SECOR

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March 12, 2007

Steven Plunkett
Department of Environmental Protection
Environmental Protection Division
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

RE: **WORKPLAN FOR SOIL AND GROUNDWATER INVESTIGATION**
Former Impulse Motors
1210 Bockman Road
San Lorenzo, California
SECOR Project No.: 04OT.29215.68

Dear Mr. Plunkett:

SECOR International Incorporated (SECOR) is pleased to submit this work plan for the installation of four temporary soil borings at the Former Impulse Motors Site located at 1210 Bockman Road, in the City of San Lorenzo, California (the Site), as well as soil vapor and groundwater sampling and analysis.

This workplan has been prepared in response to a request from the Alameda County Health Care Services (ACHCS), dated February 20, 2007. That request specified three specific issues that needed to be addressed prior to ACHCS issuing a no further action letter. These included the following items:

- Evaluate the vertical and lateral extent of groundwater impacted associated with the fuel release identified at the former underground storage tank (UST) and dispenser locations.
- Conduct soil vapor sampling to evaluate vapor intrusion pathways.
- Abandonment of two historic groundwater monitoring wells.

The following workplan presents the scope of work proposed to address these three requests.

1.0 SITE BACKGROUND

Numerous investigations and remedial work have been completed at the Site by SECOR and others (SECOR, 2005a,b; ACC, 2004). A detailed summary of this historic work was provided in the January 19, 2007 Soil Removal Report, prepared by SECOR. Relevant assessment data obtained from those investigations is discussed below.

On December 16-17, 2004, SECOR completed a Phase II ESA at the Site that included the use of a Hydraulic push drilling rig (e.g.,,GeoProbe™) and hand auger, to advance eight (8) borings at select locations throughout the Site to a maximum explored depth of approximately 14 feet bgs. The completed scope of work was performed to evaluate the former UST locations, product lines, fuel dispensers and below ground hydraulic lifts at the Site. The results of SECOR's Phase II investigation and subsequent recommendations are as follows:

- Groundwater samples HP-1 and HP-2 were proposed to verify the results of the previously completed ACC investigation (ACC, 2004), which indicated that contamination was not significant in the vicinity of the former USTs located at 1210 Bockman Road (see Figure 2). HP-1 and HP-2 were located up-gradient (east) and down-gradient (west) from the former UST location, respectively. The analysis of the groundwater samples from both HP-1 and HP-2 showed no concentrations of either TPH-g or VOCs above laboratory reporting limits.

Based on the results of the completed investigation, SECOR concluded that petroleum impact was limited to shallow soils in the vicinity of the former fuel dispenser islands. As a result, SECOR excavated approximately 300 cubic yards of impacted soil in the vicinity of the former fuel dispenser islands. Based on the results of the completed excavations, the following were noted:

First water was encountered at a depth of approximately 10 feet bgs. The presence of shallow water prevented the continuation of excavation in the vertical direction.

Excavation 1 (Northern Fuel Dispenser Excavation)

Sidewall Samples - The confirmation samples collected from the sidewalls of the excavation reported no concentrations of TPHg or TPHd above the laboratory detection limits. Low concentrations of the fuel oxygenates, MtBE and TBA were reported in one of the southern sidewall samples at concentrations of 0.015 mg/Kg and 0.057 mg/Kg, respectively. Total lead concentrations ranged from 3.88 mg/Kg to 4.27 mg/Kg, which is well within typical background concentrations.

Bottom Samples – Because of the infiltration of groundwater into the bottom of the excavation, only one bottom sample was collected. The results of the bottom sample reported the presence of TPHg and TPHd at concentrations of 120 and 13 mg/Kg, respectively. MtBE and Ethylbenzene were also reported at concentrations of 0.4 and 0.15 mg/Kg, respectively. Total lead was reported at 6.34 mg/Kg. No other target analytes were reported above laboratory reporting limits.

Excavation 2 (Southern Fuel Dispenser Excavation)

Sidewall Samples – TPHg and TPHd were reported at very low concentrations in one of the sidewall confirmation samples, S-4-5 at concentrations of 0.78 mg/Kg and 19 mg/Kg, respectively. Very low concentrations of MtBE and TBA were reported at concentrations of 0.015 mg/Kg and 0.028 mg/Kg, respectively in this same sample. Total lead was reported at concentrations ranging from 3.47 mg/Kg to 16.5 mg/Kg, respectively. No other target analytes were reported in sidewall confirmation samples above laboratory reporting limits.

