Smith, Ralph N - DNR

From:

Dave Larsen < dlarsen@reiengineering.com>

Sent:

Tuesday, April 25, 2017 10:16 AM

To: Subject: Smith, Ralph N - DNR Hedlund DX, Falun

Attachments:

7367 GP Proposal 4-17.pdf

Follow Up Flag:

Follow up

Flag Status:

Flagged

Ralph, proposed work is to complete the SI and sample the soil on the adjacent property where the Hedlund DX 1,000 gallon UST was located. Previously access was not approved and REI has now received access to investigate the neighboring property. Intent is to advance three (3) Geoprobe borings and sample soil (2 samples per boring) for PVOC/N and GRO sample for landfill purposes. A single groundwater sample will also be collected (PVOC/N) from each boring. REI will properly dispose of all investigative waste and prepare a letter report documenting the findings. This should be the final step before finalizing the dimensions of the proposed remedial action (soil excavation), which should be completed in 2017. Please let me know if you have any questions or concerns.

Thank you,
David N. Larsen P.G
Hydrogeologist / Professional Geologist



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Usual and Customary Standardized Invoice #21 January 2017 - June 2017





 PECFA #:
 54810-9999-00
 Vendor Name:
 REI

 BRRT's #:
 03-07-000151
 Invoice #:
 U&C Total \$ 4,062.98

 Site Name:
 Hedlund DX
 Invoice Date:
 4/25/17 Proposal Date
 Variance to U&C Total \$

 Site.Address:
 10557 Hwy 70, Falun
 Check #:
 Grand Total \$ 4,062.98

| TASK | TASK DESCRIPTION | SERVICES | ACTIVITY CODE | ACTIVITY REFERENCE CODE DESCRIPTION | UNIT | N | MAX UNIT UI COST UI | NITS | TOTAL MAX |
|------|--------------------------------------|------------|------------------|---|--------------|----|------------------------|-------|--------------|
| 4 | Waste Disposal | Consultant | WD05 | Consultant Coordination | Site | \$ | 137.13 | 1 \$ | 137.13 |
| 4 | Waste Disposal | Commodity | WD15 | Drill Cuttings | Drum | \$ | 108.15 | 1 \$ | 108.15 |
| 4 | Waste Disposal | Commodity | WD25 | Primary Mob/Demob | Site | \$ | 287.70 | 1 \$ | 287.70 |
| 6 | Letter Report/Addendum | | LRA05 | Letter Report/Addendum | Letter | \$ | 1,039.29 | 1 \$ | 1,039.29 |
| 12 | Direct Push | Consultant | DP05 | 0 - 24 ft bgs W/ Continuous Soil Sampling | Ft | \$ | 5.36 | 15 \$ | 80.40 |
| 12 | Direct Push | Consultant | DP20 | GW Sample Collection | Each | \$ | 36.10 | 1 \$ | 36.10 |
| 12 | Direct Push | Consultant | DP30 | Primary Mob/Demob | Site | \$ | 512.10 | 1 \$ | 512.10 |
| 12 | Direct Push | Commodity | DP35 | 0 - 24 ft bgs W/ Continuous Soil Sampling | Ft | \$ | 6.93 | 15 \$ | 103.95 |
| 12 | Direct Push | Commodity | DP50 | GW Sample Collection (cost for tubing) | Ft | \$ | 0.42 | 20 \$ | 8.40 |
| 12 | Direct Push | Commodity | DP 7 0 | GW Sample Collection | Each | \$ | 39.27 | 1 \$ | 39.27 |
| 12 | Direct Push | Commodity | DP80 | Mob/Demob (Includes decon) | Site | \$ | 526.05 | 1 \$ | 526.05 |
| 15 | Misc. Drilling Activities & Supplies | | MDT21 | Drum, 55 gal. DOT steel | Each | \$ | 55.13 | 1 \$ | 55.13 |
| 21 | Access Agreements | | AA05 | Access Agreements | Property | \$ | 401.94 | 1 \$ | 401.94 |
| 33 | Schedule Of Laboratory Maximums | Commodity | | Laboratory (see task 33 total on Lab Schedule) | Lab Schedule | | | 1 \$ | 345.59 |
| 36 | Change Order Request | | COR05 | Change Order Request (cost cap exceedance requests) | Change Order | \$ | 381.78 | 1 \$ | 381.78 |

