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July 31, 1996
NGI Project No. 563.1.3
CRC Project No. WA7338

Washington State Department of Ecology
Toxics Cleanup Program
3190 160th Avenue SE
Bellevue, Washington 98008-5452

Attention: Ms. Louise Bardy
Site Analyst

Subject: Remedial Action Plan
Bellevue Chrysler Plymouth
126 116th Avenue, NE
Bellevue, Washington
DOE No. 13336

Dear Ms. Bardy:

The following is a Remedial Action Plan for the proposed cleanup activities at the Bellevue Chrysler Plymouth property. Northwest Geotech, Inc., (NGI) has previously submitted an Environmental Site Assessment report dated October 4, 1993, and a Phase II Site Characterization report dated July 13, 1994 to the Washington Department of Ecology (DOE).

The property owner, Chrysler Realty Corporation (CRC), intends to proceed with site cleanup under the Independent Remedial Action Program (IRAP). This report of the proposed site cleanup is written in the general format of a post cleanup IRAP report. Once the independent cleanup has been completed a report of final site cleanup along with the IRAP Summary and Request for IRAP Review forms will be submitted to DOE.

If you have any questions concerning this report, please contact our office. We look forward to working with DOE in resolving this matter.

Respectfully submitted,

NORTHWEST GEOTECH, INC.

Steve L. Day
Project Manager

Thomas S. Ginsbach
Principal

cc: Mr. Andrew Bucchiere, Chrysler Realty Corporation

chrysler/56313rrp

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BCP	-	Bellevue Chrysler Plymouth
BTEX	-	Benzene, Toluene, Ethylbenzene, Xylenes
CLARC	-	Cleanup Levels and Risk Calculation
CRC	-	Chrysler Realty Corporation
DOE	-	Department of Ecology
EPA	-	Environmental Protection Agency
ESA	-	Environmental Site Assessment
HCID	-	Hydrocarbon Identification
IRAP	-	Independent Remedial Action Program
MTCA	-	Model Toxics Control Act
MW-1	-	Monitoring Well Number 1
NGI	-	Northwest Geotech, Inc.
PCBs	-	Polychlorinated Biphenyls
SVOCs	-	Semi-Volatile Organic Compounds
TCLP	-	Toxic Characteristic Leaching Procedure
TPH	-	Total Petroleum Hydrocarbons
TSD	-	Treatment Storage Disposal
U.S.G.S.	-	United States Geological Service
UST	-	Underground Storage Tank
VOCs	-	Volatile Organic Compounds
WAC	-	Washington Administrative Code

REMEDIAL ACTION PLAN
Bellevue Chrysler Plymouth
126 116th Avenue, NE
Bellevue, Washington
CRC Project No. WA7338

1.0 PROJECT BACKGROUND/SITE DESCRIPTION

This report presents a remedial action plan for the soil and groundwater contamination that has been identified beneath the floor slab of the back service bay of the Bellevue Chrysler Plymouth (BCP) dealership in Bellevue, Washington. Shop floor washdown water entered the subsurface through a vaulted hydraulic hoist. The bottom of the vault was open to soil. As part of initial abatement, Northwest Geotech, Inc., (NGI) removed sludge and fluids from the vault and subsequently filled the vault with bentonite chips to prevent further soil and groundwater contamination. These activities have resulted in improved groundwater quality.

Prior work completed by NGI has consisted of a Phase I Environmental Site Assessment (ESA) and a Phase II soil and groundwater investigation. This work is summarized in NGI's prior reports of October 4, 1993, and July 13, 1994. These reports have been previously submitted to Washington Department of Ecology (DOE).

1.1 Location

The subject property is located at 126 116th Avenue, NE in Bellevue, King County, Washington, as presented in Figure 1. The subject property encompasses two parcels as indicated in the parcel map presented in Figure 2.

1.2 Topography and Geology

A layout of the soil borings completed on the site is shown in the Site Boring Plan, Figure 3. The subsurface boring exploration indicates that the property is underlain by a very hard, gravelly, sandy silt/silty sand also called Vashon Till, or commonly known as hardpan. The U.S. Geological Survey map (1962) indicates that the till has a very low permeability except in contained lenses of sand and gravel. Borings completed within the front service bay encountered a silty sand fill above the Vashon Till. Borings completed in the back service bay in some locations encountered a 6-inch thick section of pea gravel beneath the floor slab. Thin sand lenses were encountered at various depths within the Vashon Till. Soil boring logs are included in Appendix A.

The eastern edge of the site consists of a moderately steep hillside with an approximate average decline east to west of 42 percent, as presented in Figure 4. This hillside encompasses approximately the eastern 70 to 90 feet of the property. The remainder of the property is developed and has an overall topographic relief of about 20 feet in a predominantly southwesterly direction. The U.S.G.S. topographic map for the subject property area also shows a general trend down to the southwest, as seen in Figure 5.

2.0 RELEASE INFORMATION/SITE CHARACTERIZATION

The facility consists of an automotive dealership and service department. With the exception of the hillside on the east side of the property, the property's surface is covered with asphalt or the dealership structures. The existing dealership complex consists of several buildings which are connected and have common walls. The lower level consists of a front showroom/office area joined to a front service bay area which shares a common wall with a back service bay area. Above the back bay area is a second story which is utilized for parts storage and office space. The lower story has concrete exterior walls and slab-on-grade floors. The second story has metal framed walls and roof. An approximate layout of the building is shown on the Facility Plan, Figure 6.

The building is presently serviced by public water, private gas, power, and telephone utilities. Storm water from paved surfaces is collected by a number of catch basins which connect to the storm sewer. Service bay trench drains and roof drains are connected to an oil/water separator which ultimately feeds to the sanitary sewer line.

2.1 Soil

Chrysler Realty Corporation (CRC) requested NGI to undertake a Phase I ESA and a Phase II soil and groundwater investigation of the subject site. The motive to conduct these investigations was the transfer of the site to a Chrysler Jeep dealership. The Phase I ESA consisted of interviews with dealership personnel, review of federal and state environmental files, review of dealership records, historical review of the property, and a visual inspection of the property. When potential subsurface environmental concerns were identified, the areas were scheduled for soil borings during the Phase II investigation. As part of the internal control standards for CRC, they specifically requested subsurface borings at former hydraulic hoist locations and any other areas that the consultant believed may represent an environmental concern.

NGI's approach to the analytical program for soil was to initially analyze soil samples for total petroleum hydrocarbons by WTPH-418.1 and hydrocarbon identification by WTPH-HCID. Testing for total petroleum hydrocarbons was the primary method used to define the vertical and horizontal extent of the soil contamination present. Soil samples that exhibited the highest concentration of contamination based on field screening were also submitted for volatile organic compounds (EPA Methods 8010, 8020, 8240), Semi-Volatile Organic Compounds (SVOCs) (EPA Method 8270) and other analyses.

During the completion of boring B-2, a former hoist location in the back service bay, a strong solvent/petroleum odor was noticed. The contamination was encountered in the leveling gravel just beneath the floor slab. Initial testing of the soil (WTPH-HCID) showed positive results for diesel and heavier oils. Gasoline was not detected. Accordingly, further subsurface work was scheduled for the north end of the back service bay. The hoist next to boring B-2 consists of a main cylinder piston and a rear stabilizing piston. The main piston is encased in concrete

but the rear piston is set in a 12-inch wide by 48-inch long by several feet deep vault. The vault was not sealed off from the underlying subgrade. Washdown from the service bay floor was free to enter the vault and subsequently reach the underlying soil/groundwater. Based on this, it was anticipated that any contamination might consist of lubrication oils, antifreeze, and possible cleaning solvents. There was no indication of any direct placement of waste within the floor vault. Sludge and fluids from this floor vault were removed and transported to the Northwest EnviroService, Inc., treatment storage disposal facility in Seattle, Washington. The Uniform Hazardous Waste Manifest and the waste product questionnaire are presented in Appendix B. The vault was subsequently sealed off on 9/7/94 to prevent further introduction of floor washdown into the subsurface soils.