Bottom Samples – Because of infiltration of groundwater into the open excavation, SECOR was only able to collect one bottom verification sample. The sample was collected from the area where the highest PID readings had been observed at during the excavation process. The sample results reported the presence of TPHg

at a concentration of 2.7 mg/Kg. Trace concentrations of MtBE and Ethylbenzene were also reported in this sample at concentrations of 0.003 mg/Kg and 0.003 mg/Kg, respectively. Total lead was reported at a concentration of 3.86 mg/Kg, respectively. No other target analytes were reported in this bottom sample at or above laboratory reporting limits.

Based on the assessment data collected from the remedial excavation and the single down gradient hydropunch sample location, it appeared that very limited soil impact exists in the areas of the form USTs and dispenser island. Therefore, as stated above, the ACHCS requested that a continued assessment occur to confirm that these conclusions are valid, that only limited impact remains, and that any residual soil vapors do not represent a human health risk in light of the proposed residential use of the Site. The following work plan outlines the scope of work to confirm that.

2.0 SCOPE OF WORK

2.1 USA Notification and Marking

As required by law, SECOR will visit the Site to mark the proposed boring locations and acquire a current Underground Service Alert (USA) ticket number prior to commencement of Site drilling activities.

2.2 Pre-Drilling Activities

In accordance with federal OSHA regulations (29 CFR, Section 1910.120), SECOR will develop a site specific Health and Safety Plan (HASP) for the subject property. All SECOR personnel will be required to be familiar with, and comply with, all provisions of the HASP.

2.3 Boring and Well Abandonment Permits

As required by the Alameda County Public Works Agency, SECOR will acquire the necessary permits for the advancement of borings and abandonment of on-site wells.

2.4 Down-Gradient Soil & Groundwater Assessment

To evaluate the presence of petroleum hydrocarbons in the subsurface from down-gradient on-site sources, SECOR is proposing to advance four (4) borings down-gradient of the former UST and fuel dispenser in order to sample and analyze the soil and groundwater for petroleum hydrocarbons and BTEX/Fuel Oxygenates/Ethanol and lead analysis. Soil samples will be collected in 5-foot intervals until water is first encountered, estimated to be approximately 7-10 feet bgs. The borings will be located in areas adjacent (no more than 30 feet) to the former UST and fuel dispenser locations. All groundwater samples will be submitted to a state certified laboratory for TPH (gas and diesel range) BTEX/Fuel Oxygenates/Ethanol and lead analysis.

Soils will be hand augered within the upper five feet for utility clearance. Once the five foot depth has been reached, each of the boring locations, identified as SB-01 through SB-04, will be further advanced using the Geoprobe direct push drill rig. During advancement of each, soil samples are collected starting at a depth of approximately 5 feet bgs using a 24-

inch long by 2-inch inner diameter stainless steel sampler. At each sampling interval, the sampler will be driven into undisturbed soil using a hydraulic ram on the GeoProbe™ rig until 24 inches of penetration is achieved. Upon advancement of the sampler to the full 24-inch length, the steel rods were extracted from the boring and the sampler sleeve is removed. The drilling and sampling sequence is then repeated at various intervals for the entire depth of each boring.

Upon extracting the sampler at each depth interval, the soils contained therein will be visually examined by SECOR field personnel who then will classify the soils in accordance with the unified soil classification system (USCS). A photo-ionization detector (PID) will also be used to monitor the soils collected for volatile organic compound (VOC) vapors. Soil will be removed from the plastic sampler and placed in a zip-lock type baggie and the PID probe will be inserted into the baggie to monitor the headspace for VOC vapors.

After classification and VOC vapor evaluation, the soil samples will be collected from the stainless steel sleeve in brass tubes. After the tubes are sealed, they will be labeled with the appropriate identification information (boring number, sample depth, sample collection date, and sample collection time). The samples will then be logged on a chain-of-custody form and placed in an ice-filled cooler for transport to the laboratory.

