April 29, 2011

Robert and Ethel Freeman Family, LLC
3512 SW 310th Court
Federal Way, Washington 98023-2119

RE: **Focused Environmental Review**
2119 Mildred Street West
Fircrest, Washington 98466

Ms. Freeman-Daily:

Per your request EcoCon, LLC Environmental Consulting (ECI) completed a Focused Environmental Review for the property located at 2119 Mildred Street West, Fircrest, Washington (Subject Property). The scope of this project included a review of previous environmental documents provided by Robert and Ethel Freeman Family, LLC and environmental database report as well as a site walk. ECI also contacted the Washington State Department of (Ecology) and county agencies (Pierce County Assessor and Tacoma Pierce County Health Department) for site status.

ECI reviewed the following environmental reports:

- Don Golden, Inc. (DGI) "*Underground Storage Tank Removal and Remediation Report"* dated April 8, 1994
- Creative Environmental Technologies, Inc. (CETI) "*Site Characterization and Contaminated Soil Remediation Report",* dated April 26, 1999
- CETI *"Level 1 Environmental Site Assessment",* dated May 7, 1999
- CETI "*Phase 2 Site Assessment"* dated March 28, 2000
- CETI *"Addendum to the Phase 2 Site Assessment"* dated November 2000
- CETI *"PCE Contaminated Soil Remediation Report",* dated January 2001
- Sound Environmental Strategies, Corp (SES) "*Underground Storage Tank Decommissioning & Soil Remediation Project"* dated May 24, 2002
- Kleinfelder, Inc (KI) "*Phase I Environmental Site Assessment, Proposed Retail Site (No. 4265"* dated May 25, 2005

- KI "*Limited Phase II Environmental Site Assessment, Proposed Retail Site (No. 4265"* dated June 24, 2005
- KI "*Supplemental Phase II Environmental Site Assessment, Proposed Retail Site (No. 4265"* dated September 16, 2005
- Terracon Consultants, Inc. (TCI) "*Phase I Environmental Site Assessment, Proposed Fircrest WinCo"* dated June 30, 2008

The documents listed above were provided to ECI by Robert and Ethel Freeman Family, LLC. Each of the submitted documents appears to be complete and was reviewed in their entirety. The reports provided are summarized herein a manner combining reports from a specific company, so as to avoid unnecessary repetition. The summary is followed by ECI opinion. Additional reports provided for this property including geotechnical, stormwater, zoning and traffic study were reviewed and no additional environmental conditions or concerns were reported.

1. Don Golden, Inc. (DGI) completed "*Underground Storage Tank Removal and Remediation Report"* dated April 8, 1994 to record site activities performed in conjunction with underground storage tank (UST) decommissioning. Two USTs reported as one 1,000-gallon tank containing Chevron Solvent 140 / Chevron Solvent 410 BW (Tank #1) and one 1,000 gallon diesel tank (Tank #2) were decommissioned by removal. A total of nine soil samples were collected; five from the excavation and three from the stockpiles. Laboratory analysis reported no detectable concentrations of diesel range organics (DRO), gasoline range organics (GRO) and benzene, toluene, ethylbenzene and xylenes (BTEX). One sample (#7) collected from the west excavation stockpile was also analyzed for solvents {semi-volatile organic compounds, volatile organic compounds (VOCs)} and the results were also below laboratory minimum reporting limits.

   During review ECI identified a discrepancy as to the labeling and identification of the former UST contents. In the report and on the site diagram, the USTs appear aligned horizontally with Tank #1 shown on the west side and Tank # 2 shown on the east side. However, the UST Permits issued by Ecology, dated 1992, identify the underground storage tanks as East Tank #1 with contents as Chevron Solvent 42-B and West Tank #2 containing diesel only. If the Ecology permit is the correct document, then the chemical analysis for solvents was not completed on the correct sample(s). The material safety data sheets supplied with the report indicate additional Chevron solvents: Chevron Solvent 140 is medium alphatic (petroleum) solvent naptha; Chevron Solvent 410B is a paraffin wax, aromatic solvent. Soil samples collected (DGI, 1994) from the excavation floor and sidewalls were not analyzed for VOCs.

