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June 27, 2012

Creekside DuPont Partners LLC
1201 Pacific Avenue, Suite 1501
Tacoma, Washington 98402

Attention: Lia Estigoy

Subject: Report
Lot X Import Fill Source Sampling (Lot Y Test Pit Explorations)
Creekside Village Development Project
DuPont, Washington
File No. 16785-002-02, Task 300

INTRODUCTION

GeoEngineers performed environmental sampling services for Creekside DuPont Partners LLC (CDP) regarding potential import fill for the Creekside Village Development project (Lot X) in DuPont, Washington. The potential source of the import fill material will be from the Lot Y Industrial Park property (site) located adjacent and west of the Lot X property. The site is located approximately 440 feet west of Center Drive and just north of the Sequalitchew Creek. The location of the site is shown on Figure 1.

CDP plans to excavate up to 16,000 cubic yards (CY) of gravel material from the eastern portion of the site and place the import fill material onto the Lot X property during final grading operations. Washington State Department of Ecology (Ecology) has indicated that the material to be excavated from the site will require testing for arsenic and lead in accordance with the "Tacoma Smelter Plume's Draft Guidance Model Remedies Guidance" dated October 2011 for reuse on the Lot X property.

SCOPE OF SERVICES

The purpose of our environmental services was to collect soil samples from test pits completed by the on-site contractor to evaluate the soil conditions for reuse as import fill on the Lot X property. The specific scope of services is listed below.

1. Update the Health and Safety Plan (HASP) for use by GeoEngineers' personnel during the field activities.
2. Observe the on-site contractor complete five test pits on the eastern portion of the site.



3. Collect one composite soil sample from each test pit for chemical analysis in accordance with Ecology's "Tacoma Smelter Plume's Draft Guidance Model Remedies Guidance" dated October 2011 – Chapter 10 (Import Fill). Soil samples were collected from approximately 2 to 10 feet below ground surface (bgs) in each test pit.
4. Submit a total of five composite soil samples for analysis of total arsenic and lead by Environmental Protection Agency (EPA) method 6000/7000 series.
5. Evaluate the data with respect to Ecology's "Tacoma Smelter Plume's Draft Guidance Model Remedies Guidance" dated October 2011 criteria for arsenic and lead.
6. Prepare this report that summarizes the results of the soil sampling services.

SOIL SAMPLING AND CHEMICAL ANALYTICAL RESULTS

Five test pits were located within the proposed area where approximately up to 16,000 CY will be excavated from the eastern portion of the site for use as import fill onto Lot X during final grading operations. The proposed excavation area and test pit locations are shown on Figure 2.

The upper 2 feet of soil was removed at each test pit location prior to beginning the sample collection process. Six subsamples were collected at various depths (between 2 and 10 feet bgs) in each test pit. The six subsamples within each test pit were placed into a stainless steel bowl and mixed with a stainless steel spoon to homogenize into a single composite sample. Sampling equipment was decontaminated following sample collection at each test pit. Each composite sample was placed into a laboratory-supplied jar. The samples were placed in coolers with blue ice following collection and transported under standard chain-of-custody protocol to OnSite Environmental, Inc. in Redmond, Washington.

One composite sample (LYIS-1-060512 through LYIS-5-060512) was collected from each test pit on June 5, 2012 for chemical analysis. The composite samples were identified using the following identification system: LYIS-1-060512, where LYIS refers to Lot Y Import Source, -1 is the test pit number and -060512 is the date of sample collection.

The chemical analytical data are summarized in Table 1. A copy of the laboratory report is provided in Appendix A. The analytical results were compared to the arsenic and lead criteria identified in the Tacoma Smelter Plume's Draft Guidance Model Remedies Guidance" dated October 2011.

Analytical results indicate arsenic and lead were not detected in the analyzed composite soil samples from the Lot Y import fill source.

CONCLUSIONS

Arsenic and lead were not detected in the analyzed soil samples and therefore are less than the criteria identified in Ecology's "Tacoma Smelter Plume's Draft Guidance Model Remedies Guidance" document.



LIMITATIONS

We have prepared this report for use by Creekside DuPont Partners LLC regarding the Creekside Village Development (Lot X) property located north of Sequalitchew Creek and West of Center Drive in DuPont, Washington.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Please refer to Appendix B titled "Report Limitations and Guidelines for Use" for additional information pertaining to use of this report.

Sincerely,
GeoEngineers, Inc.



