



September 12, 2012

Mr. Jeffrey Jones  
Greater Moscow Area Coalition Brownfield Project  
City of Moscow  
206 E. Third Street  
Moscow, Idaho 83843

Re: Addendum to the Sampling and Analysis Plan  
Phase II Environmental Site Assessment  
Old Dumas Seed Site, 103 North Almon Street, Moscow, Idaho

Dear Jeff,

This document presents an addendum to the Sampling and Analysis Plan (SAP) (Tetra Tech, 2012) for a Phase II environmental site assessment (ESA) of the Old Dumas Seed Site ("Site"). Project personnel will use this SAP addendum, the Master Quality Assurance Project Plan (QAPP in Appendix B; TerraGraphics, 2011), the Phase II SAP (Tetra Tech, 2012) and a Health and Safety Plan included in the Phase II SAP to complete the proposed scope of work.

The Site is located at 103 North Almon Street in Moscow, Latah County, Idaho (**Figure 1, Attachment A**). The subject property is comprised of two parcels with a combined total size of approximately 1.78-acres. The Site is bounded to the north by West A Street, to the east by North Almon Street, to the west by North Asbury Street, and to the south by residential properties. Tetra Tech completed a Phase II ESA at the Site in April 2012, results of which were presented to the City of Moscow in a draft report dated June 13, 2012. Following their review, the City of Moscow requested a supplemental investigation and risk evaluation to further evaluate potential risk impacted surface soil at the Site poses to human health and the environment.

The following sections present the proposed addendum to the SAP, a cost estimate to complete that work and an estimated schedule. Referenced figures are presented in **Attachment A**. An estimated breakdown of costs to complete the proposed scope of work is presented in **Attachment B**.

## **Proposed Phase II ESA SAP Addendum**

### ***Surface Soil Sampling***

Preliminary results of the initial investigation presented in the draft report indicated widespread distribution of several contaminants of potential concern (COPCs) across surface soil sampled from the 0- to 6-inch depth interval at the Site. Additional characterization and risk evaluation of site soil is needed at the site.

**Tetra Tech**

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### Sample Method

Tetra Tech proposes to collect surface soil samples over the entire property to characterize the nature, extent, and magnitude of contamination. Field personnel will perform lateral and vertical soil sampling in order to characterize potential impacts at the Site. Tetra Tech proposes to conduct the investigation using an incremental sampling methodology (ISM). Tetra Tech will generally follow the Incremental Sampling Methodology (ISM) described in The Interstate Technology & Regulatory Council (ITRC) Technical and Regulatory Guidance document for Incremental Sampling Methodology (ITRC 2012).

The ISM process consists of estimating the mean concentration of contaminants in specified volumes of soil referred to as decision units (DUs). Numerous increments (i.e. subsamples) of soil are collected from areas specified as sampling units (SUs) that are combined into one ISM sample in order to reduce data variability and provide more consistent results compared to discrete sampling methods.

Tetra Tech understands that an on-site contractor Rehistoric Wood Products (Rehistoric) is currently dismantling Site buildings in order to salvage the wood and recycle metal used to construct those structures. Portions of the site structures as well as dismantled products and debris from these structures will likely be in place at the time of the supplemental investigation which may reduce access to portions of each DU. Tetra Tech will coordinate the sampling event with Rehistoric in order to gain access to as much of the Site as possible.

Soil samples obtained from the sampling units within the NDU and SDU will be obtained using decontaminated hand tools such as a shovel, digging bar or similar. Tetra Tech will use a portable electric jackhammer to gain access to the top 1-foot of soil beneath the asphalt in SDU near the weigh scale house. Sampling equipment will be decontaminated between DUs. For this investigation the Site sampling area consists of three DUs that corresponds with; 1) the warehouse building (north DU; NDU); 2) the mill building (south DU; SDU); and 3) the railroad line (RDU) (**Figure 1**). A description of the areas follows.

- NDU: NDU consists of one SU. The SU includes the soil surrounding the warehouse on all sides. For the southern side of the warehouse that adjoins the railroad line, the DU/SU boundary is designated as the area from the warehouse wall to 10 feet south, toward the railroad line area. The remaining soil areas surrounding the warehouse are bound by the property boundary. Field personnel will collect one ISM sample from the 0- to 1-foot depth interval from NDU.
- SDU: SDU consists of one SU. SDU consists of those areas north, south, east and west of the mill building. For the northern side of the mill that adjoins the railroad line, the DU/SU boundary is designated as the area from the mill wall to 10 feet north, toward the railroad line area. The eastern portion of the SDU is paved with asphalt. Field personnel will collect one ISM sample from the 0- to 1-foot depth interval from SDU.
- RDU: RDU consists of two SUs; an east SU and a west SU. RDU runs the length of the property between NDU and SDU. Fill has been brought to the property during demolition work due to wet conditions and placed within the former railroad grade area. The fill was placed over top the former railroad grade area and may have been mixed with the

former railroad grade materials. Therefore, the purpose of the sampling is to characterize these materials and particularly the railroad grade materials that may have been buried by the fill, and provide data for possible volume calculations during remedial alternatives evaluations.