Recommendation: Complete a boring on the eastern side of the former UST location at a depth of eight feet bgs and analyze the soil sample for VOCs.

2. Creative Environmental Technologies, Inc. (CETI) authored the "*Site Characterization and Contaminated Soil Remediation Report",* dated May 5, 1999 that describes the Pace Industries oil release of April 26, 1999 and subsequent remedial action. Pace Industries suffered equipment failure that caused a pressure release of a large quantity of heavy-oil range petroleum fluids (HRO) to impact the Subject Property. The point of impact was located northeast of the main building of the Subject Property, to the east of the telephone poles along the northern property boundary and flowing toward the southeast, channeling the 200-foot long storm water drainage ditch along the eastern side of the Property. A total of 31 soil samples (progress and confirmation) were analyzed. The highest HRO concentration was under the release point S29 at 5,800 milligrams per kilogram (mg/kg). An estimated eighty cubic tons of impacted soils were removed from the Subject Property. All confirmation samples resulted below laboratory minimum reporting limits except the northern Property boundary. The CETI report concluded the Subject Property to be free of release related petroleum impacts but the northern property remained impacted with high concentrations of HRO.

3. Creative Environmental Technologies, Inc. (CETI) authored "*"Level 1 Environmental Site Assessment",* dated May 7, 1999; "*Phase 2 Site Assessment"* dated March 28, 2000; *"Addendum to the Phase 2 Site Assessment"* dated November 2000; and *"PCE Contaminated Soil Remediation Report",* dated January 2001.

   In February of 2000, CETI collected three additional soil samples along the northern boundary where Pave Industries1999 oil release occurred. The laboratory reported one soil sample with a HRO concentration of 35,000 mg/kg that exceeds the MTCA A Soil Cleanup Level for Unrestricted Land Use of 2,000 mg/kg.

   Based on site activities identified during completion of their Level 1 Assessment, CETI completed a focused subsurface investigation that targeted four areas on the east side of the facility: Area A - solvent spills, Area B - facility drain field, Area C - lime pits, and Area D, former UST location. Twenty-five direct push borings were completed with a total of 15 soil samples submitted to the laboratory for analysis. Target analytes of solvents and metals varied for each area. The central portion of Area A soils were reported with elevated PCE concentrations from 0 to 8 feet bgs. Five soil samples were also analyzed for metals with chromium highest at 62 mg/kg at Area C. No other metals appeared above the respective MTCA A cleanup levels. Two soil samples each were submitted for Areas B and C and did

not include screening for petroleum products. No sample was submitted for Area D. Based on the results, CETI recommended removal of PCE impacted soils.

During September 2000 excavation activites were conducted at the Subject Property where PCE was previously identified in soils. The disposal tickets show approximately 70 tons of PCE impacted soil was disposed of at the Olympic View Sanitary Landfill in Port Orchard after characterization.

In the first drilling event, CETI noted hydrocarbon odor at BH12 and BH16 in the boring logs (samples S17-13100, S23-13100). CETI did not submit any soil samples for petroleum hydrocarbon analysis. One soil sample collected from Area C resulted with an elevated chromium concentration of 62 mg/kg. In regard to the PCE impact, the Model Toxics Control Act Method A Soil Cleanup Levels for Unrestricted Land Uses (173-340-900 Table 740-1) dated 2001 and 2007 indicates the PCE (tetrachloroethylene) cleanup level as 0.05 milligrams per kilogram (mg/kg) rather than 0.5 mg/kg at the time of the remedial activity. The laboratory minimum reporting limits no longer coincide with current MTCA cleanup levels. The laboratory analytical report indicates the possibility of PCE concentrations exceeding the MTCA A cleanup levels present in confirmation soil samples. **Recommendation:** Complete a series of borings up to 11 feet bgs in the locations of the former PCE excavation and collect soil samples for analysis under Method 8260B to characterize soil for remaining PCE concentrations. Collect a soil sample from the outlet to the drain field area and submit with target analytes of diesel range organics (DRO) and heavy oil range organics (HRO), solvents and metals. Collect a soil sample from the former lime pit area in proximity to the former BH16 and submit for analysis of metals and DRO/HRO. If chromium results are 19 mg/kg or greater, analyze for hexavalent chromium.

