

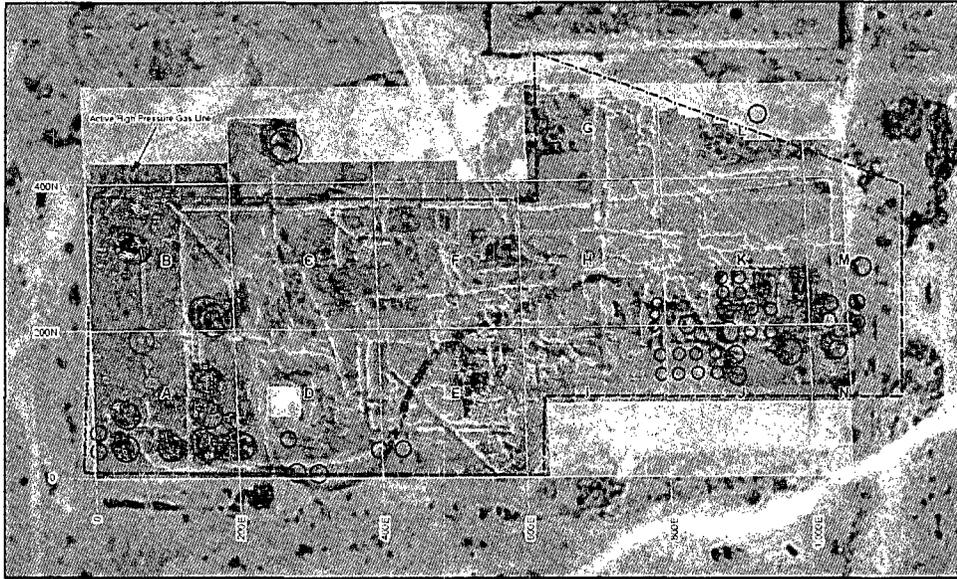
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Workplans

2009

WORK PLAN and COST ESTIMATE for REMEDIAL INVESTIGATION/REMOVAL ACTION

Former Enersource Facility, Monument, New Mexico



Submitted to:

State of New Mexico Energy, Minerals
& Natural Resources Department
New Mexico Oil Conservation Division

Submitted by:



6000 Uptown Boulevard NE, Suite 100
Albuquerque, New Mexico 87110

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1.0 INTRODUCTION

This work plan, which includes a scope of work (SOW) and cost estimate, is being submitted for a proposed remedial investigation/removal action project at the former Enersource facility (Site) in Monument, Lea County, New Mexico. A project location map is provided in Figure 1. This work plan was prepared in response to a verbal request from Mr. Jim Griswold of the New Mexico Oil Conservation Division (NMOCD) to Mr. Joe A. Galemore of INTERA Inc. (INTERA) in February and April 2009. The cost estimates provided in Appendix A and Appendix B are based on State of New Mexico, General Services Department, Pricing Agreement # 80-805-00-03377 dated July 14, 2008.

The purpose of the project is to:

1. Remove contaminated soil beneath an abandoned pit on New Mexico State Land Office property located southwest of the Site (Figure 2); and
2. Collect sufficient data for future remediation planning and cost estimating.

The following subsections describe the Site, summarize previous project activities, and present an evaluation of potential investigation methods to achieve the project's second objective. Section 2 of the work plan provides the proposed scope of work for the selected investigation method. Sections 3, 4, and 5 provide a project schedule, cost estimate, and qualifications of personnel, respectively. Cost estimate summaries and details are provided in Appendix A and B.

1.1. Site Description and Project Background

The Site covers 9.56 acres and is located in the northwest quarter of Section 1, Township 20 South, Range 36 East, Lea County, New Mexico (Figure 1). The Site is at an elevation of approximately 3,580 feet above mean sea level. The surface in the vicinity slopes down from northwest to southeast at a gradient of approximately 0.003 feet/foot (16 feet/mile). Monument Draw, a northwest to southeast flowing intermittent stream, is located about 2-1/2 miles south of the Site.

The estimated property boundary and the fenced area believed to have been used by Enersource operations are illustrated on Figure 2. As indicated on Figure 2, some facilities believed to have been used by Enersource (e.g., the pit, which is the subject of the removal action proposed in this work plan, located southwest of the property boundary) are believed to be outside of the property boundary.

Land in the area is used for oil and gas exploration/production and cattle ranching. The Versado Gas Processing Plant (remediation permit # 1R-281) is located immediately adjacent to the



northern property boundary. El Paso Natural Gas operates a facility within 500 feet of the eastern property boundary. Numerous oil/gas wells, pump jacks, and storage tanks are in the vicinity. Remediation of light non aqueous phase liquids (LNAPL) is ongoing at the Versado Plant and depth to water ranges from 25 to 35 feet below ground surface (bgs) (Mr. Cal Wrangham of Targa, the current operator of the Versado Plant, personal communication, 2006)

A search of the State Engineer WATERS database revealed seven water wells within one-mile of the Site and two within Section 1. The closest well is a domestic supply well located approximately 2,000 feet north of the Site; no information concerning depth to water was provided in the WATERS database. The next closest well is also a domestic supply well located about 3,000 feet east of the Site. The WATERS database lists the depth to water in this well as 40 feet bgs.

Based on historical aerial photographs taken in 1949, 1966, and 1978 it appears that significant development at the Site occurred after 1949. The aerial photograph taken in 1949 reveals one large tank that straddles the Site boundary, but, with the exception of some roads, the remainder of the Site is undeveloped. The 1966 and 1978 photographs show numerous (> 25) above ground tanks located within or slightly outside the property boundary. The tanks are arranged into an eastern and a western cluster. The tank sizes within the western cluster are, in general, larger than the tanks in the eastern cluster. The two clusters of tanks are separated by a central area that contains buildings and, based on the shape of the shadows, tall narrow structures. Mr. Larry Parker, a long time resident of Lea County and former employee of Controlled Recovery Incorporated, stated that the Site was used as a jet fuel refinery. Therefore, these tall, narrow structures formerly located in the central part of the Site may be cracking or distillation towers. Given the larger tank sizes, the western part of the property was probably used for crude storage; and the eastern cluster was used for product storage. A tractor trailer truck can be seen in the 1978 aerial photograph just north of the central processing area; this area may have been used for product loading.

It is unknown how long refinery operations occurred at the Site. Based on information obtained from the Lea County Tax Assessor, Enersource became the property owner in 1985. Our understanding is that Enersource used the facility to reclaim crude oil until sometime prior to 2006 when INTERA was contracted by OCD. Mr. Parker stated that the structures formerly located in the central part of the Site were dismantled and sold for scrap. The structures and materials that were not sold were buried in the west-central portion of the Site. It is unknown when this occurred. As discussed below, this waste has been removed from the Site.

INTERA was contracted in 2006 to test the existing aboveground storage tanks (ASTs) and fluids/sludge for naturally occurring radioactive materials (NORM) and subsequently remove



these materials from the Site. The ASTs and some underground piping were removed from the Site and disposed of at an off-Site facility in the summer of 2006. During the removal action, soil samples were collected at several locations and analyzed for the presence of total petroleum hydrocarbons (TPH), diesel range and motor oil range organics (DRO and MRO), and chlorides (Figure 2). Concentrations for TPH-DRO ranged from 2,900 to 9,400 mg/Kg, only one concentration was detected for TPH-MRO (6,000 mg/Kg), and concentrations of chloride ranged from 4.7 to 570 mg/Kg (Figure 2).

