

**RECR – 13-6**

**WORK PLANS AND  
PURCHASE ORDERS**

**YEAR(S):  
2010-2011**



November 23, 2010

Mr. Jim Griswold  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Work plan for Newman #1 Well Site Initial Assessment  
Carlsbad, New Mexico

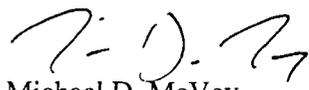
Dear Mr. Griswold:

Per your request, Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to submit the enclosed work plan and cost estimate for initial assessment of shallow subsurface soils at the former Newman #1 well site. We understand that this effort will be funded by the Oil Conservation Division using the Reclamation Fund and will be facilitated as a "piggyback" under our existing Price Agreement for maintenance and monitoring with the NMDOT (#80-805-00-03377).

Please do not hesitate to call me at (505) 353-9130 if you have any questions or require additional information.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

  
Michael D. McVey  
Senior Hydrogeologist

Enclosures

*Daniel B. Stephens & Associates, Inc.*

6020 Academy Rd., NE, Suite 100 505-822-9400

Albuquerque, NM 87109-3315 FAX 505-822-8877



## Shallow Subsurface Site Assessment at Newman #1 Well Carlsbad, New Mexico

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### INTRODUCTION

Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to provide the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) with the following work plan to conduct an initial site assessment at the Newman number (#) 1 well site located in Sheep's Draw southwest of Carlsbad, New Mexico (Figure 1). Approximately 98 percent of Carlsbad's water is supplied by groundwater pumped from 9 wells located 7 miles southwest of Carlsbad in Sheep's Draw in the foothills of the Guadalupe Mountains. These wells range in depth from 500 to 900 feet and pull water from the Capitan Aquifer. The City of Carlsbad, under the authority of its ordinance (Ordinance 2000-13) maintains and enforces a Wellhead Protection Program in the Sheep's Draw area.

The Newman #1 well was installed in 1975 by Hanagan Petroleum Corporation of Roswell, New Mexico. The well was drilled to a total depth of 11,625 feet. It was originally drilled as a Morrow gas well, but was completed as a Delaware oil well in the Byrnes Tank Delaware pool. The well was later reworked to produce both oil and gas. Sometime after 1981, the well was acquired and operated by Exxon Corporation of Midland, Texas until 1984 when it was plugged and abandoned.

### SCOPE OF SERVICES

The OCD has requested that DBS&A perform an environmental assessment of the Newman #1 well site to determine if installation and/or production resulted in environmental impacts to surface/subsurface soils and groundwater. DBS&A is proposing to complete the assessment in two phases. The first phase, detailed in this work plan, will include assessment of shallow subsurface soils to a depth of up to 5 feet below ground surface (ft bgs). The second phase, if required based on results of the shallow subsurface soil assessment, will include drilling and sampling deep soils and installation of groundwater monitor wells for groundwater characterization.

The following discussion provides a brief summary of the proposed shallow subsurface soil assessment. This in turn is followed by a cost estimate to perform the services as described. A DBS&A field geologist will perform all sampling and supervise field activities. Field notes will be recorded in a logbook so that an accurate written record of all field activities is maintained.



## Shallow Subsurface Site Assessment at Newman #1 Well Carlsbad, New Mexico

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### **SURFACE AND SUBSURFACE SOIL SAMPLING**

The site assessment will encompass the former well site and adjacent areas showing visual signs of impact (i.e., hard pan, soil staining, distressed vegetation, lack of vegetation, etc.). Based on aerial photographs of the site, the assessment will include an area of approximately 400 feet by 400 feet (Figure 1). DBS&A will use a backhoe to excavate to a depth of 5 ft bgs at up to 15 locations. The excavations will be located based on visual cues as discussed above to define the horizontal extent of impacts. In addition, DBS&A will attempt to locate the former drilling and/or production pits for shallow subsurface assessment. If either or both pits are located, DBS&A will excavate through the pit(s) to a depth of 10 ft bgs.

#### ***Sample Collection***

During excavation, soil samples will be collected from the bucket of the backhoe for field screening and laboratory analysis as discussed below. All sampling will be performed in accordance with Standard Operating Procedures (SOPs) and Guidelines (SOGs) that have been developed by the DBS&A Quality Assurance program. Samples for laboratory analysis will be placed in laboratory-provided sample containers and preserved on ice for delivery to the analytical laboratory. Field screening samples will be containerized, labeled, and placed on ice pending field screening analysis. The backhoe bucket and all other sampling equipment will be decontaminated in the field between sampling locations to minimize the potential for cross-contamination using a non-phosphate detergent (e.g., Liquinox™) and distilled/deionized water.

After completion of sampling, each excavation will be located using a hand-held GPS. The GPS coordinates will be used to place the sample locations on a site map for the final report.

#### ***Field Screening***

A total of up to 55 soil samples will be field screened during excavation using Hach chloride QuanTab® test strips. Three samples will be collected from each excavation for field screening at depths of 0-1 ft bgs, 2-3 ft bgs, and 4-5 ft bgs. If the drilling and/or production pits are located, field screening samples will be collected at depths of 1-2 ft bgs, 3-4 ft bgs, 5-6 ft bgs, 7-8 ft bgs, and 9-10 ft bgs.



## Shallow Subsurface Site Assessment at Newman #1 Well Carlsbad, New Mexico

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### *Laboratory Analysis*

In addition to field screening samples, DBS&A will collect soil samples from each excavation for confirmatory laboratory analysis. Confirmatory samples will be submitted for total petroleum hydrocarbons (TPH) gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) analysis using U.S. Environmental Protection Agency (EPA) method 8015M and for chloride analysis using EPA method 300.0. TPH samples will be collected from approximately 2.5 ft bgs in each of the excavations, and chloride samples will be collected from the bottom of each excavation at approximately 5 ft bgs. If the production and/or drilling pits are located, TPH samples will be collected at depths of 4-5 ft bgs and 9-10 ft bgs; chloride samples will be collected from the bottom of the excavation at approximately 10 ft bgs. A total of up to 19 TPH samples and up to 17 chloride samples will be submitted to an off-site analytical laboratory for confirmatory analysis.

### **REPORTING**

DBS&A will submit a well site assessment report to OCD after completion of the field activities and receipt of analytical results. The report will include a summary of field activities, a site map showing the excavation locations, and summary tables for chloride field screening samples and laboratory analytical results for TPH and chloride confirmation samples. Field notes, photographic documentation, and the laboratory analytical report will be included as appendices. DBS&A will provide recommendations for follow-on work under a second phase of assessment, as warranted, based on the results of the shallow subsurface assessment.

### **SCHEDULE**

Upon approval of the scope of services, DBS&A will prepare a site specific health and safety plan for the proposed project activities. QuanTab® test strips will be ordered from Hach and a contract with the backhoe supplier to complete the project scope will be completed. The excavation and shallow subsurface soil sampling will take approximately two days to complete. The analytical results should be received within 10 to 14 business days after submittal. Two weeks after receipt of the analytical results, DBS&A will submit a draft report to OCD for comment. A final report will be submitted to OCD within two weeks of receipt of any comments.



