



March 28, 2016

VIA EMAIL: [MCrosswell@sianaoil.com](mailto:MCrosswell@sianaoil.com)

Mr. Mark Crosswell  
Siana Operating LLC  
12012 Wickchester Lane, Ste 410  
Houston, Texas 77079

**Re: Delineation Plan for ADP Federal No. 1 located in Lea County, New Mexico**

Dear Mr. Crosswell:

Charger Services, LLC (Charger) is pleased to present a delineation plan to conduct the subsurface investigation of the ADP Federal # 1 (Site) located at LAT: 32°18'51.23"N, LONG: 103°27'20.37"W in Lea County, New Mexico. The plan is based on the scope of services which were requested by the State of New Mexico Commissioner of Public Lands. The delineation plan includes the following:

- Relocate soil pile at northwest section of pad to east side of location and place on plastic until soil is classified for disposal;
- Drill 11 soil borings (6 inside the firewall area, 2 in the tanker loading area, 1 under the soil pile at northwest section of the facility pad, and 2 outside the fencing to the south of facility) and collect soil samples for laboratory analysis at ground surface, each 2-foot interval (2, 4, 6, 8, etc.) to approximately 20 feet, and at 5-foot intervals (25, 30, 35, 40, 45, and 50) feet below ground surface (bgs) to delineate the impact;
- Calculate environmental impact based on the analytical results of the borings, formulating and submitting a remediation plan to remove impact, and sample for conformation of impact removal;
- Prepare report for closure of Site.

#### **Scope of Work**

Based on historic aerial photo documentation and information gathered from the Amber Groves with the State Land Office, it is proposed the site be delineated to 50 feet below ground surface at eleven locations (6 inside the firewall area, 2 in the tanker loading area, 1 under the soil pile at northwest section of the facility pad, and 2 outside the fencing to the south of facility) to determine the impact at the ADP Federal # 1. The soil borings will be drilled using hollowstem auger or air rotary methods (Well Driller License No. WD-1188). Soil samples will be collected using continuous or jam tube samplers depending on the drilling method and subsurface conditions. At a minimum soil samples will be collected from borings beginning at ground surface and each 2-foot interval (2, 4, 6, 8, etc.) to approximately 20 feet below ground surface (bgs) and at 5-foot intervals (25, 30, 35, 40, 45, and 50) feet below ground surface (bgs), depending on subsurface conditions. Charger will also collect soil samples from the soil pile on the north end of the location. The samples will be collected using a hand auger or sample trowel. The maximum number of samples that could be analyzed is 176; however, the samples will be ran consecutively until below NMOCD action limits for each boring. See Appendix A for aerial photos.

The soil samples will be placed in clean 4-ounce jars, sealed, labeled, chilled in an ice chest and delivered under chain of custody to Permian Basin Environmental Labs located in Midland, Texas. The laboratory will analyze the samples for TPH by method SW-8015M and chloride by method E300. Drill cuttings will be placed on the soil pile near the east side of location for disposal according to New Mexico Oil Conservation Division (OCD) rules. The borings will be plugged to ground surface with bentonite chips. Charger will prepare a report that will include a site drawing showing locations for the borings, analytical data summary table, and remediation recommendation.

All contaminated soil will be classified and transported to an approved disposal facility. Based on the investigation results a plastic liner may be installed to OCD standards and will be included in the remediation proposal. All reports and permits will be filed in a timely manner to the corresponding State entities as well as with Siana Operating, LLC.

#### **FEES**

It is proposed that the fees for performance of the outlined scope of services be determined on a time and materials basis. Based on the scope of services outlined above, it is estimated that the fee for delineation will be **\$69,357.08** for the Site. All other fees will be determined as the investigation dictates. Please see attached estimate for cost details.

Additional work required beyond this scope of services presented in this proposal, or as caused by factors beyond Charger's control, will be invoiced on a time and materials expense basis in accordance with Charger's Fee Schedule. Additional work will not be performed without prior authorization from the State and client.

#### **AUTHORIZATION**

If this proposal is acceptable to you, please sign below as notice to proceed and return one copy of this proposal intact to our office. We will proceed with the work upon receipt of proposal authorization. You may contact me at (325) 669-5735 (cell) to discuss any questions you may have.

