED SOILS (more than 1/2 of soil >No. 200 sieve size)	GRAVELS more than 50% coarse fraction > no.4 sieve	GP		Poorly-graded gravels or gravel-sand mixtures, little to no fines.
		GM		Silty gravels, gravel-sand-silt mixtures.
		GC		Clayey gravels or gravel-sand-clay mixtures
	SANDS less than 50% coarse fraction > no.4 sieve	SW		Well-sorted sands or gravelly sands, little to no fines.
		SP		Poorly-sorted sands or gravelly sands, little to no fines.
		SM		Silty sands, sand-silt mixtures.
		SC		Clayey sands, sand-clay mixtures.
FINED GRAINED SOILS (more than 1/2 of soil < No. 200 sieve size)	SILTS & CLAYS Liquid Limit* less than 50%	ML		Inorganic silts and very fine sands, silty or clayey fine sands or clayey silts with slight plasticity.
		CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy or silty clays, lean clays.
		OL		Organic silts and organic silty clays of low plasticity.
	SILTS & CLAYS Liquid Limit* greater than 50%	MH		Inorganic silts, micaceous or diatomaceous fine sand or silty soils, elastic silts.
		CH		Inorganic clays of high plasticity, fat clays.
		OH		Organic clays of medium to high plasticity, organic silty clay, organic silts.
HIGHLY ORGANIC SOILS		Pt		Peat or other highly organic soils.
		Conc		Concrete
		Asph		Asphalt
		FILL		Fill material (concrete, bricks, organics, etc.)
		SiltS		Siltstone
		SandS		Sandstone

* Liquid Limit represents the moisture content (in percent) of a soil at which point the soil no longer behaves like a plastic and starts to behave like a liquid.

BORING LOG SYMBOLS

SHEEN TYPES:
NS - No Sheen observed
SS - Slight Sheen observed (Spotty coverage of sheen pan, no iridescence)
MS - Moderate Sheen (full coverage of sheen pan, no iridescence) pan, iridescent)
HS - Heavy Sheen (full coverage of sheen

SAMPLE PLASTICITY (FINE-GRAINED SOILS):
Nonplastic - Cannot be rolled at any moisture content
Low - Barely rolled, lump cannot be formed when drier than plastic limit
Medium - Easily rolled, lump crumbles when drier than plastic limit
High - Easily rolled yet takes considerable time to reach the plastic limit, molded shape can be formed without crumbling when drier than the plastic limit


SAMPLE LOCATION
SAMPLE INTERVAL
SAMPLE RECOVERY
GROUNDWATER, FIRST OBSERVED

SAMPLE TYPES:
SS - Split Spoon
G - Grab
ST - Shelby Tube
GS - Geoprobe Sampler

PERCENTAGES:
Trace - Particles are present but estimated to be less than 5% Few - 5 to 10%
Little - 15 to 25%
Some - 30 to 45%
Mostly - 50 to 100%

PARTICLE SIZE RANGE (COARSE-GRAINED SOILS):
Gravel - Fine, Coarse
Sand - Fine, Medium, Coarse

SAMPLE MOISTURE:
Dry - No moisture, dry to touch
Moist - Damp but no visible moisture
Wet - Visible free water

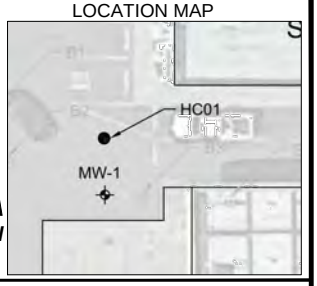
**Based on Unified Soil Classification System and ASTM Standard D2487 and D2488

HydroCon
314 W 15th Street
Vancouver, WA 98660
Phone: 360-703-6079

WELL/BORING NUMBER: HC01

PROJECT NAME: Handy Mart
PROJECT NUMBER: 2015-007-01
PROJECT LOCATION: Longview, Washington
LOGGED BY: C. Daschel
REVIEWED BY: B. Pletcher
DATE: 09-23-2019

LOCATION MAP



DESCRIPTION (USCS Classification, Depth Interval, Color, Grain Size, Plasticity, Shapes, Mineral Composition, Density or Consistency, Moisture, Odor, Geological Interpretation)	DEPTH (FT.)	SYMBOL	WELL DETAILS	SAMPLE ID	PID	FIRST WATER	BLOW COUNTS	BOREHOLE/WELL CONSTRUCTION DETAILS
3" ASPHALT over 12" of base gravel	0							
SAND (SP), POSSIBLE FILL, brown, 90% predominately fine grained sand, 10% sub-rounded gravel up to 1/4" in diameter, no odor/sheen, damp.					0.1			
	5				0.1			
SILTY SAND (SM), brown, 60% fine grained sand, 40% low plasticity fines, no odor/sheen, damp to moist.				HC01-7	0.3			
				HC01-9				
SILT (ML), brown/gray, 70% low plasticity fines, 30% fine grained sand, no odor/sheen, moist to wet.	10				0.1			
					0.0			
SAND (SP), brown, 75% predominately fine grained sand, 25% low plasticity fines, no odor/sheen, wet.	15				0.0			
SILT (ML), brown/gray, 90% low plasticity fines, 10% fine grained sand, no odor/sheen, wet.					0.0			
BOTTOM OF BORING AT 20' bgs. Boring converted to temporary monitoring well to collect groundwater sample HC01-W. backfilled with hydrated bentonite after completion.	20							
	25							
	30							
	35							

LEGEND:
- FILTER PACK
- BENTONITE
- CEMENT GROUT
- CUTTINGS/BACKFILL
- WATER LEVEL DURING DRILLING

DRILLING CONTRACTOR: Steadfast Drilling
DRILLING METHOD: GeoProbe
BOREHOLE DIAMETER: 2"
SAMPLING METHOD: Continuous
START CARD NUMBER:

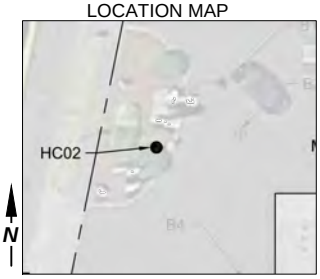
CASING ELEVATION:
GROUND SURFACE ELEVATION:
COORDINATES:
COORDINATES:

Hydro Con
314 W 15th Street
Vancouver, WA 98660
Phone: 360-703-6079

WELL/BORING NUMBER HC02

PROJECT NAME: Handy Mart
PROJECT NUMBER: 2015-007-01
PROJECT LOCATION: Longview, Washington
LOGGED BY: C. Daschel
REVIEWED BY: B. Pletcher
DATE: 09-23-2019

LOCATION MAP



DESCRIPTION (USCS Classification, Depth Interval, Color, Grain Size, Plasticity, Shapes, Mineral Composition, Density or Consistency, Moisture, Odor, Geological Interpretation)	DEPTH (FT.)	SYMBOL	WELL DETAILS	SAMPLE ID	PID	FIRST WATER	BLOW COUNTS	BOREHOLE/WELL CONSTRUCTION DETAILS
3" ASPHALT over 8" of base gravel	0							
SILT (ML), gray/blue, 90% moderate plasticity fines, 10% fine grained sand, organic material in silt, no odor/sheen, damp.					0.5			
					0.4			
	5			HC02-5	0.3			
SILTY SAND (SM), brown, 60% fine grained sand, 40% low plasticity fines, no odor/sheen, damp.					0.1			
				HC02-8.5	0.1			
	10				0.0			
					0.0			
SAND (SP), gray, 90% predominately fine grained sand, 10% low plasticity fines, no odor/sheen, wet.	15				0.0			
SILT (ML), brown/gray, 95% low plasticity fines, 5% fine grained sand, no odor/sheen, wet.					0.0			
SAND (SP), gray, 95% predominately fine grained sand, 5% low plasticity fines, no odor/sheen, wet.	20							
BOTTOM OF BORING AT 20' bgs. Boring converted to temporary monitoring well to collect groundwater sample HC02-W. backfilled with hydrated bentonite after completion.	25							
	30							
	35							

LEGEND:
- FILTER PACK
- BENTONITE
- CEMENT GROUT
- CUTTINGS/BACKFILL
- WATER LEVEL DURING DRILLING

DRILLING CONTRACTOR: Steadfast Drilling
DRILLING METHOD: GeoProbe
BOREHOLE DIAMETER: 2"
SAMPLING METHOD: Continuous
START CARD NUMBER:

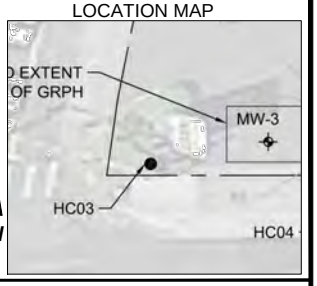
CASING ELEVATION:
GROUND SURFACE ELEVATION:
COORDINATES:
COORDINATES:

HydroCon
314 W 15th Street
Vancouver, WA 98660
Phone: 360-703-6079

WELL/BORING NUMBER HC03

PROJECT NAME: Handy Mart
PROJECT NUMBER: 2015-007-01
PROJECT LOCATION: Longview, Washington
LOGGED BY: C. Daschel
REVIEWED BY: B. Pletcher
DATE: 09-23-2019

LOCATION MAP



DESCRIPTION (USCS Classification, Depth Interval, Color, Grain Size, Plasticity, Shapes, Mineral Composition, Density or Consistency, Moisture, Odor, Geological Interpretation)	DEPTH (FT.)	SYMBOL	WELL DETAILS	SAMPLE ID	PID	FIRST WATER	BLOW COUNTS	BOREHOLE/WELL CONSTRUCTION DETAILS
3" ASPHALT over 8" of base gravel	0							
SAND (SP), FILL, brown, 100% predominately fine grained sand, no odor/sheen, damp.					0.0			
	5							
SILT (ML), brown, 90% low plasticity fines, 10% fine grained sand, no odor/sheen, moist.					0.0			
Note: Turns gray at 8.5' bgs.				HC03-8	0.4			
	10							
SILTY SAND (SM), gray, 60% fine grained sand, 40% low plasticity fines, no odor/sheen, wet.					2.0			
					0.5			
SAND W-SILT (SP), gray, 75% predominately fine grained sand, 25% low plasticity fines, faint organic/petrol odor, no sheen, wet.	15			HC03-15	2.3			
SILT W-SAND (ML), gray, 85% low plasticity fines, 15% fine grained sand, no odor/sheen, wet.					5.4			
				HC03-19	6.1			
SAND (SP), gray, 90% predominately fine grained sand, 10% low plasticity fines, no odor/sheen, wet.	20							
BOTTOM OF BORING AT 20' bgs. Boring converted to temporary monitoring well to collect groundwater sample HC03-W. backfilled with hydrated bentonite after completion.								
	25							
	30							
	35							