## Shallow Subsurface Site Assessment at Newman #1 Well Carlsbad, New Mexico

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### COST ESTIMATE

DBS&A proposes to complete the scope of services on a time and materials basis in accordance with the New Mexico Department of Transportation Site Maintenance and Monitoring Agreement rates. The estimated cost to perform the scope of services is provided in Table 1 below. The following assumptions are included in this estimate: (1) subsurface utilities can be readily identified through NM One Call and will not require additional effort to locate and (2) the Newman #1 well site is readily accessible and access agreements will not be required.

**Table 1. Cost Estimate**

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
0001	Principal	8	Hour	\$120.00	\$ 960.00
0002	Senior Scientist	22	Hour	\$110.00	\$ 2,420.00
0003	Project Scientist	16	Hour	\$86.50	\$ 1,384.00
0004	Staff Scientist	30	Hour	\$69.50	\$ 2,085.00
0006	Field Technician I (backhoe operator)	20	Hour	\$55.00	\$ 1,100.00
0007	Draftsperson	12	Hour	\$55.00	\$ 660.00
0008	Administrator	6	Hour	\$66.00	\$ 396.00
0019	Expendable Field Equip.	1	Misc	\$200.00	\$ 200.00
0030	Backhoe - Heavy Duty	2	Day	\$633.00	\$ 1,266.00
0058	Per Diem (Lodging & Meals)	3	Day	\$100.00	\$ 300.00
0059	Partial Per Diem (Meals)	1	Day	\$30.00	\$ 30.00
0060	Passenger Vehicle	800	Mile	\$0.51	\$ 408.00
NA	Hall Lab Soil Analysis - Cl (EPA 300.0)	17	Each	\$27.50	\$ 467.50
NA	Hall Lab Soil Analysis - TPH (EPA 8015 M)	19	Each	\$99.00	\$ 1,881.00
Subtotal					\$13,557.50
NMGRT (7%)					\$ 949.03
<b>Total</b>					<b>\$14,506.53</b>



March 11, 2011

Mr. Jim Griswold  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Work plan for Newman #1 Well Site Continued Assessment  
Carlsbad, New Mexico

Dear Mr. Griswold:

Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to submit the enclosed work plan and cost estimate for continued assessment at the former Newman #1 well site. The continued assessment will include finishing the horizontal delineation of chloride impacts to shallow soils through excavation, delineation of the vertical extent of chloride impacts by drilling, and determination of possible chloride impacts to groundwater, if encountered beneath the site.

We understand that this effort will be funded by the Oil Conservation Division using the Reclamation Fund and will be facilitated as a "piggyback" under our existing Price Agreement for maintenance and monitoring with the NMDOT (#80-805-00-03377).

Please do not hesitate to call me at (505) 353-9130 if you have any questions or require additional information.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

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## Continued Site Assessment at Newman #1 Well Carlsbad, New Mexico

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### INTRODUCTION

Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to provide the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) with the following work plan to continue site assessment activities at the Newman number (#) 1 well site (Site) located in Sheep's Draw southwest of Carlsbad, New Mexico (Figure 1).

Shallow subsurface soil sampling was performed at the Site by DBS&A and Madron Services, Inc. of Carlsbad, New Mexico on January 12 and 13, 2011. Results of the sampling indicate that elevated concentrations of chloride exist in the upper 5 feet of soil across the majority of the Site. Samples collected from 0 to 1 foot below ground surface (ft bgs), 2 to 3 ft bgs, and 4 to 5 ft bgs generally showed similar chloride concentrations, with most samples containing greater than 1,000 mg/kg chloride.

### SCOPE OF SERVICES

Based on the results of the shallow subsurface soil assessment conducted at the Site, DBS&A recommends the following scope of services for completion of the site assessment:

- Complete horizontal delineation of chloride impacts to shallow subsurface soils by installing additional excavations to 5 ft bgs and performing additional field screening of soil samples.
- Determine the vertical extent of chloride impacts to subsurface soils by installing two soil borings within the approximate vicinity of the former tank battery and the former well pad.
- If groundwater is encountered during installation of the soil borings, complete as monitor wells and sample groundwater to determine possible chloride impacts.

The following discussion provides a brief summary of the proposed continued site assessment. This in turn is followed by a cost estimate to perform the services as described. A DBS&A field geologist will perform all sampling and supervise field activities. Field notes will be recorded in a logbook so that an accurate written record of all field activities is maintained.



## Continued Site Assessment at Newman #1 Well Carlsbad, New Mexico

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### PROJECT PLANNING

Project planning includes the following items:

- Work plan development
- File and obtain OSE monitor well permits
- Update the site-specific Health and Safety Plan (HASP) to include the proposed tasks
- Call for utility locates
- Obtain subcontractor agreements
- Schedule the project

To ensure that the project objectives are achieved, an authorized representative of DBS&A will have direct supervisory control of all aspects of the project.

Prior to the performance of fieldwork, DBS&A will obtain well permits from the Office of the State Engineer (OSE) for the two possible monitor wells to be installed at the Site. The site-specific HASP will be updated, as necessary, to address health and issues associated with the proposed project activities. New Mexico One Call will be contacted so that the appropriate entities can mark underground utilities.

Subcontractor services will be negotiated and agreements will be obtained for drilling and monitor well installation, surveying, and laboratory analysis. Once the project is scheduled, the OCD will be notified four days prior to commencement of field activities.

### SHALLOW SUBSURFACE SOIL SAMPLING

DBS&A will finish delineating the horizontal extent of chloride contamination in shallow subsurface soils at the Site. Based on the chloride concentrations detected in soil samples collected during the initial assessment, DBS&A will extend new sampling locations outward from the previous sampling locations until the horizontal extent of chloride contamination has been defined. DBS&A will use a backhoe to excavate to a depth of 5 ft bgs to complete the horizontal delineation. Figure 2 shows the proposed first series of new sampling locations. DBS&A assumes that two days with the backhoe should be sufficient to complete the horizontal delineation. If, by chance, the former drilling and/or production pits are



## Continued Site Assessment at Newman #1 Well Carlsbad, New Mexico

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located during the continued site assessment, DBS&A will excavate through the pit(s) to a depth of 10 ft bgs with the backhoe.

### *Sample Collection*

During excavation, soil samples will be collected from the bucket of the backhoe for field screening and confirmation laboratory analysis as discussed below. All sampling will be performed in accordance with Standard Operating Procedures (SOPs) and Guidelines (SOGs) that have been developed by the DBS&A Quality Assurance program. Samples collected for confirmation laboratory analysis will be placed in laboratory-provided sample containers and preserved on ice for delivery to the analytical laboratory. Field screening samples will be containerized, labeled, and placed on ice pending field screening analysis. The backhoe bucket and all other sampling equipment will be decontaminated in the field between sampling locations to minimize the potential for cross-contamination using a non-phosphate detergent (e.g., Liquinox™) and distilled/deionized water.

After completion of sampling, each excavation will be located using a hand-held GPS. The GPS coordinates will be used to place the sample locations on the site map.

