SECOR

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November 28, 2005

SHARVIN (~~MARVIN~~) SAMS
NW14187

Mr. Kipp Eckert
ConocoPhillips Company
Post Office Box 923
Bothell, WA 98041

RE: Work Plan – Supplemental Subsurface Investigation
ConocoPhillips Site No. 256380
200 South 36th Street, Bellingham, Washington

Dear Mr. Eckert:

SECOR International Inc. (SECOR) has prepared this Work Plan for a supplemental subsurface investigation at ConocoPhillips facility No. 256380 located at 200 South 36th Street, Bellingham, Washington (site). The site location is shown on Figure 1. SECOR proposes the following scope of work to further characterize soil and groundwater impacts in areas of known or potential releases. The purpose of the investigation is to provide the Washington Department of Ecology (Ecology) additional information to support a no further action determination.

Site Description

The site topography is generally level. The site is located in Whatcom County and is specifically situated west of Interstate 5 and southwest of the intersection between South 36th Street (Samish Way) and Bill McDonald Parkway (formerly Byron Avenue/College Parkway) as shown on Figure 1. The site is also described as being located in Section 31 of Township 38 North, Range 3 East of the Willamette Meridian. The site is located at an elevation of approximately 200 feet above mean sea level.

The site is approximately 0.43 acres in size and is currently an operating retail gasoline station. Current site features consist of two 12,000-gallon, gasoline underground storage tanks (USTs), 4 pump islands with a canopy, and a convenience store. Original site features consisted of a 500-gallon waste oil UST, a 500-gallon heating oil UST, two 5,000-gallon gasoline USTs, one 8,000-gallon gasoline UST, former dispensers and product piping. Former and current site features are presented on Figure 2. Adjacent properties include restaurants to the north and east, and a shopping mall and mall parking lot to the west and south. The closest surface water bodies to the site are Padden and Connelly Creeks, located approximately 0.25 miles southwest of the site. Padden Creek drains into Bellingham Bay which is located over a mile to the west of the site and Connelly Creek ends approximately 0.25 miles southwest of the site.

Based on a review of previous excavation and boring installation activities, subsurface lithology on site generally consists of brown and gray sands and silty sands underlain by clay to a total depth explored of 27 feet. Groundwater has been observed at depths between 5 to 8 feet.

Background

The site was developed as a retail gasoline and automobile service station in 1965. Unocal purchased and leased the site in 1972. Tosco Marketing Company (Tosco) purchased the property from Unocal in 1997. Tosco sold the site to Keith Oil in 2002. Product piping was replaced with fiberglass product lines in 1981. Original site features consisted of a 500-gallon UST containing waste oil, a 500-gallon UST containing heating oil, two 5,000-gallon USTs containing gasoline, one 8,000-gallon UST containing gasoline, and associated dispensers and product piping. The original USTs containing gasoline were replaced with fiberglass USTs in 1984. No report was available for these activities. One of the hoists was replaced in 1983 because it had an air leak and the other hoist was replaced in 1985 because of a hydraulic oil leak.

In May 1995, a Phase I Environmental Site Assessment (ESA) was performed by GeoEngineers Inc. and consisted of an historical review, title search, and monitoring well search. The results of these activities are referenced in the report titled *Phase I Environmental Site Assessment, Unocal Service Station 6380, 200 South 36th Street, Bellingham, Washington, May 4, 1995.* The City of Bellingham reportedly supplies water to the site and surrounding area with the exception of a private well located approximately 2,200 feet east of the site. The private well is 7 feet deep and was originally constructed in 1956. An abandoned oil/water separator near the southern hydraulic hoist inside the station building was approximately 6 feet deep and was sealed with gravel and concrete in 1989. The Samish Way ARCO had documented high concentrations of petroleum hydrocarbons in groundwater and was located 400 feet northeast of the subject site.