Terry R. McPhetridge, LG, LHG
Associate

TRM:cn

Table 1. Summary of Chemical Analytical Results for Arsenic and Lead - Soil

Figure 1. Vicinity Map

Figure 2. Site Plan Showing Test Pit Locations

Appendix A. Laboratory Results

Appendix B. Report Limitations and Guidelines for Use

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

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TABLE 1
SUMMARY OF CHEMICAL ANALYTICAL RESULTS FOR ARSENIC AND LEAD - SOIL¹
LOT X IMPORT FILL SOURCE SAMPLING (LOT Y TEST PIT EXPLORATIONS)
CREEKSIDER VILLAGE DEVELOPMENT PROJECT
DUPONT, WASHINGTON

Sample ID ³	Metals ² (mg/kg)		Ecology's Draft 'TSPMRG' Criteria for Arsenic ⁴	Ecology's Draft 'TSPMRG' Criteria for Lead ⁴
	Arsenic	Lead		
LYIS-1-060512	U (11)	U (5.3)		
LYIS-2-060512	U (11)	U (5.5)		
LYIS-3-060512	U (11)	U (5.4)		
LYIS-4-060512	U (11)	U (5.3)		
LYIS-5-060512	U (11)	U (5.3)		
Average Arsenic Concentration in Stockpile ⁵	NA	NA	Less than 20 mg/kg	Less than 250 mg/kg
Highest Arsenic Concentration in Stockpile ⁶	NA	NA	Less than 40 mg/kg	Less than 500 mg/kg

Notes:

¹ Chemical analysis performed by Onsite Environmental, Inc. of Redmond, Washington.

² Arsenic and lead analyzed by EPA 6000/7000 series method.

³ Sample ID LYIS-1-060512 = Lot Y Import Source - test pit number - date collected (month, day, year).

⁴ Ecology's Draft 'Tacoma Smelter Plume Model Remedies Guidance' document, dated October 2011.

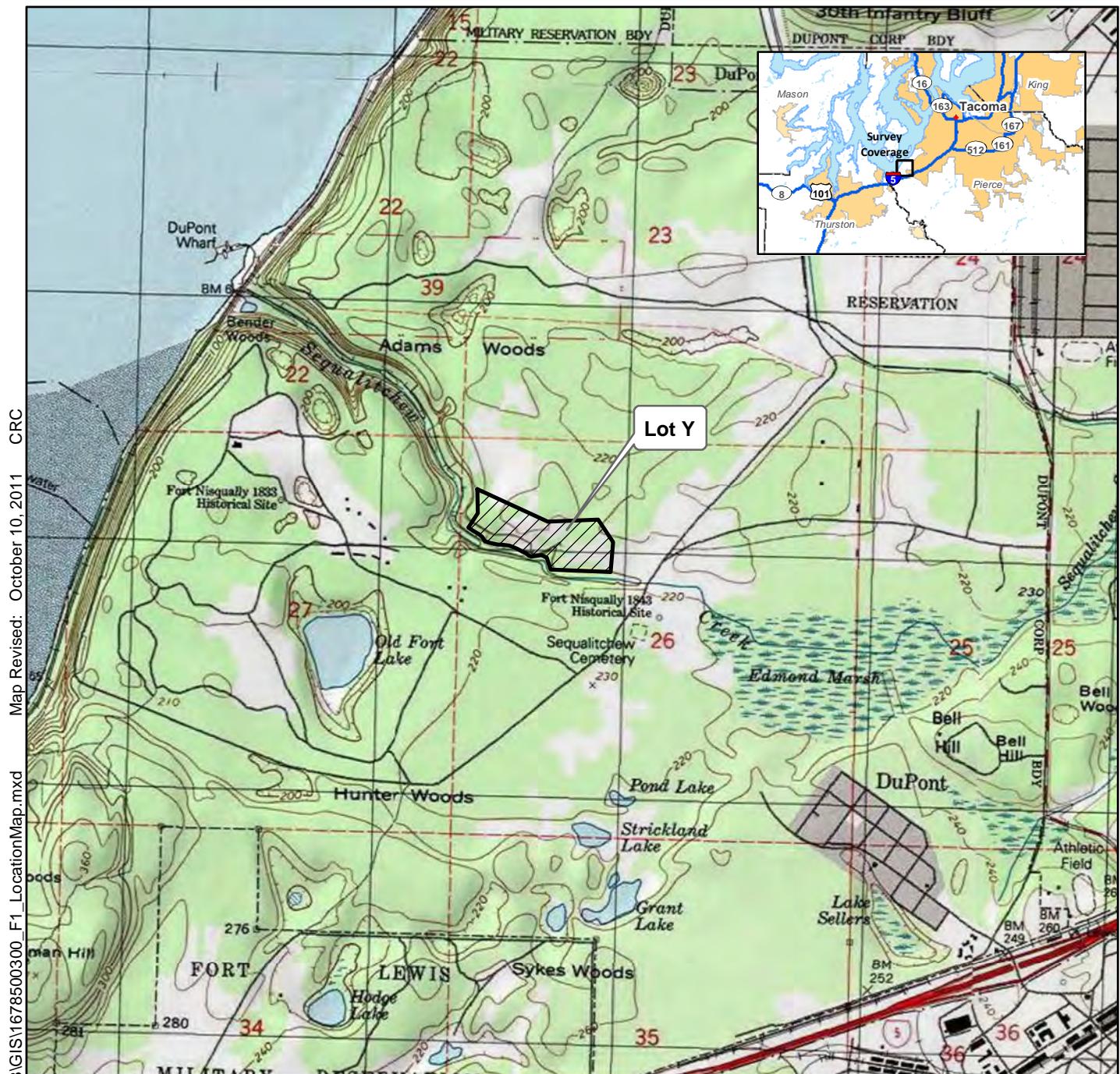
⁵ Average arsenic concentration is based on the results of the 20 analyzed soil samples. No concentration value was used in samples where arsenic was not detected at the laboratory reporting limit.