LEGEND:
- FILTER PACK
- BENTONITE
- CEMENT GROUT
- CUTTINGS/BACKFILL
- WATER LEVEL DURING DRILLING

DRILLING CONTRACTOR: Steadfast Drilling
DRILLING METHOD: GeoProbe
BOREHOLE DIAMETER: 2"
SAMPLING METHOD: Continuous
START CARD NUMBER:

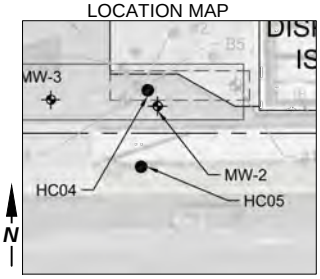
CASING ELEVATION:
GROUND SURFACE ELEVATION:
COORDINATES:
COORDINATES:

Hydro Con
314 W 15th Street
Vancouver, WA 98660
Phone: 360-703-6079

WELL/BORING NUMBER HC04

PROJECT NAME: Handy Mart
PROJECT NUMBER: 2015-007-01
PROJECT LOCATION: Longview, Washington
LOGGED BY: C. Daschel
REVIEWED BY: B. Pletcher
DATE: 09-23-2019

LOCATION MAP



DESCRIPTION (USCS Classification, Depth Interval, Color, Grain Size, Plasticity, Shapes, Mineral Composition, Density or Consistency, Moisture, Odor, Geological Interpretation)	DEPTH (FT.)	SYMBOL	WELL DETAILS	SAMPLE ID	PID	FIRST WATER	BLOW COUNTS	BOREHOLE/WELL CONSTRUCTION DETAILS
3" ASPHALT at Surface	0							
SAND (SP), POSSIBLE FILL, brown, 95% predominately fine grained sand, 5% sub-angular gravel up to 1/4" in diameter, no odor/sheen, damp.					0.0			
	5				0.1			
Note: Fill/native interface at 10' bgs. Slight petro odor in native silt.					0.1			
SILT (ML), gray, 90% low plasticity fines, 10% fine grained sand, slight odor, no sheen, wet.	10			HC04-10	10.7			
					4.7			
SAND W-SILT (SP), brown, 75% predominately fine grained sand, 25% low plasticity fines, slight odor, no sheen, wet.				HC04-12.5	1.3			
	15				0.5			
SILT (ML), brown/gray, 90% low plasticity fines, 10% fine grained sand, no odor/sheen, wet.					0.4			
					0.8			
SAND (SP), gray, 95% predominately fine grained sand, 5% low plasticity fines, no odor/sheen, wet.				HC04-18	0.2			
	20							
BOTTOM OF BORING AT 20' bgs. Boring converted to temporary monitoring well to collect groundwater sample HC04-W. backfilled with hydrated bentonite after completion.								
	25							
	30							
	35							

LEGEND:
- FILTER PACK
- BENTONITE
- CEMENT GROUT
- CUTTINGS/BACKFILL
- WATER LEVEL DURING DRILLING

DRILLING CONTRACTOR: Steadfast Drilling
DRILLING METHOD: GeoProbe
BOREHOLE DIAMETER: 2"
SAMPLING METHOD: Continuous
START CARD NUMBER:

CASING ELEVATION:
GROUND SURFACE ELEVATION:
COORDINATES:
COORDINATES:

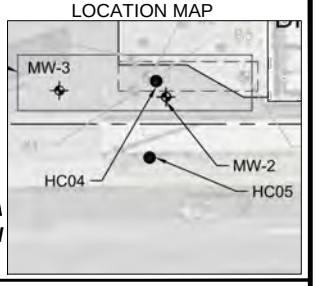
HydroCon

Phone: 360-703-6079

WELL/BORING NUMBER HC05

PROJECT NAME: Handy Mart
PROJECT NUMBER: 2015-007-01
PROJECT LOCATION: Longview, Washington
LOGGED BY: C. Dashcel
REVIEWED BY: B. Pletcher
DATE: 09-23-2019

LOCATION MAP



DESCRIPTION (USCS Classification, Depth Interval, Color, Grain Size, Plasticity, Shapes, Mineral Composition, Density or Consistency, Moisture, Odor, Geological Interpretation)	DEPTH (FT.)	SYMBOL	WELL DETAILS	SAMPLE ID	PID	FIRST WATER	BLOW COUNTS	BOREHOLE/WELL CONSTRUCTION DETAILS
SILT W-SAND (ML), brown, 80% low to moderate plasticity fines, 20% fine grained sand, no odor/ sheen, damp. Air knife to 7' bgs to clear hole in between utilities.	0				0.0			
	5				0.0			
SILTY SAND (SM), brown, 65% fine grained sand, 35% low plasticity fines, no odor/sheen, damp.				HC05-8	0.1			
SILT W-SAND (ML), brown/gray, 80% low plasticity fines, 20% fine grained sand, no odor/ sheen, wet.	10				0.0			
					0.0			
SAND (SP), gray, 95% predominately fine grained sand, 5% low plasticity fines, no odor/sheen, wet.	15							
SANDY SILT (ML), gray, 70% low plasticity fines, 30% fine grained sand, no odor/sheen, wet.					0.0			
SAND (SP), gray, 90% predominately fine grained sand, 10% low plasticity fines, no odor/sheen, wet.					0.0			
BOTTOM OF BORING AT 20' bgs. Boring converted to temporary monitoring well to collect groundwater sample HC05-W. backfilled with hydrated bentonite after completion.	20							
	25							
	30							
	35							

LEGEND:

- FILTER PACK
- BENTONITE
- CEMENT GROUT
- CUTTINGS/BACKFILL
- WATER LEVEL DURING DRILLING

DRILLING CONTRACTOR: Steadfast Drilling
DRILLING METHOD: GeoProbe
BOREHOLE DIAMETER: 2"
SAMPLING METHOD: Continuous
START CARD NUMBER:

CASING ELEVATION:
GROUND SURFACE ELEVATION:
COORDINATES:
COORDINATES:

APPENDIX C
LABORATORY ANALYTICAL REPORTS

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Thursday, October 3, 2019

Brian Pletcher
HydroCon LLC
314 W 15th Street Suite 300
Vancouver, WA 98660

RE: A9I0737 - Handy Mart - 2015-001-07

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A9I0737, which was received by the laboratory on 9/24/2019 at 11:05:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: ldomenighini@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of final reporting, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler#1	2.5	degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HC01-7	A9I0737-01	Soil	09/23/19 13:20	09/24/19 11:05
HC01-9	A9I0737-02	Soil	09/23/19 13:25	09/24/19 11:05
HC02-5	A9I0737-03	Soil	09/23/19 12:10	09/24/19 11:05
HC02-8.5	A9I0737-04	Soil	09/23/19 12:15	09/24/19 11:05
HC03-8	A9I0737-05	Soil	09/23/19 14:35	09/24/19 11:05
HC03-15	A9I0737-06	Soil	09/23/19 14:40	09/24/19 11:05
HC03-19	A9I0737-07	Soil	09/23/19 14:45	09/24/19 11:05
HC04-10	A9I0737-08	Soil	09/23/19 10:05	09/24/19 11:05
HC04-12.5	A9I0737-09	Soil	09/23/19 10:10	09/24/19 11:05
HC04-18	A9I0737-10	Soil	09/23/19 10:15	09/24/19 11:05
HC05-8	A9I0737-11	Soil	09/23/19 16:05	09/24/19 11:05

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503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC01-7 (A9I0737-01)				**Matrix: Soil**		**Batch: 9091331**		
Diesel	ND	---	457	mg/kg dry	20	09/26/19 21:27	NWTPH-Dx	
Oil	**1210**	---	914	mg/kg dry	20	09/26/19 21:27	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: %*		*Limits: 50-150 %*	*20*	*09/26/19 21:27*	*NWTPH-Dx*	*S-01*
HC01-9 (A9I0737-02)				**Matrix: Soil**		**Batch: 9091331**		
Diesel	ND	---	25.8	mg/kg dry	1	09/26/19 19:47	NWTPH-Dx	
Oil	ND	---	51.5	mg/kg dry	1	09/26/19 19:47	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 78 %*		*Limits: 50-150 %*	*1*	*09/26/19 19:47*	*NWTPH-Dx*	
HC02-5 (A9I0737-03)				**Matrix: Soil**		**Batch: 9091331**		
Diesel	ND	---	25.0	mg/kg dry	1	09/26/19 20:07	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	09/26/19 20:07	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 80 %*		*Limits: 50-150 %*	*1*	*09/26/19 20:07*	*NWTPH-Dx*	
HC02-8.5 (A9I0737-04)				**Matrix: Soil**		**Batch: 9091331**		
Diesel	ND	---	26.8	mg/kg dry	1	09/26/19 20:27	NWTPH-Dx	
Oil	ND	---	53.6	mg/kg dry	1	09/26/19 20:27	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 82 %*		*Limits: 50-150 %*	*1*	*09/26/19 20:27*	*NWTPH-Dx*	
HC03-8 (A9I0737-05)				**Matrix: Soil**		**Batch: 9091331**		
Diesel	ND	---	25.0	mg/kg dry	1	09/26/19 20:47	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	09/26/19 20:47	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*	*1*	*09/26/19 20:47*	*NWTPH-Dx*	
HC03-15 (A9I0737-06)				**Matrix: Soil**		**Batch: 9091331**		
Diesel	ND	---	25.2	mg/kg dry	1	09/26/19 21:07	NWTPH-Dx	
Oil	ND	---	50.3	mg/kg dry	1	09/26/19 21:07	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 97 %*		*Limits: 50-150 %*	*1*	*09/26/19 21:07*	*NWTPH-Dx*	
HC03-19 (A9I0737-07)				**Matrix: Soil**		**Batch: 9091332**		
Diesel	ND	---	25.9	mg/kg dry	1	09/27/19 02:26	NWTPH-Dx	
Oil	ND	---	51.9	mg/kg dry	1	09/27/19 02:26	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 86 %*		*Limits: 50-150 %*	*1*	*09/27/19 02:26*	*NWTPH-Dx*	
HC04-10 (A9I0737-08)				**Matrix: Soil**		**Batch: 9091332**		
Diesel	ND	---	27.3	mg/kg dry	1	09/27/19 02:06	NWTPH-Dx	