Upon reaching the approximate groundwater depth interval of 7-10 feet bgs, a 1.25-inch outer-diameter hydropunch sampling tool will be advanced down the open borehole. Upon reaching the base of the boring, the hydropunch sampling tool will be advanced approximately two feet into undisturbed saturated sediments using a hydraulic ram on the drilling rig. The outer portion of the sampling tool will then be withdrawn approximately four feet to allow the inner slotted stainless steel casing to come into contact with groundwater. Surging and bailing will then be accomplished using a 3/8-inch diameter poly tubing and a 2-foot long by ½-inch diameter bailer to induce the creation of native filter pack around the slotted section.

Groundwater sampling at each location will be performed after approximately 500 milliliters (ml) of water is purged from the stainless steel casing. During sampling, groundwater will be transferred directly from the poly tubing into clean, 40mL, glass vials as well as 1 Liter glass jars with HCl preservative provided by the laboratory. Once the containers are full, threaded lids will be attached, the containers will be labeled and placed into an iced cooler pending transport, under Chain-of-Custody, to a laboratory for chemical analysis.

2.5 Down-Gradient Soil Vapor Assessment

A soil gas survey will be performed to evaluate the potential presence and concentrations of volatile organic compound (VOC) gases that may exist in subsurface soils. These gases may be present as a result of the historical maintenance activities that previously occurred at the Site.

At this time, 4 soil gas sampling points are proposed at the approximate locations depicted on Figure 2. Due to the fine grained nature of the lithology, it maybe difficult to obtain a representative soil gas sample from the formation. If a soil gas sample cannot be obtained, the boring will be abandoned and another boring advanced to try to collect a sample.

Should elevated concentrations of chemicals of potential concern (COPCs) be identified during the preliminary soil gas survey, an additional sample will be recommended to evaluate the distribution of soil vapors.

Temporary soil gas monitoring points (PRT stainless steel points with Tygon or polyethylene tubing) will be pushed into the underlying soils. The sampling points will be sealed with hydrated granular bentonite clay to assure that the collected samples are representative of soil pore vapors. In addition, a tracer compound will be placed at the surface seal prior to sampling to determine if short-circuiting of the seal occurs during sampling.

Soil gas probes will be advanced into near surface soils at the approximate locations depicted on Figure 2 to a depth of approximately 5 feet bgs to assess the potential presence of VOC concentrations in the foundation zone of future buildings.

Prior to sample collection a purge step down test will be performed at the first sample collection point (SV-1). In order to perform the purge step down test, three samples will be collected from the first sampling point. The samples will be collected after iteratively purging 1, 3 and 7 tubing volumes prior to collecting the soil gas sample.

Following laboratory analysis of the three samples, the sample exhibiting the highest reported concentrations will be used to determine the required purge volume. All samples will be collected at a flow rate between 150-200 milliliters per minute (ml/min) into laboratory provided gas-tight syringes or glass bulbs. Should all samples report non detect concentrations of VOCs, a default purge of three tubing volumes will be used prior to collecting a sample.

Samples will be collected in general accordance with the methods and procedures promulgated by the Department of Toxic Substance Control (DTSC) and California Regional Water Quality Control Board—Los Angeles Region (CRWQCB) *Advisory—Active Soil Gas Investigations* dated January 28, 2003. Samples will be delivered to an on-site mobile laboratory certified by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) to perform the required analyses.

2.6 Well Abandonment

Based on a letter from the ACHCS, the suspected monitoring wells will be abandoned by pressure grouting. The well construction of these wells is unknown, but total depths of the wells measured in February 2007 were recorded at 8 feet bgs and 18 feet bgs. A tremmie pipe will be extended to the bottom of the wells and grout will be pumped through. The wells will be filled with grout up to 5 feet bgs. Drillers will then hand-dig approximately 2 feet bgs around the wells and remove the upper two feet of well casing. The wells will then be filled with concrete to 2 feet bgs and covered with soil to match current surface conditions.

2.7 Reporting

Upon completion of the scope of work and field activities described herein, SECOR will prepare a comprehensive technical report detailing the installation of the temporary boring

locations, the sampling activities, and well abandonment activities. The report will include a description of field methods and the laboratory reports. The report will also contain general findings about subsurface conditions, detected constituent concentrations, and comparison to generally accepted regulatory requirements. The report will provide an opinion of the need for groundwater mitigation in accordance with ACEHS regulations.