4. Sound Environmental Strategies, Corp (SES) completed an "*Underground Storage Tank Decommissioning & Soil Remediation Project"* and issued the report dated May 24, 2002. During the decommissioning and removal of an 80-gallon water heater type UST, a second 80-gallon water heater type UST was discovered alongside the first. Both USTs contained kerosene and were located on the west side of the main building in a landscaped area by the HVAC system. The kerosene was supplied to a re-circulating system via concrete piping for parts cleaning. The piping system was reported as removed by the owner, prior to UST decommissioning. Soil samples were collected and analyzed for DRO, GRO and/or VOCs. Laboratory results reported all samples below MTCA A cleanup levels. Approximately four cubic yards of lightly impacted soils were removed and transported under permit to a waste disposal facility. Confirmation samples were reported as below laboratory minimum reporting limits.

ECI surmises that the kerosene was piped into the facility through a cement system. The excess would have been combined with other process fluids reported to discharge to the field east of the facility prior to the installation of an evaporator and two overflow USTs in 1992. The possibility of additional USTs unknown to the owner may exist at other locations on the Subject Property. **Recommendation**: the target analytes kerosene, solvents and metals should be screened for at the former outfall drainfield.

5. Kleinfelder, Inc (KI) completed a Phase I Environmental Site Assessment ESA, Limited Phase II ESA, and a Supplemental Phase II ESA during May, June, and September of 2005. KI also completed an extensive geotechnical report characterizing the physical properties for commercial redevelopment that included 56 exploratory borings on the Subject Property. These borings were not related to the environmental site assessments for potential hazardous material impact.

   The KI Phase I ESA included testing for lead-based paint and asbestos analysis of suspect building materials. Eleven areas were detected with lead-based paint, one of which exceeded the maximum level of 5,000 mg/kg. The only location of the elevated lead sample was within the former spray paint shed. HVAC sealant, four types of vinyl flooring, and caulking were reported as asbestos containing.

   An additional report reviewed by KI entitled “Testing of Surface Soils near the Eastern Swale” by SES, dated October 2001, was not submitted to ECI for review. The KI review stated SES collected a surface soil sample from a 10” by 10” inch red-stained area on the steep eastern slope. Laboratory analysis identified arsenic and cadmium concentrations (160 mg/kg and 30 mg/kg, respectively) that exceed MTCA A cleanup levels of 20mg/kg and 2mg/kg, respectively. Eight additional soil samples were collected with only one soil sample concentration (29 mg/kg) reported to exceed MTCA A cleanup levels for arsenic. SES concluded the elevated arsenic and cadmium was localized and not representative of the entire site. KI stated there was no SES mention of the potential arsenic/cadmium source, yet the site is reported to contain substantial amounts of fill material. The KI Phase I identified numerous areas of potential contamination from hazardous material stored, used, and disposed of at the facility. Target areas were identified and subsurface investigation was recommended.

   KI conducted a Limited Phase II ESA based on the findings reported in their Phase I ESA that identified potential areas of impact on the Subject Property. KI completed 20 borings and collected 29 soil samples. Five of the 20 borings were completed inside the building.

Laboratory analysis reported three soil samples with HRO concentrations (random spot locations in undeveloped area) and two soil samples with PCE (drainfield area) exceeding MTCA A cleanup levels. Metals were identified in numerous soil samples below MTCA A cleanup levels.