Usual and Customary Standardized Invoice #21 January 2017 - June 2017





| | | TOTAL LAB CHARG | TOTAL LAB CHARGES \$ 345.59 | | | TASK 33 14 | | | TA | SK 24 | C | 0 \$ - | |
|--------|------------|-----------------------------------|-----------------------------|----|----------|------------|----|--------|-----|--------|-----------------------|--------|--|
| MATRIX | REF CODE | REIMBURSABLE ANALYTE | UNITS | | MAX COST | SAMPLES | | ΓΟΤΑL | MA | x cost | SAMPLES | TOTAL | |
| AIR | A1 | Benzene | SAMPLE | \$ | 44.94 | | \$ | - | | | | | |
| AIR | A2 | BETX | SAMPLE | \$ | 49.46 | | \$ | - | | | | | |
| AIR | A3 | GRO | SAMPLE | \$ | 46.10 | | \$ | _ | | | | | |
| AIR | A4 | VOC's | SAMPLE | \$ | 71.93 | | \$ | _ | | | | | |
| VATER | W1 | GRO/PVOC | SAMPLE | \$ | 29.19 | | \$ | _ | | | | | |
| VATER | W2 | PVOC | SAMPLE | \$ | 26.99 | | \$ | | | | | | |
| VATER | W3 | PVOC + 1,2 DCA | SAMPLE | \$ | 43.79 | | \$ | - | | | | | |
| VATER | W4 | PVOC + 1,2 DOA PVOC + Naphthalene | SAMPLE | \$ | 30.35 | 1 | \$ | 30.35 | | | | | |
| | W5 | · | | | | • | | | | | | | |
| VATER | | VOC | SAMPLE | \$ | 71.93 | | \$ | | | | | | |
| VATER | W6 | PAH | SAMPLE | \$ | 72.98 | | \$ | - | | | | | |
| VATER | W7 | Lead | SAMPLE | \$ | 12.39 | | \$ | - | | | | | |
| VATER | W 8 | Cadmium | SAMPLE | \$ | 13.55 | | \$ | - | | | | | |
| NATER | W 9 | Hardness | SAMPLE | \$ | 12.39 | | \$ | - | | | | | |
| VATER | W10 | BOD, Total | SAMPLE | \$ | 23.63 | | \$ | - | | | | | |
| WATER | W11 | Nitrate | SAMPLE | \$ | 11.24 | | \$ | - | | | | | |
| VATER | W12 | Total Kjeldahl | SAMPLE | \$ | 20.27 | | \$ | - | | | | | |
| VATER | W13 | Ammonia | SAMPLE | \$ | 16.91 | | \$ | - | | | | | |
| VATER | W14 | Sulfate | SAMPLE | \$ | 10.19 | | \$ | - | | | | | |
| VATER | W15 | Iron | SAMPLE | \$ | 10.19 | | \$ | _ | | | | | |
| VATER | W16 | Manganese | SAMPLE | \$ | 10.19 | | \$ | _ | | | | | |
| VATER | W17 | Alkalinity | SAMPLE | \$ | 10.19 | | \$ | _ | | | | | |
| VATER | W18 | methane | SAMPLE | \$ | 46.10 | | \$ | _ | | | | | |
| VATER | W19 | Phosphorous | SAMPLE | \$ | 18.06 | | \$ | _ | | | | | |
| VATER | W20 | VOC Method 524.2 | SAMPLE | \$ | 176.30 | | \$ | _ | | | | | |
| VATER | W21 | EDB Method 504 | SAMPLE | \$ | 95.45 | | \$ | _ | MAN | COST | SAMPLES | TOTAL | |
| SOILS | S1 | GRO | SAMPLE | \$ | 24.78 | 1 | \$ | | \$ | 24.78 | SAMPLES | | |
| | S2 | DRO | SAMPLE | | 30.35 | 1 | | | | | | \$ - | |
| SOILS | | | | \$ | | | \$ | - | \$ | 30.35 | | \$ - | |
| SOILS | S3 | GRO/PVOC | SAMPLE | \$ | 28.14 | | \$ | - | \$ | 28.14 | | \$ - | |
| SOILS | S4 | PVOC | SAMPLE | \$ | 25.83 | | \$ | - | \$ | 25.83 | | \$ - | |
| SOILS | S5 | PVOC + 1,2 DCA + Naphthalene | SAMPLE | \$ | 49.46 | | \$ | - | \$ | 49.46 | | \$ - | |
| SOILS | S6 | PVOC + Naphthalene | SAMPLE | \$ | 36.02 | 6 | \$ | 216.12 | \$ | 36.02 | | \$ - | |
| SOILS | S 7 | VOC | SAMPLE | \$ | 71.93 | | \$ | - | \$ | 71.93 | | \$ - | |
| SOILS | S8 | SPLP Extraction VOC only | SAMPLE | \$ | 50.61 | | \$ | - | \$ | 50.61 | | \$ - | |
| SOILS | S9 | PAH | SAMPLE | \$ | 72.98 | | \$ | - | \$ | 72.98 | | \$ - | |
| SOILS | S10 | Lead | SAMPLE | \$ | 12.39 | 6 | \$ | 74.34 | \$ | 12.39 | | \$ - | |
| SOILS | S11 | Cadmium | SAMPLE | \$ | 14.60 | | \$ | - 1 | | | SK 24 TOTAL | \$ - | |
| SOILS | S12 | Free Liquid | SAMPLE | \$ | 11.24 | | \$ | - ' | | Vi | the same and the same | | |
| SOILS | S13 | Flash Point | SAMPLE | \$ | 25.83 | | \$ | _ | | | | | |
| SOILS | S14 | Grain Size - dry | SAMPLE | \$ | 42.74 | | \$ | | | | | | |
| | S15 | Grain Size - wet | SAMPLE | \$ | 57.33 | | \$ | - | | | | | |
| SOILS | | | | | | | | | | | | | |