⁶ No concentration value was used in samples where arsenic and lead were not detected at the laboratory reporting limit.

mg/kg = milligram per kilogram

NA = Not applicable, arsenic and lead were not detected in the analyzed soil samples.

U = Analyte was not detected at or greater than the method reporting limit.



Lot Y

T19N, R 1E, Section 26

USGS 7.5' Topographic Map Series, Nisqually (1981) Quad.

1:24,000

2,000 0 2,000

Feet



Notes:
Path: W:\Tacoma\Projects\1616785003GIS\1678500300_F1_LocationMap.mxd

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.

Data Sources: ESRI Data & Maps, Street Maps 2005

Transverse Mercator, Zone 10 N North, North American Datum 1983
North arrow oriented to grid north

Vicinity Map

Lot Y Industrial Park
DuPont, Washington

GEOENGINEERS 

Figure 1



█ Lot Y Test Pit Location

 Lot Y Property Boundary

Proposed Excavation Area

(Import Fill for Lot X)



300 0 300

Feet

Site Plan Showing Test Pit Locations

Lot Y Industrial Park
DuPont, Washington

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Figure 2

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.

Data Sources: ESRI Data & Maps, Street Maps 2005
Bing Aerial from ESRI Data Online.

WGS 1984
North arrow oriented to grid north

Map Revised: June 27, pdr

Path: \\tac\projects\16\16785003\00\LOTX_GIS\LotY_TestPit\Locations.mxd

Office: Tacoma

APPENDIX A

Laboratory Results





14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 7, 2012

Terry McPhetridge
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 16785-002-02 T300
Laboratory Reference No. 1206-029

Dear Terry:

Enclosed are the analytical results and associated quality control data for samples submitted on June 6, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB" followed by a stylized surname.

David Baumeister
Project Manager

Enclosures

Date of Report: June 7, 2012
Samples Submitted: June 6, 2012
Laboratory Reference: 1206-029
Project: 16785-002-02 T300

Case Narrative

Samples were collected on June 5, 2012 and received by the laboratory on June 6, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: June 7, 2012
Samples Submitted: June 6, 2012
Laboratory Reference: 1206-029
Project: 16785-002-02 T300

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
LYIS-1-060512	06-029-01	Soil	6-5-12	6-6-12	
LYIS-2-060512	06-029-02	Soil	6-5-12	6-6-12	
LYIS-3-060512	06-029-03	Soil	6-5-12	6-6-12	
LYIS-4-060512	06-029-04	Soil	6-5-12	6-6-12	
LYIS-5-060512	06-029-05	Soil	6-5-12	6-6-12	

Date of Report: June 7, 2012
 Samples Submitted: June 6, 2012
 Laboratory Reference: 1206-029
 Project: 16785-002-02 T300