Apex Laboratories

Lisa Domenighini, Client Services Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC04-10 (A9I0737-08)				**Matrix: Soil**		**Batch: 9091332**		
Oil	ND	---	54.5	mg/kg dry	1	09/27/19 02:06	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 80 %*		*Limits: 50-150 %*	*1*	*09/27/19 02:06*	*NWTPH-Dx*	
HC04-12.5 (A9I0737-09)				**Matrix: Soil**		**Batch: 9091332**		
Diesel	ND	---	25.0	mg/kg dry	1	09/26/19 23:07	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	09/26/19 23:07	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 89 %*		*Limits: 50-150 %*	*1*	*09/26/19 23:07*	*NWTPH-Dx*	
HC04-18 (A9I0737-10)				**Matrix: Soil**		**Batch: 9091332**		
Diesel	ND	---	25.3	mg/kg dry	1	09/26/19 23:27	NWTPH-Dx	
Oil	ND	---	50.6	mg/kg dry	1	09/26/19 23:27	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 78 %*		*Limits: 50-150 %*	*1*	*09/26/19 23:27*	*NWTPH-Dx*	
HC05-8 (A9I0737-11)				**Matrix: Soil**		**Batch: 9091332**		
Diesel	ND	---	25.0	mg/kg dry	1	09/26/19 23:47	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	09/26/19 23:47	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 82 %*		*Limits: 50-150 %*	*1*	*09/26/19 23:47*	*NWTPH-Dx*	

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314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx with Acid/Silica Gel Cleanup

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC01-7 (A9I0737-01)				**Matrix: Soil**		**Batch: 9091454**		
Diesel	ND	---	25.0	mg/kg dry	1	09/30/19 20:19	NWTPH-Dx/SG	
Oil	**1330**	---	50.0	mg/kg dry	1	09/30/19 20:19	NWTPH-Dx/SG	
Surrogate: o-Terphenyl (Surr)		*Recovery: 89 %*		*Limits: 50-150 %*	*1*	*09/30/19 20:19*	*NWTPH-Dx/SG*	

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HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC01-7 (A9I0737-01)				**Matrix: Soil**		**Batch: 9091213**		
Gasoline Range Organics	ND	---	7.31	mg/kg dry	50	09/24/19 19:54	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*99 %*	*Limits: 50-150 %*	*1*	*09/24/19 19:54*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*92 %*	*50-150 %*	*1*	*09/24/19 19:54*	*NWTPH-Gx (MS)*	
HC01-9 (A9I0737-02)				**Matrix: Soil**		**Batch: 9091213**		
Gasoline Range Organics	ND	---	7.75	mg/kg dry	50	09/24/19 20:22	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*115 %*	*Limits: 50-150 %*	*1*	*09/24/19 20:22*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*95 %*	*50-150 %*	*1*	*09/24/19 20:22*	*NWTPH-Gx (MS)*	
HC02-5 (A9I0737-03)				**Matrix: Soil**		**Batch: 9091213**		
Gasoline Range Organics	ND	---	6.59	mg/kg dry	50	09/24/19 20:49	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*102 %*	*Limits: 50-150 %*	*1*	*09/24/19 20:49*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*96 %*	*50-150 %*	*1*	*09/24/19 20:49*	*NWTPH-Gx (MS)*	
HC02-8.5 (A9I0737-04)				**Matrix: Soil**		**Batch: 9091213**		
Gasoline Range Organics	ND	---	7.12	mg/kg dry	50	09/24/19 21:16	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*100 %*	*Limits: 50-150 %*	*1*	*09/24/19 21:16*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*92 %*	*50-150 %*	*1*	*09/24/19 21:16*	*NWTPH-Gx (MS)*	
HC03-8 (A9I0737-05)				**Matrix: Soil**		**Batch: 9091213**		
Gasoline Range Organics	ND	---	6.76	mg/kg dry	50	09/24/19 21:43	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*106 %*	*Limits: 50-150 %*	*1*	*09/24/19 21:43*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*96 %*	*50-150 %*	*1*	*09/24/19 21:43*	*NWTPH-Gx (MS)*	
HC03-15 (A9I0737-06)				**Matrix: Soil**		**Batch: 9091209**		
Gasoline Range Organics	ND	---	7.19	mg/kg dry	50	09/24/19 23:03	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*105 %*	*Limits: 50-150 %*	*1*	*09/24/19 23:03*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*115 %*	*50-150 %*	*1*	*09/24/19 23:03*	*NWTPH-Gx (MS)*	
HC03-19 (A9I0737-07)				**Matrix: Soil**		**Batch: 9091209**		
Gasoline Range Organics	ND	---	6.97	mg/kg dry	50	09/24/19 23:30	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*103 %*	*Limits: 50-150 %*	*1*	*09/24/19 23:30*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*116 %*	*50-150 %*	*1*	*09/24/19 23:30*	*NWTPH-Gx (MS)*	
HC04-10 (A9I0737-08)				**Matrix: Soil**		**Batch: 9091209**		
Gasoline Range Organics	**64.2**	---	8.55	mg/kg dry	50	09/24/19 23:57	NWTPH-Gx (MS)	**F-13**

Apex Laboratories

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EPA ID: OR01039

HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC04-10 (A9I0737-08)				**Matrix: Soil**		**Batch: 9091209**		
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 129 %*	*Limits: 50-150 %*	*1*	*09/24/19 23:57*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*115 %*	*50-150 %*	*1*	*09/24/19 23:57*	*NWTPH-Gx (MS)*	
HC04-12.5 (A9I0737-09)				**Matrix: Soil**		**Batch: 9091209**		
Gasoline Range Organics	ND	---	12.8	mg/kg dry	50	09/25/19 00:24	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 107 %*	*Limits: 50-150 %*	*1*	*09/25/19 00:24*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*115 %*	*50-150 %*	*1*	*09/25/19 00:24*	*NWTPH-Gx (MS)*	
HC04-18 (A9I0737-10)				**Matrix: Soil**		**Batch: 9091209**		
Gasoline Range Organics	ND	---	12.2	mg/kg dry	50	09/25/19 00:50	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 107 %*	*Limits: 50-150 %*	*1*	*09/25/19 00:50*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*116 %*	*50-150 %*	*1*	*09/25/19 00:50*	*NWTPH-Gx (MS)*	
HC05-8 (A9I0737-11)				**Matrix: Soil**		**Batch: 9091209**		
Gasoline Range Organics	ND	---	6.36	mg/kg dry	50	09/25/19 01:17	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 104 %*	*Limits: 50-150 %*	*1*	*09/25/19 01:17*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*116 %*	*50-150 %*	*1*	*09/25/19 01:17*	*NWTPH-Gx (MS)*	

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EPA ID: OR01039

HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC01-7 (A9I0737-01)				**Matrix: Soil**		**Batch: 9091213**		
Benzene	ND	---	0.0146	mg/kg dry	50	09/24/19 19:54	5035A/8260C	
Toluene	ND	---	0.0731	mg/kg dry	50	09/24/19 19:54	5035A/8260C	
Ethylbenzene	ND	---	0.0366	mg/kg dry	50	09/24/19 19:54	5035A/8260C	
Xylenes, total	ND	---	0.110	mg/kg dry	50	09/24/19 19:54	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits: 80-120 %*	*1*	*09/24/19 19:54*	*5035A/8260C*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*09/24/19 19:54*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*09/24/19 19:54*	*5035A/8260C*	
HC01-9 (A9I0737-02)				**Matrix: Soil**		**Batch: 9091213**		
Benzene	ND	---	0.0155	mg/kg dry	50	09/24/19 20:22	5035A/8260C	
Toluene	ND	---	0.0775	mg/kg dry	50	09/24/19 20:22	5035A/8260C	
Ethylbenzene	ND	---	0.0388	mg/kg dry	50	09/24/19 20:22	5035A/8260C	
Xylenes, total	ND	---	0.116	mg/kg dry	50	09/24/19 20:22	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits: 80-120 %*	*1*	*09/24/19 20:22*	*5035A/8260C*	
Toluene-d8 (Surr)			*93 %*	*80-120 %*	*1*	*09/24/19 20:22*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*09/24/19 20:22*	*5035A/8260C*	
HC02-5 (A9I0737-03)				**Matrix: Soil**		**Batch: 9091213**		
Benzene	ND	---	0.0132	mg/kg dry	50	09/24/19 20:49	5035A/8260C	
Toluene	ND	---	0.0659	mg/kg dry	50	09/24/19 20:49	5035A/8260C	
Ethylbenzene	ND	---	0.0329	mg/kg dry	50	09/24/19 20:49	5035A/8260C	
Xylenes, total	ND	---	0.0988	mg/kg dry	50	09/24/19 20:49	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits: 80-120 %*	*1*	*09/24/19 20:49*	*5035A/8260C*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*09/24/19 20:49*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*09/24/19 20:49*	*5035A/8260C*	
HC02-8.5 (A9I0737-04)				**Matrix: Soil**		**Batch: 9091213**		
Benzene	ND	---	0.0142	mg/kg dry	50	09/24/19 21:16	5035A/8260C	
Toluene	ND	---	0.0712	mg/kg dry	50	09/24/19 21:16	5035A/8260C	
Ethylbenzene	ND	---	0.0356	mg/kg dry	50	09/24/19 21:16	5035A/8260C	
Xylenes, total	ND	---	0.107	mg/kg dry	50	09/24/19 21:16	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*09/24/19 21:16*	*5035A/8260C*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*09/24/19 21:16*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*09/24/19 21:16*	*5035A/8260C*	
HC03-8 (A9I0737-05)				**Matrix: Soil**		**Batch: 9091213**		
Benzene	ND	---	0.0135	mg/kg dry	50	09/24/19 21:43	5035A/8260C	