Field personnel will collect two ISM samples from each railroad SU. One soil sample will be collected from the 0- to 1-foot depth interval in each SU and a second sample will be collected from the 1- to 2-foot depth interval in each SU for a total of four samples.

**Figure 1** shows the sample locations for each DU/SU. Tetra Tech developed sampling points using GIS. The points were generated randomly using a grid system. Tetra Tech will use a global positioning satellite (GPS) unit in the field to locate the sample locations. Tetra Tech assumes that all sample areas will be clear of equipment, demolition products, and debris at the time of the sampling. If the sampling areas are not clear, adjustments will be made to collect samples as close as possible to the randomly generated locations.

Of note, the mill and warehouse structures were omitted from the random sample generation because it is unknown at this time whether sampling beneath flooring will be possible during the sampling event. Where portions of the warehouse and mill structures remain (e.g. foundations, wood flooring, etc.), Tetra Tech will work with Rehistoric to gain access, where feasible, to obtain soil from the 0- to 1-foot depth interval beneath the flooring to evaluate potential COPCs in crawlspaces, access-ways or conveyor runs. However, Tetra Tech will not cut through or destroy any aspect of the structure (e.g. flooring, foundations, etc.) to gain access to subfloor soil. Tetra Tech will also not enter any space that is considered a confined space to sample soil.

If sampling within the footprint of the structures is possible, field personnel will sample from available locations (estimate up to 5 locations from each structure) and document the location with a global positioning satellite (GPS) unit or, if not possible due to overhead coverage (e.g. existing roof), will document the approximate location by estimation and measuring within the structure.

### Soil Analyses

Samples will be labeled to include the site name (Dumas Seed Site; "DSS-"). Since the NDU and SDU decision units are each comprised of one sampling unit, the sample designations will include the DU name and the sample interval. As an example, the ISM sample obtained from north decision unit (NDU) at the 0 to 1-foot soil depth interval will be labeled as follows: DSS-NDU(0-1').

The RDU was divided into 2 sampling units; RSUW (west sampling unit) and RSUE (east sampling unit). The samples obtained from RDU will identify the site name, the sampling unit and the sample interval. As an example, the sample obtained from the west sampling unit of RDU at the 0 to 1-foot soil depth interval will be labeled as follows: DSS-RSUW(0-1').

In accordance with the SAP (Tetra Tech, 2012), soil samples will be analyzed for the following parameters.

SURFACE SOIL INVESTIGATION						
Media	Number of Sampling Units (SU)	Total Number of Soil Samples	Number of QA/QC Samples	Total Anticipated Number of Samples Collected for Analysis	Analytical Parameter	EPA Method
Soil	4	6*	3**	14	Herbicides Pesticides/Organochlorine Pesticides Organophosphphorus Pesticides 8 RCRA Metals + Copper	8151 8081 8141 6020/7471

\*NDU – 1 soil sample from 0- to 1-foot; SDU – 1 soil sample from 0- to 1-foot; RDU – 2 soil samples from 0- to 1-foot (east and west SUs) and 2 soil samples from the 1- to 2-foot (east and west SUs).

\*\* 1 soil duplicate, 1 soil triplicate, 1 rinseate blank

### **Comparison of Analytical Results with Screening Levels/Standards**

Unless otherwise directed by the City of Moscow or Idaho Department of Environmental Quality (IDEQ), soil results will be compared to IDTLs. If concentrations exceed IDTLs, the IDEQ Risk Evaluation Manual (REM) (IDEQ, 2004) will be used to further evaluate site risk consistent with the method(s) approved for the Dumas Seed Site in July 2012. In addition, arsenic concentrations will be compared to the 15 milligrams per kilogram (mg/kg) background soil concentration established for the Spokane, Washington area, and lead concentrations will be compared to 400 mg/kg, the value established for cleanup work for the Bunker Hill Superfund Site in northern Idaho.

### **Phase II ESA Report and Risk Assessment**

Tetra Tech will incorporate methods and results of the supplemental field investigation in the Phase II ESA report for the Site which is currently in draft format. Tetra Tech will also perform an additional risk assessment using the IDEQ’s REM and analytical results of the surface soil samples. The risk assessment will be performed to evaluate what, if any, risk contamination in site soil and/or groundwater may pose to human health or the environment. The draft report will be resubmitted to the City of Moscow for review and comment.