A soil and gas survey was conducted at the site in October 1997 by Pacific Environmental Group, Inc. and is described in the report titled *Soil Gas Survey Results, UNOCAL Service Station 6380, 200 S 36th Street, Bellingham, Washington, October 29, 1997.* Tosco purchased the property from Unocal in 1997. Sample locations for the soil and gas survey were in the vicinity of the USTs, dispenser islands, and product piping. Benzene, ethylbenzene, toluene, xylenes (BTEX), methyl tert-butyl ether (MTBE) and gasoline range hydrocarbons (TPH-g) were detected near the product piping and west dispenser island.

In August 1998, Pacific Environmental Group, Inc., conducted an environmental investigation to assess the soil quality at the site during the removal of the 500 gallon steel UST containing heating oil and the 500 gallon UST containing waste oil. Both USTs were located in a common excavation adjacent to the service station building. The dispenser islands were modified at this time. These activities are described in the report titled *Environmental Investigation, Tosco-Unocal Service Station #6380, 200 South 36th Street, Bellingham, Washington* dated October 9, 1998. Holes were reported in both USTs. The stockpiled soil from the UST excavation and dispenser island modifications was sampled. Concentrations of TPH-g and BTEX were not detected above the laboratory reporting limits in the samples from the soil stockpile generated by the dispenser island construction. Total petroleum hydrocarbons as diesel (TPH-d) and as oil (TPH-o) concentrations were detected above the Washington Model Toxics Control Act (MTCA) Method A cleanup levels in soil collected beneath the former UST containing waste oil, the south and east sidewalls of the common excavation and from the stockpiled soil from the UST excavation.

In September 1998, Pacific Environmental Group, Inc. conducted an environmental investigation which is described in *Environmental Investigation, Tosco Service Station #6380, 200 South 36th Street, Bellingham, Washington* dated December 21, 1998. Eight soil borings (labeled GP-1 through GP-8) were advanced to depths between 15 and 19 feet and soil and groundwater samples were collected from the borings for laboratory analysis. Concentrations of TPH-g, TPH-d and benzene were detected above MTCA Method A cleanup levels in soil samples from borings GP-2 and GP-5. Concentrations of TPH-g were detected above MTCA Method A cleanup levels in groundwater samples collected from borings GP-2 and GP-5. TPH-d was detected at concentrations above MTCA Method A cleanup levels in the groundwater sample collected from GP-1. Benzene was detected in groundwater samples collected from borings GP-4, GP-5 and GP-6. Concentrations of toluene, ethylbenzene, and total xylenes were also detected above the respective MTCA Method A cleanup levels in the groundwater sample collected from boring GP-5. It was concluded that soils and groundwater were impacted with petroleum hydrocarbons in the vicinity of the former USTs containing waste oil and heating oil and across the northern portion of the site from the gasoline UST complex to the eastern dispenser island.

In March 1999, IT Corporation (formerly Pacific Environmental Group, Inc.) conducted a supplemental environmental investigation. These activities are described in the report titled *Supplemental Environmental Investigation, Tosco Service Station #6380, 200 South 36th Street, Bellingham, Washington* dated April 29, 1999. Four soil borings (labeled MW-1 through MW-4) were installed along the property boundary of the site and completed as monitoring wells. TPH-g was detected in one soil sample from boring MW-3 at a concentration above the MTCA Method A cleanup level. TPH-g, TPH-d, TPH-o and BTEX compounds were not detected above MTCA Method A cleanup levels in groundwater samples collected from monitoring wells MW-1 to MW-4. Total lead was detected above the MTCA Method A cleanup level in the groundwater samples collected from wells MW-2 to MW-4.

In May 2002, GeoEngineers, Inc. supervised the removal of product lines and the installation of remediation piping at the site with soil sampling. These activities are described in the report titled *Product Line Removal and Underground Remediation Piping Installation Activities, 76 Service Station No. 256380, 200 South 36th Street, Bellingham, Washington* dated July 18, 2002. Tosco sold the site to Keith Oil in 2002. Twenty one soil samples were collected from the product line excavations. A remedial soil excavation (230 cubic yards) was performed near the product lines and dispenser islands during the station upgrade. Concentrations of benzene and TPH-g were detected above MTCA A cleanup levels in the vicinity of the product lines and dispenser islands. Concentrations of ethylbenzene and total xylenes above MTCA A cleanup levels were also reported near the east dispenser island. At that time, soil vapor extraction and air sparging piping was installed in anticipation of future remedial work.

