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October 14, 2004

Mr. Don Hwang
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

RE: **Workplan for Additional Off-Site Monitoring Well Installation**
Former 76 Service Station No. 7124
10151 East 14th Street, Oakland, CA
SECOR Project No.: 77CP.67124.01.0001

Dear Mr. Hwang:

SECOR International Incorporated (SECOR) is pleased to submit this Work Plan to the Alameda County Department of Environmental Health (ACDEH) on behalf of ConocoPhillips, to further investigate subsurface conditions beneath former 76 Service Station No. 7124, located at 10151 East 14th Street, Oakland, California (Figure 1). This work plan was prepared on a voluntary basis, not in response to any agency request.

BACKGROUND AND PREVIOUS INVESTIGATIONS

The Site is currently an active service station located on the northwestern corner of the intersection of International Boulevard and 102nd Avenue in Oakland, California. Site facilities include three underground storage tanks (USTs), and associated piping and fuel dispensers.

On March 22, 2000, SECOR supervised the removal and replacement of product lines and dispensers by Balch Petroleum (Balch) of Milpitas, California. Soil samples collected from beneath the dispensers and product lines revealed the presence of total petroleum hydrocarbons as gasoline (TPHg) at a maximum concentration of 6,200 milligrams per kilogram (mg/kg), MtBE at a maximum concentration of 120 mg/kg, and benzene at a maximum concentration of 7.4 mg/kg. Excavation and sampling activities were observed and approved by Inspector Gomez of the City of Oakland Fire Services Agency (COFSA).

On March 27, 2000, SECOR observed the over-excavation of approximately 60 cubic yards of soil from the beneath those portions of the dispensers and product lines where soil samples with elevated concentrations of petroleum hydrocarbons were located. Areas measuring approximately 8-10 feet long by 8-10 feet wide were over-excavated to an approximate depth of 8 feet below ground surface (bgs) in each of these areas. Additional over-excavation in these areas was not possible due to their proximity to the footings of the service station canopy. TPHg was detected in 2 of the 3 samples at a maximum concentration of 108 mg/kg; benzene was detected in 1 of the 3 samples at a maximum concentration of 0.162 mg/kg; and MtBE was detected in all 3 samples at a maximum concentration of 43.8 mg/kg. Lead was not detected at or above laboratory reporting limits in any samples.

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During February, 2002, SECOR supervised the installation of four on-Site groundwater monitor wells. Prior to well installation, all borings were advanced to 26.5 feet bgs, and subsurface soil samples were collected every five feet. Soil samples were analyzed for gasoline range organics (GRO), BTEX, and fuel oxygenates via Method 8260B. The maximum reported concentrations were 42 mg/kg GRO, 0.36 mg/kg ethylbenzene, 0.26 mg/kg xylenes, and 1.2 mg/kg MtBE.

The Site has been monitored and sampled since 3rd quarter, 2002. Currently, 4 wells are monitored quarterly (MW-1 through MW-4). Samples are analyzed for TPHg, BTEX, and fuel oxygenates.

PROPOSED SCOPE OF WORK

The proposed scope of work includes five primary tasks as described below.

Task 1 - Preliminary Field Activities

Prior to conducting the subsurface investigation, SECOR will prepare a Site-specific Health and Safety Plan (HASP) for use by personnel implementing the Work Plan. The HASP will address the proposed subsurface investigation activities, and a copy of the HASP will be available on Site at all times. The subcontractor(s) performing the field activities will be provided with a copy of the HASP prior to initiating work.

SECOR will obtain monitoring well/boring installation permits from the Alameda County Public Works (ACPW). All boring locations will be marked and Underground Service Alert (USA) will be notified at least 48 hours in advance of drilling. In addition, proposed boring locations will be cleared by a private utility locator, and boring locations will be hand-dug (e.g. hand augered) to 5 feet below ground surface (bgs) before machine drilling is performed.

Task 2 – Drilling and Installation of Monitoring Wells

In order to further delineate petroleum hydrocarbon contamination off-Site, SECOR proposes to install three new off-Site wells (MW-5, MW-6, MW-7) at the locations shown on Figure 1. The wells will be advanced to depths of approximately 25 feet below ground surface (bgs). MW-5, MW-6, and MW-7 are intended to evaluate the downgradient (western to north-northwestern) extent of MtBE and gasoline constituents detected in existing monitoring wells MW-3 and MW-4.