In April 2007, a geophysical survey was performed with the purpose of identifying buried, metal objects at the Site. The survey revealed the presence of several thousand feet of underground piping and large metal objects scattered throughout the Site. From May to June, 2007, INTERA and its subcontractor removed these subsurface materials and disposed of them at an off-Site facility. Trenching performed during the piping removal and soil samples collected during previous removal actions revealed contaminated soils in several areas. These areas are illustrated on Figure 2.

1.2. Remedial Investigation Method Evaluation and Selection

Site characteristics (i.e., nature, extent, and magnitude of contamination and subsurface geologic conditions) are poorly understood; therefore, before a remedial strategy and cost estimate can be developed, an investigation involving the collection of soil and ground water samples is required. This section of the work plan evaluates the advantages and disadvantages of using different drilling techniques to perform the remedial investigation and includes a discussion and cost estimate for passive soil gas screening as a means to minimize costly drilling.

Before a critical evaluation of drilling techniques can be conducted, it is important to first understand what is known about the Site and what conditions may affect the selection of a drilling method. First, it appears that subsurface impacts cover a large portion of the 9-acre Site; however, the data collected to date has been at obvious source areas such as within trenches for underground piping and at locations of stained surface soils. Therefore, the investigation needs to be extensive enough to determine if the impacts are horizontally continuous and whether they reach ground water. Second, soils are sandy and generally unconsolidated; however, a hard caliche or well cemented sand layer exists at about 13 feet bgs. This layer may cause drilling refusal depending on the drilling method. Lastly, ground water exists at about 30 feet bgs; however, it is unknown whether or not ground water is impacted by releases of hydrocarbons (INTERA, 2007); therefore, the drilling technique or techniques need to be appropriate for installing monitoring wells.



Three drilling technologies, namely direct push technology (DPT), hollow stem auger (HSA), and air rotary, were evaluated as a means to collect the soil and ground water data necessary for the remedial investigation. DPT drilling uses a small rig and a one or two person crew to advance small diameter soil and ground water sampling devices. The advantage of using DPT drilling is that discrete soil and ground water samples can be collected quickly and inexpensively relative to the other techniques. The disadvantage of this technique is that drilling may not be able to penetrate the hard layer that exists at 13 feet bgs and, although a ground water sample can be collected through the drill rods, a monitoring well meeting OCD specifications cannot be installed.

HSA drilling uses a two- to three-person crew and a rig that is larger than a DPT rig. The advantage of HSA drilling is that it is more powerful than DPT and less expensive than air rotary. Furthermore, the augers eliminate the potential collapse of the borehole while drilling; thus discrete soil sampling and the installation of monitoring wells are relatively easy. The disadvantage of HSA drilling is that it may not be able to penetrate the hard layer at 13 feet bgs, and it is more expensive than DPT drilling.

Air rotary drilling typically uses a two- to three-person crew and a rig that is larger than an HSA rig. The advantage of air rotary drilling is that it is more powerful than DPT and HSA, and therefore, can penetrate hard rock layers such as the one at 13 feet bgs. The disadvantages are (1) it is more expensive than HSA and DPT drilling because soil sample collection time is higher and a large air compressor is needed (2) the large volumes of hot air used in the drilling process may volatilize contaminants, and (3) the borehole may collapse making soil sampling and well installation problematic.

The next part of the evaluation included the estimation of costs to use each drilling method at the Site. The costs were based on the following assumptions:

- Advance 50 borings (one every approximately 100-feet) using direct push technology, hollow stem auger (HSA), or a combination of HSA air rotary drilling techniques to 30 feet bgs
- Collect 3 samples per boring
- Test the samples for TPH, BTEX, and chlorides

Details and a summary of the cost estimate are attached in Appendix A. As indicated in the summary table in Appendix A, the estimated cost of DPT drilling is 42% lower than HSA drilling and 54% lower than air rotary, and the costs for soil sampling and analysis range from a low of \$60,000 for DPT drilling and a high of \$130,000 for air rotary.



Because of the large area requiring an investigation and the potential for high drilling costs, the use of a passive soil gas survey was evaluated as a means to reduce the overall number of sample locations and ultimately reduce drilling and testing costs. According to information obtained from W. L. Gore & Associates, Inc (Gore), a leader in the performance of soil gas screening surveys, the passive soil gas screening process consists of:

- Inserting the Gore™ Module, which consists of a tube containing an engineered sorbent material encased in a Gore-Tex® membrane, into a ½” to ¾” diameter hole approximately 3 feet deep
- Allowing the Module to remain in the shallow subsurface for approximately 2 weeks
- Retrieving the Module and shipping to Gore’s laboratory for soil vapor analysis of volatile organic compounds (VOCs) and polyaromatic hydrocarbons (PAHs)
- Mapping and evaluating the spatial data and selecting target areas for more detailed investigation

For the evaluation, the insertion, retrieving and analysis of a total of 100 Modules were assumed. This number results in an approximate 60-foot spacing, which is within the Gore recommended 25- to 70-foot sample spacing (http://www.gore.com/en_xx/products/geochemical/environmental/surveys_environmental_faq.html#8 ACCESSED April 19). Given these parameters, the estimated soil gas screening survey would cost an estimated \$33,342.50. Cost estimate details are provided in Appendix A.

The next step in the evaluation was to combine costs for conducting a passive soil gas survey with soil sampling using DPT, HSA, and a combination of HSA and air rotary drilling methods. For this evaluation, it was assumed that passive soil gas screening would result in the elimination of half the number of sample locations. In other words, in addition to the passive soil gas survey, a soil investigation consisting of drilling at twenty-five sample locations and the collection and analysis of 75 samples (i.e., 3 samples per boring) were assumed. The results of this evaluation are provided in Appendix A.

As indicated in Appendix A, DPT drilling by itself seems to be the best option of getting the most soil data for the least amount of money. This method will afford the collection of an additional 75 discrete depth samples relative to what a passive soil gas approach will provide at a cost that is roughly half the cost of HSA or air rotary drilling. However, if refusal occurs, other, more expensive drilling methods will need to be used. In this case, a passive soil gas survey should be strongly considered as a means to focus soil sampling and ultimately reduce drilling costs.



The following scope of work includes tasks that assume that DPT drilling will be appropriate to drill the required 30 feet bgs. Optional tasks have been included in the event that DPT drilling meets with refusal.

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2.0 SCOPE OF WORK

INTERA has divided the project SOW into the following five (5) tasks:

- Task 1 – Project Planning and Scheduling
- Task 2 – Soil Boring and Sampling
- Task 3 – Monitoring Well Installation
- Task 4 – Dig and Haul and
- Task 5 – Reporting

2.1. Task 1: Project Planning and Scheduling

This task includes project planning and scheduling activities and includes the development of this work plan. Other project planning and scheduling activities include (1) a revision of the Site specific health and safety plan and compilation of appropriate INTERA standard operating procedures, (2) subcontracting of soil boring characterization and monitoring well installation, (3) right of entry permitting with New Mexico State Land Office and (4) scheduling of field activities. Once the schedule is developed and prior to mobilization to the field, INTERA will perform a New Mexico-required “One-Call” to identify the approximate locations of documented underground utilities at the Site.