3.0 CLOSURE

It has been SECOR's pleasure in providing this work plan for your review. Upon your authorization to proceed, SECOR will immediately obtain the appropriate boring and encroachment permits and schedule the field investigation program.

Should there be any questions regarding the proposed scope of work, please feel free to contact the undersigned at (909) 335-6116.

Respectfully submitted,
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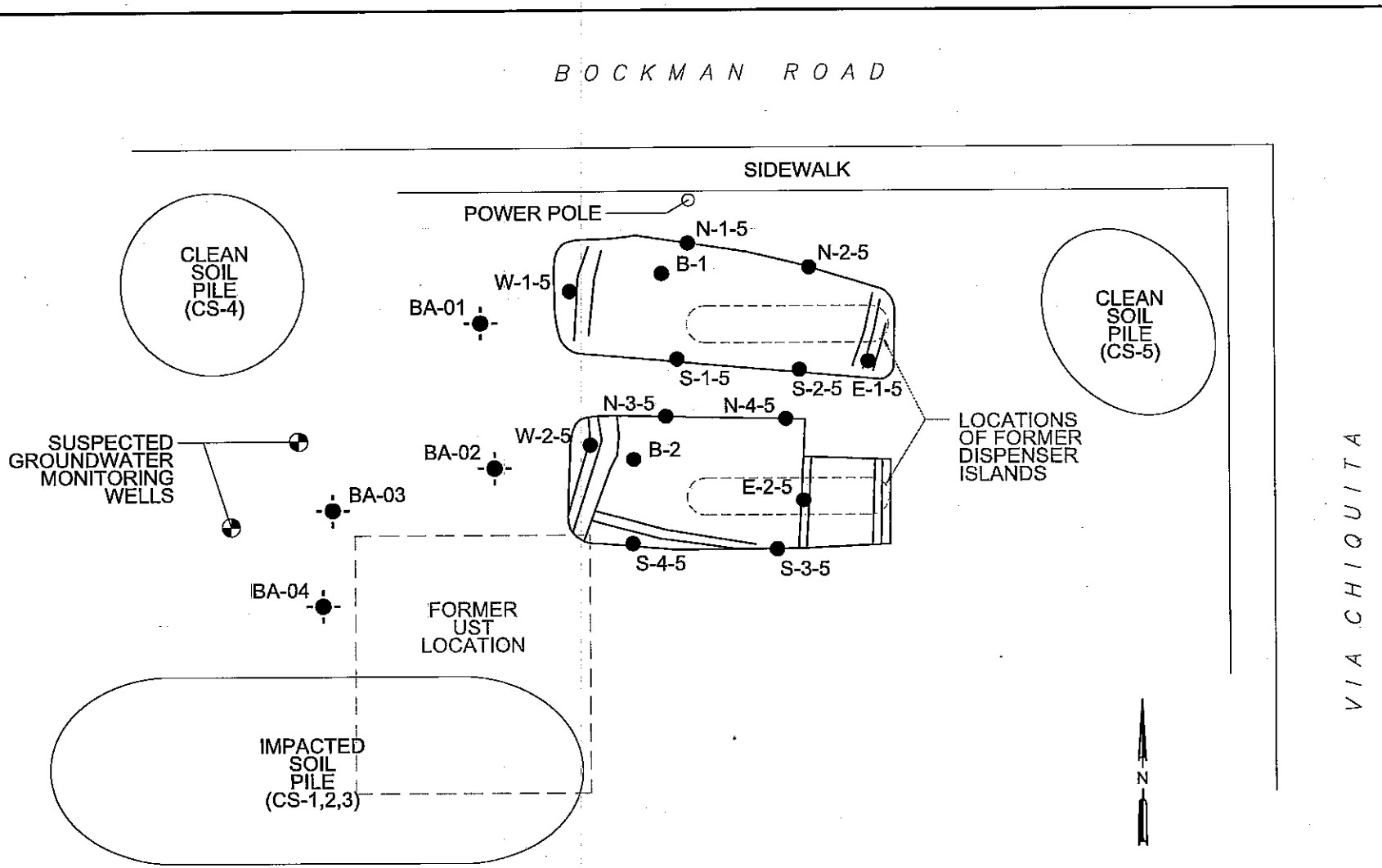

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