Eight soil borings and seven hand auger borings have been completed within the back service bay in order to define the vertical and horizontal extent of soil contamination. Four soil borings have been completed along the north and east exterior walls of the service bay. These borings indicate that the back service bay is underlain by approximately 6 inches of leveling pea gravel on top of native, very dense, glacial till (Vashon Till). Petroleum hydrocarbon analysis for soil has included two analyses of hydrocarbon identification (WTPH-HCID) and 23 analyses of total petroleum hydrocarbon (TPH) by EPA Method 418.1 in both the floor slab leveling gravel and the native underlying till. WTPH-HCID analysis indicates the petroleum products present in the soil are diesel and heavy oil related. Gasoline products were not detected. TPH analysis was conducted on soil samples collected from 0 to 10 feet. This analysis indicates that the majority of the soil contamination is limited to the leveling gravel, and uppermost one foot of the native till beneath the floor slab. The petroleum contamination ranges from below detection to 1,270 mg/kg, with the highest concentrations found at the northeast corner of the service bay. With the exception of 210 mg/kg at five feet below grade in B-13, TPH concentrations in the underlying till were measured at 100 mg/kg or less. The established MTCA Method B cleanup value for total petroleum hydrocarbons is 100 mg/kg. The horizontal extent of TPH soil concentrations in excess of 100 mg/kg is shown in Figure 7. The vertical extent of TPH soil concentrations in excess of 100 mg/kg is shown in Figure 8.

Soil samples were also subjected to testing for VOCs and SVOCs. The analyzed samples were selected from the depths and areas that had exhibited the highest signs of contamination. Soil samples submitted for volatile organics analysis were analyzed by EPA Method 8240. Benzene; ethylbenzene; methylene chloride; toluene; total xylenes; and 1,4-dichlorobenzene were detected at concentrations of 0.110, 0.240, 0.074, 0.013, 22, and 0.029 mg/kg, respectively. These concentrations were encountered directly beneath the floor slab at a depth of 0.5 to 1.0 feet. The MTCA Method B cleanup levels established for benzene, ethylbenzene, methylene chloride, toluene, total xylenes, and 1,4-dichlorobenzene are 0.500, 30, 0.500, 20, 200, and 0.182 mg/kg, respectively. As indicated by these results, the current concentrations of these constituents within the soil are each below the established MTCA method B cleanup levels.

Soil samples submitted for SVOCs analysis were analyzed by EPA Method 8270. Naphthalene, pyrene, butylbenzylphthalate, bis(2-ethylhexyl)phthalate, and di-n-octylphthalate were detected at concentrations of 0.320, 0.110, 0.260, 0.120, and 0.160 mg/kg, respectively.

These soil samples were collected from the one foot interval in the area that exhibited the highest signs of contamination. Ethylene glycol was also detected at a concentration of 18 mg/kg at a depth of one foot. The MTCA Method B cleanup levels established for naphthalene, pyrene, butylbenzylphthalate, bis(2-ethylhexyl)phthalate, di-n-octylphthalate, and ethylene glycol are 3.2, 48, 10, 0.625, 32, and 320 mg/kg, respectively. The concentrations of these constituents measured within the soil are below the established MTCA Method B cleanup levels.

Soil samples subjected to analysis for metals by EPA Method 7000 detected arsenic, barium, and chromium present at 0.13, 43, and 13 mg/kg, respectively. These concentrations are believed to represent the natural concentrations for the soil; accordingly, these values were not included in the Method B reduction calculations. Comparison with the natural background levels of soil metals as published in Washington DOE's publication, "Natural Background Soil Metals Concentrations in Washington State," confirms that the metal concentrations are background levels. Analytical results are summarized in Table A. Laboratory reports are included in Appendix C.

2.2 Groundwater

Groundwater was evaluated on the subject property primarily through the installation of monitoring wells and subsequent sampling. Monitoring wells were installed in locations that were suspected of having groundwater contamination as well as locations that would define contamination extents. The method of groundwater analysis was determined by the knowledge gained during the Phase I investigation relative to what substances had been used at the property and on adjacent properties. NGI's general approach to the groundwater analytical program was to initially analyze groundwater samples for petroleum hydrocarbons by method WTPH-418.1 and/or VOCs by EPA methods 8010, 601, 602, 624, or 8240. Groundwater from monitoring wells which indicate the presence of hydrocarbons, VOCs, or from known areas of soil contamination is also subjected to analysis for SVOCs by EPA methods 625 or 8270. Groundwater from monitoring wells which have exhibited petroleum hydrocarbon, VOC or semi-VOC impact, have also been analyzed for polychlorinated biphenyls and metals by EPA methods 8080, 7000, respectively. Results of groundwater monitoring that has been completed at the property are summarized in Table B. Laboratory reports are included in Appendix C. Monitoring well construction diagrams are presented in Appendix D.

Groundwater level measurements are shown in Table C. Locations of the monitoring wells and a potentiometric surface map are shown in Figure 9. Based on this data, the 1983 Bellevue South U.S.G.S. topographic map for Bellevue, and general site observations, it would be reasonable to conclude that groundwater flow is in a southwesterly direction.

A groundwater pumping test (and well recharge monitoring) was accomplished on June 4, 1994. Monitoring well MW-5 was pumped and the water level in monitoring wells MW-6 and MW-7 were observed. Due to the anticipated low flow groundwater conditions, a low flow 2-inch submersible pump was used to conduct the test. At the lowest feasible rate for the pump (0.26 gallons per minute) the well was pumped dry in 44 minutes and produced a volume of

about 11 gallons. No drawdown was observed in monitoring wells MW-6 and MW-7. The well recharged to within one foot of static conditions in about three hours.

2.2.1 Back Service Bay

Soil contamination present beneath the back service bay has impacted groundwater. Monitoring wells MW-2 through MW-11, MW-14, and MW-15 have been installed to characterize the nature and extent of impacted groundwater in this area. Monitoring wells MW-2 and MW-3 were installed along the east perimeter wall of the back service bay in order to define the eastern extent of the groundwater plume. As indicated in Table B, no petroleum hydrocarbons or VOCs have been detected east of the back service bay. Monitoring well MW-4 was installed to the southwest of the back service bay in a location also adjacent to an existing oil-water separator. No petroleum hydrocarbons or VOCs have been detected in the groundwater sampled from monitoring well MW-4.

Three monitoring wells (MW-5, MW-6, MW-7) were installed in the back service bay within the area of contamination. Groundwater from these wells was analyzed for petroleum hydrocarbons by TPH-418.1 and hydrocarbon identification by EPA 8015M. The hydrocarbon identification analysis detected gasoline, diesel, and oil at concentrations of 0.94, 5.1, and 5.2 mg/kg, respectively in monitoring well MW-7 during the initial 12/21/93 sampling event. Total petroleum hydrocarbon concentrations (TPH-418.1) ranged from 0.8 mg/L to 5.0 mg/L in these wells during the initial 12/21/93 sampling event. As an interim remedial measure the oil, water and sludge within the hoist vault was pumped by Northwest EnviroService on 7/26/94. On 9/7/94 the hoist vault was sealed with bentonite to prevent further introduction of floor washdown into the soils underlying the back bay floor slab. Subsequent monitoring of the groundwater has generally indicated a reduction in the concentration of petroleum hydrocarbons within the groundwater from monitoring wells MW-5, MW-6, and MW-7. Laboratory analysis of groundwater sampled from MW-5, MW-6, and MW-7 on 12/6/96 and 3/20/96 did not indicate petroleum hydrocarbons above laboratory reporting limits. Laboratory analysis of groundwater from monitoring well MW-7 detected petroleum hydrocarbons at a concentration of 0.6 mg/L on the 6/26/96 sampling event. As can be seen in Table B, the concentrations of VOCs within the groundwater sampled from monitoring wells MW-5, MW-6, and MW-7 have also generally decreased subsequent to pumping and sealing the vaulted hoist.

In November 1995, NGI installed monitoring wells MW-8, MW-9, MW-10, and MW-11 to the west, south, southwest, and north of the back service bay area where the soil and groundwater contamination had been identified. The installation and sampling of these monitoring wells was designed to help quantify the extent of groundwater contamination. No petroleum hydrocarbons or VOCs were detected in groundwater sampled from monitoring well MW-11, which is installed north of the vaulted hoist source contamination area. Monitoring wells MW-9 and MW-10 are installed to the southwest and south of the vaulted hoist source contamination area. As shown in Table B, benzene, toluene, 1,1-Dichloroethane, and cis-1,2-

Dichloroethene have been detected in groundwater from both monitoring wells MW-9 and MW-10. The established MTCA Method B cleanup value for benzene is 5 µg/L.

Monitoring well MW-8 is installed to the west of the vaulted hoist source contamination area in a generally hydraulic downgradient direction. Initial sampling of groundwater from monitoring well MW-8 on 12/6/95 had not detected benzene present. Groundwater sampled from monitoring well MW-8 on 3/20/96 detected benzene present at a concentration of 38 µg/L. The 6/26/96 groundwater sampling of monitoring well MW-8 did not detect benzene present. One probable cause of the increase in benzene concentration in the area of monitoring well MW-8, and the associated westerly migration of the contaminant plume was the significant rainfall experienced in the Bellevue, Washington area during the months of November and December 1995. Given the steep downhill slope from east downhill to the west and beneath the back service bay it is possible that the influx of groundwater could have initiated plume movement to the west, into the area of monitoring well MW-8. Furthermore, increased rainfall during November and December 1995 appears to have generally raised the groundwater elevations which would place more groundwater in contact with the most contaminated soil interval of 0.5 to 1.0 feet below the back service bay floor slab.