### *Field Screening*

Soil samples will be field screened during excavation using low-range Hach chloride QuanTab® test strips. Three samples will be collected from each excavation for field screening at depths of 0 to 1 ft bgs, 2 to 3 ft bgs, and 4 to 5 ft bgs. If the drilling and/or production pits are located, field screening samples will be collected at depths of 1 to 2 ft bgs, 3 to 4 ft bgs, 5 to 6 ft bgs, 7 to 8 ft bgs, and 9 to 10 ft bgs.

### *Laboratory Analysis*

In addition to field screening samples, DBS&A will collect soil samples from each excavation for confirmation laboratory analysis at 4 to 5 ft bgs. Up to 20 confirmation samples will be submitted to Hall Environmental Analytical Laboratory (HEAL) for chloride analysis using U.S. Environmental Protection Agency (EPA) Method 300.0.

If the production and/or drilling pits are located, confirmation samples will be submitted for chloride analysis using EPA method 300.0 and for total petroleum hydrocarbons (TPH) gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) analysis using EPA Method



## Continued Site Assessment at Newman #1 Well Carlsbad, New Mexico

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8015M. TPH samples will be collected at depths of 4 to 5 ft bgs and 9 to 10 ft bgs; chloride samples will be collected from the bottom of the excavation at approximately 10 ft bgs. A total of up to 4 TPH samples and up to 10 chloride samples will be submitted to HEAL for confirmatory analysis.

### SOIL BORING AND MONITOR WELL INSTALLATION

To delineate the vertical extent of chloride contamination and determine if shallow groundwater exists, DBS&A will subcontract with Peterson Drilling and Testing, Inc. of Amarillo, Texas (a New Mexico licensed drilling company) to complete two soil borings at the Site. The soil borings will be installed using air rotary drilling technology to a total depth of 160 ft bgs, and will be located in the approximate vicinities of the former tank battery (previous sampling location EX-5) and the former well pad (previous sampling location EX-24). Soil samples collected from these areas during the initial phase of assessment contained the highest concentrations of chloride at the Site (13,000 mg/kg). The proposed locations of the soil borings are shown on Figure 2. If groundwater is encountered in the subsurface, the two soil borings will be completed as groundwater monitor wells. If groundwater is not encountered, the borings will be plugged and abandoned.

Soil samples will be collected at 10-foot intervals during drilling for lithologic description and laboratory analysis. Samples collected for laboratory analysis will be placed in an ice-filled cooler until they are submitted to the laboratory for analysis. A total of 32 soil samples will be analyzed for chloride using EPA method 300.0.

Soils generated during drilling activities will be containerized in Department of Transportation (DOT)-approved, 55-gallon steel drums. At the completion of the drilling, the drums will be staged in a designated on-site location pending receipt of laboratory analytical results. If the soil in the drums is determined to contain less than 1,000 mg/kg chloride, the soil will be thin-spread on-site. If the soil in the drums is determined to contain greater than 1,000 mg/kg chloride, the soil will be transported to a licensed facility for proper disposal..

If groundwater is encountered below the Site, the soil borings will be completed as two-inch-diameter groundwater monitor wells. The wells will be constructed of 20 feet of 0.020-inch slot, flush-threaded, machine-cut, Schedule 40 (SCH 40) poly-vinyl chloride (PVC) well screen with a 2 foot sump. Blank



## Continued Site Assessment at Newman #1 Well Carlsbad, New Mexico

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two-inch SCH 40 PVC casing will extend to the surface. Five feet of the screen will be above the water table and 15 feet will be below. The filter pack will consist of 10/20 silica sand and extend from the bottom of the boring to 3 ft above the well screen. The sand will be placed by a tremmie pipe. The well will be surged or bailed to settle the sand pack and additional sand added if necessary prior to placing the bentonite seal. A minimum 3 ft bentonite pellet seal (hydrated) will then be placed above the sand pack. The annular space above the bentonite seal will then be filled with a cement/bentonite grout to the surface. The surface completions for monitor wells will consist of a locking, stick-up steel well shroud with a 3-foot by 3-foot by 4-inch-thick concrete pad and bollards at the corners. All of the monitor wells will be completed in accordance with the New Mexico Environment Department Ground Water Quality Bureau guidelines for monitor well construction, Revision 1.0, July 2008.

After completion, the newly installed monitor wells will be developed by pumping or bailing until temperature, pH, and conductivity have stabilized and turbidity has been reduced to the extent practicable. Lithologic logging and well development will follow DBS&A Standard Operating Procedures (SOPs).

### GROUNDWATER SAMPLING

Upon completion of the monitor wells, DBS&A will collect groundwater samples for chloride analysis. A pump will be used to sample the two newly installed monitor wells. Prior to sampling, the wells will be purged of three casing volumes to ensure that a representative sample of groundwater is collected. During purging, the DBS&A field technician will measure water quality parameters including temperature, specific conductance and pH and ensure that these parameters are stabilized within 10 percent for specific conductance, 2 degrees for temperature and +/- 0.2 pH units prior to sampling. Sample containers will be filled, labeled, and placed on ice once the stabilization criteria have been met. The samples will be submitted to HEAL for chloride analysis in accordance with EPA method 300.0. Groundwater samples will be accompanied by full chain-of-custody documentation at all times.

### SURVEYING

If groundwater monitor wells are completed, DBS&A will subcontract with Pyeatts of Carlsbad, New Mexico, a licensed New Mexico land surveyor, to survey the top of casing elevations of each of the



## Continued Site Assessment at Newman #1 Well Carlsbad, New Mexico

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monitor wells to a North American Vertical Datum, 1988 (NAVD88); x-y coordinates of the each well will be measured to a North American Datum, 1983 (NAD83) in a state plane coordinate system.

### REPORTING

DBS&A will submit a report to the OCD after completion of the assessment activities. The report will include a summary of field activities, a site map showing the excavation and soil boring/monitor well locations, borehole logs, a summary table for chloride field screening and confirmation laboratory samples for horizontal delineation, and chloride laboratory results for vertical delineation. If monitor wells are installed at the Site, the report will also include well completion diagrams, survey results, groundwater elevation data, and a summary table of analytical results for groundwater samples. Field notes, photographic documentation, and the laboratory analytical report(s) will be included as appendices. The report will provide recommendations for additional investigation, if necessary. If the continued assessment has provided sufficient characterization of the horizontal and vertical distribution of chloride in Site soils and groundwater, if present, then recommendations will be provided for Site restoration.

### SCHEDULE

The excavation and shallow subsurface soil sampling will take approximately two days to complete, and the soil boring/monitor well installation and groundwater sampling will take approximately four days to complete. The analytical results should be received within 10 to 14 business days after submittal. Approximately two weeks after receipt of the analytical results, DBS&A will submit the continued site assessment report to OCD.