2.2. Task 2: Soil Boring and Sampling

This task includes DPT drilling for 8 working days. It is estimated that during that time period fifty (50) soil borings spaced approximately 100 feet apart will be drilled to a depth of approximately 30 ft bgs. The soil borings will be advanced using a track mounted DPT drilling rig, which will advance a one-in-a-half-inch diameter hollow drill rod with a plastic sleeve inside of the rod to collect continuous soil cuttings. During drilling activities an INTERA representative will be on-Site to oversee activities, log the lithology, and field screen all soil cuttings. Field screening will be done using a flame ionization detector (FID) and INTERA standard operating procedures. The boreholes will be backfilled with bentonite and hydrated. The locations of the soil borings will be documented in the field using a previously established grid system. Total footage for the task is estimated at 1,500 ft.

Soil cuttings generated during drilling will be thin spread on-Site. All downhole equipment shall be decontaminated prior to and in between each boring.



Three (3) soil samples from each boring will be selected for laboratory analysis based upon physical appearance and highest field screening results. Samples will be containerized, preserved, and submitted under chain of custody to Hall Environmental Analysis Laboratory (HEAL). The laboratory will analyze the samples for total petroleum hydrocarbons (TPH) – gasoline range organics (GRO), diesel range organics (DRO) and motor oil range organics (MRO) by Environmental Protection Agency (EPA) Method 8015B; for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260B; for VOCs by EPA Method 8260B (ten percent of the samples containing highest concentrations of TPH [GRO]); and for chlorides by EPA Method 300.0. If field-screening results do not indicate the presence of contamination, a sample from near the water table will be submitted for laboratory analysis.

For all field work conducted, INTERA field personnel will use permanently bound field logbooks to record and document field activities. The logbook will list the contract name and number, the project number, the Site name, and the names of subcontractors, the client, and the project manager. At a minimum, the following will be recorded in the field logbook:

- Names and affiliations of all on-Site personnel or visitors,
- Weather conditions during the field activity,
- Summary of daily activities and significant events,
- Notes of conversations with coordinating officials,
- Discussions of problems encountered and their resolutions, and
- Discussions of any deviations from the Work Plan.

2.3. Task 3: Monitoring Well Installation

Six (6) soil borings will be drilled to approximately 40 ft bgs. Locations of each borehole shall be decided after the analytical results from task 2 have been reviewed. The soil borings will be advanced using an 8-inch HSA. During advancement the boring will be continuously sampled using a core barrel. If drilling becomes hard in the caliche samples may need to be collected on 5 foot intervals using a split-spoon sampler and auto hammer. During drilling activities an INTERA representative will be on-Site to oversee drilling activities, log the lithology, field screen all soil cuttings, and oversee monitoring well installation and development. Field screening will be done using a FID, which will be calibrated daily. Total footage for the task is estimated at 240 ft. Soil cuttings generated during drilling will be thin spread on-Site. All downhole equipment shall be decontaminated prior to and in between each boring.



Three (3) soil samples from each boring will be selected for laboratory analysis based upon physical appearance and highest field screening results. Samples will be containerized, preserved, and submitted under chain of custody to HEAL. The laboratory will analyze the samples for TPH – DRO and MRO by EPA Method 418.1; for BTEX by EPA Method 8260B, and for chlorides by EPA Method 300.0. If field- screening results do not indicate that contamination is present, a sample from near the water table will be submitted for laboratory analysis.

Each borehole will be converted to a 4-inch polyvinyl chloride (PVC), flush threaded, schedule 40, well with 15 ft of 0.020-inch slot screen with end cap and blank casing to the surface. Each well will be backfilled with 10/20 sand (filter pack) to 2 ft above the top of the well screen. A surge block shall be used to settle the voids in the filter pack. Three (3) feet of hydrated bentonite chips will then be placed above the sand pack followed by cement/bentonite (95%/5% by volume) grout to 3 ft below grade. Concrete will then be used to backfill the remaining 3 ft and construct a 2-foot by 2-foot by 4-inch thick surface pad. A hinged lid surface well vault that will be surrounded by 3 bollards will be emplaced in the concrete approximately 3 feet above ground. The location and elevation at top of casing of the monitoring wells will be surveyed.

Each new monitoring well will be developed for no more than 1 hour each using surging and bailing techniques. The turbidity of the produced ground water will be qualitatively monitored and recorded during development and the water quality parameters pH, specific conductance, and temperature, will be measured. Development water will be discharged to an on-Site impervious surface and allowed to evaporate.

Upon completion of development activities each well will be sampled using a dedicated disposable bailer and according to INTERA standard operating procedures. Samples will be containerized, preserved, and submitted under chain of custody to HEAL. Each sample will be analyzed for VOC by EPA method 8260B, for PAH by EPA Method 8310, for chlorides by EPA Method 300.0, and for total dissolved solids by EPA method SM 2540C. Trip blanks will be analyzed in order to assess shipping quality.

INTERA has assumed that the soil boring and well installation activities can be completed in a period of no more than 10, 10-hour working days. Every attempt will be made to complete the field work in a shorter amount of time.

Related activities that will be performed as part of this task include:

- File for well permits from the New Mexico Office of the State Engineer (OSE);
- Contact New Mexico One Call prior to drilling so underground utilities can be marked;



- Review and update, if necessary, the Site specific health and safety plan (SSHSP).

2.4. Task 4: Southwest Pit Excavation, Hauling, Disposal, and Backfilling

This task was added after the February 25, 2009 meeting between Mr. Jim Griswald, Mr. Wayne Price of NMOCD and Mr. Joe Galemore of INTERA and includes the excavation, hauling, disposal, and backfilling of impacted soils in the former pit near the southwest corner of the Site (Figure 2). The impacted soil has not been investigated so the areal and vertical extent of the impacts are unknown. For budgeting purposes, it is assumed that the area to be excavated is 250 feet by 30 feet by 10 feet deep (Figure 2) and the total volume of soil to be hauled, disposed, and backfilled is 4,000 cubic yards. If more contamination is observed beyond these limits, the OCD will be notified and a decision will be made concerning whether excavation should continue or if confirmation samples should be collected, the excavation lined with plastic sheeting, and backfilled as specified below.

Excavated soils will either be directly loaded into a 20 cyd belly-dump truck (or equivalent) or temporarily stockpiled next to the excavation as it waits to be loaded. The petroleum-contaminated material will be mixed with on Site soils as necessary to allow for solid transport of the material for disposal. The soil will be disposed of at C&C Landfarm located in Lea County. Clean top soil used for backfilling will be transported to the Site from the Gandy Marley facility. Excavation, transportation, disposal, and backfilling activities will be conducted by Gandy Marley Incorporated. Waste manifest documents will be reviewed but not signed by INTERA.

Composite soil samples will be retrieved from the base and sidewalls of the excavation and analyzed in the field with an FID using PSTB headspace screening methods. The FID will be calibrated daily and readings will be recorded in the field log book. A TPH soil test kit, FID, and/or visual observation will be used to determine when impacted soils have dropped below OCD screening guidelines.

Upon completion of the excavation, eleven (11) soil samples (6 from the north and south sidewalls, 3 from the pit bottom, and 2 from the east and west ends) will be collected for laboratory analysis and submitted to the NMOCD-approved laboratory HEAL. Each soil sample will be containerized, preserved, and submitted under chain of custody to be analyzed for TPH by EPA method 8015B.