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC03-8 (A9I0737-05)				**Matrix: Soil**		**Batch: 9091213**		
Toluene	ND	---	0.0676	mg/kg dry	50	09/24/19 21:43	5035A/8260C	
Ethylbenzene	ND	---	0.0338	mg/kg dry	50	09/24/19 21:43	5035A/8260C	
Xylenes, total	ND	---	0.101	mg/kg dry	50	09/24/19 21:43	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*09/24/19 21:43*	*5035A/8260C*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*09/24/19 21:43*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*09/24/19 21:43*	*5035A/8260C*	
HC03-15 (A9I0737-06)				**Matrix: Soil**		**Batch: 9091209**		
Benzene	ND	---	0.0144	mg/kg dry	50	09/24/19 23:03	5035A/8260C	
Toluene	ND	---	0.0719	mg/kg dry	50	09/24/19 23:03	5035A/8260C	
Ethylbenzene	ND	---	0.0359	mg/kg dry	50	09/24/19 23:03	5035A/8260C	
Xylenes, total	ND	---	0.108	mg/kg dry	50	09/24/19 23:03	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*09/24/19 23:03*	*5035A/8260C*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*09/24/19 23:03*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*09/24/19 23:03*	*5035A/8260C*	
HC03-19 (A9I0737-07)				**Matrix: Soil**		**Batch: 9091209**		
Benzene	ND	---	0.0139	mg/kg dry	50	09/24/19 23:30	5035A/8260C	
Toluene	ND	---	0.0697	mg/kg dry	50	09/24/19 23:30	5035A/8260C	
Ethylbenzene	ND	---	0.0349	mg/kg dry	50	09/24/19 23:30	5035A/8260C	
Xylenes, total	ND	---	0.105	mg/kg dry	50	09/24/19 23:30	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/24/19 23:30*	*5035A/8260C*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*09/24/19 23:30*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*09/24/19 23:30*	*5035A/8260C*	
HC04-10 (A9I0737-08)				**Matrix: Soil**		**Batch: 9091209**		
Benzene	ND	---	0.0171	mg/kg dry	50	09/24/19 23:57	5035A/8260C	
Toluene	ND	---	0.0855	mg/kg dry	50	09/24/19 23:57	5035A/8260C	
Ethylbenzene	ND	---	0.0427	mg/kg dry	50	09/24/19 23:57	5035A/8260C	
Xylenes, total	ND	---	0.128	mg/kg dry	50	09/24/19 23:57	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*09/24/19 23:57*	*5035A/8260C*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*09/24/19 23:57*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*09/24/19 23:57*	*5035A/8260C*	
HC04-12.5 (A9I0737-09)				**Matrix: Soil**		**Batch: 9091209**		
Benzene	ND	---	0.0257	mg/kg dry	50	09/25/19 00:24	5035A/8260C	
Toluene	ND	---	0.128	mg/kg dry	50	09/25/19 00:24	5035A/8260C	

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EPA ID: OR01039

HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC04-12.5 (A9I0737-09)				**Matrix: Soil**		**Batch: 9091209**		
Ethylbenzene	ND	---	0.0642	mg/kg dry	50	09/25/19 00:24	5035A/8260C	
Xylenes, total	ND	---	0.193	mg/kg dry	50	09/25/19 00:24	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*09/25/19 00:24*	*5035A/8260C*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*09/25/19 00:24*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*09/25/19 00:24*	*5035A/8260C*	
HC04-18 (A9I0737-10)				**Matrix: Soil**		**Batch: 9091209**		
Benzene	ND	---	0.0245	mg/kg dry	50	09/25/19 00:50	5035A/8260C	
Toluene	ND	---	0.122	mg/kg dry	50	09/25/19 00:50	5035A/8260C	
Ethylbenzene	ND	---	0.0612	mg/kg dry	50	09/25/19 00:50	5035A/8260C	
Xylenes, total	ND	---	0.184	mg/kg dry	50	09/25/19 00:50	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*09/25/19 00:50*	*5035A/8260C*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*09/25/19 00:50*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*95 %*	*80-120 %*	*1*	*09/25/19 00:50*	*5035A/8260C*	
HC05-8 (A9I0737-11)				**Matrix: Soil**		**Batch: 9091209**		
Benzene	ND	---	0.0127	mg/kg dry	50	09/25/19 01:17	5035A/8260C	
Toluene	ND	---	0.0636	mg/kg dry	50	09/25/19 01:17	5035A/8260C	
Ethylbenzene	ND	---	0.0318	mg/kg dry	50	09/25/19 01:17	5035A/8260C	
Xylenes, total	ND	---	0.0954	mg/kg dry	50	09/25/19 01:17	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/25/19 01:17*	*5035A/8260C*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*09/25/19 01:17*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*09/25/19 01:17*	*5035A/8260C*	

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HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC01-7 (A9I0737-01)				**Matrix: Soil**		**Batch: 9091260**		
% Solids	**77.3**	---	1.00	% by Weight	1	09/26/19 08:07	EPA 8000C	
HC01-9 (A9I0737-02)				**Matrix: Soil**		**Batch: 9091260**		
% Solids	**71.5**	---	1.00	% by Weight	1	09/26/19 08:07	EPA 8000C	
HC02-5 (A9I0737-03)				**Matrix: Soil**		**Batch: 9091260**		
% Solids	**75.2**	---	1.00	% by Weight	1	09/26/19 08:07	EPA 8000C	
HC02-8.5 (A9I0737-04)				**Matrix: Soil**		**Batch: 9091260**		
% Solids	**73.9**	---	1.00	% by Weight	1	09/26/19 08:07	EPA 8000C	
HC03-8 (A9I0737-05)				**Matrix: Soil**		**Batch: 9091260**		
% Solids	**74.1**	---	1.00	% by Weight	1	09/26/19 08:07	EPA 8000C	
HC03-15 (A9I0737-06)				**Matrix: Soil**		**Batch: 9091260**		
% Solids	**75.1**	---	1.00	% by Weight	1	09/26/19 08:07	EPA 8000C	
HC03-19 (A9I0737-07)				**Matrix: Soil**		**Batch: 9091260**		
% Solids	**75.3**	---	1.00	% by Weight	1	09/26/19 08:07	EPA 8000C	
HC04-10 (A9I0737-08)				**Matrix: Soil**		**Batch: 9091260**		
% Solids	**67.2**	---	1.00	% by Weight	1	09/26/19 08:07	EPA 8000C	
HC04-12.5 (A9I0737-09)				**Matrix: Soil**		**Batch: 9091260**		
% Solids	**83.2**	---	1.00	% by Weight	1	09/26/19 08:07	EPA 8000C	
HC04-18 (A9I0737-10)				**Matrix: Soil**		**Batch: 9091260**		
% Solids	**73.1**	---	1.00	% by Weight	1	09/26/19 08:07	EPA 8000C	
HC05-8 (A9I0737-11)				**Matrix: Soil**		**Batch: 9091260**		
% Solids	**77.5**	---	1.00	% by Weight	1	09/26/19 08:07	EPA 8000C	

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EPA ID: OR01039

HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9091331 - EPA 3546 (Fuels)								Soil				
Blank (9091331-BLK1)		Prepared: 09/26/19 11:47 Analyzed: 09/26/19 18:27										
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 93 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (9091331-BS1)		Prepared: 09/26/19 11:47 Analyzed: 09/26/19 18:47										
NWTPH-Dx												
Diesel	125	---	25.0	mg/kg wet	1	125	---	100	76 - 115%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 98 %*		*Limits: 50-150 %*			*Dilution: 1x*					
Batch 9091332 - EPA 3546 (Fuels)								Soil				
Blank (9091332-BLK1)		Prepared: 09/26/19 11:51 Analyzed: 09/27/19 01:06										
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 91 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (9091332-BS1)		Prepared: 09/26/19 11:51 Analyzed: 09/27/19 01:26										
NWTPH-Dx												
Diesel	122	---	25.0	mg/kg wet	1	125	---	98	76 - 115%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 97 %*		*Limits: 50-150 %*			*Dilution: 1x*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx with Acid/Silica Gel Cleanup

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9091454 - EPA 3546 w/SG+Acid (NWTPH)									Soil			
Blank (9091454-BLK1)		Prepared: 09/26/19 11:47		Analyzed: 09/30/19 19:28								
NWTPH-Dx/SG												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 87 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (9091454-BS1)		Prepared: 09/26/19 11:47		Analyzed: 09/30/19 19:54								
NWTPH-Dx/SG												
Diesel	111	---	25.0	mg/kg wet	1	125	---	89	76 - 115%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 96 %*		*Limits: 50-150 %*			*Dilution: 1x*					

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314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9091209 - EPA 5035A									Soil			
Blank (9091209-BLK1)		Prepared: 09/24/19 15:39		Analyzed: 09/24/19 16:59								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 96 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*110 %*		*50-150 %*			*"*					
LCS (9091209-BS2)		Prepared: 09/24/19 15:39		Analyzed: 09/24/19 16:32								
NWTPH-Gx (MS)												
Gasoline Range Organics	24.6	---	5.00	mg/kg wet	50	25.0	---	98	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 97 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*107 %*		*50-150 %*			*"*					
Duplicate (9091209-DUP2)		Prepared: 09/23/19 16:05		Analyzed: 09/25/19 01:44								
QC Source Sample: HC05-8 (A9I0737-11)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	6.47	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 105 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*115 %*		*50-150 %*			*"*					

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314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9091213 - EPA 5035A									Soil			
Blank (9091213-BLK1)		Prepared: 09/24/19 10:25		Analyzed: 09/24/19 11:46								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 109 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*93 %*		*50-150 %*		*"*					
LCS (9091213-BS2)		Prepared: 09/24/19 10:25		Analyzed: 09/24/19 11:19								
NWTPH-Gx (MS)												
Gasoline Range Organics	25.2	---	5.00	mg/kg wet	50	25.0	---	101	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 114 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*98 %*		*50-150 %*		*"*					