### COST ESTIMATE

DBS&A proposes to execute the scope of services described above on a time and materials basis in accordance with the New Mexico Department of Transportation Site Maintenance and Monitoring Agreement rates. The cost proposal is an estimated budget based on present knowledge of the assignment that is believed sufficient to cover the services described, but no guarantee is made or implied. Only actual costs incurred will be charged if costs are less than estimated, but estimated costs will not be



November 23, 2010

Mr. Jim Griswold  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Work plan for Newman #1 Well Site Initial Assessment  
Carlsbad, New Mexico

Dear Mr. Griswold:

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### INTRODUCTION

Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to provide the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) with the following work plan to conduct an initial site assessment at the Newman number (#) 1 well site located in Sheep's Draw southwest of Carlsbad, New Mexico (Figure 1). Approximately 98 percent of Carlsbad's water is supplied by groundwater pumped from 9 wells located 7 miles southwest of Carlsbad in Sheep's Draw in the foothills of the Guadalupe Mountains. These wells range in depth from 500 to 900 feet and pull water from the Capitan Aquifer. The City of Carlsbad, under the authority of its ordinance (Ordinance 2000-13) maintains and enforces a Wellhead Protection Program in the Sheep's Draw area.

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### SCOPE OF SERVICES

The OCD has requested that DBS&A perform an environmental assessment of the Newman #1 well site to determine if installation and/or production resulted in environmental impacts to surface/subsurface soils and groundwater. DBS&A is proposing to complete the assessment in two phases. The first phase, detailed in this work plan, will include assessment of shallow subsurface soils to a depth of up to 5 feet below ground surface (ft bgs). The second phase, if required based on results of the shallow subsurface soil assessment, will include drilling and sampling deep soils and installation of groundwater monitor wells for groundwater characterization.

The following discussion provides a brief summary of the proposed shallow subsurface soil assessment. This in turn is followed by a cost estimate to perform the services as described. A DBS&A field geologist will perform all sampling and supervise field activities. Field notes will be recorded in a logbook so that an accurate written record of all field activities is maintained.



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### **SURFACE AND SUBSURFACE SOIL SAMPLING**

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#### ***Sample Collection***

During excavation, soil samples will be collected from the bucket of the backhoe for field screening and laboratory analysis as discussed below. All sampling will be performed in accordance with Standard Operating Procedures (SOPs) and Guidelines (SOGs) that have been developed by the DBS&A Quality Assurance program. Samples for laboratory analysis will be placed in laboratory-provided sample containers and preserved on ice for delivery to the analytical laboratory. Field screening samples will be containerized, labeled, and placed on ice pending field screening analysis. The backhoe bucket and all other sampling equipment will be decontaminated in the field between sampling locations to minimize the potential for cross-contamination using a non-phosphate detergent (e.g., Liquinox™) and distilled/deionized water.

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### *Laboratory Analysis*

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DBS&A will submit a well site assessment report to OCD after completion of the field activities and receipt of analytical results. The report will include a summary of field activities, a site map showing the excavation locations, and summary tables for chloride field screening samples and laboratory analytical results for TPH and chloride confirmation samples. Field notes, photographic documentation, and the laboratory analytical report will be included as appendices. DBS&A will provide recommendations for follow-on work under a second phase of assessment, as warranted, based on the results of the shallow subsurface assessment.

### **SCHEDULE**

Upon approval of the scope of services, DBS&A will prepare a site specific health and safety plan for the proposed project activities. QuanTab® test strips will be ordered from Hach and a contract with the backhoe supplier to complete the project scope will be completed. The excavation and shallow subsurface soil sampling will take approximately two days to complete. The analytical results should be received within 10 to 14 business days after submittal. Two weeks after receipt of the analytical results, DBS&A will submit a draft report to OCD for comment. A final report will be submitted to OCD within two weeks of receipt of any comments.



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### COST ESTIMATE

DBS&A proposes to complete the scope of services on a time and materials basis in accordance with the New Mexico Department of Transportation Site Maintenance and Monitoring Agreement rates. The estimated cost to perform the scope of services is provided in Table 1 below. The following assumptions are included in this estimate: (1) subsurface utilities can be readily identified through NM One Call and will not require additional effort to locate and (2) the Newman #1 well site is readily accessible and access agreements will not be required.

**Table 1. Cost Estimate**

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
0001	Principal	8	Hour	\$120.00	\$ 960.00
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0003	Project Scientist	16	Hour	\$86.50	\$ 1,384.00
0004	Staff Scientist	30	Hour	\$69.50	\$ 2,085.00
0006	Field Technician I (backhoe operator)	20	Hour	\$55.00	\$ 1,100.00
0007	Draftsperson	12	Hour	\$55.00	\$ 660.00
0008	Administrator	6	Hour	\$66.00	\$ 396.00
0019	Expendable Field Equip.	1	Misc	\$200.00	\$ 200.00
0030	Backhoe - Heavy Duty	2	Day	\$633.00	\$ 1,266.00
0058	Per Diem (Lodging & Meals)	3	Day	\$100.00	\$ 300.00
0059	Partial Per Diem (Meals)	1	Day	\$30.00	\$ 30.00
0060	Passenger Vehicle	800	Mile	\$0.51	\$ 408.00
NA	Hall Lab Soil Analysis - Cl (EPA 300.0)	17	Each	\$27.50	\$ 467.50
NA	Hall Lab Soil Analysis - TPH (EPA 8015 M)	19	Each	\$99.00	\$ 1,881.00
Subtotal					\$13,557.50
NMGRT (7%)					\$ 949.03
<b>Total</b>					<b>\$14,506.53</b>



September 9, 2011

Mr. Jim Griswold  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Work plan for Newman #1 Well Site Continued Assessment  
Carlsbad, New Mexico

Dear Mr. Griswold:

Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to submit the enclosed work plan and cost estimate for continued assessment at the former Newman #1 well site. The continued assessment will include finishing the horizontal delineation of chloride impacts to shallow soils through excavation, delineation of the vertical extent of chloride impacts by drilling, and determination of possible chloride impacts to groundwater, if encountered beneath the site.

We understand that this effort will be funded by the Oil Conservation Division using the Reclamation Fund and will be facilitated as a "piggyback" under our existing Price Agreement for maintenance and monitoring with the NMDOT (#10-805-00-07208).

Please do not hesitate to call me at (505) 353-9130 if you have any questions or require additional information.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

Michael D. McVey  
Senior Hydrogeologist

Enclosures

*Daniel B. Stephens & Associates, Inc.*

6020 Academy Rd., NE, Suite 100

505-822-9400



## Continued Site Assessment at Newman #1 Carlsbad, New Mexico

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### INTRODUCTION

Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to provide the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) with the following work plan to continue site assessment activities at the Newman number (#) 1 well site (Site) located in Sheep's Draw southwest of Carlsbad, New Mexico (Figure 1).

Shallow subsurface soil sampling was performed at the Site by DBS&A and Madron Services, Inc. of Carlsbad, New Mexico on January 12 and 13, 2011. Results of the sampling indicate that elevated concentrations of chloride exist in the upper 5 feet of soil across the majority of the Site. Samples collected from 0 to 1 foot below ground surface (ft bgs), 2 to 3 ft bgs, and 4 to 5 ft bgs generally showed similar chloride concentrations, with most samples containing greater than 1,000 milligrams per kilogram (mg/kg) chloride.