2.5. Task 5: Reporting

Upon the culmination of Task 4, INTERA will complete a report documenting results of the remedial investigation and removal action activities. The report will include at a minimum:



- A Site map and cross sections of the excavation
- A Site map showing soil sampling/monitoring well locations
- Results of laboratory analytical data gathered (soil and ground water)
- Boring logs and field screening results
- A map showing the locations, depths, and concentrations of TPH (DRO and MRO), Benzene, BTEX, and Chloride in soil
- A map showing the locations and concentrations of TPH (DRO and MRO), Benzene, BTEX, and Chloride in ground water
- Photographic documentation of field activities
- Waste manifest documentation

2.6. Optional Tasks

2.6.1. Passive Soil Gas Survey

In the event that DPT drilling is unsuccessful, INTERA recommends that a passive soil gas survey be conducted followed by HSA drilling of selected locations. The scope of the passive soil gas survey will include the following:

- Shipping and receiving the Gore Modules
- Mobilizing to the Site
- Drilling 100, $\frac{1}{2}$ " to $\frac{3}{4}$ " diameter holes approximately 3 feet deep by auger and inserting the Modules
- Returning to the Site after two weeks and retrieving the Modules
- Shipping the Modules to Gore's laboratory for soil vapor analysis of volatile organic compounds (VOCs) and polyaromatic hydrocarbons (PAHs)
- Analyzing the data to determine elevated levels of VOCs and other organic soil vapors
- Designing a soil boring and soil sampling plan

2.6.2. Hollow Stem Auger/Air Rotary Drilling

After analyzing the passive soil gas data and developing a soil sampling plan, a HSA drilling rig will mobilize to the Site and up to 25 borings will be advanced at locations determined in the previous subtask. The soil borings will be advanced using a 4.5-inch HSA. During advancement the boring will be continuously sampled using a core barrel. If drilling becomes hard in the



caliche, samples may need to be collected on 5 foot intervals using a split-spoon sampler and auto hammer and drilling will proceed with air. All other activities shall proceed as outlined in Section 2.2.

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3.0 SCHEDULE

INTERA will begin scheduling and project coordination as soon as possible after the NMOCD has issued a purchase document for the investigation. The work is estimated to be completed in 2 months and assumes that removal action activities can be performed concurrently with investigation activities. Optional tasks will require a longer time to complete.

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4.0 COST ESTIMATE

The cost estimate to provide the services described above is summarized in Appendix B. INTERA's services will be provided on a time and material price basis. INTERA will not exceed these costs without first requesting and then obtaining approval for an amendment to this budget.

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5.0 PERSONNEL

The key personnel who will be responsible for completion of the project are listed below along with their areas of responsibility.

Ms. Cindy Ardito, Principal

Ms Ardito will be briefed on project activities and will review deliverables. She will be responsible for INTERA resource allocation.

Mr. Joe Galemore, PG – Sr. Project Manager

Mr. Galemore will provide Client interface, project management, and development of work plan and report documents.

Mr. Rob Sengebush, PG – Project Geologist

Mr. Sengebush will serve as project advisor. Mr. Sengebush has extensive experience performing investigations in eastern New Mexico at oil and gas production facilities.

Mr. Lee Dalton, – Staff Geologist

Mr. Dalton will oversee field activities, development of the work plan, and report preparation.



6.0 REFERENCES

INTERA, Incorporated. 2007. *Phase I and II Remediation, Former Enersource Facility, Monument, Lea County, New Mexico*. June 29.

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Figures



USGS 7.5 Minute Topographic Map:
 Monument North Quadrangle,
 1985, Contour Interval 10 Feet;
 1985, Contour Interval 10 Feet;
 1985, Contour Interval 10 Feet;
 Hobbs West and Hobbs SW Quadrangles,
 1960, Contour Interval 5 Feet
 Site Location: NW¼ Sec. 1, T20S, R38E

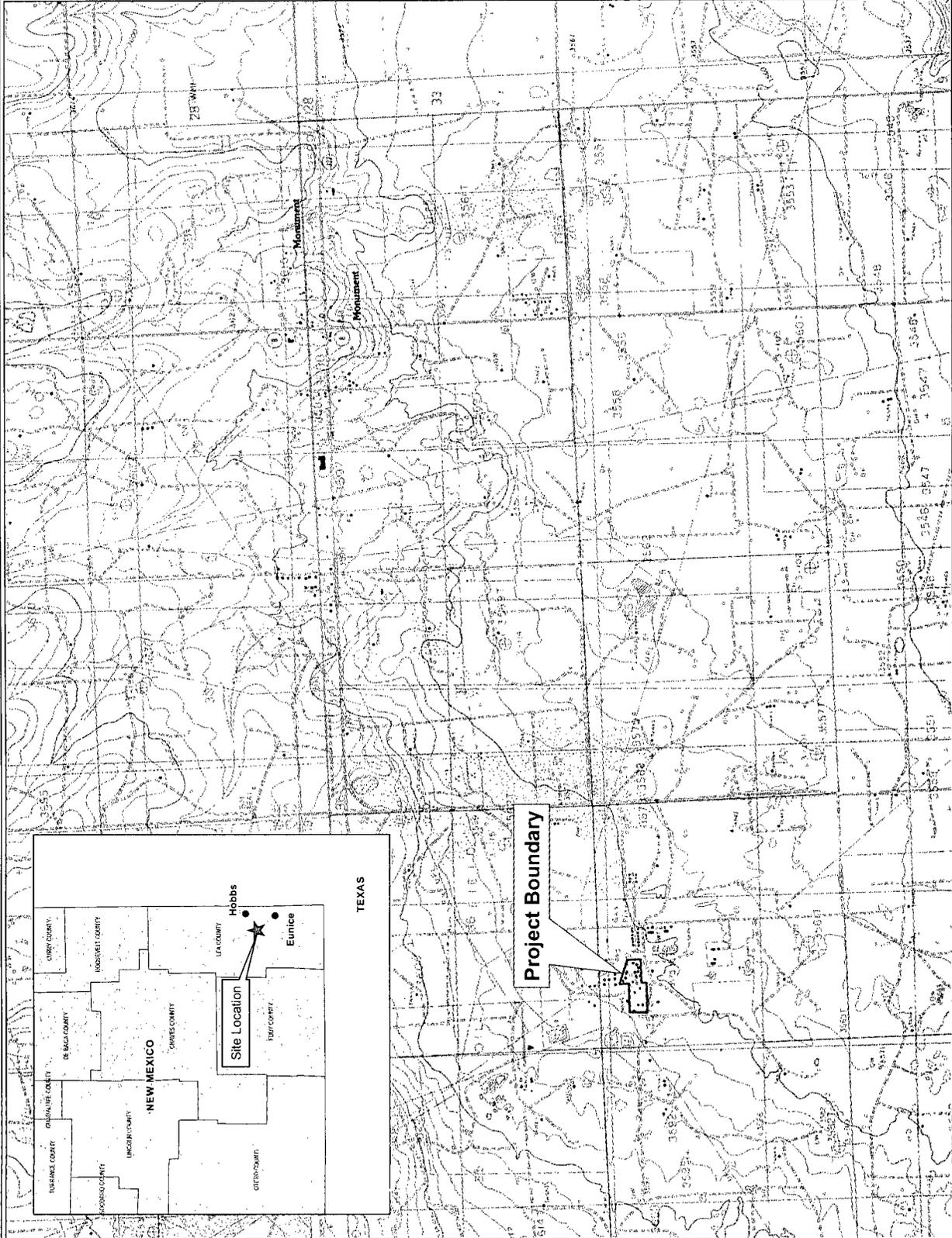
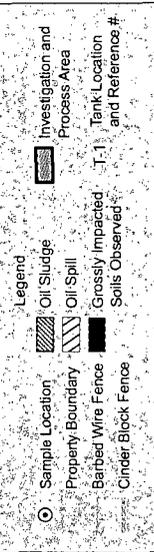


Figure 1
 Project Location Map
 Enersource Site - Monument, NM



Sources: 2005 aerial photo - Map Tech;
Property boundary - John West Surveying Co., Hobbs, NM.



