March 16, 2005
Kleinfelder Project No.: 50431

Mr. Mike Beach
Project Manager
PACLAND
606 Columbia Street N.W., Suite 106
Olympia, WA 98501

Subject: Supplemental Environmental Investigation
Proposed Commercial Site
East of Littlerock Road S.W.
Tumwater, Washington

Dear Mr. Beach:

This letter presents the results of our supplemental environmental investigation performed at the above-referenced property located in Tumwater, Washington (see attached Figures 1 and 2). This investigation was performed to assess the potential presence of total petroleum hydrocarbons (TPH as gasoline, diesel, and heavy oil), volatile organic compounds (VOCs), and dissolved metals in the site's groundwater which may have originated from the "uncontrolled fill" material deposited along the southern portion of the site and to assess the potential presence of underground storage tanks (USTs) and septic tanks which may have been associated with residential homes and/or commercial buildings formerly occupying the western end of the property.

Our assessment included installing five groundwater monitoring wells upgradient and downgradient of the "uncontrolled fill" material, collecting groundwater samples from each of the wells for laboratory analysis, and investigating the western end of the site using a combination of magnetic and ground-penetrating radar (GPR) exploration methods to assess the potential presence of USTs and/or septic tanks at the site. The locations of the monitoring wells are plotted on Figure 3 (see attached).

Groundwater samples collected during this assessment were tested at a State Certified Laboratory for the presence of TPH (as gasoline, diesel, and heavy oil), VOCs, and dissolved metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury).

In summary, one suspect UST anomaly was detected along the western end of the site during the geophysical investigation. Additionally, analytical results of the groundwater samples indicated that the concentrations of gasoline, diesel, and heavy oil range petroleum hydrocarbons, VOCs, and dissolved metals, (when detected) were below the corresponding Model Toxics Control Act (MTCA) Method A groundwater cleanup levels. Details regarding our findings during this investigation are summarized in the following sections of this report.

PREVIOUS SITE INVESTIGATION

A Phase I Environmental Site Assessment report completed for the subject site (Kleinfelder, November 12, 2004) indicated that the western end of the subject site was formerly occupied with four residential homes, garages/sheds, and three small commercial buildings from at least 1946 until the structures were demolished between 1990 and 2002. Since 2003, the subject site has been undeveloped and covered with deciduous trees, shrubs, and grasses.

The commercial tenants that formerly occupied the commercial buildings at site included an automobile detail shop (Sygitowicz Auto Service (1980 – 1993)), Southwest Properties & Development (1990 – 1995), M&L Auto Licensing Agency (1985 – 1995), Aiken & Sanders Inc. CPA's (1985 – 1990), Fairchild Record Search Ltd. (1985), First Impression Styling Studio (1980), Rainbow Land Sales (1980), Consolidated Contractors & Supply Inc. (1978), Betty's Styling Salon (1977 – 1978), Kurlin Iron Beauty Salon (1978), Jones Septic Tank Service (1985 – 1990), and Southgate Pawnbroker (1985 – 1990). Reportedly, there were no available records indicating that a dry cleaning business or gasoline service station occupied the site. Additionally, no available records suggesting the presence of underground or aboveground heating oil tanks or domestic water wells were on-file with the agencies reviewed by Kleinfelder.

The Phase I ESA report also indicated that one of the former commercial occupants of the site (Sygitowicz Auto Service, 5848 Littlerock Road S.W.) removed a 500-gallon waste oil UST in 1990. Available information on-file with the Washington Department of Ecology (Ecology) indicated that confirmatory soil samples collected from the UST excavation did not reveal the presence of petroleum hydrocarbons. There were no available records indicating that groundwater was impacted at the site.

Historical records reviewed by Kleinfelder during the Phase I ESA indicated that a large area of "uncontrolled fill" was deposited along the southern portion of the property, as well as along the northern portion of the neighboring Home Depot site. Previous environmental investigations

performed at the site by AGRA (April 1992) and AMEC (May 2002) indicated that the fill material ranges in depths between 7 to 11 feet below the ground surface (bgs) and consists of soil, concrete debris, scrap metal, pipes, and vegetation debris. Soil samples collected from the fill material by AGRA and AMEC during 1992 and 2002 did not reveal that the fill material was impacted with hazardous materials. However, none of the previous subsurface investigations performed by AGRA and AMEC included collecting groundwater samples for chemical analysis (as recommended in AGRA's April 1992 Level I ESA report).