### SCOPE OF SERVICES

Based on the results of the shallow subsurface soil assessment conducted at the Site, DBS&A recommends the following scope of services for completion of the site assessment:

- Complete horizontal delineation of chloride impacts to shallow subsurface soils by installing additional excavations to 5 ft bgs and performing additional field screening of soil samples.
- Determine the vertical extent of chloride impacts to subsurface soils by installing two soil borings within the approximate vicinity of the former tank battery and the former well pad.
- If groundwater is encountered during installation of the soil borings, complete the borings as monitor wells and sample groundwater to determine possible chloride impacts.

The following discussion provides a brief summary of the proposed continued site assessment. This in turn is followed by a cost estimate to perform the services as described. A DBS&A field geologist will perform all sampling and supervise field activities. Field notes will be recorded in a logbook so that an accurate written record of all field activities is maintained.



## Continued Site Assessment at Newman #1 Carlsbad, New Mexico

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### PROJECT PLANNING

Project planning includes the following items:

- Work plan development
- File and obtain OSE monitor well permits
- Update the site-specific Health and Safety Plan (HASP) to include the proposed tasks
- Call for utility locates
- Obtain subcontractor agreements
- Schedule the project

To ensure that the project objectives are achieved, an authorized representative of DBS&A will have direct supervisory control of all aspects of the project.

Prior to the performance of fieldwork, DBS&A will obtain well permits from the Office of the State Engineer (OSE) for the two possible monitor wells to be installed at the Site. The site-specific HASP will be updated, as necessary, to address health and issues associated with the proposed project activities. New Mexico One Call will be contacted so that the appropriate entities can mark underground utilities.

Subcontractor services will be negotiated and agreements will be obtained for drilling and monitor well installation, surveying, and laboratory analysis. Once the project is scheduled, the OCD will be notified four days prior to commencement of field activities.

### SHALLOW SUBSURFACE SOIL SAMPLING

DBS&A will finish delineating the horizontal extent of chloride contamination in shallow subsurface soils at the Site. Based on the chloride concentrations detected in soil samples collected during the initial assessment, DBS&A will extend new sampling locations outward from the previous sampling locations until the horizontal extent of chloride contamination has been defined. DBS&A will use a backhoe to excavate to a depth of 5 ft bgs to complete the horizontal delineation. Figure 2 shows the proposed first series of new sampling locations. DBS&A assumes that two days with the backhoe should be sufficient to complete the horizontal delineation. If, by chance, the former drilling and/or production pits are



## Continued Site Assessment at Newman #1 Carlsbad, New Mexico

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located during the continued site assessment, DBS&A will excavate through the pit(s) to a depth of 10 ft bgs with the backhoe.

### ***Sample Collection***

During excavation, soil samples will be collected from the bucket of the backhoe for field screening and confirmation laboratory analysis as discussed below. All sampling will be performed in accordance with Standard Operating Procedures (SOPs) and Guidelines (SOGs) that have been developed by DBS&A in support of the Quality Assurance program. Samples collected for confirmation laboratory analysis will be placed in laboratory-provided sample containers and preserved on ice for delivery to the analytical laboratory. Field screening samples will be containerized, labeled, and placed on ice pending field screening analysis. The backhoe bucket and all other sampling equipment will be decontaminated in the field between sampling locations to minimize the potential for cross-contamination using a non-phosphate detergent (e.g., Liqinox™) and distilled/deionized water.

After completion of sampling, each excavation will be located using a hand-held GPS. The GPS coordinates will be used to place the sample locations on the site map.

### ***Field Screening***

Soil samples will be field screened during excavation using low-range Hach chloride QuanTab® test strips. Three samples will be collected from each excavation for field screening at depths of 0 to 1 ft bgs, 2 to 3 ft bgs, and 4 to 5 ft bgs. If the drilling and/or production pits are located, field screening samples will be collected at depths of 1 to 2 ft bgs, 3 to 4 ft bgs, 5 to 6 ft bgs, 7 to 8 ft bgs, and 9 to 10 ft bgs.

### ***Laboratory Analysis***

In addition to field screening samples, DBS&A will collect soil samples from each excavation for confirmation laboratory analysis at 4 to 5 ft bgs. Up to 20 confirmation samples will be submitted to Hall Environmental Analytical Laboratory (HEAL) for chloride analysis using U.S. Environmental Protection Agency (EPA) Method 300.0.

If the production and/or drilling pits are located, confirmation samples will be submitted for chloride analysis using EPA method 300.0 and for total petroleum hydrocarbons (TPH) gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) analysis using EPA Method



## Continued Site Assessment at Newman #1 Carlsbad, New Mexico

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8015M. TPH samples will be collected at depths of 4 to 5 ft bgs and 9 to 10 ft bgs; chloride samples will be collected from the bottom of the excavation at approximately 10 ft bgs. A total of up to 4 TPH samples and up to 10 chloride samples will be submitted to HEAL for confirmatory analysis.

### SOIL BORING AND MONITOR WELL INSTALLATION

To delineate the vertical extent of chloride contamination and determine if shallow groundwater exists, DBS&A will subcontract with Peterson Drilling and Testing, Inc. of Amarillo, Texas (a New Mexico licensed drilling company) to complete two soil borings at the Site. The soil borings will be installed using air rotary drilling technology to a total depth of 160 ft bgs, and will be located in the approximate vicinities of the former tank battery (previous sampling location EX-5) and the former well pad (previous sampling location EX-24). Soil samples collected from these areas during the initial phase of assessment contained the highest concentrations of chloride at the Site (13,000 mg/kg). The proposed locations of the soil borings are shown on Figure 2. If groundwater is encountered in the subsurface, the two soil borings will be completed as groundwater monitor wells. If groundwater is not encountered, the borings will be plugged and abandoned.

Soil samples will be collected at 10-foot intervals during drilling for lithologic description and chloride laboratory analysis. Samples collected for laboratory analysis will be placed in an ice-filled cooler until they are submitted to the laboratory for analysis. A total of 32 soil samples will be analyzed for chloride using EPA method 300.0.

Field screening with a photoionization detector (PID) will be performed at 10-foot intervals during drilling using the heated headspace method described in the New Mexico Environment Department (NMED) Petroleum Storage Tank Bureau (PSTB) Guidelines for Corrective Action. If field screening indicates the presence of volatile organic compounds above 100 parts per million by volume (ppmv), a sample will be collected for possible laboratory analysis and placed in an ice-filled cooler. At the completion of drilling, 2 samples will be submitted from each boring for TPH (GRO, DRO, MRO) analysis in accordance with EPA method 8015M. The first sample will be collected from the interval yielding the highest PID reading above 100 ppmv. The second sample will be collected from the bottom of the boring (if groundwater is not encountered) or from the soil/water table interface (if groundwater is encountered). If no PID readings above 100 ppmv are measured in samples collected during drilling, then



## Continued Site Assessment at Newman #1 Carlsbad, New Mexico

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only one TPH sample will be collected from the bottom of the boring (if groundwater is not encountered) or from the soil/water table interface (if groundwater is encountered). A total of up to 4 TPH samples will be collected from the 2 borings.