As a result of the identification of benzene above the MTCA Method B cleanup level in groundwater at monitoring well MW-8, two additional monitoring wells were installed to the west of the MW-8 and the vaulted hoist source area. Monitoring wells MW-14 and MW-15 were installed during May 1996. Initial sampling of groundwater from monitoring wells MW-14 and MW-15 has not detected the presence of benzene or other VOCs. Accordingly, these well locations represent downgradient points of compliance for the western edge of the groundwater plume.

2.2.2 East Property Line

During the initial site characterization, NGI installed one monitoring well on the east edge of the subject property. The impetus for installing monitoring well MW-1 on the east property boundary was a previous petroleum Underground Storage Tank (UST) leak on the adjacent property of K & L Distributors, Inc. Initial analysis of the groundwater from monitoring well MW-1 completed on 5/27/93 did not detect the presence of petroleum hydrocarbons in the groundwater at MW-1. The monument for monitoring well MW-1 was subsequently covered during construction of a wooden stairway up the embankment. NGI relocated monitoring well MW-1 in December 1995. Groundwater sampled from MW-1 on 12/6/95 and 3/20/96 has detected tetrachloroethene (PCE) present at concentrations of 0.91 µg/L and 0.66 µg/L, respectively. The established MTCA Method B groundwater cleanup level for PCE is 4 µg/L. The adjacent property owner, K & L Distributors, Inc., is a soft drink distribution company and is not listed with Washington DOE as having any USTs for PCE or generating PCE under RCRA. The K & L Distributor, Inc., waste manager indicated in a recent telephone conversation that the facility does not utilize PCE. Also located in the area of monitoring well MW-1 is a 6 foot diameter Metro sanitary sewer main that runs parallel to the east property boundary.

In May 1996, NGI installed monitoring wells MW-12 and MW-13 to the north and south of MW-1 in order to determine whether the PCE concentration at MW-1 represented the edge of a larger plume or whether it represented a localized, below cleanup level, PCE concentration. Both MW-12 and MW-13 were installed on the east property boundary next to the Metro sanitary sewer. Due to presumed interferences with the sewer backfill, no groundwater was present in MW-13. Laboratory analysis of groundwater sampled on 5/22/96 from monitoring well MW-12 did not detect PCE above laboratory detection limits. Analysis of groundwater sampled from monitoring well MW-1 on 6/26/96 did not detect PCE above laboratory detection limits.

3.0 PREVIOUS INVESTIGATIONS

As mentioned previously, NGI has completed an Environmental Site Assessment report dated October 4, 1993, and a Phase II Site Characterization report dated July 13, 1994. Copies of these reports have been submitted to the Northwest Region office of DOE. Several environmental investigations and reports were conducted by others for the subject property in 1987 and 1988. These investigations were conducted as part of environmental "due diligence" for a property transaction. The investigations were conducted by Dames & Moore and O'Brien & Gere. The Dames & Moore Initial Site Screening and UST Testing report identified two issues of concern for the subject property. One was the potential for leakage from the 275 gallon waste oil tank that was present at the south end of the back service bay, and the second issue was possible solvent contamination in soil and groundwater at the southeast outside corner of the back service bay. A.L. Sleister & Sons Construction removed the waste oil tank in November 1988, and a geologist from Ecova Environmental Services obtained initial soil samples. These soil samples from the soil surrounding the tank were above the 200 mg/kg cleanup level. As a result approximately 15-30 cubic yards of soil was overexcavated from the tank pit. The analytical reports on record at DOE indicate the a second round of soil samples was collected from the bottom and sides of the tank pit and that these analyses did not detect petroleum hydrocarbons above 50 mg/kg or volatile organics when tested by EPA Method 8240.

O'Brien & Gere performed a Site Investigation of the property in June 1988. This investigation included a backhoe investigation in the former solvent storage area at the southeast outside corner of the back service bay. In addition, a soil boring was advanced in the former solvent storage area to a depth of 15 feet. Selected soil samples were submitted for priority pollutant analysis. The analytical results indicated in the report show that ethylbenzene was present in the 5 and 15 foot soil samples at concentrations of 64 and 27 µg/kg, respectively. Xylenes were also present in the 5 and 15 foot soil samples at concentrations of 420 and 140 µg/kg, respectively. On the basis of these findings, the O'Brien & Gere report recommended soil removal from this area and the installation of monitor wells. From our review of these reports it is not clear whether soil removal was undertaken to remove the above mentioned concentrations of xylenes and ethylbenzenes.

the site. Table B presents Method B groundwater cleanup levels for each of the identified constituents. Since multiple hazardous substances are present, Method B formula values were adjusted downward in conformance with WAC 173-340-720 (5) (a), WAC 173-340-708 (5-6), and Washington DOE CLARC II MTCA Cleanup Standards. These calculations are presented in Appendix F.

The cleanup levels are scheduled to be attained in the groundwater surrounding the source of contamination and in the groundwater at the source of the contamination. Monitoring wells MW-8 through MW-11 to the south, north, and west of the contamination area will be utilized to verify groundwater compliance. Monitoring wells MW-14 and MW-15 may also be utilized as downgradient points.

Due to access constraints within the back service bay, active remediation of subsurface soils is not presently planned. Passive remediation of soils beneath the back service bay may be completed as described in the following section. The MTCA Method B Cleanup Standards established for soil are planned to be attained either through the present passive technologies, or at a subsequent date through a more intensive remediation. Due to the presence of multiple hazardous substances, the individual substance Method B level was reduced in accordance with WAC 173-340-708 (5). In addition, the soil cleanup levels were established at no more than 100 times the groundwater level for the purpose of preventing recontamination of groundwater in excess of the groundwater cleanup level. The Method B cleanup values for soil are presented in Table A.

5.0 EXPLANATION OF REMEDIAL ACTIONS TAKEN AND RATIONALE

Remedial actions at the site to date have consisted of pumping petroleum and other fluids from the hoist vault and sealing the vault with bentonite. Removal of the sludge within the hoist vault and sealing of the vault to prevent further introduction at the source area has improved groundwater quality. With the exception of the 3/20/96 benzene concentration in groundwater from monitoring well MW-8, all detectable constituent concentrations within the groundwater are below the established MTCA method B cleanup levels. The 6/26/96 groundwater sample from MW-8 did not detect benzene above the laboratory detection limit.

Laboratory analysis of soil samples indicates that petroleum hydrocarbons in the diesel to heavy oil range are present beneath the back service bay at concentration above the established MTCA method B cleanup levels. The majority of the soil contamination is limited to the leveling gravel, and the uppermost one foot of the native till beneath the floor slab. One soil sample collected at a depth of five feet was also above the MTCA method B cleanup level for heavy oil. Due to the on-going automobile service operations within the back service and the difficulties imposed through disruption of these services, no remedial actions to date have been completed with respect to decreasing the existing soil contamination.

5.1 Remediation Plan

With the exception of groundwater at monitoring well MW-8, groundwater beneath the back service bay has generally improved to below the established MTCA method B cleanup levels. The remaining groundwater contamination present is believed to be the result of groundwater coming in contact with petroleum hydrocarbon contaminated soil directly beneath the back service bay. NGI proposes to further improve the groundwater quality through the introduction of oxygen into the soil and groundwater directly beneath the back service bay floor slab thus facilitating natural bioremediation.

Oxygen is proposed to be introduced via a magnesium peroxide powder with the trade name of Oxygen Release Compound (ORC). Filter socks containing the ORC compound will be placed in monitoring wells MW-5, MW-6, and MW-7. These three monitoring wells are in the original source area of the petroleum hydrocarbons and are also hydraulically upgradient of the identified groundwater contamination. The effectiveness of oxygen introduction through these wells will be monitored in monitoring wells MW-8, MW-9, and MW-10. Dependent on the results obtained, five to ten small diameter (1 to 1-1/2 inches) holes may also be drilled through the back service bay at its northeast corner as an additional source of oxygen to the underlying soil and groundwater. The holes will be drilled into the aggregate base underlying the floor slab and into the upper native soils. The resulting bore holes will be backfilled with ORC and the floor slab will be resealed. Oxygen will be released into the subsurface soils when groundwater comes into contact with the ORC.

This remedial action is anticipated to further improve the groundwater quality within the groundwater beneath the back service bay. It is also anticipated that the existing soil contamination present directly beneath the back service bay may also be improved through the introduction of the ORC. NGI will monitor the soil contamination present beneath the back service bay to determine if subsequent excavation of these soils will be required.