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314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9091209 - EPA 5035A							**Soil**					
Blank (9091209-BLK1)		Prepared: 09/24/19 15:39 Analyzed: 09/24/19 16:59										
5035A/8260C												
Benzene	ND	---	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0500	mg/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*102 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*96 %*		*80-120 %*			*"*					
LCS (9091209-BS1)		Prepared: 09/24/19 15:39 Analyzed: 09/24/19 16:05										
5035A/8260C												
Benzene	1.02	---	0.0100	mg/kg wet	50	1.00	---	102	80 - 120%	---	---	
Toluene	1.03	---	0.0500	mg/kg wet	50	1.00	---	103	80 - 120%	---	---	
Ethylbenzene	1.01	---	0.0250	mg/kg wet	50	1.00	---	101	80 - 120%	---	---	
Xylenes, total	2.88	---	0.0750	mg/kg wet	50	3.00	---	96	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*99 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*91 %*		*80-120 %*			*"*					
Duplicate (9091209-DUP2)		Prepared: 09/23/19 16:05 Analyzed: 09/25/19 01:44										
QC Source Sample: HC05-8 (A9I0737-11)												
5035A/8260C												
Benzene	ND	---	0.0129	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0647	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.0971	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 100 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*100 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*96 %*		*80-120 %*			*"*					

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Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9091213 - EPA 5035A							**Soil**					
Blank (9091213-BLK1)		Prepared: 09/24/19 10:25 Analyzed: 09/24/19 11:46										
5035A/8260C												
Benzene	ND	---	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0500	mg/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 110 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*95 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*99 %*		*80-120 %*			*"*					
LCS (9091213-BS1)		Prepared: 09/24/19 10:25 Analyzed: 09/24/19 10:52										
5035A/8260C												
Benzene	1.05	---	0.0100	mg/kg wet	50	1.00	---	105	80 - 120%	---	---	
Toluene	0.905	---	0.0500	mg/kg wet	50	1.00	---	90	80 - 120%	---	---	
Ethylbenzene	0.908	---	0.0250	mg/kg wet	50	1.00	---	91	80 - 120%	---	---	
Xylenes, total	2.78	---	0.0750	mg/kg wet	50	3.00	---	93	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 111 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*93 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*99 %*		*80-120 %*			*"*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9091260 - Total Solids (Dry Weight)									Soil			
Duplicate (9091260-DUP4)		Prepared: 09/25/19 07:49		Analyzed: 09/26/19 08:07								
QC Source Sample: HC04-18 (A9I0737-10)												
EPA 8000C												
% Solids	**73.5**	---	1.00	% by Weight	1	---	73.1	---	---	0.6	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9091331							
A9I0737-01	Soil	NWTPH-Dx	09/23/19 13:20	09/26/19 11:47	11.32g/5mL	10g/5mL	0.88
A9I0737-02	Soil	NWTPH-Dx	09/23/19 13:25	09/26/19 11:47	10.86g/5mL	10g/5mL	0.92
A9I0737-03	Soil	NWTPH-Dx	09/23/19 12:10	09/26/19 11:47	10.84g/5mL	10g/5mL	0.92
A9I0737-04	Soil	NWTPH-Dx	09/23/19 12:15	09/26/19 11:47	10.1g/5mL	10g/5mL	0.99
A9I0737-05	Soil	NWTPH-Dx	09/23/19 14:35	09/26/19 11:47	10.79g/5mL	10g/5mL	0.93
A9I0737-06	Soil	NWTPH-Dx	09/23/19 14:40	09/26/19 11:47	10.58g/5mL	10g/5mL	0.95
Batch: 9091332							
A9I0737-07	Soil	NWTPH-Dx	09/23/19 14:45	09/26/19 11:51	10.24g/5mL	10g/5mL	0.98
A9I0737-08	Soil	NWTPH-Dx	09/23/19 10:05	09/26/19 11:51	10.92g/5mL	10g/5mL	0.92
A9I0737-09	Soil	NWTPH-Dx	09/23/19 10:10	09/26/19 11:51	10.74g/5mL	10g/5mL	0.93
A9I0737-10	Soil	NWTPH-Dx	09/23/19 10:15	09/26/19 11:51	10.81g/5mL	10g/5mL	0.93
A9I0737-11	Soil	NWTPH-Dx	09/23/19 16:05	09/26/19 11:51	10.66g/5mL	10g/5mL	0.94

Diesel and/or Oil Hydrocarbons by NWTPH-Dx with Acid/Silica Gel Cleanup

Prep: EPA 3546 w/SG+Acid (NWTPH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9091454							
A9I0737-01	Soil	NWTPH-Dx/SG	09/23/19 13:20	09/26/19 11:47	11.32g/5mL	10g/5mL	0.88

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9091209							
A9I0737-06	Soil	NWTPH-Gx (MS)	09/23/19 14:40	09/23/19 14:40	6.02g/5mL	5g/5mL	0.83
A9I0737-07	Soil	NWTPH-Gx (MS)	09/23/19 14:45	09/23/19 14:45	6.23g/5mL	5g/5mL	0.80
A9I0737-08	Soil	NWTPH-Gx (MS)	09/23/19 10:05	09/23/19 10:05	6.1g/5mL	5g/5mL	0.82
A9I0737-09	Soil	NWTPH-Gx (MS)	09/23/19 10:10	09/23/19 10:10	5.08g/10mL	5g/5mL	1.97
A9I0737-10	Soil	NWTPH-Gx (MS)	09/23/19 10:15	09/23/19 10:15	6.58g/10mL	5g/5mL	1.52
A9I0737-11	Soil	NWTPH-Gx (MS)	09/23/19 16:05	09/23/19 16:05	6.57g/5mL	5g/5mL	0.76
Batch: 9091213							
A9I0737-01	Soil	NWTPH-Gx (MS)	09/23/19 13:20	09/23/19 13:20	5.53g/5mL	5g/5mL	0.90
A9I0737-02	Soil	NWTPH-Gx (MS)	09/23/19 13:25	09/23/19 13:25	6.07g/5mL	5g/5mL	0.82
A9I0737-03	Soil	NWTPH-Gx (MS)	09/23/19 12:10	09/23/19 12:10	6.74g/5mL	5g/5mL	0.74

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314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

SAMPLE PREPARATION INFORMATION

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A9I0737-04	Soil	NWTPH-Gx (MS)	09/23/19 12:15	09/23/19 12:15	6.32g/5mL	5g/5mL	0.79
A9I0737-05	Soil	NWTPH-Gx (MS)	09/23/19 14:35	09/23/19 14:35	6.72g/5mL	5g/5mL	0.74

BTEX Compounds by EPA 8260C

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9091209							
A9I0737-06	Soil	5035A/8260C	09/23/19 14:40	09/23/19 14:40	6.02g/5mL	5g/5mL	0.83
A9I0737-07	Soil	5035A/8260C	09/23/19 14:45	09/23/19 14:45	6.23g/5mL	5g/5mL	0.80
A9I0737-08	Soil	5035A/8260C	09/23/19 10:05	09/23/19 10:05	6.1g/5mL	5g/5mL	0.82
A9I0737-09	Soil	5035A/8260C	09/23/19 10:10	09/23/19 10:10	5.08g/10mL	5g/5mL	1.97
A9I0737-10	Soil	5035A/8260C	09/23/19 10:15	09/23/19 10:15	6.58g/10mL	5g/5mL	1.52
A9I0737-11	Soil	5035A/8260C	09/23/19 16:05	09/23/19 16:05	6.57g/5mL	5g/5mL	0.76
Batch: 9091213							
A9I0737-01	Soil	5035A/8260C	09/23/19 13:20	09/23/19 13:20	5.53g/5mL	5g/5mL	0.90
A9I0737-02	Soil	5035A/8260C	09/23/19 13:25	09/23/19 13:25	6.07g/5mL	5g/5mL	0.82
A9I0737-03	Soil	5035A/8260C	09/23/19 12:10	09/23/19 12:10	6.74g/5mL	5g/5mL	0.74
A9I0737-04	Soil	5035A/8260C	09/23/19 12:15	09/23/19 12:15	6.32g/5mL	5g/5mL	0.79
A9I0737-05	Soil	5035A/8260C	09/23/19 14:35	09/23/19 14:35	6.72g/5mL	5g/5mL	0.74

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9091260							
A9I0737-01	Soil	EPA 8000C	09/23/19 13:20	09/25/19 07:49			NA
A9I0737-02	Soil	EPA 8000C	09/23/19 13:25	09/25/19 07:49			NA
A9I0737-03	Soil	EPA 8000C	09/23/19 12:10	09/25/19 07:49			NA
A9I0737-04	Soil	EPA 8000C	09/23/19 12:15	09/25/19 07:49			NA
A9I0737-05	Soil	EPA 8000C	09/23/19 14:35	09/25/19 07:49			NA
A9I0737-06	Soil	EPA 8000C	09/23/19 14:40	09/25/19 07:49			NA
A9I0737-07	Soil	EPA 8000C	09/23/19 14:45	09/25/19 07:49			NA
A9I0737-08	Soil	EPA 8000C	09/23/19 10:05	09/25/19 07:49			NA
A9I0737-09	Soil	EPA 8000C	09/23/19 10:10	09/25/19 07:49			NA
A9I0737-10	Soil	EPA 8000C	09/23/19 10:15	09/25/19 07:49			NA
A9I0737-11	Soil	EPA 8000C	09/23/19 16:05	09/25/19 07:49			NA

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314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor

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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

F-13	The chromatographic pattern does not resemble the fuel standard used for quantitation
S-01	Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.