Notes: Results are in mg/Kg
Bold indicates concentrations above NMOCD Action Levels
 DRO = Diesel Range Organic
 MRO = Motor Oil Range Organic
 CI = Chloride
 ND = Not Detected above practical quantification limit

Figure 2
 Proposed Investigation Areas
 Enersource Site - Monument, NM



Appendix A
Remedial Investigation Methods Cost Evaluation

Remedial Investigation Method Cost Evaluation Summary

Work Plan and Cost Estimate for Remedial Investigation/Removal Action Former Enersource Facility, Monument, New Mexico

Option Description	Cost Estimate				Total Cost
	Soil Gas Survey	DPT	Hollow Stem Auger (HSA)	HSA/Air/Rotary	
DPT ¹	N/A	\$63,219.00 ^a	N/A	N/A	\$63,219.00
Hollow Stem Auger ¹	N/A	N/A	\$108,448.00 ^b	N/A	\$108,448.00
Hollow Stem Auger/Air Rotary ¹	N/A	N/A	N/A	\$134,108.13 ^c	\$134,108.13
Passive Soil Gas with DPT ²	\$40,960.00	\$41,467.49	N/A	N/A	\$82,427.49 ^d
Passive Soil Gas with Hollow Stem Auger ²	\$40,960.00	N/A	\$73,636.00	N/A	\$114,596.00 ^e
Passive Soil Gas with Hollow Stem Auger/Air Rotary ²	\$40,960.00	N/A	N/A	\$86,946.06	\$127,906.06 ^f

1 = Assumes 100 Gore Samplers + 25 boring locations (3 samples per boring)

2 = Assumes 50 Soil boring (3 samples per boring)

a = See Table A-1 (Does not include NMGRT)

b = See Table A-2 (Does not include NMGRT)

c = See Table A-3 (Does not include NMGRT)

d = See Table A-4 (Does not include NMGRT)

e = See Table A-5 (Does not include NMGRT)

f = See Table A-6 (Does not include NMGRT)

**Table A-1
DPT: 50 Soil Borings**

Professional Services - Travel for DPT	Contract Line Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	2	\$ 260.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	18	\$ 1,260.00
Subtotal Professional Labor					\$ 1,520.00

Professional Services - Soil Boring DPT	Contract Line Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	11	\$ 1,430.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	106	\$ 7,420.00
Subtotal Professional Labor					\$ 8,850.00

Expenses - Soil Boring DPT	Contract Line Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	0042	95.00	Day	11	\$ 1,045.00
Mileage	0060	0.65	mile	900	\$ 585.00
Per Diem	0058	100.00	Man-day	11	\$ 1,100.00
Level D PPE	0058	50.00	Man-day	9	\$ 450.00
FID	0012	75.00	Day	9	\$ 675.00
Misc. Field Equipment	0061	35.00	Day	9	\$ 315.00
Subtotal Expenses					\$ 4,170.00

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Analytical Chemistry - Hall (150 samples)		27,000.00	Lump sum	1.05	\$ 28,350.00
Drilling Services Mobe - Geoprobe		1,738.50	Lump sum	1.05	\$ 1,825.43
Drilling Services (8 days) - Geoprobe		16,662.50	Lump sum	1.05	\$ 17,495.63
Per Diem (8 days)		126.00	day	8	\$ 1,008.00
Subtotal Subcontract Costs					\$ 48,679.05

SUBTOTAL:					\$ 63,219.05
NMGRT @ 6.75%					\$ 4,267.29
GRAND TOTAL:					\$ 67,486.34

**Table A-2
Hollow Stem Auger: 50 Soil Borings**

Professional Services - Travel for HSAD	Contract Line Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	4	\$ 520.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	37	\$ 2,590.00
Subtotal Professional Labor					\$ 3,110.00

Professional Services - Soil Boring HSAD	Contract Line Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	12	\$ 1,560.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	186	\$ 13,020.00
Subtotal Professional Labor					\$ 14,580.00

Expenses - Soil Boring HSAD	Contract Line Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	0042	95.00	Day	21	\$ 1,995.00
Mileage	0060	0.65	mile	1,770	\$ 1,150.50
Per Diem	0058	100.00	Man-day	21	\$ 2,100.00
Level D PPE	0058	50.00	Man-day	17	\$ 850.00
FID	0012	75.00	Day	17	\$ 1,275.00
Misc. Field Equipment	0061	35.00	Day	17	\$ 595.00
Subtotal Expenses					\$ 7,965.50

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Analytical Chemistry - Hall (150 samples)		27,000.00	Lump sum	1.05	\$ 28,350.00
Drilling Services Mob - HSAD		8,500.00	Lump sum	1.05	\$ 8,925.00
Drilling Services (15 days) - HSAD (50 borings)		39,750.00	Lump sum	1.05	\$ 41,737.50
Per Diem (15 days)		84.00	3 man crew	45	\$ 3,780.00
Subtotal Subcontract Costs					\$ 82,792.50

SUBTOTAL:	\$ 108,448.00
NMGRT @ 6.75%	\$ 7,320.24
GRAND TOTAL:	\$ 115,768.24

**Table A-3
Hollow Stem Auger/Air Rotary: 50 Soil Borings**

Professional Services - Travel for HSAD/AR	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	4	\$ 380.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	37	\$ 2,590.00
Subtotal Professional Labor					\$ 2,970.00

Professional Services - Soil Boring HSAD/AR	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	12	\$ 1,140.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	186	\$ 13,020.00
Subtotal Professional Labor					\$ 14,160.00

Expenses - Soil Boring HSAD/AR	Contract Line Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	0042	95.00	Day	21	\$ 1,995.00
Mileage	0060	0.65	mile	1,770	\$ 1,150.50
Per Diem	0058	100.00	Man-day	17	\$ 1,700.00
Level C PPE	0058	50.00	Man-day	17	\$ 850.00
FID	0012	75.00	Day	17	\$ 1,275.00
Misc. Field Equipment	0061	35.00	Day	17	\$ 595.00
Subtotal Expenses					\$ 7,565.50

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Analytical Chemistry - Hall (150 samples)		27,000.00	Lump sum	1.05	\$ 28,350.00
Drilling Services Mob - HSAD/AR		8,500.00	Lump sum	1.05	\$ 8,925.00
Drilling Services (15 days) - HSAD/AR (50 borings)		65,102.50	Lump sum	1.05	\$ 68,357.63
Per Diem (15 days)		84.00	3 man crew	45	\$ 3,780.00
Subtotal Subcontract Costs					\$ 109,412.63

SUBTOTAL:	\$ 134,108.13
NMGRT @ 6.75%	\$ 9,052.30
GRAND TOTAL:	\$ 143,160.42

**Table A-4
Passive Soil Gas with DPT: 25 Soil Borings**

Soil Gas Sampling

Professional Services - Travel for Gore Install/Retrieval	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	2	\$ 190.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	23	\$ 1,610.00
Subtotal Professional Labor					\$ 1,800.00

