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05 / 06 / 2015

Souder, Miller & Associates ♦ 401 W. Broadway ♦ Farmington, NM 87401
(505) 325-7535 ♦ (800) 519-0098 ♦ fax (505) 326-0045

May 6, 2015 #5123699

Mr. Tom Long
Senior Environmental Scientist
Enterprise Products
614 Reilly Ave
Farmington, NM 87401

RE: WORK PLAN FOR THE INVESTIGATION AND DELINEATION OF CONTAMINATION AT THE MASDEN GC #1 E PIPELINE RELEASE SITE, SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Long:

Souder, Miller & Associates (SMA) is pleased to submit this work plan for initial investigation of subsurface water contamination at the Masden #1 E pipeline release site. The site is located in Unit K (NE ¼, NW ¼), Section 28, T29N R11W, Latitude North 36.700959°, Longitude West -108.001644° in San Juan County, New Mexico located on private land.

The enclosed cost estimate is provided based on the scope of work for hydro excavation for pipeline and City of Bloomfield waterline clearance, drilling, monitor well installations, well development and sampling of potentially five monitoring wells at the subject site. The proposed wells are to be installed within accordance of the New Mexico Oil Conservation Division (NMOCD) to determine if subsurface water impacts exist at the release site. The wells will be completed and permitted in accordance with the New Mexico Office of the State Engineer.

SMA proposes to subcontract Nelson Revegetation Field Services for hydro excavation to positively identify the location of the Masden GC #1 E pipeline and the City of Bloomfield waterline prior to drilling. Hydro excavation of the waterline will also remove any remaining contaminated soils in contact with the PVC water line. All soil borings will be advanced via hydro excavation to 5 feet below ground surface (BGS) prior to drilling to ensure clearance of all underground infrastructures. SMA will subcontract Yellow Jacket Drilling Services to advance five soil borings to 10 feet below ground surface and install 2 inch subsurface water monitoring wells. The borings will be sampled as continuous as possible using a split-spoon sampler. Samples will be field screened using a calibrated photoionization detector (PID). One to two soil samples will be collected for laboratory analysis from each boring; one at the highest field screening reading and one at total depth of each boring. If no significant detection is indicated by field screening, only one sample will be collected at the total depth of the boring. The soil samples will be submitted to Hall Environmental Analytical Laboratory located in Albuquerque, NM for analysis via the following methods:

- **EPA Method 8021:** Benzene, toluene, ethylbenzene and xylenes (BTEX),
- **EPA Method 8015:** Gasoline and diesel range organics (GRO/DRO; TPH)

Each well will be constructed with a 2 inch PVC slip end cap on a two foot sediment sump, five feet of 0.010" slotted screen and approximately 3 feet of blank PVC pipe. Four of the five wells will feature above ground surface completions, one will be completed with a traffic rated flush mount completion in a cement pad in San Juan County Road 5008. SMA anticipates three days to complete drilling and monitor well construction.

Once the wells are complete, SMA will develop the wells using a surge and bail technique. Development will be performed per EPA's Standard Operating Procedure 2044. SMA anticipates one

day to complete well development. SMA will allow approximately 24 hours after well development to perform monitoring. During monitoring, SMA will purge a minimum of three well volumes and collect field screening data for pH, conductivity and temperature. SMA will collect one subsurface water sample from each well for laboratory analysis at Hall Laboratory via the following method:

- **EPA Method 8021:** Benzene, Toluene, Ethyl-Benzene and Xylenes (BTEX),
- **EPA Method 300.0:** Chlorides and Sulfates

SMA anticipates one day for completion of monitoring activities. Please note, all soil and subsurface water samples will be submitted for standard laboratory turn around times. No samples will be required for waste characterization as it is anticipated that a MNOCD Form C-138 will be filed for the exempt waste. All soil cutting will be collected and drummed during drilling activities for offsite disposal. Similarly, all drilling equipment decontamination water, development water and purged water will be collected and drummed for offsite disposal. All collected wastes will be disposed of at Envirotech Landfarm under the anticipated form C-138. SMA will contract Envirotech Inc. to pick up and transport the materials to the final disposal location.

Once all field activities are complete and laboratory results are received, SMA will provide a comprehensive report documenting the field activities, well installations and laboratory results. The report will include a narrative, site maps, soil and subsurface water contaminant concentration maps, well logs, laboratory reports and a potentiometric surface map, provided survey data is collected by Enterprise Products survey group.

If you have any additional questions, please do not hesitate to call our office at 505-325-7535.

Sincerely,

SOUDER, MILLER & ASSOCIATES

Steve Moskal
Project Scientist

Reid S. Allan, P.G.
Vice President/Principal Scientist

Attached:
Figure 1- Site Vicinity Map
Figure 2 - Proposed Monitoring Well Location Map
Masden #1 E Subsurface water Investigation Cost Estimate

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

SMA
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ENTERPRISE FARMINGTON, NEW MEXICO

VICINITY MAP
MASDEN GAS COMM #1E
SECTION 28, T29N, R11W

SAN JUAN COUNTY, NEW MEXICO

Designed	Drawn	Checked
SM	DJB	RSA

Date: FEBRUARY 16, 2015
Scale: Horiz: 1" = 2000'
Vert: NA
Project No: 5123699
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ENTERPRISE

FARMINGTON, NEW MEXICO

PROPOSED MONITORING WELL LOCATIONS
MASDEN GAS COMM #1E
SECTION 28, T29N, R11W

SAN JUAN COUNTY, NEW MEXICO

Designed	Drawn	Checked
JES	DJB	RSA

Date: MAY, 2015

Scale: Horiz: 1"=40'
Vert: N/A

Project No: 5123699

Sheet: 2

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