Apex Laboratories

Lisa A Domenighini

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

LABORATORY ACCREDITATION INFORMATION

TNI Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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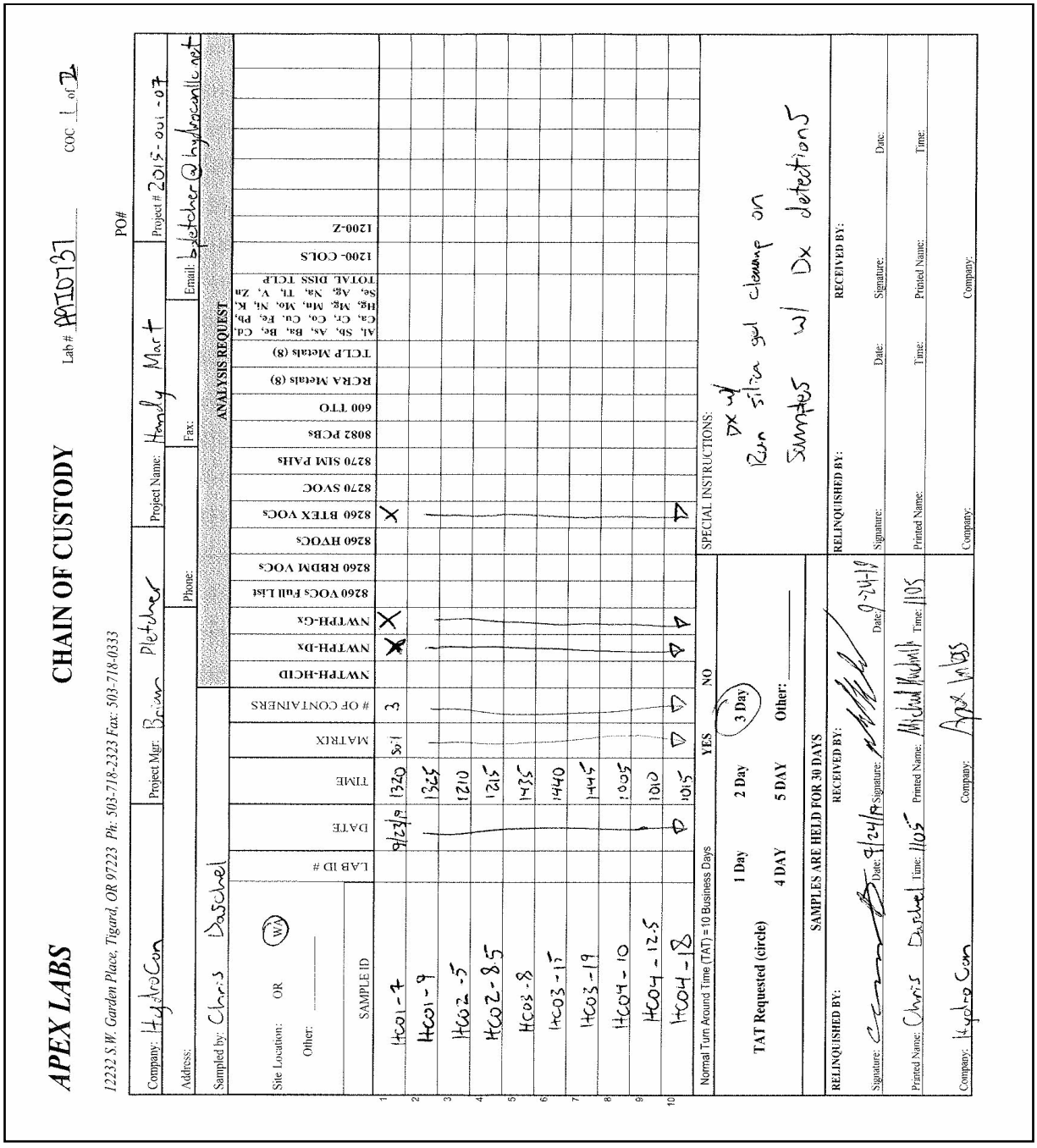

APEX LABS — **CHAIN OF CUSTODY** — Lab # A9I0737 — COC 1 of 2

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: HydroCon — Project Mgr: Brian Pletcher — Phone: — Project Name: Handy Mart — Fax: — Project # 2015-001-07 — PO# — Address: — Email: bpletcher@hydroconllc.net — Sampled by: Chris Dasinel

Site Location: OR (WA) — Other: _____

ANALYSIS REQUEST

#	SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOCs Full List	8260 RBDM VOCs	8260 HVOCs	8260 BTEX VOCs	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200-Z
1	HC01-4		9/24/19	1320	Soil	3		X	X				X									
2	HC01-9			1325																		
3	HC02-5			1210																		
4	HC02-8.5			1215																		
5	HC03-8			1435																		
6	HC03-13			1440																		
7	HC03-19			1445																		
8	HC04-10			1005																		
9	HC04-12.5			1010																		
10	HC04-18			1015																		

Normal Turn Around Time (TAT) = 10 Business Days — YES — NO

TAT Requested (circle): 1 Day — 2 Day — 3 Day — 4 DAY — 5 DAY — Other: _____

SAMPLES ARE HELD FOR 30 DAYS

SPECIAL INSTRUCTIONS:
DX w/ Run silica gel cleanup on Samples w/ Dx detections

RELINQUISHED BY: — RECEIVED BY: — Signature: — Date: 9/24/19 — Time: 1105 — Printed Name: Chris Dasinel — Company: HydroCon

RELINQUISHED BY: — RECEIVED BY: — Signature: — Date: — Time: — Printed Name: — Company:

RELINQUISHED BY: — RECEIVED BY: — Signature: — Date: — Time: — Printed Name: — Company:

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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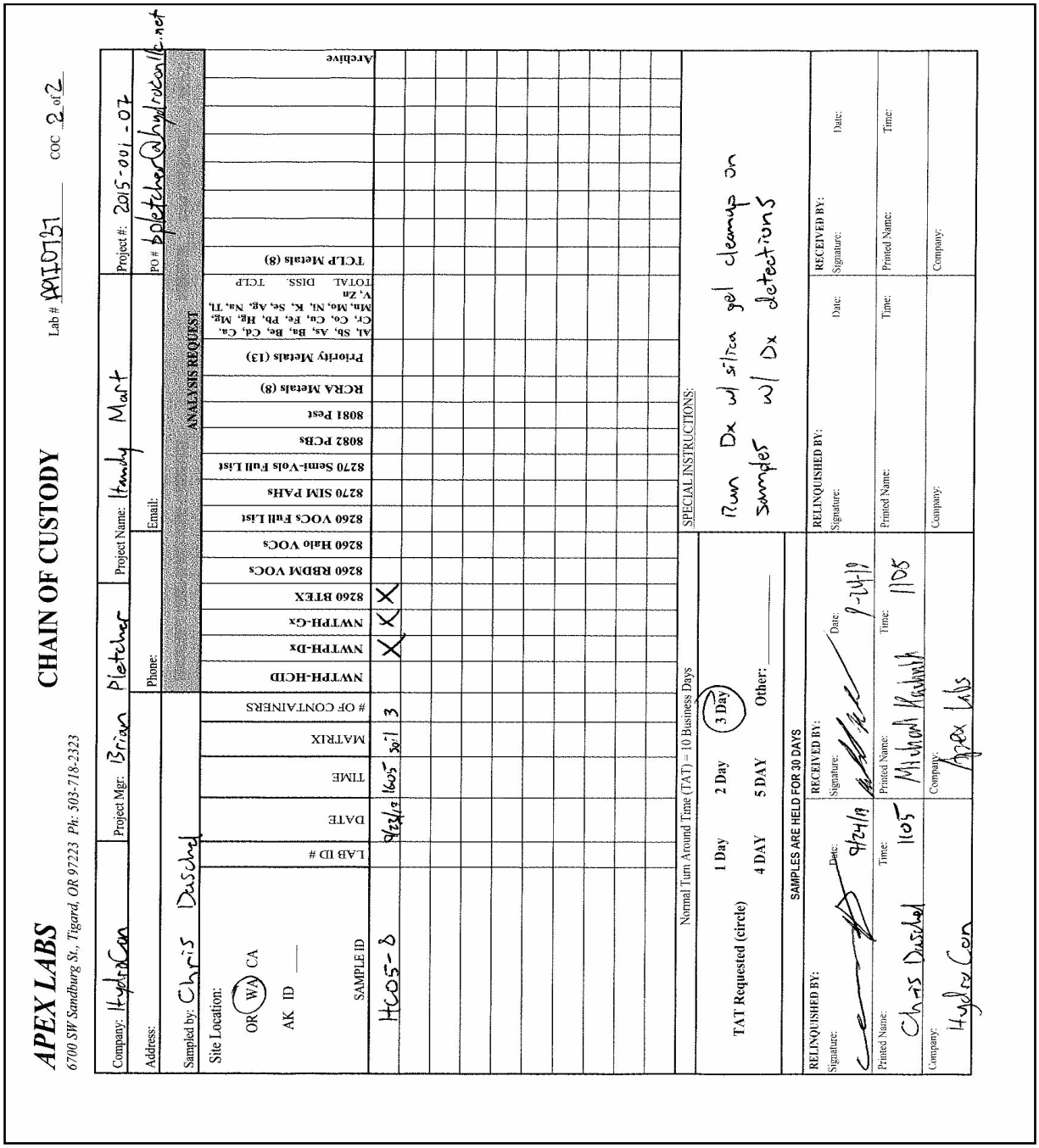
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**



APEX LABS — **CHAIN OF CUSTODY** — Lab # A9I0737 — COC 2 of 2

6700 SW Sandburg St., Tigard, OR 97223 PH: 503-718-2323

Company: HydroCon | Project Mgr: Brian Pletcher | Project Name: Handy Mart | Project #: 2015-001-07

Address: | Phone: | Email: | PO # bpletcher@hydrocon-llc.net

Sampled by: Chris Dasched

Site Location: OR (WA) CA AK ID ____

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Archive
HC05-8		9/24/19	1605	soil	3		X	X												

Normal Turn Around Time (TAT) – 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 4 DAY | 5 DAY | Other: ____

SPECIAL INSTRUCTIONS: Run Dx w/ silica gel cleanup on samples w/ Dx detections

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Date: 9/24/19	Date: 9-24-19	Date:	Date:
Printed Name: Chris Dasched	Printed Name: Michael Krumm	Printed Name:	Printed Name:
Time: 1105	Time: 1105	Time:	Time:
Company: HydroCon	Company: Apex Labs	Company:	Company:

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0737 - 10 03 19 0859**

APEX LABS COOLER RECEIPT FORM

Client: Hydrocon Element WO#: A9I0737

Project/Project #: Handy Mart / 2015-001-07

Delivery Info:

Date/time received: 9-24-19 @ 1105 By: MH

Delivered by: Apex X Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 9-24-19 @ 1310 By: MH

Chain of Custody included? Yes X No Custody seals? Yes No X

Signed/dated by client? Yes X No

Signed/dated by Apex? Yes X No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.5						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Gel						
Condition:	good						

Cooler out of temp? (Y/N) Possible reason why:

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA

Out of temperature samples form initiated? Yes/No/NA

Samples Inspection: Date/time inspected: 9-24-19 @ 1440 By: TAG

All samples intact? Yes X No Comments:

Bottle labels/COCs agree? Yes X No Comments:

COC/container discrepancies form initiated? Yes No NA X

Containers/volumes received appropriate for analysis? Yes X No Comments:

Do VOA vials have visible headspace? Yes No NA X

Comments

Water samples: pH checked: Yes No NA X pH appropriate? Yes No NA X

Comments:

Additional information:

Labeled by: TAG Witness: Cooler Inspected by: TAG See Project Contact Form: Y

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Wednesday, October 2, 2019

Brian Pletcher
HydroCon LLC
314 W 15th Street Suite 300
Vancouver, WA 98660

RE: A9I0738 - Handy Mart - 2015-001-07

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A9I0738, which was received by the laboratory on 9/24/2019 at 11:05:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: ldomenighini@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of final reporting, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler#1	2.5	degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0738 - 10 02 19 1617**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HC01-W	A9I0738-01	Water	09/23/19 13:35	09/24/19 11:05
HC02-W	A9I0738-02	Water	09/23/19 12:25	09/24/19 11:05
HC03-W	A9I0738-03	Water	09/23/19 15:00	09/24/19 11:05
HC04-W	A9I0738-04	Water	09/23/19 10:40	09/24/19 11:05
HC05-W	A9I0738-05	Water	09/23/19 16:15	09/24/19 11:05

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ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC01-W (A9I0738-01)				**Matrix: Water**		**Batch: 9091292**		
Diesel	ND	---	75.5	ug/L	1	09/25/19 21:41	NWTPH-Dx	
Oil	ND	---	151	ug/L	1	09/25/19 21:41	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*	*1*	*09/25/19 21:41*	*NWTPH-Dx*	
HC02-W (A9I0738-02)				**Matrix: Water**		**Batch: 9091292**		
Diesel	ND	---	74.8	ug/L	1	09/25/19 22:01	NWTPH-Dx	
Oil	**178**	---	150	ug/L	1	09/25/19 22:01	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 84 %*		*Limits: 50-150 %*	*1*	*09/25/19 22:01*	*NWTPH-Dx*	
HC03-W (A9I0738-03)				**Matrix: Water**		**Batch: 9091292**		
Diesel	ND	---	75.5	ug/L	1	09/25/19 22:22	NWTPH-Dx	
Oil	ND	---	151	ug/L	1	09/25/19 22:22	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 93 %*		*Limits: 50-150 %*	*1*	*09/25/19 22:22*	*NWTPH-Dx*	
HC04-W (A9I0738-04)				**Matrix: Water**		**Batch: 9091292**		
Diesel	ND	---	74.8	ug/L	1	09/25/19 22:42	NWTPH-Dx	
Oil	ND	---	150	ug/L	1	09/25/19 22:42	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 85 %*		*Limits: 50-150 %*	*1*	*09/25/19 22:42*	*NWTPH-Dx*	
HC05-W (A9I0738-05)				**Matrix: Water**		**Batch: 9091292**		
Diesel	ND	---	75.5	ug/L	1	09/25/19 23:03	NWTPH-Dx	
Oil	ND	---	151	ug/L	1	09/25/19 23:03	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 89 %*		*Limits: 50-150 %*	*1*	*09/25/19 23:03*	*NWTPH-Dx*	

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Lisa Domenighini, Client Services Manager

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EPA ID: OR01039

HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0738 - 10 02 19 1617**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC01-W (A9I0738-01)				**Matrix: Water**		**Batch: 9091207**		
Gasoline Range Organics	ND	---	100	ug/L	1	09/24/19 20:58	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 89 %*	*Limits: 50-150 %*	*1*	*09/24/19 20:58*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*114 %*	*50-150 %*	*1*	*09/24/19 20:58*	*NWTPH-Gx (MS)*	
HC02-W (A9I0738-02)				**Matrix: Water**		**Batch: 9091207**		
Gasoline Range Organics	ND	---	100	ug/L	1	09/24/19 21:24	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 90 %*	*Limits: 50-150 %*	*1*	*09/24/19 21:24*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*115 %*	*50-150 %*	*1*	*09/24/19 21:24*	*NWTPH-Gx (MS)*	
HC03-W (A9I0738-03)				**Matrix: Water**		**Batch: 9091264**		
Gasoline Range Organics	**123**	---	100	ug/L	1	09/25/19 12:57	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 97 %*	*Limits: 50-150 %*	*1*	*09/25/19 12:57*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*110 %*	*50-150 %*	*1*	*09/25/19 12:57*	*NWTPH-Gx (MS)*	
HC04-W (A9I0738-04)				**Matrix: Water**		**Batch: 9091264**		
Gasoline Range Organics	**147**	---	100	ug/L	1	09/25/19 13:24	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*	*1*	*09/25/19 13:24*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*104 %*	*50-150 %*	*1*	*09/25/19 13:24*	*NWTPH-Gx (MS)*	
HC05-W (A9I0738-05)				**Matrix: Water**		**Batch: 9091264**		
Gasoline Range Organics	ND	---	100	ug/L	1	09/25/19 13:51	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 95 %*	*Limits: 50-150 %*	*1*	*09/25/19 13:51*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*92 %*	*50-150 %*	*1*	*09/25/19 13:51*	*NWTPH-Gx (MS)*	

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Lisa Domenighini, Client Services Manager

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314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0738 - 10 02 19 1617**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC01-W (A9I0738-01)				**Matrix: Water**		**Batch: 9091207**		
Benzene	ND	---	0.200	ug/L	1	09/24/19 20:58	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	09/24/19 20:58	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	09/24/19 20:58	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	09/24/19 20:58	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits: 80-120 %*	*1*	*09/24/19 20:58*	*EPA 8260C*	
Toluene-d8 (Surr)			*106 %*	*80-120 %*	*1*	*09/24/19 20:58*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*09/24/19 20:58*	*EPA 8260C*	
HC02-W (A9I0738-02)				**Matrix: Water**		**Batch: 9091207**		
Benzene	ND	---	0.200	ug/L	1	09/24/19 21:24	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	09/24/19 21:24	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	09/24/19 21:24	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	09/24/19 21:24	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits: 80-120 %*	*1*	*09/24/19 21:24*	*EPA 8260C*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*09/24/19 21:24*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*09/24/19 21:24*	*EPA 8260C*	
HC03-W (A9I0738-03)				**Matrix: Water**		**Batch: 9091264**		
Benzene	ND	---	0.200	ug/L	1	09/25/19 12:57	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	09/25/19 12:57	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	09/25/19 12:57	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	09/25/19 12:57	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits: 80-120 %*	*1*	*09/25/19 12:57*	*EPA 8260C*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*09/25/19 12:57*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*09/25/19 12:57*	*EPA 8260C*	
HC04-W (A9I0738-04)				**Matrix: Water**		**Batch: 9091264**		
Benzene	ND	---	0.200	ug/L	1	09/25/19 13:24	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	09/25/19 13:24	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	09/25/19 13:24	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	09/25/19 13:24	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits: 80-120 %*	*1*	*09/25/19 13:24*	*EPA 8260C*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*09/25/19 13:24*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*09/25/19 13:24*	*EPA 8260C*	
HC05-W (A9I0738-05)				**Matrix: Water**		**Batch: 9091264**		
Benzene	ND	---	0.200	ug/L	1	09/25/19 13:51	EPA 8260C	

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314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0738 - 10 02 19 1617**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HC05-W (A9I0738-05)				**Matrix: Water**		**Batch: 9091264**		
Toluene	ND	---	1.00	ug/L	1	09/25/19 13:51	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	09/25/19 13:51	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	09/25/19 13:51	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*	*Limits: 80-120 %*	*1*	*09/25/19 13:51*	*EPA 8260C*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*09/25/19 13:51*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*09/25/19 13:51*	*EPA 8260C*	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9091292 - EPA 3510C (Fuels/Acid Ext.)									**Water**			
Blank (9091292-BLK1)		Prepared: 09/25/19 15:19		Analyzed: 09/25/19 20:39								
NWTPH-Dx												
Diesel	ND	---	72.7	ug/L	1	---	---	---	---	---	---	B-02
Oil	ND	---	145	ug/L	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 94 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (9091292-BS1)		Prepared: 09/25/19 15:19		Analyzed: 09/25/19 20:59								
NWTPH-Dx												
Diesel	451	---	80.0	ug/L	1	500	---	90	58 - 115%	---	---	B-02
Surr: o-Terphenyl (Surr)		*Recovery: 99 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS Dup (9091292-BSD1)		Prepared: 09/25/19 15:19		Analyzed: 09/25/19 21:20								**Q-19**
NWTPH-Dx												
Diesel	440	---	80.0	ug/L	1	500	---	88	58 - 115%	2	20%	B-02
Surr: o-Terphenyl (Surr)		*Recovery: 95 %*		*Limits: 50-150 %*			*Dilution: 1x*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9091207 - EPA 5030B									Water			
Blank (9091207-BLK1)		Prepared: 09/24/19 09:00		Analyzed: 09/24/19 11:06								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 84 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*110 %*		*50-150 %*			*"*					
LCS (9091207-BS2)		Prepared: 09/24/19 09:00		Analyzed: 09/24/19 10:39								
NWTPH-Gx (MS)												
Gasoline Range Organics	423	---	100	ug/L	1	500	---	85	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 88 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*102 %*		*50-150 %*			*"*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9091264 - EPA 5030B									Water			
Blank (9091264-BLK1)		Prepared: 09/25/19 09:00		Analyzed: 09/25/19 12:02								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 97 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*91 %*		*50-150 %*			*"*					
LCS (9091264-BS2)		Prepared: 09/25/19 09:00		Analyzed: 09/25/19 11:35								
NWTPH-Gx (MS)												
Gasoline Range Organics	500	---	100	ug/L	1	500	---	100	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 94 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*115 %*		*50-150 %*			*"*					