AGRA's April 1992 Level I ESA report also indicated that the neighboring Albany International site (located immediately south of the subject property) may have potentially discharged chlorinated solvents in a dry well located on their property. AGRA apparently obtained this information from an April 1992 telephone conversation with Mr. Dave Saunders (an employee of Ecology). However, during the course of Kleinfelder's Phase I ESA, there were no available records on-file with Ecology indicating that Albany International had impacted soil and/or groundwater with hazardous materials. AMEC's May 2002 Phase I ESA report also indicated that there were no records concerning soil and/or groundwater contamination at the Albany International site.

Kleinfelder's Phase I ESA report concluded that based on the age of the former structures that occupied the western end of the site, the possibility exists that heating oil USTs and/or septic tanks may have been used and are still present at the site. Even though the City of Tumwater Development Services Department required these items to be removed during building demolition activities, there was no available documentation (or recollection with the City of Tumwater officials and the current property owner) indicating that the building demolition contractor(s) conducting the work at the site had adhered to the City of Tumwater's requirements.

Kleinfelder's Phase I ESA report also concluded that although none of the soil samples collected from the fill material during previous environmental investigations performed at the site by AGRA and AMEC contained elevated levels of contaminants, groundwater samples were apparently not collected (as recommended in AGRA's April 1992 Level I ESA report). Due to the large volume of uncontrolled fill material deposited at the site, the potential exists that contaminant sources not observed by AGRA and AMEC during their previous environmental investigations may still be present at the property. Additionally, should there be buried contaminant sources, the potential exists that the site's groundwater may have also been impacted.

Based on these conclusions, Kleinfelder's Phase I ESA report recommended completing the following activities at the site:

1. Using ground penetrating radar and magnetometer instruments, complete a geophysical investigation throughout the western half of the site to scan for abandoned USTs and/or septic tanks that may have potentially been associated with the former buildings that occupied the site.

2. Perform a groundwater investigation near the uncontrolled fill area at the site in order to assess the potential presence of TPH (as gasoline, diesel, and heavy oil), VOCs, and dissolved metals.

3. Perform a groundwater investigation near the Albany International site in order to assess the potential presence of VOCs.

SOIL LITHOLOGY AND DEPTH TO GROUNDWATER

The subject property is underlain by native soils generally comprising about 1 to 3 feet of topsoil and organic rich silty sand. This unit overlies Recessional Outwash, which consists of loose to medium dense sand ranging between 3 to 20 feet bgs. Overconsolidated Lacustrine deposits comprising of medium dense sand was encountered beneath the Recessional Outwash to the maximum depth explored of about 26.5 feet bgs. Uncontrolled fill deposits were not encountered during this investigation, however, according to Kleinfelder's December 2004 Geotechnical Investigation report concerning the subject site, the uncontrolled fill material encountered along the southern end of the site ranges in depths of approximately 1 to 15 feet bgs and consists of concrete rubble, construction debris, stumps and sand. No hazardous materials or chemical/petroleum odors were encountered in the fill material.

Depth to groundwater at the site was encountered during this investigation at depths ranging between 14.0 to 22.9 feet bgs. Based on groundwater elevations observed at the site on March 3, 2005, the groundwater at the subject site flows towards the north-northeast, with some variation towards the northeast (see attached Figure 3).

FIELD ACTIVITIES

Field activities involved with completing this supplemental environmental investigation were performed during February and March 2005. The field activities included completing a

geophysical investigation along the western end of the site and the collection of water samples from five temporary groundwater wells installed upgradient and downgradient of the uncontrolled fill material area.

Geophysical Investigation Activities

On March 8th through March 10th, 2005 a Kleinfelder geophysicist investigated the western end of the site (where the former structures once existed) using a Grainger magnetometer and a SIG 2000 GPR transmitter/receiver equipped with a 400-mega hertz (MHz) antenna. Our geophysicist walked the accessible areas of the site with the magnetometer, and noted the location of conductive anomalies detected by field marking those locations on the ground. These locations were subsequently explored with a series of GPR profile lines. The lengths, spacings, and orientations of profile lines were selected in the field based on existing surface conditions and obstructions. Because of limitations of instrument size, exploration within 1 to 3 feet of the base of obstructions (for example, trees, power line poles or monitoring well monuments) was difficult with a magnetometer and impossible with GPR.