**TOTAL METALS
EPA 6010B**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	06-029-01					
Client ID:	LYIS-1-060512					
Arsenic	ND	11	6010B	6-6-12	6-6-12	
Lead	ND	5.3	6010B	6-6-12	6-6-12	
Lab ID:	06-029-02					
Client ID:	LYIS-2-060512					
Arsenic	ND	11	6010B	6-6-12	6-6-12	
Lead	ND	5.5	6010B	6-6-12	6-6-12	
Lab ID:	06-029-03					
Client ID:	LYIS-3-060512					
Arsenic	ND	11	6010B	6-6-12	6-6-12	
Lead	ND	5.4	6010B	6-6-12	6-6-12	
Lab ID:	06-029-04					
Client ID:	LYIS-4-060512					
Arsenic	ND	11	6010B	6-6-12	6-6-12	
Lead	ND	5.3	6010B	6-6-12	6-6-12	
Lab ID:	06-029-05					
Client ID:	LYIS-5-060512					
Arsenic	ND	11	6010B	6-6-12	6-6-12	
Lead	ND	5.3	6010B	6-6-12	6-6-12	

Date of Report: June 7, 2012
Samples Submitted: June 6, 2012
Laboratory Reference: 1206-029
Project: 16785-002-02 T300

**TOTAL METALS
EPA 6010B
METHOD BLANK QUALITY CONTROL**

Date Extracted: 6-6-12
Date Analyzed: 6-6-12

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB0606SM2

Analyte	Method	Result	PQL
Arsenic	6010B	ND	10
Lead	6010B	ND	5.0

Date of Report: June 7, 2012
Samples Submitted: June 6, 2012
Laboratory Reference: 1206-029
Project: 16785-002-02 T300

TOTAL METALS
EPA 6010B
DUPLICATE QUALITY CONTROL

Date Extracted: 6-6-12

Date Analyzed: 6-6-12

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 06-029-04

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	10	
Lead	ND	ND	NA	5.0	

Date of Report: June 7, 2012
Samples Submitted: June 6, 2012
Laboratory Reference: 1206-029
Project: 16785-002-02 T300

**TOTAL METALS
EPA 6010B
MS/MSD QUALITY CONTROL**

Date Extracted: 6-6-12

Date Analyzed: 6-6-12

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 06-029-04

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	89.4	89	93.8	94	5	
Lead	250	243	97	254	102	4	

Date of Report: June 7, 2012
Samples Submitted: June 6, 2012
Laboratory Reference: 1206-029
Project: 16785-002-02 T300

% MOISTURE

Date Analyzed: 6-6-12

Client ID	Lab ID	% Moisture
LYIS-1-060512	06-029-01	6
LYIS-2-060512	06-029-02	9
LYIS-3-060512	06-029-03	7
LYIS-4-060512	06-029-04	6
LYIS-5-060512	06-029-05	5



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical _____.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference

APPENDIX B

Report Limitations and Guidelines for Use



APPENDIX B

REPORT LIMITATIONS AND GUIDELINES FOR USE¹

This appendix provides information to help you manage your risks with respect to the use of this report.

Environmental Services are Performed for Specific Purposes, Persons and Projects

This report has been prepared for use by Creekside DuPont Partners LLC. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except Creekside DuPont Partners LLC should rely on this environmental report without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

This Environmental Report is Based on a Unique Set of Project-Specific Factors

This report has been prepared for Soil Sampling Services at the Creekside Village Development project (Lot X) located in DuPont, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

If a lending agency or other parties intend to place legal reliance on the product of our services, we require that those parties indicate in writing their acknowledgement that the scope of services provided, and the general conditions under which the services were rendered including the limitation of professional liability, are understood and accepted by them. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions.

¹ Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.



Environmental Regulations are Always Evolving

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

Subsurface Conditions can Change

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

Topsoil

For the purposes of this report, we consider topsoil to consist of generally fine-grained soil with an appreciable amount of organic matter based on visual examination, and to be unsuitable for direct support of the proposed improvements. However, the organic content and other mineralogical and gradational characteristics used to evaluate the suitability of soil for use in landscaping and agricultural purposes was not determined, nor considered in our analyses. Therefore, the information and recommendations in this report, and our logs and descriptions should not be used as a basis for estimating the volume of topsoil available for such purposes.

Most Environmental Findings are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Do Not Redraw the Exploration Logs

Environmental scientists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in an environmental report should never be redrawn for inclusion in other design drawings. Only photographic or electronic reproduction is acceptable, but recognize that separating logs from the report can elevate risk.

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory “limitations”



provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these “Report Limitations and Guidelines for Use” apply to your project or site.

Geotechnical, Geologic and Geoenvironmental Reports Should Not Be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

Biological Pollutants

GeoEngineers’ Scope of Work specifically excludes the investigation, detection, prevention, or assessment of the presence of Biological Pollutants in or around any structure. Accordingly, this report includes no interpretations, recommendations, findings, or conclusions for the purpose of detecting, preventing, assessing, or abating Biological Pollutants. The term “Biological Pollutants” includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