Soils generated during drilling activities will be containerized in Department of Transportation (DOT)-approved, 55-gallon steel drums. At the completion of the drilling, the drums will be staged in a designated on-site location pending receipt of laboratory analytical results. If the soil in the drums is determined to contain less than 1,000 mg/kg chloride, the soil will be thin-spread on-site. If the soil in the drums is determined to contain greater than 1,000 mg/kg chloride, the soil will be transported to a licensed facility for proper disposal.

If groundwater is encountered below the Site, the soil borings will be completed as two-inch-diameter groundwater monitor wells. The wells will be constructed of 20 feet of 0.020-inch slot, flush-threaded, machine-cut, Schedule 40 (SCH 40) poly-vinyl chloride (PVC) well screen with a 2 foot sump. Blank two-inch SCH 40 PVC casing will extend to the surface. Five feet of the screen will be above the water table and 15 feet will be below. The filter pack will consist of 10/20 silica sand and extend from the bottom of the boring to 3 ft above the well screen. The sand will be placed by a tremmie pipe. The well will be surged or bailed to settle the sand pack and additional sand added if necessary prior to placing the bentonite seal. A minimum 3 ft bentonite pellet seal (hydrated) will then be placed above the sand pack. The annular space above the bentonite seal will then be filled with a cement/bentonite grout to the surface. The surface completions for monitor wells will consist of a locking, stick-up steel well shroud with a 3-foot by 3-foot by 4-inch-thick concrete pad and bollards at the corners. All of the monitor wells will be completed in accordance with the New Mexico Environment Department Ground Water Quality Bureau guidelines for monitor well construction, Revision 1.0, July 2008.

After completion, the newly installed monitor wells will be developed by pumping or bailing until temperature, pH, and conductivity have stabilized and turbidity has been reduced to the extent practicable. Lithologic logging and well development will follow DBS&A Standard Operating Procedures (SOPs).



## Continued Site Assessment at Newman #1 Carlsbad, New Mexico

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### **GROUNDWATER SAMPLING**

Upon completion of the monitor wells, DBS&A will collect groundwater samples from the wells for chloride analysis. If volatile organic vapors were detected during PID field screening above 100 ppmv in the soil borings, then groundwater samples will also be collected for volatile organic compound (VOC) analysis. A total of 2 groundwater samples will be submitted for chloride analysis and up to 2 samples will be submitted for VOC analysis.

A pump will be used to sample the two newly installed monitor wells. Prior to sampling, the wells will be purged of three casing volumes to ensure that a representative sample of groundwater is collected. During purging, the DBS&A field technician will measure water quality parameters including temperature, specific conductance and pH and ensure that these parameters are stabilized within 10 percent for specific conductance, 2 degrees for temperature and +/- 0.2 pH units prior to sampling. Sample containers will be filled, labeled, and placed on ice once the stabilization criteria have been met. The samples will be submitted to HEAL for analysis in accordance with EPA method 300.0 for chloride and EPA method 8260B (full list) for VOCs. Groundwater samples will be accompanied by full chain-of-custody documentation at all times.

### **SURVEYING**

If groundwater monitor wells are completed, DBS&A will subcontract with Pyeatts of Carlsbad, New Mexico, a licensed New Mexico land surveyor, to survey the top of casing elevations of each of the monitor wells to a North American Vertical Datum, 1988 (NAVD88); x-y coordinates of the each well will be measured to a North American Datum, 1983 (NAD83) in a state plane coordinate system.

### **REPORTING**

DBS&A will submit a report to the OCD after completion of the assessment activities. The report will include a summary of field activities, a site map showing the excavation and soil boring/monitor well locations, borehole logs, a summary table for chloride field screening and confirmation laboratory samples for horizontal delineation, and chloride laboratory results for vertical delineation. If monitor wells are installed at the Site, the report will also include well completion diagrams, survey results,



## Continued Site Assessment at Newman #1 Carlsbad, New Mexico

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groundwater elevation data, and a summary table of analytical results for groundwater samples. Field notes, photographic documentation, and the laboratory analytical report(s) will be included as appendices. The report will provide recommendations for additional investigation, if necessary. If the continued assessment provides sufficient delineation of the horizontal and vertical distribution of chloride and TPH in Site soils and groundwater, if present, then recommendations will be provided for Site restoration.

### **SCHEDULE**

The excavation and shallow subsurface soil sampling will take approximately two days to complete, and the soil boring/monitor well installation and groundwater sampling will take approximately four days to complete. The analytical results should be received within 10 to 14 business days after submittal. Approximately two weeks after receipt of the analytical results, DBS&A will submit the continued site assessment report to OCD.

### **COST ESTIMATE**

DBS&A proposes to execute the scope of services described above on a time and materials basis in accordance with the New Mexico Department of Transportation Site Maintenance and Monitoring Agreement rates. The cost proposal is an estimated budget based on present knowledge of the assignment that is believed sufficient to cover the services described, but no guarantee is made or implied. Only actual costs incurred will be charged if costs are less than estimated, but estimated costs will not be exceeded and work will stop, and not continue, without approval from the OCD Environmental Bureau project manager. The estimated cost to perform the scope of services is provided in Table 1 below.

The following assumptions are included in this estimate: (1) subsurface utilities can be readily identified through NM One Call and will not require additional effort to locate and (2) the Newman #1 well site is readily accessible and access agreements will not be required. If groundwater monitor wells are not completed then only the line items that are applicable will be charged.



**Continued Site Assessment at Newman #1  
Carlsbad, New Mexico**

**Table 1. Cost Estimate**

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
001	Principal	20	Hour	\$ 145.00	\$ 2,900.00
002	Senior Scientist	48	Hour	\$ 120.00	\$ 5,760.00
003	Project Scientist	64	Hour	\$ 100.00	\$ 6,400.00
004	Staff Scientist	38	Hour	\$ 80.00	\$ 3,040.00
007	Draftsperson	6	Hour	\$ 69.00	\$ 414.00
008	Administrator	12	Hour	\$ 68.00	\$ 816.00
010	Gas Detection and Sampling Equipment	5	Day	\$ 100.00	\$ 500.00
011	Water Quality Equipment	5	Day	\$ 125.00	\$ 625.00
012	Expendable Field Equipment	5	Day	\$ 75.00	\$ 375.00
013	Per Diem (Lodging & Meals)	9	Day	\$ 137.00	\$ 1,233.00
014	Partial Per Diem (Meals)	3	Day	\$ 56.00	\$ 168.00
015	Passenger Vehicle	1600	Mile	\$ 0.555	\$ 888.00
016	Misc. Field Equipment	6	Day	\$ 65.00	\$ 390.00
NA	Backhoe	20	Hour	\$ 99.00	\$ 1,980.00
NA	Drilling	1	Each	\$ 34,903.00	\$ 34,903.00
NA	Site Surveying	1	Each	\$ 2,750.00	\$ 2,750.00
NA	Drums	22	Each	\$ 66.00	\$ 1,452.00
NA	Soil Disposal	1	Each	\$ 1,420.00	\$ 1,420.00
NA	Hall Lab Soil Analysis - CI (EPA 300.0)	62	Each	\$ 27.50	\$ 1,705.00
NA	Hall Lab Soil Analysis - TPH (EPA 8015M)	8	Each	\$ 99.00	\$ 792.00
NA	Hall Lab GW Analysis - CI (EPA 300.0)	2	Each	\$ 16.50	\$ 33.00
NA	Hall Lab GW Analysis - VOCs (EPA 8260B)	2	Each	\$ 132.00	\$ 264.00
NA	Quantab Low-Range Test Strips	2	Each	\$ 55.00	\$ 110.00
Subtotal					\$ 68,918.00
NMGRT (7%)					\$ 4,824.26
<b>Total</b>					<b>\$ 73,742.26</b>