All borings will be advanced to a maximum depth of 25 feet bgs. All boreholes will be advanced with a hollow-stem auger drill rig equipped with 8-inch diameter continuous flight

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augers. During drilling, soil samples will be collected at a minimum of five-foot intervals using a California-modified split-spoon sampler. Soil encountered will be logged by a SECOR geologist under the direction of a State of California Registered Geologist. Soil samples will also be screened in the field for the presence of volatile organic compounds (VOCs) using a photoionization detector (PID). Soil samples will be selected for chemical analysis based on visual observations, odors and PID readings. Samples selected for chemical analyses will be contained in two-inch diameter by six-inch-long brass or stainless steel sleeves, capped at each end with Teflon® sheets and plastic end caps, and placed on ice in an insulated cooler. First encountered groundwater will be sampled in all borings using either a HydroPunch® sampling apparatus or by lowering a clean disposable bailer through the augers and retrieving a representative sample of the formation water. Groundwater samples will be decanted directly from bailers into laboratory supplied glassware using low-flow volatile organic analyte tips. All samples will be transported under chain-of-custody protocol to Severn Trent Laboratories, a state of California certified analytical laboratory. Select soil samples and grab groundwater samples will be analyzed for TPHg, BTEX, and fuel oxygenates using Environmental Protection Agency Method 8260B.

After drilling to the desired depth, monitoring wells will be constructed. Wells will be constructed of flush-threaded polyvinylchloride (PVC), machine-slotted well screen with 0.02-inch openings, and flush-threaded schedule 40 PVC blank casing. The tentative design for all wells will be 15 feet of screen placed at 10 to 25 feet bgs and blank PVC casing from top of screen to just below ground surface. This well design is proposed to ensure that (1) well screens do not become submerged during late winter monitoring events when historical depths to water are highest, and (2) to ensure the wells produce sufficient water for purging and sampling. Historical groundwater monitoring data indicate that the depth to the unconfined water table commonly fluctuates between approximately 15 feet bgs during first and second quarter monitoring events and 18 feet bgs during third and fourth quarter events. Filter pack consisting of No. 3 Monterey sand or equivalent will be placed in the annular space from the bottom of the boring to approximately 1 foot above the top of well screen. One foot of hydrated granular bentonite will be placed above the sand, and a 5% bentonite-cement grout will be placed from the top of the bentonite to just below ground surface. The wellheads will be completed at ground surface with locking well caps and traffic-rated vault boxes with bolt down lids. The vault boxes will be installed slightly above surrounding grade and finished with a cement apron that slopes away from the wellheads.

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Task 3 – Well Development

After allowing the wellheads and grout to cure a minimum of 72 hours, SECOR will measure the total well depths and depths to water using a water level indicator calibrated to within 0.01 foot. SECOR will also check for the potential presence of separate phase hydrocarbon in the wells using a Solinst 122 Interface Probe capable of detecting free product thickness to 1 millimeter. SECOR will develop the wells by alternately surging the well with a vented surge block and bailing the well with a PVC bailer to remove sediment. Final purging will be performed with either a submersible pump or bailer, and pH, temperature, and conductivity will be measured at regular intervals during purging. Development will be considered complete when either 8 well volumes have been removed and physical-chemical parameters have stabilized, 10 well volumes have been removed, or when the well has been purged dry (if the well does not sustain flow or is slow to recover).

All investigation derived waste (IDW), including soil cuttings and purge water, will be stored on-Site in Department of Transportation-approved 55-gallon drums, pending the results of chemical analyses. The analytical results will be used for waste profiling and disposal. After profiling, IDW will be transported and disposed at an appropriate State-certified disposal facility.

Task 4 – Surveying

After well installation, a California-licensed land surveyor will survey the wellheads with respect to North American Datum 83 to establish horizontal position and with respect to mean sea level (msl) to establish elevation of the top of casing. The wellhead elevations will be measured from an existing permanent monument. The wellhead elevations and the measured depths to groundwater will be used to calculate groundwater elevations relative to msl.

Task 5 - Summary Report

Upon completion of the soil boring and water sampling activities described above, SECOR will prepare a letter report describing the methods and results of the investigation. The letter report will be submitted to ConocoPhillips and the ACDEH and will include tabulated analytical data, figures depicting subsurface conditions including soil and groundwater chemical analytical results, and appendices containing laboratory reports and well completion and soil boring logs. The letter report will also include conclusions and recommendations for further work, if warranted.

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SCHEDULE

SECOR is prepared to initiate field activities upon approval of this Work Plan by the ACEHSD. We anticipate that the project will require approximately 12 to 16 weeks to complete, after soil boring permit applications are approved by the ACDEH.

Should you have any questions or concerns regarding these activities, please feel free to contact the undersigned at (916) 861-0400.