Professional Services - Gore Install/Retrieval	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	4	\$ 380.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	42	\$ 2,940.00
Subtotal Professional Labor					\$ 3,320.00

Expenses - Gore Install/Retrieval	Contract Line Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	0042	95.00	Day	7	\$ 665.00
Mileage	0060	0.65	mile	1,350	\$ 877.50
Per Diem	0058	100.00	Man-day	3	\$ 300.00
Level C PPE	0058	50.00	Man-day	3	\$ 150.00
FID	0012	75.00	Day	0	\$ -
Drill Rental for Gore Install		400.00	Lump sum	1	\$ 400.00
Misc. Field Equipment	0061	35.00	Day	3	\$ 105.00
Subtotal Expenses					\$ 2,497.50

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Analytical Chemistry - Gore (100 samples)		24,500.00	Lump sum	1.05	\$ 25,725.00
Subtotal Subcontract Costs					\$ 25,725.00
Subtotal Subcontract Costs					\$ 33,342.50

SUBTOTAL:	\$ 40,960.00
NMGRT @ 6.75%	\$ 2,764.80
GRAND TOTAL:	\$ 43,724.80

Table A-4
Passive Soil Gas with DPT: 25 Soil Borings

DPT

Professional Services - Travel for Geoprobe	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	2	\$ 190.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	15	\$ 1,050.00
Subtotal Professional Labor					\$ 1,240.00

Professional Services - Soil Boring Geoprobe	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	8	\$ 760.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	66	\$ 4,620.00
Subtotal Professional Labor					\$ 5,380.00

Expenses - Soil Boring Geoprobe	Contract Line Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	0042	95.00	Day	7	\$ 665.00
Mileage	0060	0.65	mile	780	\$ 507.00
Per Diem	0058	100.00	Man-day	5	\$ 500.00
Level C PPE	0058	50.00	Man-day	5	\$ 250.00
FID	0012	75.00	Day	5	\$ 375.00
Misc. Field Equipment	0061	35.00	Day	5	\$ 175.00
Subtotal Expenses					\$ 2,472.00

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Analytical Chemistry - Hall (75 samples)		11,625.00	Lump sum	1	\$ 12,206.25
Drilling Services Mob - Geoprobe		1,738.50	Lump sum	1	\$ 1,825.43
Drilling Services (4 days) - Geoprobe		8,331.25	Lump sum	1.05	\$ 8,747.81
Per Diem (4 days) - Geoprobe		126.00	day	4	\$ 504.00
Subtotal Subcontract Costs					\$ 23,283.49
Subtotal Subcontract Costs					\$ 32,375.49

SUBTOTAL:					\$ 41,467.49
NMGRT @ 6.75%					\$ 2,799.06
GRAND TOTAL:					\$ 44,266.54

**Table A-5
Passive Soil Gas with Hollow Stem Auger: 25 Soil Borings**

Soil Gas Sampling

Professional Services - Travel for Gore Install/Retrieval	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	2	\$ 190.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	23	\$ 1,610.00
Subtotal Professional Services					\$ 1,800.00

Professional Services - Gore Install/Retrieval	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	4	\$ 380.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	42	\$ 2,940.00
Subtotal Professional Labor					\$ 3,320.00

Expenses - Gore Install/Retrieval	Contract Line Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	0042	95.00	Day	7	\$ 665.00
Mileage	0060	0.65	mile	1,350	\$ 877.50
Per Diem	0058	100.00	Man-day	3	\$ 300.00
Level C PPE	0058	50.00	Man-day	3	\$ 150.00
FID	0012	75.00	Day	0	\$ -
Drill Rental for Gore Install		400.00	Lump sum	1	\$ 400.00
Misc. Field Equipment	0061	35.00	Day	3	\$ 105.00
Subtotal Expenses					\$ 2,497.50

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Analytical Chemistry - Gore (100 samples)		24,500.00	Lump sum	1.05	\$ 25,725.00
Subtotal Subcontract Costs					\$ 25,725.00
Subtotal Subcontract Costs					\$ 33,342.50

SUBTOTAL:					\$ 40,960.00
NMGRT @ 6.75%					\$ 2,764.80
GRAND TOTAL:					\$ 43,724.80

Table A-5
Passive Soil Gas with Hollow Stem Auger: 25 Soil Borings

HSAD

Professional Services - Travel for HSAD	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	2	\$ 190.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	19	\$ 1,330.00
Subtotal Professional Labor					\$ 1,520.00

Professional Services - Soil Boring HSAD	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	20	\$ 1,900.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	106	\$ 7,420.00
Subtotal Professional Labor					\$ 9,320.00

Expenses - Soil Boring HSAD	Contract Line Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	0042	95.00	Day	11	\$ 1,045.00
Mileage	0060	0.65	mile	900	\$ 585.00
Per Diem	0058	100.00	Man-day	9	\$ 900.00
Level C PPE	0058	50.00	Man-day	9	\$ 450.00
FID	0012	75.00	Day	9	\$ 675.00
Misc. Field Equipment	0061	35.00	Day	9	\$ 315.00
Subtotal Expenses					\$ 3,970.00

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Analytical Chemistry - Hall (75 samples)		11,625.00	Lump sum	1	\$ 12,206.25
Drilling Services Mob - HSAD		8,500.00	Lump sum	1	\$ 8,925.00
Drilling Services (8 days) - HSAD (25 borings)		19,875.00	Lump sum	1.05	\$ 20,868.75
Per Diem (8 days)		84.00	3 man crew	24	\$ 2,016.00
Subtotal Subcontract Costs					\$ 44,016.00
Subtotal Subcontract Costs					\$ 58,826.00

SUBTOTAL:	\$ 73,636.00
NMGRT @ 6.75%	\$ 4,970.43
GRAND TOTAL:	\$ 78,606.43

**Table A-6.
Passive Soil Gas with Hollow Stem Auger/Air Rotary: 25 Soil Borings**

Soil Gas Sampling

Professional Services - Travel for Gore Install/Retrieval	Contract Line/Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	2	\$ 190.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	23	\$ 1,610.00
Subtotal Professional Labor					\$ 1,800.00

Professional Services - Gore Install/Retrieval	Contract Line/Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	4	\$ 380.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	42	\$ 2,940.00
Subtotal Professional Labor					\$ 3,320.00

Expenses - Gore Install/Retrieval	Contract Line/Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	0042	95.00	Day	7	\$ 665.00
Mileage	0060	0.65	mile	1,350	\$ 877.50
Per Diem	0058	100.00	Man-day	3	\$ 300.00
Level C PPE	0058	50.00	Man-day	3	\$ 150.00
FID	0012	75.00	Day	0	\$ -
Drill Rental for Gore Install		400.00	Lump sum	1	\$ 400.00
Misc. Field Equipment	0061	35.00	Day	3	\$ 105.00
Subtotal Expenses					\$ 2,497.50

Subcontract Costs	Contract Line/Item	Rate	Unit	# of Units	Total
Analytical Chemistry - Gore (100 samples)		24,500.00	Lump sum	1.05	\$ 25,725.00
Subtotal Subcontract Costs					\$ 25,725.00
Subtotal Subcontract Costs					\$ 33,342.50