5.3 Sampling and Analysis

Dissolved oxygen concentrations and water levels will be monitored on a monthly basis. Groundwater quality will be monitored through sampling and analysis of monitoring wells MW-8 through MW-11, MW-14, and MW-15. These wells will be sampled on a quarterly basis for petroleum hydrocarbons and halogenated/aromatic VOCs by methods WTPH-418.1 and EPA 8010/8020. Since no contamination has ever been detected in monitoring wells MW-2, MW-3, and MW-4, it is proposed that they only be sampled on an annual basis. Furthermore, since no constituents have ever been detected in monitoring wells MW-1, MW-12, or MW-13 at the east edge of the subject property it is proposed that these monitoring wells only be sampled on an annual basis. Once the remedial action has been implemented, NGI will prepare quarterly groundwater monitoring reports to document existing site conditions.

Soil beneath the back service bay will be sampled on an annual basis to monitor any decrease in petroleum hydrocarbon concentrations. This sampling will be completed by coring small

holes in the floor slab and sampling the underlying soil. If it appears that the petroleum hydrocarbon concentrations are being reduced through the introduction of ORC, then subsequent placement or the magnesium peroxide powder may be undertaken. Soil samples will be analyzed for total petroleum hydrocarbons by method WTPH-418.1.

6.0 LIMITATIONS

The field observations and research reported herein are considered sufficient in detail and scope to form a reasonable basis for general environmental assessment of the subject site. NGI warrants that the findings and conclusions contained herein were promulgated in accordance with generally accepted environmental methods, and relate only to the site described in this report. These environmental methods have been developed to provide the client with information regarding apparent indications of existing or potential environmental conditions relating to the subject site and are necessarily limited to the information available at the time the report was prepared.

TABLE A
BACK SERVICE BAY
SOIL LABORATORY ANALYTICAL TESTING SUMMARY

BORING/WELL LOCATION	SAMPLE DESIGNATION	TEST METHOD	TEST RESULT	MTCA (METHOD B) CLEANUP LEVEL*
B-2	2BCP1.0 (Soil)	WTPH-418.1	570 mg/kg	100 mg/kg
B-2	2BCP1.0 (Soil)	WTPH-HCID	Non-Detect Gas Positive Diesel Positive Oil	100 mg/kg 200 mg/kg 200 mg/kg
B-2	2BCP1.0 (Soil)	Volatile Organics (EPA 8240)	Methylene Chloride = 0.074 mg/kg Toluene = 0.013 mg/kg Total Xylenes = 0.100 mg/kg 1,4-Dichlorobenzene = 0.029 mg/kg	0.580 mg/kg 20 mg/kg 200 mg/kg 0.182 mg/kg
B-2	2BCP1.0 (Soil)	Semi-Volatiles (EPA 8270)	Naphthalene = 0.320 mg/kg	3.2 mg/kg
B-2	2BCP1.0 (Soil) Duplicate	Semi-Volatiles (EPA 8270)	Naphthalene = 0.087 mg/kg	3.2 mg/kg
B-3	3BCP3.0 (Soil)	WTPH-418.1	29 mg/kg	100 mg/kg
B-6	6BCP0.5 (Soil)	Metals (EPA 7000)	Arsenic = 0.13 mg/kg Barium = 43 mg/kg Chromium = 13 mg/kg	--- --- ---
B-6	6BCP3.0 (Soil)	WTPH-HCID	Non-Detect Gas Non-Detect Diesel Non-Detect Oil	100 mg/kg 200 mg/kg 200 mg/kg
B-7	7BCP1.0 (Soil)	Volatile Organics (EPA 8010 & 8020)	Benzene = 0.110 mg/kg Ethylbenzene = 0.240 mg/kg Total Xylenes = 2.2 mg/kg	0.500 mg/kg 30 mg/kg 10 mg/kg
B-7	7BCP1.0 (Soil)	Semi-Volatiles (EPA 8270)	Pyrene = 0.110 mg/kg Butylbenzylphthalate = 0.260 mg/kg bis(2-Ethylhexyl)phthalate = 0.120 mg/kg Di-n-octylphthalate = 0.160 mg/kg	48 mg/kg 10 mg/kg 0.625 mg/kg 32 mg/kg
B-7	7BCP1.0 (Soil)	Lead (EPA 7420)	Non-Detect	250 mg/kg
B-7	7BCP1.0 (Soil)	TCLP Metals	Barium = 0.4 mg/L Mercury = 0.02 mg/L	--- ---
B-7	7BCP1.0 (Soil)	Ethylene Glycol	Ethylene Glycol = 18 mg/kg	320 mg/kg
B-8	8BCP15.0 (Soil)	WTPH-418.1 Modified	Non-Detect	100 mg/kg
B-9	9BCP25.0 (Soil)	WTPH-418.1 Modified	Non-Detect	100 mg/kg
B-10	10BCP10.0 (Soil)	WTPH-418.1 Modified	Non-Detect	100 mg/kg
B-12	12BCP0.5 (Soil)	WTPH-418.1 Modified	1,170 mg/kg	100 mg/kg
B-13	13BCP0.5 (Soil)	WTPH-418.1 Modified	1,270 mg/kg	100 mg/kg
B-13	13BCP5.0 (Soil)	WTPH-418.1 Modified	210 mg/kg	100 mg/kg
B-14	14BCP1.0 (Soil)	WTPH-418.1 Modified	120 mg/kg	100 mg/kg
B-15	15BCP0.5 (Soil)	WTPH-418.1 Modified	630 mg/kg	100 mg/kg

Notes: The number at the end of the sample designation represents soil sampling depths.
*TPH and some BTEX Method B Cleanup Levels are presented using Method A values.

TABLE A (Continued)
BACK SERVICE BAY
SOIL LABORATORY ANALYTICAL TESTING SUMMARY

BORING/WELL LOCATION	SAMPLE DESIGNATION	TEST METHOD	TEST RESULT	MTCA (METHOD B) CLEANUP LEVEL*
B-15	15BCP0.5 (Soil)	BTEX (EPA 8020)	Ethylbenzene = 0.3 mg/kg Xylenes = 2.4 mg/kg	30 mg/kg 300 mg/kg
B-15	15BCP5.0 (Soil)	WTPH-418.1 Modified	70 mg/kg	100 mg/kg
B-15	15BCP10.0 (Soil)	WTPH-418.1 Modified	100 mg/kg	100 mg/kg
B-16	16BCP1.0 (Soil)	WTPH-418.1 Modified	50 mg/kg	100 mg/kg
B-16	16BCP5.0 (Soil)	WTPH-418.1 Modified	70 mg/kg	100 mg/kg
B-17	17BCP15 (Soil)	WTPH-418.1 Modified	Non-Detect	100 mg/kg
B-18	18BCP1.0 (Soil)	WTPH-418.1 Modified	50 mg/kg	100 mg/kg
B-19	19BCP0.5 (Soil)	WTPH-418.1 Modified	Non-Detect	100 mg/kg
B-20	20BCP0.5 (Soil)	WTPH-418.1 Modified	290 mg/kg	100 mg/kg
B-20	20BCP0.5 (Soil)	Fuel Scan	Gasoline = Non-Detect Mineral Spirits = Non-Detect Diesel = 77 mg/kg Positive Other Oils	100 mg/kg - - - 200 mg/kg 200 mg/kg
B-21	21BCP0.5 (Soil)	WTPH-418.1 Modified	Non-Detect	100 mg/kg
B-21	21BCP0.5 (Soil)	Retest WTPH-418.1 Modified	46 mg/kg	100 mg/kg
B-22	22BCP0.5 (Soil)	WTPH-418.1 Modified	Non-Detect	100 mg/kg
B-23	23BCP0.5 (Soil)	WTPH-418.1 Modified	36 mg/kg	100 mg/kg
B-24	24BCP0.5 (Soil)	WTPH-418.1 Modified	Non-Detect	100 mg/kg
B-25	25BCP2.0 (Soil)	WTPH-HCID	Non-Detect	Various
B-26	26BCP1.0 (Soil)	WTPH-HCID	Non-Detect	Various
B-27	27BCP0.5 (Soil)	WTPH-HCID	Non-Detect	Various
B-28	28BCP15.0 (Soil)	WTPH-HCID	Non-Detect	Various
B-29	29BCP2.5 (Soil)	WTPH-HCID	Non-Detect	Various
B-30	30BCP75 (Soil)	WTPH-HCID	Non-Detect	Various
B-31	31BCP5.0 (Soil)	WTPH-HCID	Non-Detect	Various
B-32	32BCP5.0 (Soil)	WTPH-HCID	Non-Detect	Various

Notes: The number at the end of the sample designation represents soil sampling depths.
*TPH and some BTEX Method B Cleanup Levels are presented using Method A values.