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Lisa Domenighini, Client Services Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Handy Mart**	
314 W 15th Street Suite 300	Project Number: **2015-001-07**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Brian Pletcher**	**A9I0738 - 10 02 19 1617**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9091207 - EPA 5030B							**Water**					
Blank (9091207-BLK1)		Prepared: 09/24/19 09:00		Analyzed: 09/24/19 11:06								
EPA 8260C												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 107 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*105 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*98 %*		*80-120 %*			*"*					
LCS (9091207-BS1)		Prepared: 09/24/19 09:00		Analyzed: 09/24/19 10:12								
EPA 8260C												
Benzene	21.3	---	0.200	ug/L	1	20.0	---	106	80 - 120%	---	---	
Toluene	21.1	---	1.00	ug/L	1	20.0	---	105	80 - 120%	---	---	
Ethylbenzene	21.8	---	0.500	ug/L	1	20.0	---	109	80 - 120%	---	---	
Xylenes, total	65.1	---	1.50	ug/L	1	60.0	---	108	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*101 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*90 %*		*80-120 %*			*"*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9091264 - EPA 5030B												**Water**
Blank (9091264-BLK1)		Prepared: 09/25/19 09:00		Analyzed: 09/25/19 12:02								
EPA 8260C												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*104 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*100 %*		*80-120 %*			*"*					
LCS (9091264-BS1)		Prepared: 09/25/19 09:00		Analyzed: 09/25/19 11:08								
EPA 8260C												
Benzene	19.9	---	0.200	ug/L	1	20.0	---	99	80 - 120%	---	---	
Toluene	19.6	---	1.00	ug/L	1	20.0	---	98	80 - 120%	---	---	
Ethylbenzene	20.3	---	0.500	ug/L	1	20.0	---	102	80 - 120%	---	---	
Xylenes, total	60.8	---	1.50	ug/L	1	60.0	---	101	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*101 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*100 %*		*80-120 %*			*"*					

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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9091292							
A9I0738-01	Water	NWTPH-Dx	09/23/19 13:35	09/25/19 15:19	1060mL/2mL	1000mL/2mL	0.94
A9I0738-02	Water	NWTPH-Dx	09/23/19 12:25	09/25/19 15:19	1070mL/2mL	1000mL/2mL	0.94
A9I0738-03	Water	NWTPH-Dx	09/23/19 15:00	09/25/19 15:19	1060mL/2mL	1000mL/2mL	0.94
A9I0738-04	Water	NWTPH-Dx	09/23/19 10:40	09/25/19 15:19	1070mL/2mL	1000mL/2mL	0.94
A9I0738-05	Water	NWTPH-Dx	09/23/19 16:15	09/25/19 15:19	1060mL/2mL	1000mL/2mL	0.94

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9091207							
A9I0738-01	Water	NWTPH-Gx (MS)	09/23/19 13:35	09/24/19 17:00	5mL/5mL	5mL/5mL	1.00
A9I0738-02	Water	NWTPH-Gx (MS)	09/23/19 12:25	09/24/19 17:00	5mL/5mL	5mL/5mL	1.00
Batch: 9091264							
A9I0738-03	Water	NWTPH-Gx (MS)	09/23/19 15:00	09/25/19 12:01	5mL/5mL	5mL/5mL	1.00
A9I0738-04	Water	NWTPH-Gx (MS)	09/23/19 10:40	09/25/19 12:01	5mL/5mL	5mL/5mL	1.00
A9I0738-05	Water	NWTPH-Gx (MS)	09/23/19 16:15	09/25/19 12:01	5mL/5mL	5mL/5mL	1.00

BTEX Compounds by EPA 8260C

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9091207							
A9I0738-01	Water	EPA 8260C	09/23/19 13:35	09/24/19 17:00	5mL/5mL	5mL/5mL	1.00
A9I0738-02	Water	EPA 8260C	09/23/19 12:25	09/24/19 17:00	5mL/5mL	5mL/5mL	1.00
Batch: 9091264							
A9I0738-03	Water	EPA 8260C	09/23/19 15:00	09/25/19 12:01	5mL/5mL	5mL/5mL	1.00
A9I0738-04	Water	EPA 8260C	09/23/19 10:40	09/25/19 12:01	5mL/5mL	5mL/5mL	1.00
A9I0738-05	Water	EPA 8260C	09/23/19 16:15	09/25/19 12:01	5mL/5mL	5mL/5mL	1.00

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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

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B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.

Apex Laboratories

Lisa A Domenighini

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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LABORATORY ACCREDITATION INFORMATION

TNI Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

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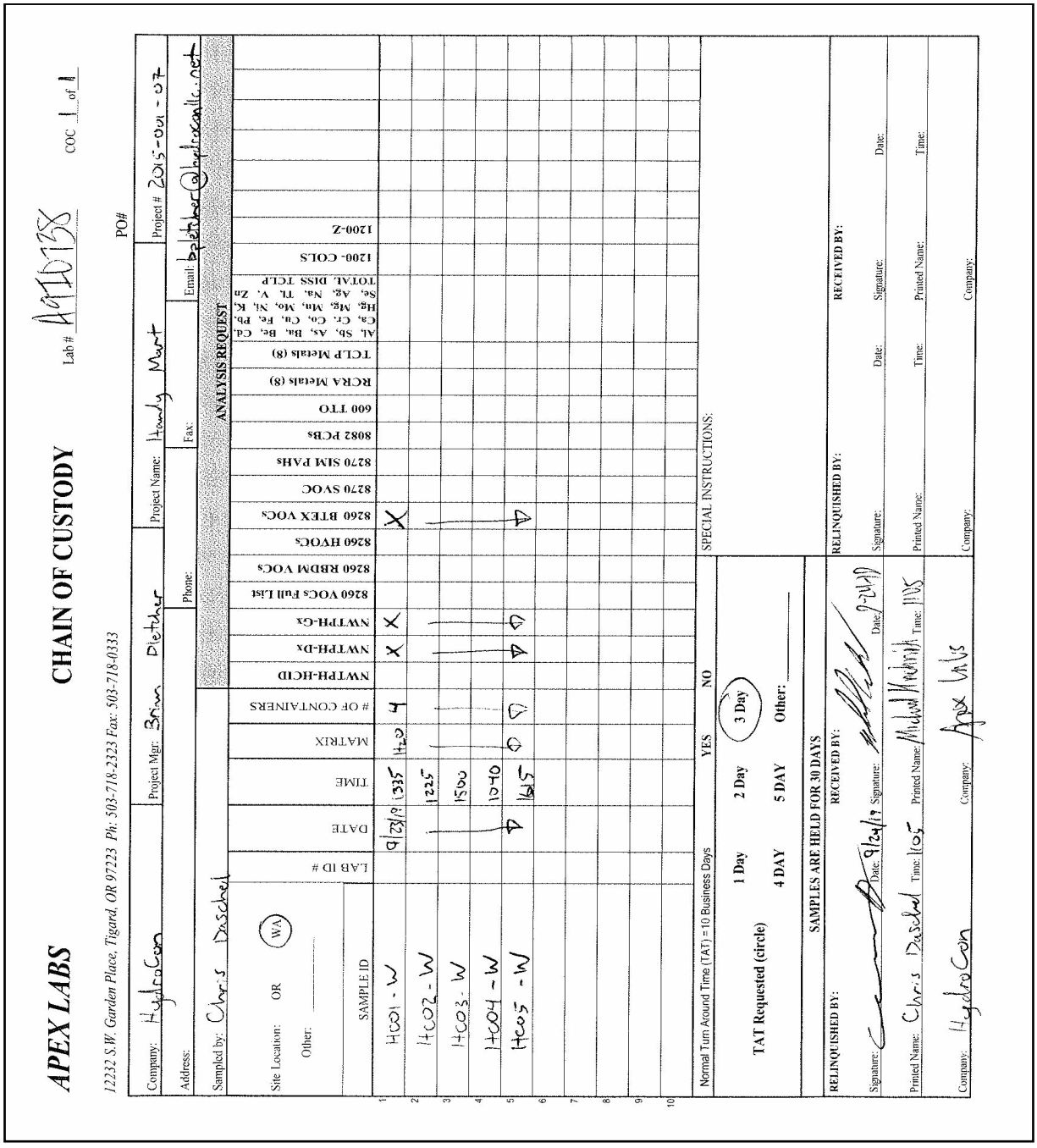

APEX LABS — **CHAIN OF CUSTODY** — Lab # A9I0738 — COC 1 of 1

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

PO#

Company: HydroCon — Project Mgr: Brian Pletcher — Project Name: Handy Mart — Project # 2015-001-07

Address: — Phone: — Fax: — Email: bpletcher@hydroconllc.net

Sampled by: Chris Dasched

Site Location: OR WA — Other: _____

#	SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOCs Full List	8260 RBDM VOCs	8260 HVOCs	8260 BTEX VOCs	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200-Z
1	HC01 - W		9/23/19	1335	H2O	4		X	X				X									
2	HC02 - W			1225																		
3	HC03 - W			1500																		
4	HC04 - W			1040																		
5	HC05 - W			1615																		
6																						
7																						
8																						
9																						
10																						

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) = 10 Business Days — YES — NO

TAT Requested (circle): 1 Day — 2 Day — 3 Day — 4 DAY — 5 DAY — Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: — RECEIVED BY: — Date: 9/24/19 — Time: 1105

Signature: — Printed Name: Chris Dasched — Company: HydroCon

RELINQUISHED BY: — RECEIVED BY: — Date: 9/24/19 — Time: 1105

Signature: — Printed Name: William Hedrick — Company: Apex Labs

RELINQUISHED BY: — RECEIVED BY: — Date: — Time:

Signature: — Printed Name: — Company:

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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APEX LABS COOLER RECEIPT FORM

Client: Hydrocon Element WO#: A9I0738

Project/Project #: Handy Mart / 2015-001-07

Delivery Info:

Date/time received: 9-24-19 @ 1105 By: MH

Delivered by: Apex X Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 9-24-19 @ 1310 By: MH

Chain of Custody included? Yes X No Custody seals? Yes No X

Signed/dated by client? Yes X No

Signed/dated by Apex? Yes X No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.5						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Gel						
Condition:	good						

Cooler out of temp? (Y/N) Possible reason why:

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA

Out of temperature samples form initiated? Yes/No/NA

Samples Inspection: Date/time inspected: 9/24/19 @ 1545 By: JS

All samples intact? Yes X No Comments:

Bottle labels/COCs agree? Yes X No Comments:

COC/container discrepancies form initiated? Yes No NA X

Containers/volumes received appropriate for analysis? Yes X No Comments:

Do VOA vials have visible headspace? Yes No X NA

Comments

Water samples: pH checked: Yes X No NA pH appropriate? Yes X No NA

Comments:

Additional information:

Labeled by: JS Witness: MH Cooler Inspected by: JS See Project Contact Form: Y

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