In September 2003, a site receptor survey was conducted by GeoEngineers, Inc. and is described in the report titled *Site Receptor Survey, 76 Service Station No. 256380, 200 South 36th Street, Bellingham, Washington* dated September 24, 2003. The report concluded that there are no apparent drinking water receptors within a ¼ mile radius of the site and the nearest surface water body is approximately ¼ mile southwest from the site.

However, there is potential for offsite migration of lighter-end petroleum products via utility corridors. Eight homes likely containing basements were identified during a driveby within ¼ mile radius west and northwest of the site. The basements were not close to the domestic water well described in the 1995 Phase I Site Assessment Report.

Groundwater monitoring wells MW-1 through MW-4 have been sampled since March 1999. Groundwater samples were submitted for analysis for TPH-g, TPH-d, TPH-o, BTEX, and total and dissolved lead. In June 2005, the groundwater samples were also analyzed for MTBE. With the exception of total lead, the analytical laboratory results indicated analytes were below cleanup levels until February 2001. In February 2001, benzene was detected in the groundwater sample collected from well MW-1. In February 2002, TPH-g, TPH-d and benzene were detected above MTCA Method A cleanup levels in the groundwater sample collected from well MW-1. During the last four quarterly monitoring events, analytical test results for all of the groundwater samples were below MTCA Method A cleanup levels.

In July 2005, based on the current use of the site (retail gasoline station) and on the overall analytical results, SECOR requested a review under Ecology's Voluntary Cleanup Program (VCP). Ecology's review of the request stated additional site characterization was needed to support a no further action determination. Additional characterization of soil in the vicinity of the hydraulic hoist release and oil/water separator and addressing known soil contamination exceeding cleanup levels was needed. Additional monitoring wells were also needed to better characterize groundwater east of the dispenser islands, south of the hydraulic hoists, oil-water separator, waste oil UST and heating oil UST, and north of the gasoline USTs.

Site Hydrogeology

Based on environmental explorations at the site, native soils generally consist of sands with varying amounts of silt and gravel. Static depth to groundwater ranges from 2.85 feet to 8.24 feet. Historical groundwater flow direction has been to the northwest but has fluctuated to the south, southeast and northeast in the past.

SCOPE OF WORK

SECOR proposes the following scope of work to further quantify soil and groundwater quality. The scope of work includes the following tasks:

- Pre-field Activities
- Boring and Groundwater Well Installation
- Well Development and Groundwater Sampling
- Laboratory Analytical Program
- Waste Management
- Report of Findings

Details of each of these tasks are discussed below.

Pre-field Activities

Prior to mobilizing, SECOR will notify One Call Utility Notification Service to alert the utility companies in the area of the scheduled work and mark all underground utilities. In addition, SECOR will subcontract with a private utility locating contractor to mark private underground utilities near the boring locations.

SECOR will conduct all work under a current, site-specific health and safety plan for working at potentially hazardous materials sites in accordance with federal regulations (40 CFR 1910.120).

Boring and Groundwater Well Installation

Four borings are to be completed as monitoring wells MW-5 through MW-8 at the locations shown on Figure 2. The borings will be advanced using a hollow stem auger drilling rig to depths of 15 feet. The number of borings, final location of each boring, and depth of each boring will be based on field observations (soil conditions, depth to groundwater, field screening) and the location of overhead and underground utilities. To assure the boring locations are free of shallow utilities, borings will be cleared to 5 feet using an air wand and vacuum truck prior to drilling.

During borehole advancement, soil samples will be collected on 2-1/2 to 5 foot intervals from the ground surface through the total extent of the boring (or the total depth of refusal) for visual inspection, lithologic description, and field screening for the presence of volatile organic compounds. Soil samples will be obtained using a split-spoon sampler. Sampling method EPA 5035A will be employed for soil samples submitted for analysis for volatile compounds.