### **Cost Estimate**

**Attachment B** includes the task order and cost estimate to complete the above work. The estimated cost to complete the work is \$25,365.00.

### **Schedule**

The following presents a tentative schedule for the above work. Ultimately, the schedule will depend upon the date of a signed task order and notification to proceed, agency review times, and analytical laboratory turn-around-times.



Mr. Jeffery Jones  
City of Moscow  
Addendum to SAP  
Old Dumas Seed Site – 103 N. Almon  
September 12,, 2012

- Complete supplemental Phase II field investigation – September 2012
- Complete additional risk analysis and revise draft Phase II report – October 2012.
- Submit final Phase II report following receipt of comments from City of Moscow – November 2012.

## References

Idaho Department of Environmental Quality (IDEQ) 2004, Idaho Risk Evaluation Manual, Final. July.

Interstate Technology & Regulatory Council (ITRC) 2012. Technical and Regulatory Guidance document for Incremental Sampling Methodology

TerraGraphics Environmental Engineering, Inc. 2011. Master Quality Assurance Project Plan for the City of Moscow Phase II Environmental Site Assessments, Moscow, Idaho. Prepared for City of Moscow. Dated October 31, 2011.

Tetra Tech, 2012. Final, Sampling and Analysis Plan, Phase II Environmental Site Assessment, Old Dumas Seed Site, 103 N. Almon Street, Moscow, Idaho. Dated March 26, 2012.

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Tetra Tech appreciates the opportunity to assist you with this project and provide you with this cost estimate and proposal. Please contact me at 406.543.3045 with questions or comments regarding the scope of work or attached cost estimate.

Sincerely,

**Tetra Tech**

A blue ink signature of Jerold A. Armstrong, written in a cursive style.

Jerold A. Armstrong, LG  
Sr. Geologist

A blue ink signature of Natalie J. Morrow, written in a cursive style.

Natalie J. Morrow, LG, LHG  
Project Manager/Sr. Environmental Geologist

Attachments: A – Figure  
B – Task Order and Cost Estimate

**ATTACHMENT A**



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© 2012 Microsoft Corporation Bing Maps on ArcGIS Online: <http://www.arcgis.com>



- NDU Random Sample Location
- ☆ RSUW Random Natural Sample Location
- ◆ RSUW Random Duplicate Sample Location
- RSUW Random TriPLICATE Sample Location
- ⊕ RSUE Random Sample Location
- ▲ CreateRandomPoints\_SDU
- ⊕ Existing Monitoring Well
- Approximate Decision Unit Boundary
- ▭ Approximate Property Boundary
- NDU
- RDU
- SDU

**Figure 1**  
**Phase II ESA SAP Addendum**  
**Moscow, Idaho**

**Phase II ESA - Old Dumas Seed Site - 103 N. Almon Street**  
**Greater Moscow Area Coalition Brownfield Project**

**ATTACHMENT B**



## CITY TASK ORDER

This Task Order, entered into this   12   day of   September  , 2012, between the City of Moscow, Idaho (hereinafter referred to as "CITY") and   Tetra Tech, Inc.   (hereinafter referred to as the "CONSULTANT"), is subject to the provisions of the RFQ/P for Environmental Consulting Services and the Professional Services Contract with Tetra Tech dated August 8, 2011.

This Task Order was developed based on a request by Mr. Jeff Jones to complete a supplemental Phase II Environmental Site Assessment (ESA) at the 103 N. Almon Street (Old Dumas Seed Site) as part of the Greater Moscow Area Coalition Brownfield Project (hereinafter referred to as the "Agreement"). Specific work tasks associated with the supplemental investigation are described in the Addendum to the Sampling and Analysis Plan Phase II ESA prepared by Tetra Tech, dated September 12, 2012.

### WITNESSETH :

WHEREAS, CITY intends to complete a supplemental Phase II ESA for the Old Dumas Seed Site (103 N. Almon Street, Moscow, Idaho) as part of the Greater Moscow Area Coalition Brownfield Project, hereinafter referred to as the Project;

NOW, THEREFORE, CITY and CONSULTANT in consideration of their mutual covenants herein agree in respect as set forth below.

### Client Information And Responsibilities:

The CITY will provide CONSULTANT the data and/or services as specified in the Agreement.

In addition, the CITY will furnish to CONSULTANT any information available at the time of the Phase II ESA, as needed or requested, that would aid in the completion of the Phase II ESA, including site access for Tetra Tech and its subcontractors. The CITY will also assist the CONSULTANT in obtaining owner-granted access to the project site. CONSULTANT will work with the CITY on other needs as they arise.