TABLE B
GROUNDWATER LABORATORY ANALYTICAL TESTING SUMMARY

Well Location	Date Collected	Sample Designation	Test Method	Test Result	MTCA (Method B) Cleanup Level[a]
MW-1	12/6/95	BCPMW1 (Water)	WTPH 418.1 M	Non-Detect	1 mg/L
MW-1	12/6/95	BCPMW1 (Water)	Halogenated/Aromatic VOCs EPA 601/602	Tetrachloroethene = 0.91 µg/L	4 µg/L
MW-1	3/20/96	BCPMW1 (Water)	WTPH 418.1 M	Non-Detect	1 mg/L
MW-1	3/20/96	BCPMW1 (Water)	Halogenated/Aromatic VOCs EPA 8010/8020	Tetrachloroethene = 0.66 µg/L	4 µg/L
MW-1	3/20/96	BCPMW1 (Water)	BNAs EPA 8270	Non-Detect	Various
MW-1	4/18/96	BCPMW1	Total Coliforms	Non-Detect	--
MW-1	4/18/96	BCPMW1	Biochemical Oxygen Demand EPA 405.1	1.1 mg/L	--
MW-1	4/18/96	BCPMW1	Chlorine NCAB 4012.0	Non-Detect	--
MW-1	4/18/96	BCPMW1	pH EPA 150.1	6.8	--
MW-1	6/26/96	BCPMW1	WTPH-418.1	Non-Detect	1 mg/L
MW-1	6/26/96	BCPMW1	Halogenated/Aromatic VOCs EPA 8010/8020	Non-Detect	Various
MW-2	12/20/93	BCPMW2 (Water)	WTPH 418.1	Non-Detect	1 mg/L
MW-2	6/10/95	MW-2	WTPH 418.1	Non-Detect	1 mg/L
MW-2	6/10/95	MW-2	Volatile Organics EPA 8240	Non-Detect	Various
MW-2	9/12/95	MW-2	WTPH 418.1	Non-Detect	0.5 mg/L
MW-2	12/6/95	BCPMW2	WTPH 418.1 M	Non-Detect	1 mg/L
MW-2	12/6/95	BCPMW2	Halogenated/Aromatic VOCs EPA 601/602	Non-Detect	Various
MW-2	3/20/96	BCPMW2	WTPH 418.1 M	Non-Detect	1 mg/L

[a] TPH and some BTEX Method B Cleanup Levels are derived from Method A values.

TABLE B (Continued)
GROUNDWATER LABORATORY ANALYTICAL TESTING SUMMARY

Well Location	Date Collected	Sample Designation	Test Method	Test Result	MTCA (Method B) Cleanup Level[b]
MW-2	3/20/96	BCPMW2	Halogenated/Aromatic VOCs EPA 8010/8020	Non-Detect	Various
MW-3	12/20/93	BCPMW3 (Water)	WTPH 418.1	Non-Detect	1 mg/L
MW-3	12/20/93	BCPMW3 (Water)	BTEX EPA 602	Benzene = Non-Detect Toluene = Non-Detect Ethyl Benzene = Non-Detect Total Xylenes = Non-Detect	5 µg/L 50 µg/L 300 µg/L 2000 µg/L
MW-3	9/12/95	MW-3	WTPH 418.1	Non-Detect	0.5 mg/L
MW-3	12/6/95	BCPMW3	WTPH 418.1 M	Non-Detect	1 mg/L
MW-3	12/6/95	BCPMW3	Halogenated/Aromatic VOCs EPA 601/602	Non-Detect	Various
MW-3	3/20/96	BCPMW3	WTPH 418.1 M	Non-Detect	1 mg/L
MW-3	3/20/96	BCPMW3	Halogenated/Aromatic VOCs EPA 8010/8020	Non-Detect	Various
MW-4	9/12/95	MW-4	WTPH 418.1	Non-Detect	0.5 mg/L
MW-4	12/6/95	BCPMW4	WTPH 418.1 M	Non-Detect	1 mg/L
MW-4	12/6/95	BCPMW4	Halogenated/Aromatic VOCs EPA 601/602	Non-Detect	Various
MW-4	3/20/96	BCPMW4	WTPH 418.1 M	Non-Detect	1 mg/L
MW-4	3/20/96	BCPMW4	Halogenated/Aromatic VOCs EPA 8010/8020	Non-Detect	Various
MW-5	12/21/93	BCPMW5 (Water)	TPH-418.1	0.8 mg/L	1.0 mg/L
MW-5	3/16/95	MW-5	PCBs EPA 8080	Non-Detect	Various
MW-5	3/16/95	MW-5	Metals EPA 7000	Arsenic = 0.02 mg/L	--
MW-5	3/16/95	MW-5	TPH-418.1	0.51 mg/L	1.0 mg/L

[b] TPH and some BTEX Method B Cleanup Levels are derived from Method A values.

TABLE B (Continued)
GROUNDWATER LABORATORY ANALYTICAL TESTING SUMMARY

Well Location	Date Collected	Sample Designation	Test Method	Test Result	MTCA (Method B) Cleanup Level[c]
MW-5	3/16/95	MW-5	Volatile Organics EPA 624	Non-Detect	Various
MW-5	3/16/95	MW-5	Semi-Volatile Organics EPA 625	bis(2-ethylhexyl)phthalate = 10.4 µg/L	6.25 µg/L
MW-5	6/10/95	MW-5	WTPH 418.1	Non-Detect	1.0 mg/L
MW-5	6/10/95	MW-5	Volatile Organics EPA 8240	Non-Detect	Various
MW-5D	6/10/95	MW-5D	Volatile Organics EPA 8240	Non-Detect	Various
MW-5D	6/10/95	MW-5D	WTPH 418.1	Non-Detect	1.0 mg/L
MW-5	9/12/95	MW-5	WTPH 418.1	4.7 mg/L	1.0 mg/L
MW-5	12/6/95	BCPMW5	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-5	12/6/95	BCPMW5	Halogenated/Aromatic VOCs EPA 601/602	Toluene = 1.7 µg/L 1,3-Dichlorobenzene = 0.75 µg/L	50 µg/L 10 µg/L
MW-5	3/20/96	BCPMW5	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-5	3/20/96	BCPMW5	Halogenated/Aromatic VOCs EPA 8010/8020	Toluene = 1.2 µg/L 1,2-Dichlorobenzene = 0.97 µg/L	50 µg/L 30 µg/L
MW-5	3/20/96	BCPMW5	BNAs EPA 8270	Non-Detect	Various
MW-5	6/26/96	BCPMW5	WTPH 418.1	Non-Detect	1 mg/L
MW-5	6/26/96	BCPMW5	Halogenated/Aromatic VOCs EPA 8010/8020	Toluene = 1.0 µg/L	50 mg/L
MW-6	12/21/93	BCPMW6 (Water)	TPH-418.1	5.0 mg/L	1.0 mg/L
MW-6	3/16/95	MW-6	Metals EPA 7000	Arsenic = 0.01 mg/L	- -
MW-6	3/16/95	MW-6	TPH-418.1	7.42 mg/L	1.0 mg/L
MW-6	3/16/95	MW-6	Volatile Organics EPA 624	Non-Detect	Various

[c] TPH and some BTEX Method B Cleanup Levels are derived from Method A values.