Respectfully submitted,

**Charger Services, LLC**



Coty Woolf  
Environmental Manager  
Charger Services, LLC  
325.669.5735

[Coty.woolf@chargerservices.com](mailto:Coty.woolf@chargerservices.com)

**Authorization**

AGREED TO, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2016.

BY (please print): \_\_\_\_\_

TITLE: \_\_\_\_\_

AGENCY: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_



## Cost Estimate

### Siana Operating LLC Delineation Cost Estimate March 28, 2016

#### Staking and New Mexico One-Call Notification

Assumes: Installing 11 soil borings and utility notification

Item	Quantity	Rate	Units	Amount
Sr. Professional/Project Manager	8	\$ 120.00	/ Hour	\$ 960.00
Equipment (truck, mileage, Trimble, etc.)	1	\$ 500.00	/ Lump Sum	\$ 500.00
Reproduction	\$ 960.00	0.04	Lump Sum	\$ 38.40
New Mexico Gross Receipts Tax	\$ 1,298.40	0.0525	Lump Sum	\$ 68.17
<b>Subtotal:</b>				<b>\$ 1,566.57</b>

#### Soil Borings and Samples

Assumes: Drilling 11 borings to approximately 50 below ground surface, collecting soil samples at 2-foot intervals to 20 feet and 5-foot intervals to 50 feet bgs, and collect 1 five-point composite sample from soil pile on north end of location.

Item	Quantity	Rate	Units	Amount
Sr. Professional/Project Manager	40	\$ 120.00	/ Hour	\$ 4,800.00
3-man crew with truck and tools	40	\$ 145.00	/ Hour	\$ 5,800.00
Equipment (truck, mileage, Trimble, etc.)	4	\$ 675.00	/Day	\$ 2,700.00
Per Diem	4	\$ 45.00	/Day	\$ 180.00
Lodging	\$ 560.00	1.17	Lump Sum	\$ 655.20
Backhoe (Drilling Rig Access)	40	\$95.00	/ Hour	\$ 3,800.00
Drilling and Sampling	\$ 23,600.00	1.17	Lump Sum	\$ 27,612.00
Reproduction	\$ 4,800.00	0.04	Lump Sum	\$ 192.00
New Mexico Gross Receipts Tax	\$ 45,739.20	0.0525	Lump Sum	\$ 2,401.31
<b>Subtotal:</b>				<b>\$ 48,140.51</b>

#### Laboratory Analyses

Assumes: Analysis of up to 176 samples for TPH (SW-8015M) and chloride (E300)

	Quantity	Rate	Units	Amount
TPH (SW-8015M)	\$ 8,155.00	1.17	Lump Sum	\$ 9,541.35
Chloride (E300)	\$ 3,520.00	1.17	Lump Sum	\$ 4,118.40
New Mexico Gross Receipts Tax	\$ 13,659.75	0.0525	Lump Sum	\$ 717.14

**Subtotal: \$ 14,376.89**

**Project Management and Report Preparation**

Item	Quantity	Rate	Units	Amount
Principal	3	\$ 160.00	/ Hour	\$ 480.00
Sr. Professional/Project Manager	16	\$ 120.00	/ Hour	\$ 1,920.00
Environmental Professional	8	\$ 95.00	/ Hour	\$ 760.00
CAD Drafting	20	\$ 65.00	/ Hour	\$ 1,300.00
Clerical	4	\$ 47.00	/ Hour	\$ 188.00
Reproduction (Labor)	\$ 6,608.00	4.0%	Percentage	\$ 264.32
New Mexico Gross Receipts Tax	\$ 6,872.32	0.0525	Lump Sum	\$ 360.80
<b>Subtotal:</b>				<b>\$ 5,273.12</b>