CONSULTANT(S) will perform said services in a reasonable time as per the estimate below:

- Supplemental Phase II ESA field work: 5 business days to complete
- Laboratory analytical results: Standard turn-around-time 10-20 business days, depending upon type of analysis.
- Prepare draft Phase II ESA report within 15 business days, or sooner, of receipt of laboratory analytical results. Allow 30 days for CITY and EPA review of the Phase II ESA report. Prepare final Phase II ESA report within 8 business days of receipt of CITY and EPA comments, or sooner.

The final field schedule will depend upon site access, subcontractor availability, and any inclement weather (e.g. lightning, snow storms, etc.).

CONSULTANT will work closely with the CITY to develop a project schedule once work has been awarded.

### Basis of Fee And Billing Schedule:

The CITY will pay CONSULTANT for its services and reimbursable expenses as per the proposal per the time and materials, not to exceed, estimated cost of \$25,365.00 to cover all labor and direct costs to complete the field investigation work and prepare the draft and final Phase II ESA report.

IN WITNESS WHEREOF, the Parties hereto have executed this Task Order Agreement as of the day and year first above written.

City of Moscow

Consultant

Recommended for approval:

Yes  No

I hereby acknowledge receipt and acceptance of this Task Order for:

Approved by (Signature): 	Approved by (Signature): 
Print Name: Jeffrey B. Jones	Print Name: Natalie J. Morrow
Title: Econ Dev Specialist	Title: Project Manager/Sr. Environmental Geologist
Date: 9-17-2012	Date: 9-12-12

\* Subject to approval by EPA for SAP Amendment.

**COST ESTIMATE  
ADDENDUM TO SAP  
OLD DUMAS SEED SITE  
103 N. Almon, Moscow, Idaho  
Tetra Tech - September 2012**

**TASK 1: FIELD INVESTIGATION**

	Unit	Rate	Cost
<b>LABOR, Per Hour</b>			
Project Manager	16	\$110.00	\$1,760.00
Project Scientist (field investigation)	40	\$110.00	\$4,400.00
Staff Scientist (field investigation)	40	\$85.00	\$3,400.00
Word Processor/Project Support	2	\$50.00	<u>\$100.00</u>
		<b>Total Labor</b>	<b>\$9,660.00</b>

**DIRECT COSTS**

**Field Equipment & Supplies**

Vehicle rental, per day	6	\$35.00	\$210.00
Lodging, per night (at cost)	10	\$85.00	\$850.00
Per Diem, per day	12	\$30.00	\$360.00
GPS Unit, per day	5	\$85.00	\$425.00
Miscellaneous Supplies (ice, PPE, baggies, etc.), per project	1	\$125.00	\$125.00
Jackhammer (asphalt areas), per day	1	\$120.00	\$120.00
Asphalt patch, per bag	1	\$10.00	\$10.00
Sample shipping charges, estimated, billed at cost	1	\$75.00	<u>\$75.00</u>
		<i>Total Field Equipment &amp; Supplies</i>	<i>\$2,175.00</i>

**Laboratory Subcontractor - Lancaster Laboratories**

***ISM - Surface Soil (four 0-to-1'; two 2- to 2'-foot)***

<i>Herbicides by 8151A</i>	6	\$132.00	\$792.00
<i>Organochlorine Pesticides by 8081</i>	6	\$120.00	\$720.00
<i>Organophosphorus Pesticides by 8141</i>	6	\$120.00	\$720.00
<i>8 RCRA Metals + Copper by 6020/7471</i>	6	\$58.00	\$348.00

***Soil QA/QC Samples (1 ISM Duplicate, 1 ISM Triplicate + 1 Equipment Rinseate Blank)***

<i>Herbicides by 8151A</i>	3	\$132.00	\$396.00
<i>Organochlorine Pesticides by 8081</i>	3	\$120.00	\$360.00
<i>Organophosphorus Pesticides by 8141</i>	3	\$120.00	\$360.00
<i>8 RCRA Metals + Copper by 6020/7471</i>	3	\$58.00	<u>\$174.00</u>

*Total Laboratory Subcontractor Costs*      \$3,870.00

**Total Direct Costs**      **\$6,045.00**

**TOTAL TASK 1**      **\$15,705.00**

**TASK 2: RISK EVALUATION AND REVISE DRAFT PHASE II ESA REPORT**

	Unit	Rate	Cost
<b>LABOR, per hour</b>			
Project Manager	20	\$110.00	\$2,200.00
Sr. Scientist - Risk evaluation & modify report	40	\$125.00	\$5,000.00
Staff Scientist	5	\$85.00	\$425.00
GIS	2	\$75.00	\$150.00
Word Processor/Project Support	2	\$50.00	<u>\$100.00</u>
		<b>Total Labor</b>	<b>\$7,875.00</b>
		<b>TOTAL TASK 2</b>	<b>\$7,875.00</b>

**TOTAL ESTIMATED PROJECT COST**      **\$25,365.00**