TABLE B (Continued)
GROUNDWATER LABORATORY ANALYTICAL TESTING SUMMARY

Well Location	Date Collected	Sample Designation	Test Method	Test Result	MTCA (Method B) Cleanup Level[d]
MW-6	3/16/95	MW-6	Semi-Volatiles EPA 625	bis (2-Ethylhexyl)phthalate = 23.6 µg/L Di-n-octylphthalate = 2.4 µg/L	6.25 µg/L 3.0 µg/L
MW-6	6/10/95	MW-6	WTPH 418.1	0.69 mg/L	1 mg/L
MW-6	6/10/95	MW-6	Volatile Organics EPA 8240	Carbon Disulfide = 2.8 µg/L Toluene = 2.4 µg/L	10 µg/L 50 µg/L
MW-6	9/12/95	MW-6	WTPH 418.1	0.72 mg/L	1.0 mg/L
MW-6D	9/12/95	MW-6	WTPH 418.1	1.7 mg/L	1.0 mg/L
MW-6	12/6/95	BCPMW6 (Water)	WTPH 418.1	Non-Detect	1.0 mg/L
MW-6	12/6/95	BCPMW6 (Water)	Halogenated/Aromatic VOCs EPA 601/602	Toluene = 1.0 µg/L	50 µg/L
MW-6	3/20/96	BCPMW6 (Water)	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-6	3/20/96	BCPMW6 (Water)	Halogenated/Aromatic VOCs EPA 8010/8020	Toluene = 1.6 µg/L 1,2-Dichlorobenzene = 0.97 µg/L	50 µg/L 30 µg/L
MW-6	3/20/96	BCPMW6 (Water)	BNAs EPA 8270	Non-Detect	Various
MW-6	6/26/96	BCPMW6	WTPH 418.1	Non-Detect	1 mg/L
MW-6	6/26/96	BCPMW6	Halogenated/Aromatic VOCs EPA 8010/8020	Toluene = 1.2 µg/L	50 mg/L
7-BCP-W[e]	10/23/93	7-BCP-W (Water/Sediment)	Volatile Organics EPA 624	Toluene = 60 µg/L Ethyl Benzene = 86 µg/L Total Xylenes = 1,300 µg/L	50 µg/L 50 µg/L 500 µg/L
7-BCP-W	10/23/93	7-BCP-W (Water/Sediment)	Semi-Volatiles EPA 625	Butylbenzylphthalate = 32 µg/L	100 µg/L
7-BCP-W	10/23/93	7-BCP-W (Water/Sediment)	Total Metals RCRA (8)	Arsenic = 0.15 mg/L Barium = 5.8 mg/L Cadmium = 0.02 mg/L Chromium = 2.6 mg/L Lead = 0.9 mg/L	--- --- --- --- ---

[d] TPH and some BTEX Method B Cleanup Levels are derived from Method A values.

[e] This water sample was extracted from a shallow boring (B-7) that did not have a monitoring well installed.

TABLE B (Continued)
GROUNDWATER LABORATORY ANALYTICAL TESTING SUMMARY

Well Location	Date Collected	Sample Designation	Test Method	Test Result	MTCA (Method B) Cleanup Level[f]
MW-7	12/21/93	BCPMW7 (Water)	Volatile Organics EPA 624	Acetone = 120 µg/L Methylene Chloride = 2.2 µg/L 2-Butanone(MEK) = 55 µg/L Benzene = 1.5 µg/L Toluene = 41 µg/L Ethylbenzene = 2.4 µg/L Total Xylenes = 25 µg/L 1,4-Dichlorobenzene = 5.2 µg/L	50 µg/L 5.8 µg/L 60 µg/L 5 µg/L 50 µg/L 50 µg/L 500 µg/L 1.8 µg/L
MW-7	12/21/93	BCPMW7 (Water)	Dissolved Lead EPA 7421	Non-Detect	5 µg/L
MW-7	12/21/93	BCPMW7 (Water)	Fuel Scan EPA 8015	Gasoline = 0.94 mg/L Diesel = 5.1 mg/L Oil = 5.2 mg/L	1.0 mg/L 1.0 mg/L 1.0 mg/L
MW-7	3/16/95	MW-7	Metals EPA 7000	Arsenic = 0.05 mg/L	--
MW-7	3/16/95	MW-7	TPH-418.1	4.22 mg/L	1.0 mg/L
MW-7	3/16/95	MW-7	Volatile Organics EPA 624	Acetone = 38.5 µg/L Toluene = 0.8 µg/L 1,4-Dichlorobenzene = 1.3 µg/L	50 µg/L 50 µg/L 1.82 µg/L
MW-7	3/16/95	MW-7	Semi-Volatiles EPA 625	2,4-Dimethylphenol = 2.06 µg/L bis(2-Ethylhexyl)phthalate = 6.92 µg/L	3.0 µg/L 6.25 µg/L
MW-7	6/10/95	MW-7	WTPH 418.1	Non-Detect	1 mg/L
MW-7	6/10/95	MW-7	Volatile Organics EPA 8240	Carbon Disulfide = 5.2 µg/L 1,2 Dichlorobenzene = 4.4 µg/L Ethylbenzene = 2.0 µg/L Toluene = 6.1 µg/L Xylenes = 4.3 µg/L	10 µg/L 30 µg/L 50 µg/L 50 µg/L 500 µg/L
MW-7	9/12/95	MW-7	WTPH 418.1	0.52 mg/L	1 mg/L
MW-7	12/6/95	BCPMW7	WTPH 418.1 M	Non-Detect	1.0 mg/L

[f] TPH and some BTEX Method B Cleanup Levels are derived from Method A values.

TABLE B (Continued)
GROUNDWATER LABORATORY ANALYTICAL TESTING SUMMARY

Well Location	Date Collected	Sample Designation	Test Method	Test Result	MTCA (Method B) Cleanup Level[g]
MW-7	12/6/95	BCPMW7	Halogenated/Aromatic VOCs EPA 8010/8020	Benzene = 2.3 µg/L Toluene = 2.1 µg/L Ethylbenzene = 2.4 µg/L 1,2-Dichlorobenzene = 2.5 µg/L	5 µg/L 50 µg/L 50 µg/L 30 µg/L
MW-7	3/20/96	BCPMW7	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-7	3/20/96	BCPMW7	Halogenated/Aromatic VOCs EPA 8010/8020	Benzene = 1.4 µg/L Toluene = 2.3 µg/L Ethylbenzene = 1.9 µg/L Xylenes = 8.1 µg/L 1,2-Dichlorobenzene = 2.6 µg/L 1,4-Dichlorobenzene = 0.87 µg/L	5 µg/L 50 µg/L 50 µg/L 500 µg/L 30 µg/L 1.5 µg/L
MW-7	3/20/96	BCPMW7	BNAs EPA 8270	Non-Detect	Various
MW-7	6/26/96	BCPMW7	WTPH 418.1	0.60 mg/L	1 µg/L
MW-7	6/26/96	BCPMW7	Halogenated/Aromatic VOCs EPA 8010/8020	Benzene = 1.2 µg/L Toluene = 2.4 µg/L Ethylbenzene = 1.7 µg/L Xylenes = 6.2 µg/L 1,2-Dichlorobenzene = 2.6 µg/L 1,4-Dichlorobenzene = 0.75 µg/L	5 µg/L 50 µg/L 300 µg/L 2000 µg/L 30 µg/L 1.8 µg/L
MW-8	12/6/95	BCPMW8	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-8	12/6/95	BCPMW8	Halogenated/Aromatic VOCs EPA 601/602	Non-Detect	Various
MW-8	3/20/96	BCPMW8	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-8	3/20/96	BCPMW8	Halogenated/Aromatic VOCs EPA 8010/8020	Benzene = 38 µg/L Toluene = 1.4 µg/L Ethylbenzene = 1.6 µg/L Xylenes = 3.1 µg/L	5 µg/L 50 µg/L 50 µg/L 500 µg/L
MW-8	4/18/96	BCPMW8	BTEX EPA 8020	Benzene = 22 µg/L Toluene = 2.2 µg/L Ethylbenzene = 0.88 µg/L Xylenes = 1.0 µg/L	

[g] TPH and some BTEX Method B Cleanup Levels are derived from Method A values.

TABLE B (Continued)
GROUNDWATER LABORATORY ANALYTICAL TESTING SUMMARY

Well Location	Date Collected	Sample Designation	Test Method	Test Result	MTCA (Method B) Cleanup Level[h]
MW-8	6/26/96	BCPMW8	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-8	6/26/96	BCPMW8	Halogenated/Aromatic VOCs EPA 8010/8020	Non-Detect	Various
MW-9	12/6/95	BCPMW9	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-9	12/6/95	BCPMW9	Halogenated/Aromatic VOCs EPA 601/602	Benzene = 1.6 µg/L Toluene = 3.1 µg/L cis-1,2-Dichloroethene = 7.9 µg/L	5 µg/L 50 µg/L 20 µg/L
MW-9	3/20/96	BCPMW9	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-9	3/20/96	BCPMW9	Halogenated/Aromatic VOCs EPA 8010/8020	Benzene = 2.2 µg/L Toluene = 2.4 µg/L 1,1-Dichloroethane = 0.82 µg/L cis-1,2-Dichloroethene = 13 µg/L	5 µg/L 50 µg/L 10 µg/L 20 µg/L
MW-9	6/26/96	BCPMW9	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-9	6/26/96	BCPMW9	Halogenated/Aromatic VOCs EPA 8010/8020	Benzene = 2.3 µg/L Toluene = 0.75µg/L cis-1,2-Dichloroethene = 12 µg/L	5 µg/L 50 µg/L 20 µg/L
MW-10	12/6/95	BCPMW10	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-10	12/6/95	BCPMW10	Halogenated/Aromatic VOCs EPA 601/602	Toluene = 1.1 µg/L cis-1,2-Dichloroethene = 2.3 µg/L	50 µg/L 20 µg/L
MW-10	3/20/96	BCPMW10	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-10	3/20/96	BCPMW10	Halogenated/Aromatic VOCs EPA 8010/8020	Benzene = 1.2 µg/L Toluene = 0.95 µg/L 1,1-Dichloroethane = 1.2 µg/L cis-1,2-Dichloroethene = 3.2 µg/L	5 µg/L 50 µg/L 10 µg/L 20 µg/L
MW-10	6/26/96	BCPMW10	WTPH 418.1	Non-Detect	1.0 mg/L
MW-10	6/26/96	BCPMW10	Halogenated/Aromatic VOCs EPA 8010/8020	Benzene = 1.8 µg/L Toluene = 1.4 µg/L 1,1-Dichloroethane = 1.5 µg/L cis-1,2-Dichloroethene = 5.2 µg/L	5 µg/L 50 µg/L 10 µg/L 20 µg/L

[h] TPH and some BTEX Method B Cleanup Levels are derived from Method A values.