Field screening will be completed by placing a portion of the collected soil into a sealable plastic bag and then monitoring headspace vapor concentrations using a portable photoionization detector (PID). The results of field observations will be recorded in field reports on boring logs. Soil lithology will be described using the United Soil Classification System (USCS) under the supervision of a qualified geologist. Lithologic descriptions will include soil types, color, grain size/texture, degree of consolidation, and moisture content.

Well Development and Groundwater Sampling

Monitoring wells will be developed using a surge block, whale pump, and purging until turbidity significantly lowers. Groundwater sampling will be performed no less than 24 hours following well development. Prior to collecting groundwater samples, SECOR will perform the following tasks: measure depth to water in each well using an electronic water indicator decontaminated between wells; calculate volume of water standing in each well (pore volume); measure groundwater parameters including: turbidity, temperature, pH, and conductivity during purging. Groundwater samples will be collected once parameters have stabilized within approximately 10 percent of each other for three consecutive readings; and after each well is purged a minimum of three pore volumes of water. If the well goes dry during purging, a groundwater sample will be collected following a minimum recharge of 2/3 the original volume. Groundwater samples will be collected from each well into laboratory prepared sample jars.

The well elevations will be surveyed in relation to a fixed elevation.

Analytical Program

Soil

Selected samples will be submitted to Lancaster Laboratories in Lancaster, Pennsylvania for chemical analysis. Chemical analysis will consist of TPH-g by Northwest Method NWTPH-Gx, TPH-d and TPH-o by Northwest Method NWTPH-Dx with silica gel cleanup, and benzene, toluene, ethylbenzene and total xylenes (BTEX) by EPA Method 8021B.

A minimum of two samples will be submitted for additional analyses of fuel additives and blending compounds including dibromoethane (EDB), dichloroethane (EDC), methyl tertiary-butyl ether (MTBE), total lead, naphthalenes, and VPH. One soil sample will be submitted for additional analysis for waste and unknown oil including polyaromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), halogenated volatile organic compounds (HVOCs) and EPH.

Groundwater

Chemical analysis will consist of TPH-g by Northwest Method NWTPH-Gx, TPH-d and TPH-o by NWTPH-Dx and benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021B and total lead by EPA Method 6010 for all the groundwater samples. A minimum of one groundwater sample will be submitted for additional analyses including EDB, EDC, MTBE, PAHs, naphthalenes, PCBs, HVOCs, VPH and EPH.

Waste Management

All soil cuttings and purge and decon water generated during the drilling and groundwater sampling activities will be stored in DOT-approved steel 55 gallon drums and will be transported off-site by a licensed waste hauler for disposal at a state-approved soil recycling facility.

Report of Findings

A report of findings will be generated following receipt of analytical test results and will consist of an explanation of site activities, a site map showing boring locations, boring logs, and a copy of the certified analytical laboratory report.

We appreciate the opportunity to be of service on this project. Please contact the undersigned if you have any questions regarding the information presented herein.