**Total: \$ 69,357.08**

**Notes:**

Bachhoe necessary for providing drilling access to locations

## Appendix A





Google earth

feet  
meters



10/31/1997





Google earth

feet  
meters

900  
200



7/30/2005





Google earth

feet  
meters

900  
200



8/14/2009

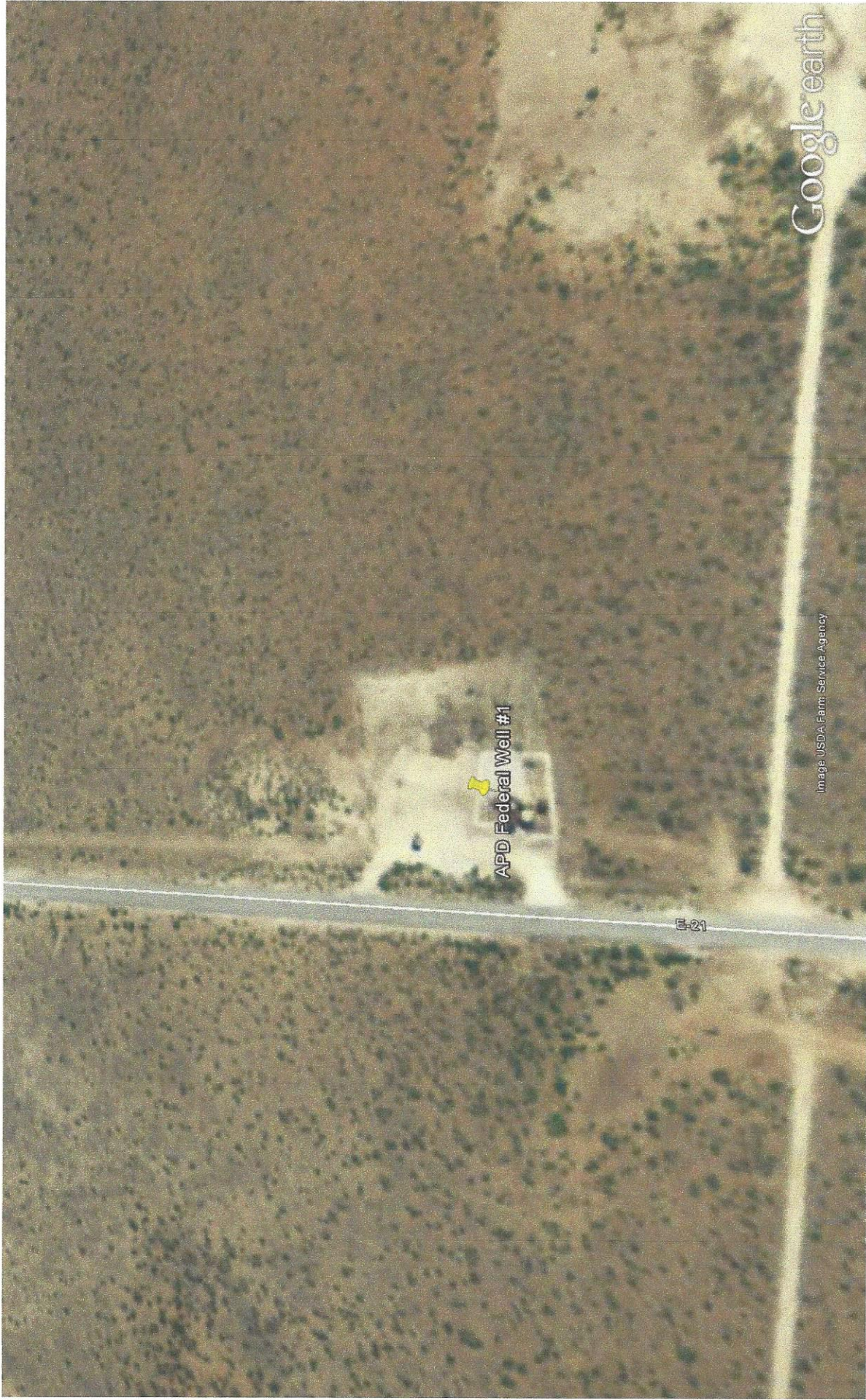
Google earth

Image USDA Farm Service Agency

APD Federal Well #1

E 21





Google earth

feet  
meters

200 900



Google earth

Image: USDA Farm Service Agency

APD Federal Well #1

E-21

8/2/2011





Google earth

feet  
meters

100 600



3/2/2012





Google earth

feet  
meters

100

600



2/13/2014





Google earth

feet  
meters



2/13/2014





Google earth

feet  
meters

100

40



21 131 2014