**State of New Mexico  
Purchase Order**

PO Number to be on all Invoices and Correspondence  
**Dispatch via Print**

**Energy, Minerals & Resources**

1220 South St. Francis Drive  
Santa Fe NM 87505  
United States

**Vendor:** 0000048895  
DANIEL B STEPHENS & ASSOCIATES INC  
6020 ACADEMY ROAD NE SUITE 100  
ALBUQUERQUE NM 87109

<b>Purchase Order</b> 52100-0000027962	<b>Date</b> 11/30/2010	<b>Revision</b>	<b>Page</b> 1
<b>Payment Terms</b> Pay Now	<b>Freight Terms</b> FOB Destination	<b>Ship Via</b> Best Way	
<b>Buyer</b> RACHEL D. HERRERA		<b>Phone</b> 505/476-3311	

**Ship To:** 1220 South St. Francis Drive  
Room 346  
Santa Fe NM 87501  
United States

**Bill To:** 1220 South St. Francis Drive  
Santa Fe NM 87505  
United States

**Origin:** CON **Exc/Excl #:**

Line-Sch	Item/Description	Mfg ID	Quantity	UOM	PO Price	Extended Amt	Due Date
1- 1	Initial soil assessment at Newman #1 wellsite (API 30-015-21477) in Carlsbad municipal water well field.		1.00	EA	16,682.51	16,682.51	11/30/2010
	52100-31100-0710000000-535300- -0750- - -111-00000						
	<b>Schedule Total</b>					<u>16,682.51</u>	
	Contract ID: 80-805-00-03377AC		Contract Line: 0		Release: 9		
	<b>Item Total</b>					<u>16,682.51</u>	

Price agreement # 80-805-00-03377  
Expires on July 16, 2011

**Total PO Amount** 16,682.51

Agency Approval - I certify that the proposed purchase represented by this document is authorized by and is made in accordance with all State (and if applicable Federal) legislation rules and regulation. I further certify that adequate unencumbered cash and budget expenditure authority exists for this proposed purchase and all other outstanding purchase commitments and accounts payable.

**Authorized Signature**

STATE OF NEW MEXICO  
GENERAL SERVICES DEPARTMENT- PURCHASING DIVISION  
TERMS AND CONDITIONS UNLESS OTHERWISE SPECIFIED

SPD-101A (07/92)

1. GENERAL: When the State Purchasing Agent issues a purchase document in response to the Vendors bid, a binding contract is created.
2. VARIATION IN QUANTITY: No variation in the quantity of any item called for by this order will be accepted unless such variation has been caused by conditions of loading, shipping, packing or allowances in manufacturing process, and then only to the extent, if any, specified elsewhere in this order.
3. ASSIGNMENT:
  - A: Neither the order, nor any interest therein, nor claim thereunder, shall be assigned or transferred by the Vendor, except as set forth in subparagraph 3B below or as expressly authorized in writing by the STATE PURCHASING AGENTS OFFICE. No such assignment or transfer shall relieve the Vendor from the obligations and liabilities under this order.
  - B: Vendor agrees that any and all claims for overcharge resulting from antitrust violations which are borne by the State as to goods, services, and materials purchased in connection with this bid are hereby assigned to the State.
4. STATE FURNISHED PROPERTY: State furnished property shall be returned to the state upon request in the same condition as received except for ordinary wear, tear, and modifications ordered hereunder.
5. DISCOUNTS: Prompt payment discounts will not be considered in computing the low bid. Discounts for payment within 20 days will be considered after the award of the contract. Discounted time will be computed from the date of receipt of the merchandise or invoice, whichever is later.
6. INSPECTION: Final inspection and acceptance will be made at the destination. Supplies rejected at the destination for non-conformance with specifications shall be removed, at the Vendors risk and expense, promptly after notice of rejection.
7. INSPECTION OF PLANT: The State Purchasing Agent may inspect, at any reasonable time, the part of the contractors, or any subcontractors plant or place of business, which is related to the performance of this contract.
8. COMMERCIAL WARRANTY: The Vendor agrees that the supplies or services furnished under this order shall be covered by the most favorable commercial warranties the Vendor gives to any customer for such supplies or services, and that the rights and remedies provided herein shall extend to the State and are in addition to and do not limit any rights afforded to the State by any other cause of this order. Vendor agrees not to disclaim warranties of fitness for a particular purpose or merchantability.
9. TAXES: The unit price shall exclude all State taxes.
10. PACKING, SHIPPING AND INVOICING:
  - A: The States purchase document number and the Vendors name, users name and location shall be shown on each packing and delivery ticket, package, bill of lading and other correspondence in connection with the shipment. The users count will be accepted by the Vendor as final and conclusive on all shipments not accompanied by a packing ticket.
  - B: The Vendors invoice shall be submitted in triplicate, duly certified and shall contain the following information: order number, description of supplies or services, quantities, unit prices and extended totals. Separate invoices shall be rendered for each and every complete shipment.
  - C: Invoices must be submitted to the using agency and NOT THE STATE PURCHASING AGENT.
11. DEFAULT: The State reserves the right to cancel all or any part of this order without cost to the State, if the Vendor fails to meet the provisions of this order and, except as otherwise provided herein, to hold the Vendor liable for any excess cost occasioned by the State due to the Vendors default. The Vendor shall not be liable for any excess costs if failure to perform the order arises out of causes beyond the control and without the fault or negligence of the Vendor, such causes include, but are not restricted to, acts of God or of the public enemy, acts of the State or of the Federal Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargos, unusually severe weather and defaults of subcontractors due to any of the above, unless the State shall determine that the supplies or services to be furnished by the subcontractor where obtainable from other sources in sufficient time to permit the Vendor to meet the required delivery scheduled. The rights and remedies of the State provided in this paragraph shall not be exclusive and are in addition to any other rights now being provided by law or under this order.
12. NON-COLLUSION: In signing this bid, the Vendor certifies he/she has not, either directly or indirectly, entered into action in restraint of free competitive bidding in connection with this proposal submitted to the State Purchasing Agent.
13. NON-DISCRIMINATION: Vendors doing business with the State of New Mexico must be in compliance with the Federal Civil Rights Act of 1964 and Title VII of that Act, Rev., 1979.
14. THE PROCUREMENT CODE: Sections 13-1-28 through 13-1-199 NMSA 1978 imposes civil and criminal penalties for its violation.  
In addition, the New Mexico criminal statutes impose felony penalties for bribes, gratuities and kickbacks.
15. All bid items are to be NEW and most current production, unless otherwise specified.
16. PAYMENT FOR PURCHASES: Except as otherwise agreed to: late payment charges may be assessed against the user state agency in the amount and under the conditions set forth in section 13-14158 NMSA 1978.
17. WORKERS COMPENSATION: The Contractor agrees to comply with state laws and rules pertaining to workers compensation benefits for its employees. If the Contractor fails to comply with Workers Compensation Act and applicable rules when required to do so, this (Agreement) may be terminated by the contracting agency.
18. PAY EQUITY RECORDING: The Contractor agrees to comply with New Mexico Pay Equity reporting requirements as detailed in Executive Order 2009-049 Implementation Guidance available at <http://www.generalservices.state.nm.us/spd/guidance.pdf>