SUBTOTAL:					\$ 40,960.00
NMGRT @ 6.75%					\$ 2,764.80
GRAND TOTAL:					\$ 43,724.80

**Table A-6
Passive Soil Gas with Hollow Stem Auger/Air Rotary: 25 Soil Borings**

HSAD/AR

Professional Services - Travel for HSAD/AR	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	2	\$ 190.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	19	\$ 1,330.00
Subtotal Professional Labor					\$ 1,520.00

Professional Services - Soil Boring HSAD/AR	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	20	\$ 1,900.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	106	\$ 7,420.00
Subtotal Professional Labor					\$ 9,320.00

Expenses - Soil Boring HSAD/AR	Contract Line Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	0042	95.00	Day	11	\$ 1,045.00
Mileage	0060	0.65	mile	900	\$ 585.00
Per Diem	0058	100.00	Man-day	9	\$ 900.00
Level C PPE	0058	50.00	Man-day	9	\$ 450.00
FID	0012	75.00	Day	9	\$ 675.00
Misc. Field Equipment	0061	35.00	Day	9	\$ 315.00
Subtotal Expenses					\$ 3,970.00

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Analytical Chemistry - Hall (75 samples)		11,625.00	Lump sum	1	\$ 12,206.25
Drilling Services Mob - HSAD/AR		8,500.00	Lump sum	1	\$ 8,925.00
Drilling Services (8 days) - HSAD/AR (25 borings)		32,551.25	Lump sum	1.05	\$ 34,178.81
Per Diem (8 days)		84.00	3 man crew	24	\$ 2,016.00
Subtotal Subcontract Costs					\$ 57,326.06
Subtotal Subcontract Costs					\$ 72,136.06

SUBTOTAL:	\$ 86,946.06
NMGRT @ 6.75%	\$ 5,868.86
GRAND TOTAL:	\$ 92,814.92

Appendix B
Project Cost Estimate

Cost Estimate Summary

Work Plan and Cost Estimate for Remedial Investigation/Removal Action Former Enersource Facility, Monument, New Mexico

Task	Description	Estimated Cost
1	Project Planning and Scheduling	\$ 9,440.00 *
2	DPT Soil Sampling	\$ 63,219.05
3	Well Installations	\$ 47,414.50
4	Dig and Haul	\$ 178,174.40
5	Report	\$ 14,200.00 *
Subtotal		\$ 312,447.95
NMGRT (6.75)		\$ 21,090.24
Total		\$ 333,538.19

Optional Tasks

Task	Description	Estimated Cost
2A	Soil Sampling GEOPROBE	\$ 5,915.43
2B	Soil Gas Sampling	\$ 33,642.50
2C	HSAD/AR	\$ 72,556.06
Subtotal		\$ 112,113.99
NMGRT (6.75)		\$ 7,567.69
Total		\$ 119,681.68

**Table B-1
DPT: 50 Soil Borings**

Project Planning and Scheduling

Professional Services	Contract Line Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	40	\$ 5,200.00
Project Scientist/Engineer	0003	80.00	hour	4	\$ 320.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	40	\$ 2,800.00
Draftsperson II (Figures)	0007	65.00	hour	16	\$ 1,040.00
Clerk	0009	40.00	hour	2	\$ 80.00
Subtotal Professional Labor					\$ 9,440.00

SUBTOTAL:	\$ 9,440.00
NMGRT @ 6.75%	\$ 637.20
GRAND TOTAL:	\$ 10,077.20

DPT Soil Sampling

Professional Services - Travel for Geoprobe	Contract Line Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	2	\$ 260.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	18	\$ 1,260.00
Subtotal Professional Labor					\$ 1,520.00

Professional Services - Soil Boring Geoprobe	Contract Line Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	11	\$ 1,430.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	106	\$ 7,420.00
Subtotal Professional Labor					\$ 8,850.00

Expenses - Soil Boring Geoprobe	Contract Line Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	00042	95.00	Day	11	\$ 1,045.00
Mileage	00060	0.65	mile	900	\$ 585.00
Per Diem	00058	100.00	Man-day	11	\$ 1,100.00
Level D PPE	00058	50.00	Man-day	9	\$ 450.00
FID	00012	75.00	Day	9	\$ 675.00
Misc. Field Equipment	00061	35.00	Day	9	\$ 315.00
Subtotal Expenses					\$ 4,170.00

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Analytical Chemistry - Hall (150 samples)		27,000.00	Lump sum	1.05	\$ 28,350.00
Drilling Services Mobe - Geoprobe		1,738.50	Lump sum	1.05	\$ 1,825.43
Drilling Services (8 days) - Geoprobe		16,662.50	Lump sum	1.05	\$ 17,495.63
Per Diem (8 days)		126.00	day	8	\$ 1,008.00
Subtotal Subcontract Costs					\$ 48,679.05

SUBTOTAL:	\$ 63,219.05
NMGRT @ 6.75%	\$ 4,267.29
GRAND TOTAL:	\$ 67,486.34

Table B-1
DPT: 50 Soil Borings

Well Installations

Professional Services - Travel for MW Install HSAD	Contract Line/Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	8	\$ 1,040.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	16	\$ 1,120.00
Subtotal Professional Labor					\$ 2,160.00

Professional Services - MW Install HSAD	Contract Line/Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	16	\$ 2,080.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	76	\$ 5,320.00
Subtotal Professional Labor					\$ 7,400.00

Expenses - MW Install HSAD	Contract Line/Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	00042	95.00	Day	16	\$ 1,520.00
Mileage	00060	0.65	mile	810	\$ 526.50
Per Diem	00058	100.00	Man-day	10	\$ 1,000.00
Level D PPE	00058	50.00	Man-day	6	\$ 300.00
FID	00012	75.00	Day	6	\$ 450.00
YSI 556 Meter	00015	50.00	Day	6	\$ 300.00
Interface Probe	00021	50.00	Day	6	\$ 300.00
Misc. Field Equipment	00061	35.00	Day	6	\$ 210.00
Subtotal Expenses					\$ 4,606.50

Subcontract Costs	Contract Line/Item	Rate	Unit	# of Units	Total
Analytical Chemistry (Soil) Hall (18 samples)		3,150.00	Lump sum	1.05	\$ 3,307.50
Analytical Chemistry (GW) Hall (6 samples)		1,680.00	Lump sum	1.05	\$ 1,764.00
Drilling Services Mobe - HSAD		4,500.00	Lump sum	1.05	\$ 4,725.00
Drilling Services (5 days) - HSAD		6,000.00	Lump sum	1.05	\$ 6,300.00
MW Install and Development (6 MWs)		13,230.00	Lump sum	1.05	\$ 13,891.50
Per Diem (5 days)		84.00	3 Man Crew	15	\$ 1,260.00
Survey		2,000.00	Lump sum	1	\$ 2,000.00
Subtotal Subcontract Costs					\$ 33,248.00

SUBTOTAL:					\$ 47,414.50
NMGRT @ 6.75%					\$ 3,200.48
GRAND TOTAL:					\$ 50,614.98

Table B-1
DPT: 50 Soil Borings

Dig and Haul

Professional Services - Travel for Dig and Haul	Contract Line Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	5	\$ 650.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	53	\$ 3,710.00
Subtotal Professional Labor					\$ 4,360.00

Professional Services - Dig and Haul	Contract Line Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	24	\$ 3,120.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	246	\$ 17,220.00
Subtotal Professional Labor					\$ 20,340.00