TABLE B (Continued)
GROUNDWATER LABORATORY ANALYTICAL TESTING SUMMARY

Well Location	Date Collected	Sample Designation	Test Method	Test Result	MTCA (Method B) Cleanup Level[i]
MW-11	12/6/95	BCPMW11	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-11	12/6/95	BCPMW11	Halogenated/Aromatic VOCs EPA 601/602	Non-Detect	Various
MW-11	3/20/96	BCPMW11	WTPH 418.1 M	Non-Detect	1 mg/L
MW-11	3/20/96	BCPMW11	Halogenated/Aromatic VOCs EPA 8010/8020	Non-Detect	Various
MW-11	4/18/96	BCPMW11	Total Coliforms	8 CFU/100mL	--
MW-11	4/18/96	BCPMW11	Biochemical Oxygen Demand EPA 405.1	9.2 mg/L	--
MW-11	4/18/96	BCPMW11	Chlorine NCAB 4012.0	Non-Detect	--
MW-11	4/18/96	BCPMW11	pH EPA 150.1	7.6	--
MW-11	6/26/96	BCPMW11	WTPH 418.1 M	Non-Detect	1 mg/L
MW-11	6/26/96	BCPMW11	Halogenated/Aromatic VOCs EPA 8010/8020	Non-Detect	Various
MW-12	5/22/96	BCPMW12	Halogenated/Aromatic VOC's EPA 8010/8020	Non-Detect	Various
MW-14	5/22/96	BCPMW14	Halogenated/Aromatic VOC's EPA 8010/8020	Non-Detect	Various
MW-15	5/22/96	BCPMW15	Halogenated/Aromatic VOC's EPA 8010/8020	Non-Detect	Various
BCP Rinsate	6/10/95	BCP Rinsate	Volatile Organics EPA 8240	Non-Detect	Various
BCP Trip Blank	6/10/95	BCP Trip Blank	BTEX EPA 8020	Non-Detect	Various
MW-7	12/6/95	BCPDUP	WTPH 418.1 M	Non-Detect	1.0 mg/L
MW-7	12/6/95	BCPDUP	Halogenated/Aromatic VOCs EPA 601/602	Benzene = 2.2 µg/L Toluene = 2.0 µg/L Ethylbenzene = 2.0 µg/L 1,2-Dichlorobenzene = 2.4 µg/L	5 µg/L 50 µg/L 50 µg/L 30 µg/L

[i] TPH and some BTEX Method B Cleanup Levels are derived from Method A values.

TABLE B (Continued)
GROUNDWATER LABORATORY ANALYTICAL TESTING SUMMARY

Well Location	Date Collected	Sample Designation	Test Method	Test Result	MTCA (Method B) Cleanup Level[j]
MW-7	3/20/96	BCPDUP	WTPH 418.1 M	Non-Detect	1 mg/L
MW-7	3/20/96	BCPDUP	Halogenated/Aromatic VOCs EPA 8010/8020	Benzene = 2.2 µg/L Toluene = 2.7 µg/L Ethylbenzene = 2.3 µg/L Xylenes = 9.4 µg/L 1,2-Dichlorobenzene = 2.5 µg/L 1,4-Dichlorobenzene = 0.77 µg/L	5 µg/L 50 µg/L 50 µg/L 500 µg/L 30 µg/L 1.5 µg/L
- - -	3/20/96	Trip Blank	BTEX EPA 8020	Non-Detect	Various
MW-8	6/26/96	BCPDUP	WTPH 418.1	Non-Detect	1.0 mg/L
MW-8	6/26/96	BCPDUP	Halogenated/Aromatic VOCs EPA 8010/8020	Non-Detect	Various
- - -	6/26/96	Trip Blank	BTEX EPA 8020	Non-Detect	Various

[j] TPH and some BTEX Method B Cleanup Levels are derived from Method A values.

TABLE C
WATER LEVEL DATA
BELLEVUE CHRYSLER PLYMOUTH

Well Number	Date of Measurement	Casing Elevation (ft)	Depth Below Top of Casing (ft)	Groundwater Elevation (ft)
MW-1	12/8/94	127.8	--	--
	1/9/95	127.8	--	--
	2/9/95	127.8	--	--
	3/9/95	127.8	--	--
	5/15/95	127.8	--	--
	6/10/95	127.8	--	--
	7/12/95	127.8	--	--
	8/15/95	127.8	--	--
	9/12/95	127.8	--	--
	10/20/95	127.8	--	--
	12/6/95	127.8	5.65	122.2
	1/23/96	127.8	4.50	123.3
	2/22/96	127.8	4.88	122.9
	3/19/96	127.8	5.95	121.8
	4/18/96	127.8	6.08	121.7
	5/21/96	127.8	5.50	122.3
	6/25/96	127.8	5.94	121.9
MW-2	12/8/94	91.9	11.82	80.1
	1/9/95	91.9	11.44	80.5
	2/9/95	91.9	11.26	80.6
	3/9/95	91.9	11.41	80.5
	5/15/95	91.9	11.82	80.1
	6/10/95	91.9	4.43	87.5
	7/12/95	91.9	11.96	79.9
	8/15/95	91.9	12.29	79.6
	9/12/95	91.9	12.80	79.1
	10/20/95	91.9	12.21	79.7
	12/6/95	91.9	11.23	80.7
	1/23/96	91.9	11.21	80.7
	2/22/96	91.9	11.15	80.8
	3/19/96	91.9	11.13	80.8
	4/18/96	91.9	11.23	80.7
	5/21/96	91.9	11.22	80.7
	6/25/96	91.9	11.66	80.2
MW-3	12/8/94	92.1	10.74	81.8
	1/9/95	92.1	10.40	81.7
	2/9/95	92.1	10.02	82.1
	3/9/95	92.1	9.56	82.5
	5/15/95	92.1	10.74	81.4
	6/10/95	92.1	--	--
	7/12/95	92.1	8.86	83.2
	8/15/95	92.1	9.42	82.7
	9/12/95	92.1	9.62	82.5
	10/20/95	92.1	11.10	81.0
	12/6/95	92.1	10.57	81.5
	1/23/96	92.1	9.71	82.4

TABLE C (Continued)
WATER LEVEL DATA
BELLEVUE CHRYSLER PLYMOUTH

Well Number	Date of Measurement	Casing Elevation (ft)	Depth Below Top of Casing (ft)	Groundwater Elevation (ft)
MW-3 (Cont)	2/22/96	92.1	7.51	84.6
	3/19/96	92.1	7.58	84.5
	4/18/96	92.1	10.87	81.2
	5/21/96	92.1	10.45	81.6
	6/25/96	92.1	10.13	82.0
MW-4	12/8/94	78.7	5.14	73.6
	1/9/95	78.7	4.60	74.1
	2/9/95	78.7	4.30	74.4
	3/9/95	78.7	4.48	74.2
	5/15/95	78.7	5.14	73.6
	6/10/95	78.7	--	--
	7/12/95	78.7	4.83	73.9
	8/15/95	78.7	5.10	73.6
	9/12/95	78.7	5.60	73.1
	10/20/95	78.7	8.70	70.0
	12/6/95	78.7	4.35	74.4
	1/23/96	78.7	3.87	74.8
	2/22/96	78.7	3.79	74.9
	3/19/96	78.7	3.90	74.8
	4/18/96	78.7	4.18	74.5
	5/21/96	78.7	3.80	74.9
	6/25/96	78.7	4.22	74.5
MW-5	12/8/94	79.4	3.46	75.9
	1/9/95	79.4	0.00	79.4
	2/9/95	79.4	0.32	79.1
	3/9/95	79.4	0.32	79.1
	5/15/95	79.4	3.46	75.9
	6/10/95	79.4	0.00	79.4
	7/12/95	79.4	0.30	79.1
	8/15/95	79.4	0.35	79.0
	9/12/95	79.4	0.30	79.1
	10/20/95	79.4	0.45	79.0
	12/6/95	79.4	0.20	79.2
	1/23/96	79.4	0.10	79.3
	2/22/96	79.4	0.10	79.3
	3/19/96	79.4	0.20	79.2
	4/18/96	79.4	0.10	79.3
	5/21/96	79.4	0.20	79.2
	6/25/96	79.4	0.20	79.2
MW-6	12/8/94	79.5	1.42	78.1
	1/9/95	79.5	0.00	79.5
	2/9/95	79.5	0.00	79.5
	3/9/95	79.5	0.00	79.5
	5/15/95	79.5	1.42	78.1
	6/10/95	79.5	2.32	77.2
	7/12/95	79.5	0.40	79.1