Our geophysicist examined the GPR profile records, both in the field and in our office to interpret anomalies that may be indicative of the presence of USTs and/or septic tanks. Processing for the purposes of interpretation included visual inspection of raw data records, amplitude gain modification, and removal, by filtering, of extraneous noise and strong horizontal reflections not indicative of possible USTs or septic systems.

The results of the geophysical investigation are summarized in the later part of this report.

Drilling and Well Installation

On February 25th and February 28th, 2005, five monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5) were installed near the uncontrolled fill material at the site using a track vehicle-mounted drill rig supplied and operated by Holt Drilling, Inc. (Holt) of Puyallup, Washington.

Monitoring well MW-1 was installed along the southwest end of the site, approximately 50 feet east of Littlerock Road S.W. MW-2 was installed along the west end of the site, approximately 550 feet north of MW-1. MW-3 was installed along the north-central portion of the site. MW-4 was installed along the southeast end of the site and MW-5 was installed along the northeast end of the site, adjacent to the neighboring Albany International property. See Figure 3 (attached) for the locations of the wells installed at the site.

All five well borings were drilled to depths of approximately 26.5 feet bgs. Soil samples for logging purposes were collected from each well boring at a minimum of every five feet. Soil samples collected during this investigation were visually inspected for signs of petroleum hydrocarbons and field screened using a photo ionization detector (PID). Kleinfelder field personnel logged the soil samples using the Unified Soil Classification System (USCS).

The monitoring wells were installed in accordance with Washington Administrative Code (WAC) 173-160. Prior to arrival at the site and between boring locations, the drilling equipment was cleaned using a steam cleaner.

The monitoring wells were constructed of 2-inch-diameter, flush-thread Schedule 40 PVC casing and 15 feet of 0.020-inch slot well screens. All five wells were installed at a depth of approximately 25 feet bgs. The base of each well screen was sealed with a 3-inch-long PVC bottom screw cap. A filter pack consisting of silica sand was placed around and approximately 18-inches below and 24-inches above each of the well screens. The annular space above the filter pack was sealed with approximately 6.5 feet of medium bentonite chips and topped-off with approximately 1.5 feet of concrete (see attached well installation details). A plastic end cap was placed on the top of the PVC well casings and a locking protective flush-mount steel well cover was installed over the wells at ground surface.

The boring logs and well completion details are included as an attachment to this report.

Monitoring Well Development

On February 28, 2005, the monitoring wells were developed by Holt using a submersible pump. The pump was thoroughly decontaminated prior to placement in the wells and between wells by washing with soapy water and double rinsing with distilled water. Purged water obtained from the wells was contained in 55-gallon drums staged onsite pending laboratory analytical results. At least 10 casing volumes of water were removed from each well during development activities.

Survey Monitoring Well Locations and Elevations

On March 1, 2005, a horizontal and vertical survey of monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-5 was completed by a surveying firm retained by PACLAND. The survey was performed using established site datum. A notch was placed on the top of each PVC well casing and marked with indelible ink. The vertical, horizontal and ground surface survey controls of the well casings were measured to the nearest one-hundredth of a foot (0.01).

The groundwater flow direction at the site was estimated using the monitoring wells. The flow direction is generally towards the north-northeast, with some variation towards the northeast. The well locations and the inferred groundwater flow gradient are shown on Figure 3.

Groundwater Sampling

On March 3, 2004, Kleinfelder collected groundwater samples from the five newly installed monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5). The wells were purged of at least three casing volumes of water before sampling using disposable bailers. Purged water was contained in 55-gallon steel drums. Groundwater samples were obtained from the wells using disposable bailers.

Accurate documentation of field activities and measurements was recorded on Field Sampling Data Sheets (FSDS). Recorded data included sample collection information, as well as field measurements of pH, temperature, and specific conductance. Field parameters were measured after the removal of each well casing volume. Field parameters required stabilizing to within ± 10 percent difference between consecutive pore volume removals before obtaining a sample. Field parameters were measured to the following standards:

- PH to ± 0.01 units,
- Temperature to ± 0.5°C, and
- Specific conductance to ± 1 µS/cm (measured specific conductance < 1,000 µS/cm), or ± 10 µS/cm (measured specific conductance > 1,000 µS/cm).