State of New Mexico  
Purchase Order

PO Number to be on all Invoices and Correspondence  
**Dispatch via Print**

**Energy, Minerals & Resources**

1220 South St. Francis Drive  
Santa Fe NM 87505  
United States

**Vendor:** 0000048895  
DANIEL B STEPHENS & ASSOCIATES INC  
6020 ACADEMY ROAD NE SUITE 100  
ALBUQUERQUE NM 87109

<b>Purchase Order</b> 52100-0000032907	<b>Date</b> 09/12/2011	<b>Revision</b>	<b>Page</b> 1
<b>Payment Terms</b> Pay Now	<b>Freight Terms</b> FOB Destination	<b>Ship Via</b> Best Way	
<b>Buyer</b> RACHEL D. HERRERA	<b>Phone</b> 505/476-3311		

**Ship To:** 1220 South St. Francis Drive  
Room 346  
Santa Fe NM 87501  
United States

**Bill To:** 1220 South St. Francis Drive  
Room 346  
Santa Fe NM 87501  
United States

Origin: CON ExclExcl #:

Line-Sch	Item/Description	Mfg ID	Quantity	UOM	PO Price	Extended Amt	Due Date
1- 1	Continued environmental assessment at Newmen #1 wellsite. API # 30-015-21477 in Sheep's Draw.		1.00	EA	84,803.60	84,803.60	09/12/2011
	52100-31100-0710000000-535300- -0750- - -112-10000						
	<b>Schedule Total</b>					<u>84,803.60</u>	
	Contract ID: 10-805-00-07208AB			Contract Line: 0	Release: 1		
	<b>Item Total</b>					<u>84,803.60</u>	
	<b>Total PO Amount</b>					<u>84,803.60</u>	

Agency Approval - I certify that the proposed purchase represented by this document is authorized by and is made in accordance with all State (and if applicable Federal) legislation rules and regulation. I further certify that adequate unencumbered cash and budget expenditure authority exists for this proposed purchase and all other outstanding purchase commitments and accounts payable.

**Authorized Signature**  
*John H. Bemis*

STATE OF NEW MEXICO  
GENERAL SERVICES DEPARTMENT- PURCHASING DIVISION  
TERMS AND CONDITIONS UNLESS OTHERWISE SPECIFIED

SPD-101A (07/92)

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  - B: Vendor agrees that any and all claims for overcharge resulting from antitrust violations which are borne by the State as to goods, services, and materials purchased in connection with this bid are hereby assigned to the State.
4. STATE FURNISHED PROPERTY: State furnished property shall be returned to the state upon request in the same condition as received except for ordinary wear, tear, and modifications ordered hereunder.
5. DISCOUNTS: Prompt payment discounts will not be considered in computing the low bid. Discounts for payment within 20 days will be considered after the award of the contract. Discounted time will be computed from the date of receipt of the merchandise or invoice, whichever is later.
6. INSPECTION: Final inspection and acceptance will be made at the destination. Supplies rejected at the destination for non-conformance with specifications shall be removed, at the Vendors risk and expense, promptly after notice of rejection.
7. INSPECTION OF PLANT: The State Purchasing Agent may inspect, at any reasonable time, the part of the contractors, or any subcontractors plant or place of business, which is related to the performance of this contract.
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9. TAXES: The unit price shall exclude all State taxes.
10. PACKING, SHIPPING AND INVOICING:
  - A: The States purchase document number and the Vendors name, users name and location shall be shown on each packing and delivery ticket, package, bill of lading and other correspondence in connection with the shipment. The users count will be accepted by the Vendor as final and conclusive on all shipments not accompanied by a packing ticket.
  - B: The Vendors invoice shall be submitted in triplicate, duly certified and shall contain the following information: order number, description of supplies or services, quantities, unit prices and extended totals. Separate invoices shall be rendered for each and every complete shipment.
  - C: Invoices must be submitted to the using agency and NOT THE STATE PURCHASING AGENT.
11. DEFAULT: The State reserves the right to cancel all or any part of this order without cost to the State, if the Vendor fails to meet the provisions of this order and, except as otherwise provided herein, to hold the Vendor liable for any excess cost occasioned by the State due to the Vendors default. The Vendor shall not be liable for any excess costs if failure to perform the order arises out of causes beyond the control and without the fault or negligence of the Vendor, such causes include, but are not restricted to, acts of God or of the public enemy, acts of the State or of the Federal Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargos, unusually severe weather and defaults of subcontractors due to any of the above, unless the State shall determine that the supplies or services to be furnished by the subcontractor where obtainable from other sources in sufficient time to permit the Vendor to meet the required delivery scheduled. The rights and remedies of the State provided in this paragraph shall not be exclusive and are in addition to any other rights now being provided by law or under this order.
12. NON-COLLUSION: In signing this bid, the Vendor certifies he/she has not, either directly or indirectly, entered into action in restraint of free competitive bidding in connection with this proposal submitted to the State Purchasing Agent.
13. NON-DISCRIMINATION: Vendors doing business with the State of New Mexico must be in compliance with the Federal Civil Rights Act of 1964 and Title VII of that Act, Rev., 1979.
14. THE PROCUREMENT CODE: Sections 13-1-28 through 13-1-199 NMSA 1978 imposes civil and criminal penalties for its violation.  
In addition, the New Mexico criminal statutes impose felony penalties for bribes, gratuities and kickbacks.
15. All bid items are to be NEW and most current production, unless otherwise specified.
16. PAYMENT FOR PURCHASES: Except as otherwise agreed to: late payment charges may be assessed against the user state agency in the amount and under the conditions set forth in section 13-14158 NMSA 1978.
17. WORKERS COMPENSATION: The Contractor agrees to comply with state laws and rules pertaining to workers compensation benefits for its employees. If the Contractor fails to comply with Workers Compensation Act and applicable rules when required to do so, this (Agreement) may be terminated by the contracting agency.
18. PAY EQUITY RECORDING: The Contractor agrees to comply with New Mexico Pay Equity reporting requirements as detailed in Executive Order 2009-049 Implementation Guidance available at <http://www.generalservices.state.nm.us/spd/guidance.pdf>