Five temporary groundwater monitoring wells were installed along the central east portion of the Property and sampled with analytical results indicating arsenic concentrations exceeding MTCA A cleanup levels. The perched groundwater was encountered at 16.6 to 19.6 feet bgs when present. KI recommended additional subsurface investigation that was subsequently authorized and conducted in September 2005. Fourteen additional soil samples were collected from seven borings located in the central portion of the Subject Property. Laboratory analysis reported elevated PCE and HRO concentrations. KI estimated the quantity of PCE impacted soil as approximately 2,000 to 3,000 cubic yards in the sink drainfield area. The HRO impacted soils were identified intermittently at random areas ranging from 5 to 15 feet bgs in approximately 6-inch thicknesses and could not be completely quantified. Arsenic concentration identified in one groundwater sample exceeded MTCA A cleanup levels, but is reported to fall within the natural background concentrations of arsenic and the Tacoma Smelter Plume, according to Ecology documentation. KI recommended removal of HRO, PCE, and paraffin impacted soils, removal of former lime pits, if encountered, and removal of the two recovery USTs, septic tanks, and remnants of the transite cement water pipe prior to the demolition and development of the site.

ECI did not identify the basis for the KI estimated quantity of PCE impacted soils during review of the document. The estimated quantity would need to be substantiated by chemical analysis. Refer to additional subsurface investigation in Recommendation #3.

6. Terracon Consultants, Inc. (TCI) completed a Phase I ESA in June of 2008 that includes a review of the same reports presented to ECI, an extensive interview with Michael Freeman (representative for owner), database review and historical research summaries. Terracon combined the analytical tables and sample location diagrams from previous reports. TCI reported the following locations as recognized environmental conditions (RECs) identified during the site walk: the two disposal USTs, drains and the catch basin due to former contents of solvents, degreasers and paints. TCI reported the following historical RECs from review of previous reports and the personal interview (excerpt from TCI report):
   - *Previous reported impact by environmental assessment appears to remain on-site*
   - *Reported asbestos pipe*
   - *Former sink drain outlet/drainfield for waste fluids prior to 1992 (solvents, metals)*
   - *Fluorescent light bulbs (mercury containing) reported disposed into east field*

- *Former lime-lined pits historically utilized for disposal of processed acids, (metals, pH)*
- *Former drum storage area, drums contained solvents, petroleum products, degreasers*
- *Area of former impact from north adjacent property(petroleum hydrocarbons)*
- *Imported fill material may have unknown contaminants*
- *Lacquer and spray paint process area west of loading dock prior to installation of paint process building*
- *Three reported septic tanks*

TCI also reported RECs from the database review at surrounding properties include:

- *Pace Industries*
- *Leland McArthur former fueling station*

The recommendation TCI provided was to conduct additional subsurface investigation.

Agency Database - Cursory Review

ECI ordered a current database report from Environmental FirstSearch that reports seven surrounding properties are listed on environmental databases. A verification call to Tacoma Pierce County Health Department reports four of the sites have open files which means the possible risk of impact to human health or the environment is present. The listed sites include:

- Conoco - 6622 19th Street
- Tacoma Drapery/Towne Cleaner - 1921/1923 Mildred St W
- Minit Lube - 2218 Mildred St W
- Fircrest Village Cleaners - 1105 Regents Blvd

A thorough investigation of the surrounding properties site specific information is not included in the scope of this report. A complete review would be part of a Phase I Environmental Site Assessment.

Conclusion

ECI observed laboratory analysis in reports confirming elevated petroleum hydrocarbon impact at the northern property boundary, PCE impact at the former eastern drainfield area, and several areas with heavy oil impact. Elevated chromium was found in the vicinity of the former lime pits. Groundwater samples that indicated elevated metals were likely reflective of suspended solids rather than dissolved metals, or within natural background levels. Groundwater that has been encountered at the Subject Property is representative of seasonally intermittent, perched aquifers. The actual groundwater table is reported to be approximately 50 feet bgs. The presence of lead/arsenic concentrations from the Tacoma Asarco Plume is unknown because the fill material was laid over the native material on-site. The former solvent

containing UST decommissioned by removal in 1994 may not have included the appropriate soil sampling due to a discrepancy in tank labeling. Soil samples were not observed to be collected from the vicinity of the septic system or from numerous catch basins. Additional subsurface soil sampling for target analytes is needed to characterize the site and quantify the amount of impacted soils.

ECI appreciates the opportunity to provide services on this project. Should you have any questions, please contact our office at (253) 238-9270.

EcoCon, Inc

Collette Foley
Sr. Environmental Scientist