Solvex-type rubber gloves were worn during sampling activities at each well location. All samples were transferred in the field from bailers into containers previously prepared by the laboratory. The sample containers were sealed, labeled, and stored on ice in a 5°C cooler until delivery to the analytical laboratory.

The groundwater samples were submitted to ESN Northwest Laboratory for the following analysis:

- TPH (as gasoline), by Ecology Method NWTPH-Gx.
- TPH (as diesel and heavy oil) by Ecology Method NWTPH-Dx.
- VOCs by EPA Method 8260.

- Dissolved Metals (8 primary pollutant metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), by EPA Methods 6020 and 7470.

RESULTS

Geophysical Investigation

A Grainger magnetometer was used to perform an initial reconnaissance of the site. The magnetometer is designed to detect conductive (metal) materials by detecting magnetic anomalies that stand out from the surrounding, background magnetic field. The areas explored by the magnetometer were limited to those areas of the site not located beneath overhead power lines.

A significant number of magnetic anomalies were detected during our field investigation. These anomalies were primarily located within the uncontrolled fill area previously identified at the site. Construction debris reportedly encountered in test pits performed in the fill areas included chunks of concrete slab (up to 7 feet in longest dimension) and steel pipes that had been crumbled up. Where possible, efforts were made in the field to minimize the risks of overlooking potential USTs due to concentrations of conductive material (i.e. steel pipes) in the fill. However, it should be noted that these debris may possibly have concealed USTs buried beneath them.

A 400 MHz shielded antenna and a SIG 2000 transmitter/receiver was used for data collection. Spacing and direction of the profile lines were variable, being largely dependant on obstructions present and the site of the area being explored. A processor with signal gain control was used to process the raw data in the field. The resulting profile records were displayed on a computer screen and examined for reflection anomalies that may have represented buried USTs or septic tanks. GPR anomalies generated by these objects (as well as other buried objects of finite and comparable horizontal dimension) generally take a recorded form of a flat or somewhat rounded reflection that exhibits hyperbolic characteristics to either side of the flat reflection (these are commonly categorized as "hyperbolic reflectors"). Near-perpendicular profile lines are performed, if possible, in the areas of interest, so that the horizontal size of possible hyperbolic reflectors can be observed in two dimensions. Accuracy in locating USTs and septic tanks is largely dependent on surrounding subgrade materials and the constituent materials of the tanks. Ferrous metal USTs are considerably more visible and identifiable then non-metallic USTs (such as those constructed of fiberglass).

The maximum depth of exploration for the GPR investigation was approximately 15 feet below ground surface, based on the assumption that the near-surface soil largely consists of dry to moist sand (such as what was observed in well borings performed at the project site).

The GPR profiles performed at the project indicated anomalies indicative of the presence of buried debris. This debris was irregular in size and not always conductive, and may have consisted of buried concrete, asphalt, piping or other construction materials.

One anomaly observed during the geophysical investigation may be indicative of one or two USTs. The approximate location of this anomaly is shown on Figure 3 (attached). The dimensions, conductivity, and hyperbolic reflection noted on the GPR record make this anomaly consistent with that expected of one UST, or possibly two closely spaced USTs, approximately 3 to 5 feet in longest dimension. The depth was approximated at 5 to 7 feet below ground surface, based the assumption that the overburden soil consisted of dry to moist sand.

Groundwater Sample Analytical Results

According to the groundwater sample analytical reports, TPH (as gasoline, diesel, and heavy oil), VOCs, and dissolved metals were not detected at concentrations exceeding the corresponding MTCA Method A groundwater cleanup levels.

The groundwater sample analytical results are presented on Table 1 (see attached). Laboratory groundwater analytical reports and chain-of-custody documentation are also included as an attachment to this report.

SUMMARY AND CONCLUSIONS

Per PACLAND's request, Kleinfelder completed a supplemental environmental investigation at the subject site. This investigation included (1) completing a geophysical investigation along the west end of the site to assess the potential presence of USTs and/or septic tanks; (2) the installation of five monitoring wells upgradient and downgradient of the uncontrolled fill area; (3) collecting groundwater samples from the monitoring wells; and (4) submitting the groundwater samples to a State Certified laboratory to be analyzed for the presence of TPH (as gasoline, diesel, and heavy oil), VOCs, and dissolved metals.