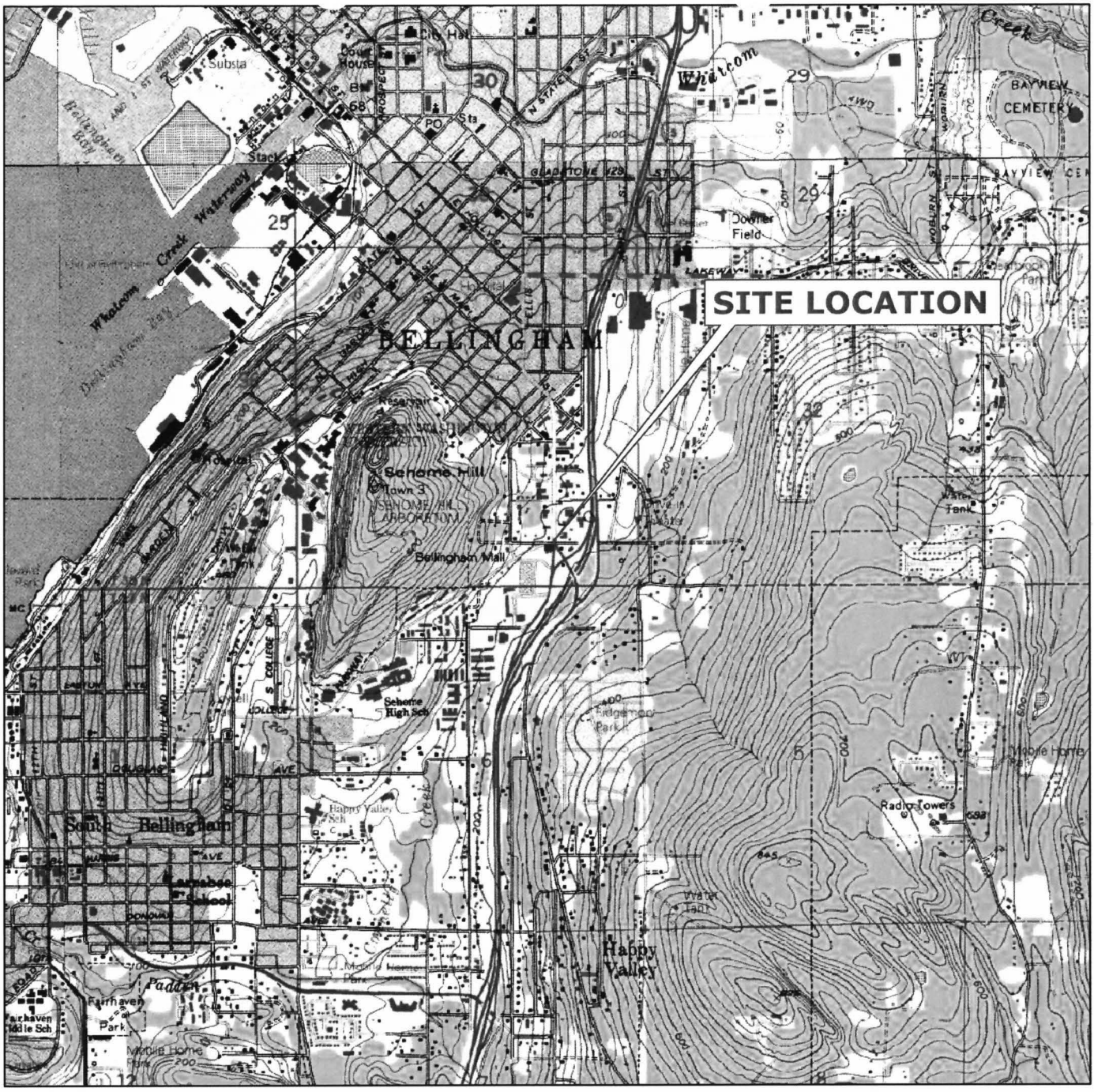
Sincerely,
SECOR International Incorporated

Katlin Hanson
Staff Geologist

Alice J. Larsen
Senior Project Manager

LIST OF FIGURES

FIGURES



REFERENCE: USGS 7.5 MINUTE QUADRANGLE; BELLINGHAM SOUTH, WASHINGTON; 1972

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FACILITY NO 256380
200 SOUTH 36th STREET
BELLINGHAM, WASHINGTON