| MATRIX | REF CODE | REIMBURSABLE ANALYTE | UNITS | | MAX COST | SAMPLES | TOTAL | MAX COST | SAMPLES | TOTAL |
|--------|----------|---|--------|------|----------|-------------|-------|----------|---------|-------|
| SOILS | S17 | Permeability | SAMPLE | \$ | 41.58 | | \$ - | | | |
| SOILS | S18 | Nitrogen as Total Kjeldahl | SAMPLE | \$ | 20.27 | | \$ - | | | |
| SOILS | S19 | Nitrogen as Ammonia | SAMPLE | \$ | 16.91 | | \$ - | | | |
| SOILS | S20 | % Organic Matter | SAMPLE | \$ | 29.19 | | \$ - | | | |
| SOILS | S21 | TOC as NPOC | SAMPLE | \$ | 57.33 | | \$ - | | | |
| SOILS | S22 | Soil Moisture Content | SAMPLE | \$ | 6.83 | | \$ - | | | |
| SOILS | S23 | Air Filled Porosity | SAMPLE | \$ | 25.83 | | \$ - | | | |
| SOILS | S24 | % Total Solids | SAMPLE | \$ | 6.83 | | \$ - | | | |
| SOILS | S25 | Field Capacity | SAMPLE | \$ | 28.14 | | \$ - | | | |
| SOILS | S26 | TCLP Lead | SAMPLE | \$ | 83.16 | | \$ - | | | |
| SOILS | S27 | Cation Exchange (Ca, MG, & K) | SAMPLE | \$ | 26.99 | | \$ - | | | |
| SOILS | S28 | TCLP Cadmium | SAMPLE | . \$ | 83.16 | | \$ - | | | |
| SOILS | S29 | TCLP Benzene | SAMPLE | \$ | 83.16 | | \$ - | | | |
| | | Viscosity + Density | | | | | | | | |
| LNAPL | LFPS01 | Interfacial tension I (LNAPL/water [dyne/cm]) Interfacial tension II (LNAPL/air [dyne/cm]) Interfacial tension III (water/air) [dyne/cm]) | SAMPLE | \$ | 561.33 | | \$ - | | | |
| | | | | Bi-E | TAS | SK 33 TOTAL | | | | |