Geophysical Investigation Conclusions

Based on the results of the geophysical investigation, one anomaly detected along the western end of the site (see Figure 3) may be indicative of one or two buried USTs. A method to identify

a buried object that generates a geophysical anomaly is to perform an excavation at that location and visually inspect the object. Though USTs generate a characteristic GPR reflection, conductive objects of comparable horizontal dimensions may also generate similar reflections. Consequently, we recommend that the anomaly described previously, and shown on Figure 3, should be investigated with a test pit excavated at the location of the anomaly. This will provide positive identification of the anomaly as being either a UST, or some other form of debris.

Groundwater Analytical Testing Conclusions

Analytical results of groundwater samples collected from the wells at the site indicated that the concentrations of TPH (as gasoline, diesel, and heavy oil), VOCs, and dissolved metals were not detected at levels above the corresponding MTCA Method A groundwater cleanup standards.

Based on the groundwater analytical results, it appears that the fill material deposited at the site has not impacted the site's groundwater. Should hazardous materials or visibly impacted soil areas be encountered within the fill material (or at other areas throughout the site) during development activities, they should be removed and properly disposed of.

LIMITATIONS

The work described herein was performed to address environmental concerns expressed in Kleinfelder's November 12, 2004 Phase I ESA report concerning the subject site. The findings and recommendations in this report are made based upon the analytical results, field observations, and our best professional judgment. It is possible that unforeseen events could occur that may limit the effectiveness of the assessment. Although risk can never be eliminated, more detailed and extensive sampling and testing would yield better management of site risks. Since such extensive services involve greater expense, we ask our clients to participate in identifying the level of service that will provide them with an acceptable level of risk. Please contact the signatories of this report if you would like to discuss this issue of risk further.

The scope of work on this project was presented in our Contract Modification #2 (dated February 4, 2005) and subsequently approved by PACLAND as our client. Please be aware our scope of work was limited to those items specifically identified in the proposal. Other activities not specifically included in the presented scope of work (in the Contract Modification, correspondence, or this report) are excluded and should not be considered to be a part of our scope of services.

Land use, site conditions (both on-site and off-site) and other factors will change over time. Since site activities and regulations beyond our control could change at any time after the completion of this report, our observations, findings and opinions can be considered valid only as of the date of the site visit.

The geophysical data used in the preparation of this letter was obtained from magnetic and GPR profiles completed for the purposes of this study. However, it is both possible and likely that variations in conditions exist under portions of the site that were inaccessible to the geophysical field equipment, as well as between profile line locations. The nature and extent of these variations may not be evident until further investigation or construction is performed at the site. Kleinfelder does not warrant that our findings constitute a total listing of all buried objects that may exist in the site subsurface.

This report may be used by PACLAND and their client (The Client) and only for the purposes stated within a reasonable time from its issuance, but in no event later than one year from the date of this report.

Any party other than PACLAND and The Client who would like to use this report shall notify Kleinfelder of such intended use (see attached "Third Party Reliance Letter" template). Based on the intended use of this report, Kleinfelder may require that additional work be performed and that a revised report be issued. Non-compliance with any of these requirements by PACLAND, The Client, or anyone else will release Kleinfelder from any liability resulting from the use of this letter report by any unauthorized party.

No warranty, either express, or implied is made.

CLOSING

We trust this report meets your needs at this time and appreciate the opportunity to provide our consulting services to PACLAND. Please contact the undersigned at (425) 562-4200, or John Mancini (Kleinfelder's Senior Client Service Manager to PACLAND) at (801) 261-3336, if you have any questions or require additional information.

Sincerely,

KLEINFELDER, INC.

Ted W. Sykes
Project Manager

Frank D. Reinart, E.I.T.
Staff Geophysicist

Kevin G. Lakey, PE, LHG
Environmental Services Manager

CC: John Mancini, Senior Client Service Manager

Attachments: Figure 1 – Site Vicinity Map
Figure 2 – Site Plan
Figure 3 – Monitoring Well Locations/Groundwater Elevation Map
Table 1 – Groundwater Sample Analytical Results
Boring Logs/Monitoring Well Installation Details
Site Photographs
Analytical Laboratory Reports and Chain-of-Custody
Third Party Reliance Letter Template