SITE LOCATION MAP

FIGURE: **1**

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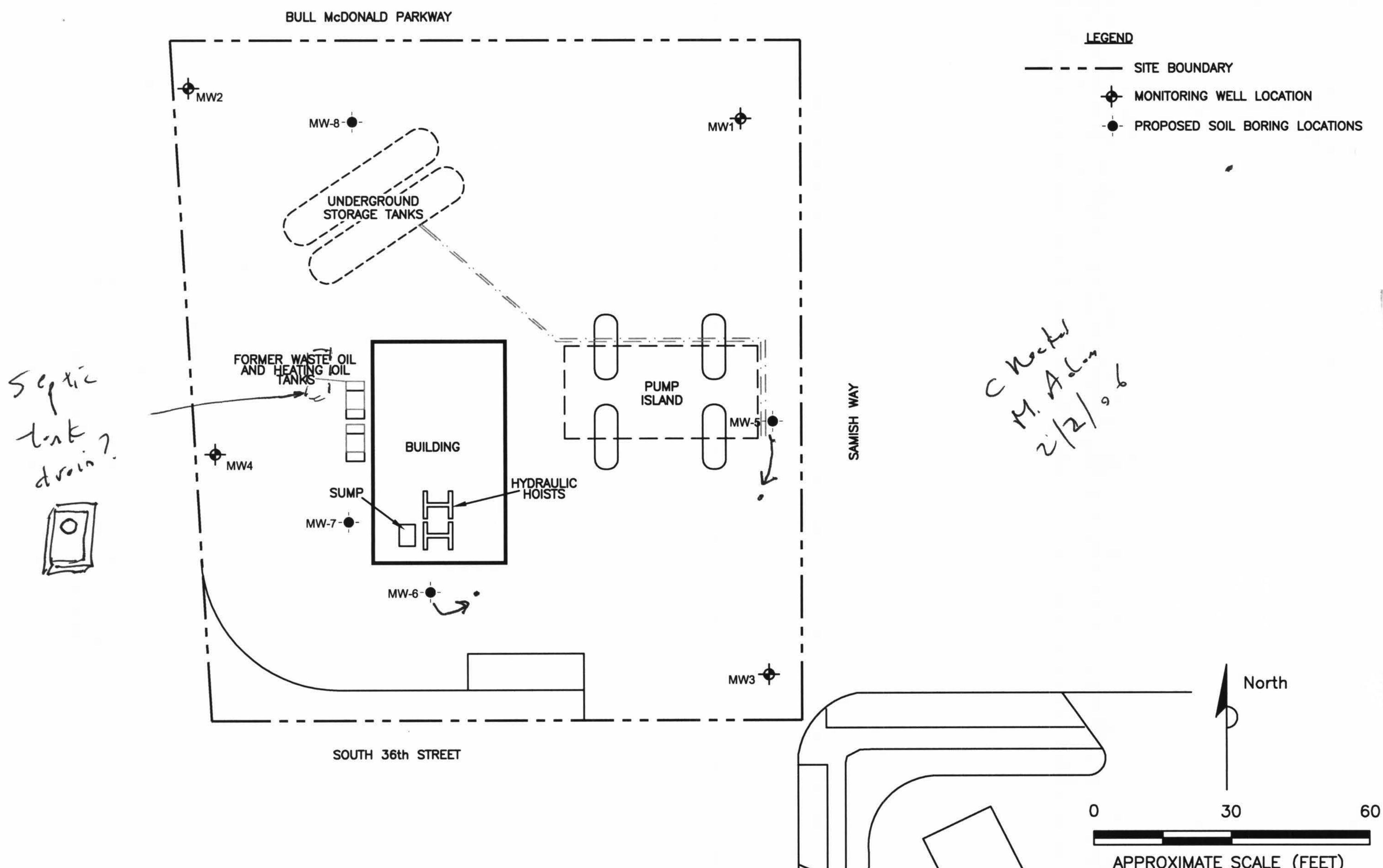

SECOR 12034 134th COURT, SUITE 102 REDMOND, WASHINGTON PHONE: (425) 372-1600 FAX: (425) 372-1650	PREPARED FOR: ConocoPhillips FACILITY NO 256380 200 SOUTH 36th STREET BELLINGHAM, WASHINGTON	**SITE PLAN WITH PROPOSED BORING LOCATIONS**	FIGURE: **2**
	JOB NUMBER: 01CP.06380.04 / DRAWN BY: S. SIMMONS	CHECKED BY: / APPROVED BY:	DATE: 2/5/04

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