Expenses - Dig and Haul	Contract Line Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	00042	95.00	Day	27	\$ 2,565.00
Mileage	00060	0.65	mile	2810	\$ 1,826.50
Per Diem	00058	100.00	Man-day	30	\$ 3,000.00
Level D PPE	00058	50.00	Man-day	23	\$ 1,150.00
FID	00012	75.00	Day	4	\$ 300.00
TPH Soil Test Kit	00015	50.00	Day	4	\$ 200.00
TPH Reagent Kit	00015	50.00	reagent kit	4	\$ 200.00
Misc. Field Equipment	00061	35.00	Day	23	\$ 805.00
Subtotal Expenses					\$ 10,046.50

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Analytical Chemistry (Soil) Hall (11 samples)		770.00	Lump sum	1.05	\$ 808.50
Dig and Haul Services		135,828.00	Lump sum	1.05	\$ 142,619.40
Subtotal Subcontract Costs					\$ 143,427.90

SUBTOTAL:	\$ 178,174.40
NMGRT @ 6.75%	\$ 12,026.77
GRAND TOTAL:	\$ 190,201.17

Report

Professional Services	Contract Line Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	48	\$ 6,240.00
Project Scientist/Engineer	0003	80.00	hour	8	\$ 640.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	60	\$ 4,200.00
Draftsperson II (Figures, Cross Sections)	0007	65.00	hour	40	\$ 2,600.00
Administrator (Technical Editor)	0008	45.00	hour	8	\$ 360.00
Clerk	0009	40.00	hour	4	\$ 160.00
Subtotal Professional Labor					\$ 14,200.00
SUBTOTAL:					\$ 14,200.00
NMGRT @ 6.75%					\$ 958.50
GRAND TOTAL:					\$ 15,158.50

**Table B-1
DPT: 50 Soil Borings**

Project Planning and Scheduling	\$ 9,440.00
DPT Soil Sampling	\$ 63,219.05
Well Installations	\$ 47,414.50
Dig and Haul	\$ 178,174.40
Report	\$ 14,200.00
Project Subtotal	\$ 298,247.95
NMGRT = New Mexico Gross Receipts Tax (6.75%)	\$ 20,131.74
PROJECT GRAND TOTAL:	\$ 318,379.69

Optional Tasks for DPT Refusal

Optional DPT

Professional Services - Travel for Geoprobe	Contract Line Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	2	\$ 260.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	18	\$ 1,260.00
Subtotal Professional Labor					\$ 1,520.00

Professional Services - Soil Boring Geoprobe	Contract Line Item	Rate	Unit	# of Units	Total
Principal - JAG	0001	130.00	hour	3	\$ 390.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	14	\$ 980.00
Subtotal Professional Labor					\$ 1,370.00

Expenses - Soil Boring Geoprobe	Contract Line Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	00042	95.00	Day	3	\$ 285.00
Mileage	0060	0.65	mile	660	\$ 429.00
Per Diem	0058	100.00	Man-day	2	\$ 200.00
Level C PPE	0058	50.00	Man-day	1	\$ 50.00
FID	0012	75.00	Day	1	\$ 75.00
Misc. Field Equipment	0061	35.00	Day	1	\$ 35.00
Subtotal Expenses					\$ 1,074.00

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Drilling Services Mobe - Geoprobe		1,738.50	Lump sum	1.05	\$ 1,825.43
Per Diem (1 day)		126.00	day	1	\$ 126.00
Subtotal Subcontract Costs					\$ 1,951.43

SUBTOTAL:	\$ 5,915.43
NMGRT @ 6.75%	\$ 399.29
GRAND TOTAL:	\$ 7,834.72

Optional Soil Gas Sampling

Professional Services - Travel for Gore Install/Retrieval	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	2	\$ 190.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	23	\$ 1,610.00

**Table B-1
DPT: 50 Soil Borings**

Subtotal Professional Labor	\$ 1,800.00
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Professional Services - Gore Install/Retrieval	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	4	\$ 380.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	42	\$ 2,940.00
Subtotal Professional Labor					\$ 3,320.00

Expenses - Gore Install/Retrieval	Contract Line Item	Rate	Unit	# of Units	Total
Shipping		300.00	Lump sum	1	\$ 300.00
Pick-Up Truck (2)	00042	95.00	Day	7	\$ 665.00
Mileage	00060	0.65	mile	1350	\$ 877.50
Per Diem	00058	100.00	Man-day	3	\$ 300.00
Level C PPE	00058	50.00	Man-day	3	\$ 150.00
FID	00012	75.00	Day	0	\$ -
Drill Rental for Gore Install		400.00	Lump sum	1	\$ 400.00
Misc. Field Equipment	00061	35.00	Day	3	\$ 105.00
Subtotal Expenses					\$ 2,797.50

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Analytical Chemistry - Gore (100 samples)		24,500.00	Lump sum	1.05	\$ 25,725.00
Subtotal Subcontract Costs					\$ 25,725.00

SUBTOTAL:	\$ 33,642.50
NMGRT @ 6.75%	\$ 2,270.87
GRAND TOTAL:	\$ 37,713.37

Optional HSAD/AR

Professional Services - Travel for HSAD/AR	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	2	\$ 190.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	19	\$ 1,330.00
Subtotal Professional Labor					\$ 1,520.00

Professional Services - Soil Boring HSAD/AR	Contract Line Item	Rate	Unit	# of Units	Total
Senior Scientist/Engineer - JAG	0002	95.00	hour	20	\$ 1,900.00
Staff Scientist/Engineer - LWD	0004	70.00	hour	106	\$ 7,420.00
Subtotal Professional Labor					\$ 9,320.00

Expenses - Soil Boring HSAD/AR	Contract Line Item	Rate	Unit	# of Units	Total
Pick-Up Truck (2)	00042	95.00	Day	11	\$ 1,045.00
Mileage	00060	0.65	mile	900	\$ 585.00
Per Diem	00058	100.00	Man-day	9	\$ 900.00
Level C PPE	00058	50.00	Man-day	9	\$ 450.00
FID	00012	75.00	Day	9	\$ 675.00
Misc. Field Equipment	00061	35.00	Day	9	\$ 315.00
Subtotal Expenses					\$ 3,970.00

**Table B-1
DPT: 50 Soil Borings**

Subcontract Costs	Contract Line Item	Rate	Unit	# of Units	Total
Analytical Chemistry - Hall (75 samples)		12,025.00	Lump sum	1.05	\$ 12,626.25
Drilling Services Mob - HSAD/AR		8,500.00	Lump sum	1.05	\$ 8,925.00
Drilling Services (8 days) - HSAD/AR (25 borings)		32,551.25	Lump sum	1.05	\$ 34,178.81
Per Diem (8 days)		84.00	3 man crew	24	\$ 2,016.00
Subtotal Subcontract Costs					\$ 57,746.06
SUBTOTAL:					\$ 72,556.06
NMGRT @ 6.75%					\$ 4,897.53
GRAND TOTAL:					\$ 77,453.60
Optional DPT					\$ 5,915.43
Optional Soil Gas Sampling					\$ 33,642.50
Optional HSAD/AR					\$ 72,556.06
SUBTOTAL OPTIONAL TASKS:					\$ 112,113.99
NMGRT @ 6.75%					\$ 7,567.69
GRAND TOTAL OPTIONAL TASKS:					\$ 119,681.68