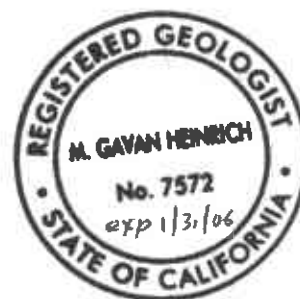
Sincerely,
SECOR International Incorporated

Mya Russell

Mya Russell
Project Geologist

M. Gavan Heinrich

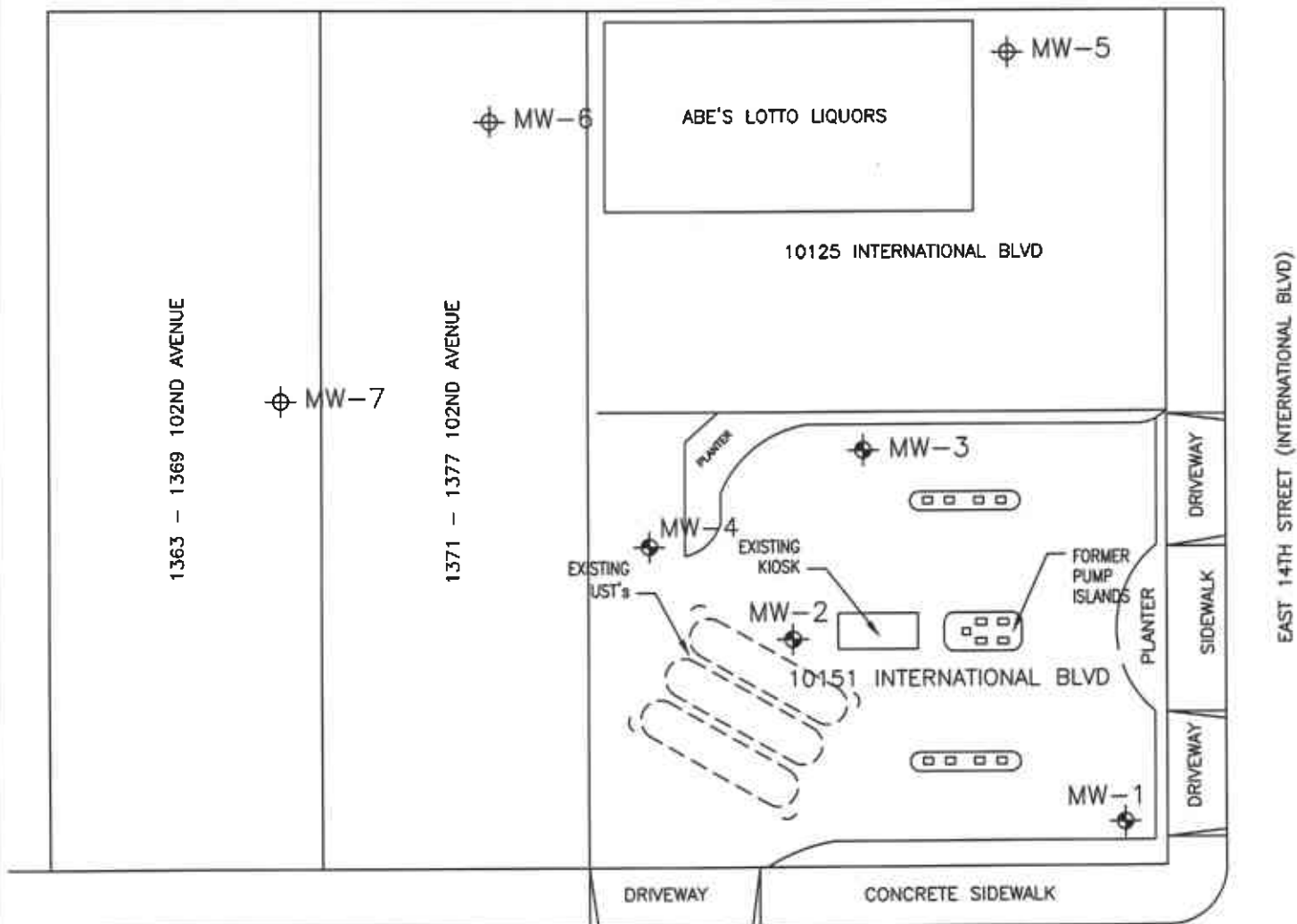
M. Gavan Heinrich R.G.
Associate Geologist





MR

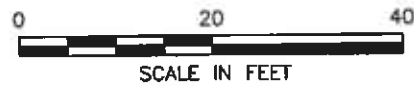
Figure 1 – Extended Site Map with Proposed Monitoring Well Locations

cc: Mr. Thomas Kosel, ConocoPhillips



LEGEND:

-  MW-5 PROPOSED MONITORING WELL LOCATION
-  MONITORING WELL LOCATION



SECOR
International Incorporated

DRAWN BY:	GH	APP. BY:	RP
DATE:	09-29-04		
JOB NO.:	77CP.67124.00		
DRAWING NO.	7124-2-B	REV.	B

FIGURE 1
FORMER 76 STATION NO. 7124
10151 INTERNATIONAL BLVD
OAKLAND, CALIFORNIA

SITE PLAN