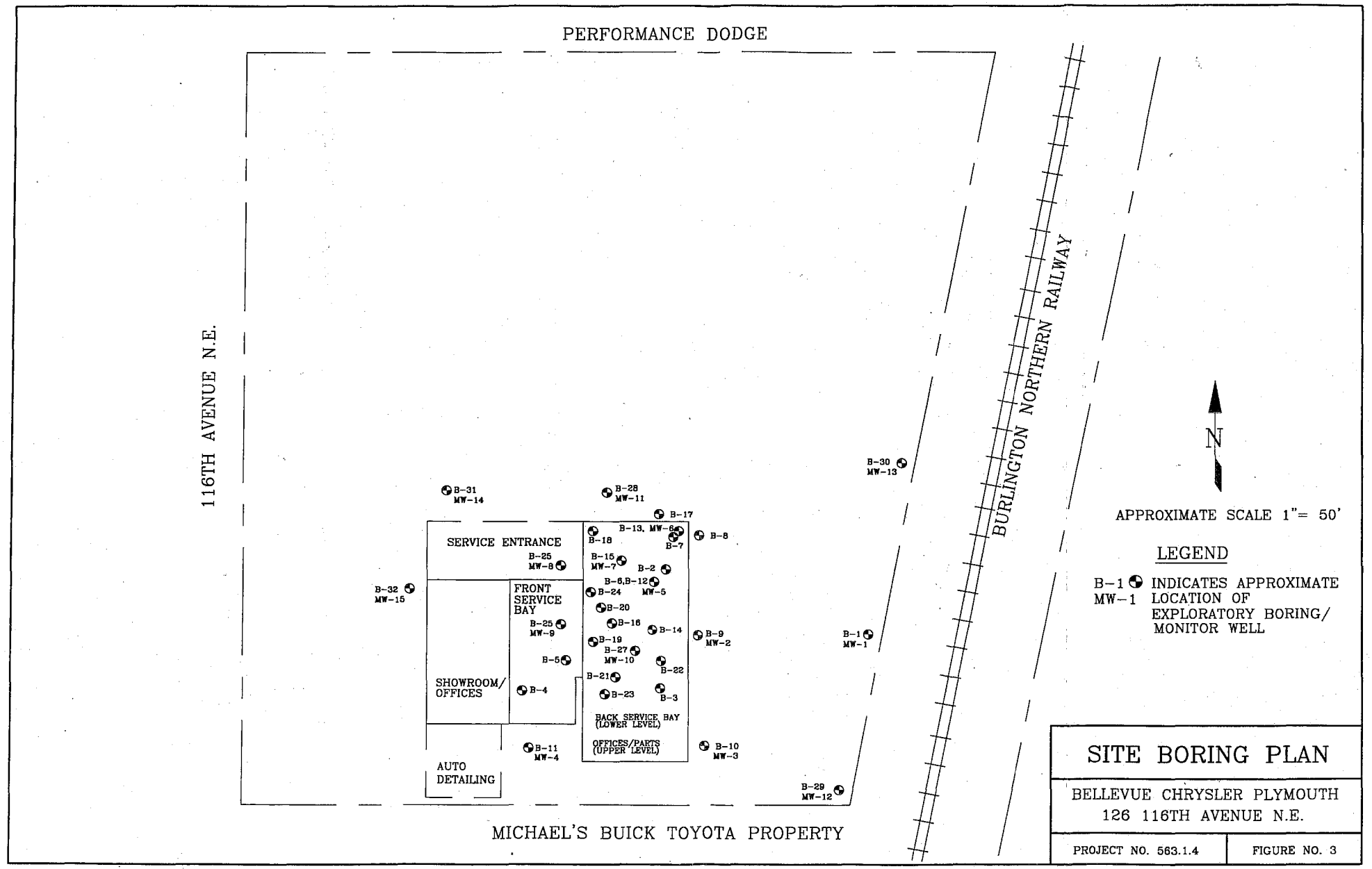
TABLE C (Continued)
WATER LEVEL DATA
BELLEVUE CHRYSLER PLYMOUTH

Well Number	Date of Measurement	Casing Elevation (ft)	Depth Below Top of Casing (ft)	Groundwater Elevation (ft)
MW-6 (Cont)	8/15/95	79.5	0.30	79.2
	9/12/95	79.5	0.35	79.1
	10/20/95	79.5	0.20	79.3
	12/6/95	79.5	0.40	79.1
	1/23/96	79.5	0.05	79.4
	2/22/96	79.5	0.15	79.4
	3/19/96	79.5	0.20	79.3
	4/18/96	79.5	1.40	78.1
	5/21/96	79.5	0.84	78.7
	6/25/96	79.5	2.32	77.2
MW-7	12/8/94	79.6	--	--
	1/9/95	79.6	0.77	78.8
	2/9/95	79.6	0.69	78.9
	3/9/95	79.6	0.66	78.4
	5/15/95	79.6	--	--
	6/10/95	79.6	3.16	76.4
	7/12/95	79.6	3.82	75.8
	8/15/95	79.6	1.75	77.8
	9/12/95	79.6	1.42	78.2
	10/20/95	79.6	2.56	77.0
	12/6/95	79.6	2.07	77.5
	1/23/96	79.6	0.30	79.3
	2/22/96	79.6	0.10	79.5
	3/19/96	79.6	0.10	79.5
	4/18/96	79.6	1.64	78.0
	5/21/96	79.6	1.08	78.5
	6/25/96	79.6	3.00	76.6
MW-8	12/6/95	79.8	1.67	78.1
	1/23/96	79.8	1.04	78.8
	2/22/96	79.8	1.11	78.7
	3/19/96	79.8	1.27	78.5
	4/18/96	79.8	1.53	78.3
	5/21/96	79.8	--	--
	6/25/96	79.8	2.05	77.8
MW-9	12/6/95	79.6	3.60	76.0
	1/23/96	79.6	2.95	76.7
	2/22/96	79.6	2.91	76.7
	3/19/96	79.6	3.24	76.4
	4/18/96	79.6	3.22	76.4
	5/21/96	79.6	3.10	76.5
	6/25/96	79.6	3.53	76.1
MW-10	12/6/95	79.7	2.15	77.6
	1/23/96	79.7	1.40	78.3
	2/22/96	79.7	1.00	78.7
	3/19/96	79.7	1.00	78.7
	4/18/96	79.7	2.24	77.5

TABLE C (Continued)
WATER LEVEL DATA
BELLEVUE CHRYSLER PLYMOUTH

Well Number	Date of Measurement	Casing Elevation (ft)	Depth Below Top of Casing (ft)	Groundwater Elevation (ft)
MW-10 (Cont)	5/21/96	79.7	1.28	78.4
	6/25/96	79.7	1.20	78.5
MW-11	12/6/95	92.1	11.03	81.1
	1/23/96	92.1	10.09	82.0
	2/22/96	92.1	9.59	82.5
	3/19/96	92.1	9.80	82.3
	4/18/96	92.1	10.10	82.0
	5/21/96	92.1	10.10	82.0
	6/25/96	92.1	10.66	81.4
MW-12	5/21/96	127.6	6.00	121.6
	6/25/96	127.6	5.04	122.6
MW-13	5/21/96	128.9	Dry	--
	6/25/96	128.9	Dry	--
MW-14	5/21/96	80.9	5.08	75.8
	6/25/96	80.9	5.84	75.1
MW-15	5/21/96	79.3	5.84	73.5
	6/25/96	79.3	5.52	73.8

Notes: 1) Casing elevations for monitoring wells MW-2 through MW-7 established from a topographic site survey conducted by Gary Van Ness, PLS.
2) Casing elevations for monitoring wells MW-1, MW-8, MW-9, MW-10, and MW-11 established from a topographic survey conducted by NGI.
3) Groundwater levels obtained with a Solinst water level indicator.



SITE BORING PLAN

BELLEVUE CHRYSLER PLYMOUTH
126 116TH AVENUE N.E.

PROJECT NO. 563.1.4	FIGURE NO. 3