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03/03/2011

# Animas Environmental Services, LLC

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March 3, 2011

RECEIVED OCD

Mr. Glen von Gonten New Mexico Oil Conservation Division South St. Francis Drive Santa Fe, New Mexico 87505 2011 MAR -4 P 12: 55

RE: Williams Four Corners, LLC, Sammons #2 Pipeline Groundwater Investigation Workplan 2011

Dear Mr. von Gonten:

On behalf of Williams Four Corners, LLC, Animas Environmental Services, LLC (AES) is pleased to submit one copy of the Groundwater Investigation Workplan for the Sammons #2 pipeline spill located in Flora Vista, New Mexico.

A copy of the workplan has also been submitted to Mr. Brandon Powell of the New Mexico Oil Conservation Division in Santa Fe, New Mexico, Williams Four Corners, and the property owner. The scope of work will be scheduled immediately upon your approval.

If you have any questions regarding AES' qualifications or the contents of the workplan, please do not hesitate to contact Ross Kennemer or Tami Ross at (505) 564-2281.

Sincerely,

Tami C. Ross

**Project Manager** 

Wami (Ko)

**Enclosure:** 

**Groundwater Investigation Workplan** 

Cc:

Mr. Brandon Powell

**New Mexico Oil Conservation Division** 

1000 Rio Brazos Road Aztec, New Mexico 87410



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Mr. Aaron Dailey Williams Four Corners, LLC 188 CR 4900 Bloomfield, NM 87413

Mr. Nick Clark 719 Otten Street Aztec, NM 87410

# Animas Environmental Services, LLC

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Prepared for:

Mr. Glen von Gonten New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

> Groundwater Sampling Workplan Williams Four Corners, LLC Sammons #2 Pipeline December 2009 Release Flora Vista, San Juan County, New Mexico

March 3, 2011

Prepared on behalf of: Williams Four Corners, LLC 188 CR 4900 Bloomfield, New Mexico 87413

Prepared by:
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Figure 1. Figure 2. Topographic Site Location Map

Site Vicinity Map

#### 1.0 Introduction

Animas Environmental Services, LLC (AES), on behalf of Williams Four Corners, LLC, submits this workplan for continued groundwater investigation and reporting at the Sammons #2 Pipeline December 2009 Release site. The pipeline release was discovered early December 3, 2009, and soil excavation was conducted in December 2009. Excavation activities and results of confirmation sampling were detailed in an AES report entitled *Remedial Activities Report* dated January 11, 2010.

#### 2.0 Site Information

#### 2.1 Site Location

The general project area is located in a rural area approximately 0.1 mile east of County Road 3000 on private property owned by Ms. Helen Clark. The spill location is located approximately 140 feet southeast of a wetland area that is adjacent to the Animas River. The project area is described legally as being located within the SE¼ NE¼ Section 32, T30N, R12W in San Juan County, New Mexico. Longitude and latitude were recorded as being N36º46'18.240" and W108º06'54.540". A topographic site location map is included as Figure 1, and a Site Vicinity Map is presented as Figure 2.

# 2.2 Spill History

On December 3, 2009, trenching operations during routine pipeline replacement activities uncovered petroleum hydrocarbon contaminated soils. Williams was in the process of replacing an in-service 2-inch diameter natural gas pipeline with a new 4-inch diameter natural gas pipeline. The pipeline connects the Sammons 2 well locations, which are owned by Conoco Phillips. The volume of natural gas condensate released into the surrounding environment and the length of time that the 2-inch diameter pipeline was leaking are unknown.

The New Mexico Oil Conservation Division (NMOCD) was notified of the discovered release by Williams on December 3, 2009. Mr. Brandon Powell of NMOCD visited the site on December 3, 2009. A verbal workplan was agreed upon by Williams and NMOCD to excavate the source area, since it was evident that groundwater had been impacted. Average depth to groundwater at the site is approximately 2 feet below ground surface (bgs).

Remedial activities were completed between December 7 and 17, 2009, and the scope of work included excavation of approximately 1,884 cubic yards of petroleum contaminated soil (PCS) and removal of 1,122 barrels (bbls) of petroleum contaminated groundwater.

AES installed six groundwater monitoring wells in April 2010. Four quarters of groundwater monitoring and sampling were completed for all six monitoring wells in April, July, and October 2010, and January 2011. Groundwater samples were analyzed per USEPA Method 8260 for benzene, toluene, ethyl-benzene, and total xylenes (BTEX) and per USEPA Method 8015 for total petroleum hydrocarbons (TPH).

During the first quarterly groundwater monitoring event in 2010, MW-2 contained dissolved phase concentrations of benzene just above the New Mexico Water Quality Control Commission (WQCC) standard of 10  $\mu$ g/L at 11  $\mu$ g/L. Since the first quarterly sampling event, BTEX concentrations have remained well below WQCC standards for all groundwater monitoring wells. Also, concentrations of TPH have been non-detectable in all groundwater monitoring wells for all four quarterly sampling events.

AES recommended in the fourth sampling event report, dated February 7, 2011, continued groundwater monitoring of all monitoring wells until contaminant concentrations have been reported below applicable WQCC standards for eight consecutive quarters.

# 3.0 Workplan Tasks

This workplan provides for completion of quarterly groundwater monitoring and sampling of all site monitoring wells for one year and one additional quarter for MW-2. Workplan tasks include:

- 2<sup>nd</sup> Quarter 2011 Groundwater Monitoring and Sampling (Task 1): Administrative preparation and Health and Safety Plan (HASP) update; Groundwater sampling of six wells, MW-1 through MW-6, for BTEX per EPA Method 8021; Preparation and submittal of Quarterly Monitoring Report (QMR).
- 3<sup>rd</sup> Quarter 2011 Groundwater Monitoring and Sampling (Task 2): Groundwater sampling of MW-1 through MW-6 for BTEX per EPA Method 8021; Preparation and submittal of QMR.
- 4<sup>th</sup> Quarter 2011 Groundwater Monitoring and Sampling (Task 3): Groundwater sampling of MW-1 through MW-6 for BTEX per EPA Method 8021; Preparation and submittal of QMR.
- 1st Quarter 2012 Groundwater Monitoring and Sampling (Task 4): Groundwater sampling of MW-1 through MW-6 for BTEX per EPA Method 8021; Preparation and submittal of QMR.

 2nd Quarter 2012 Groundwater Monitoring and Sampling (Task 5): Groundwater sampling of MW-2 for BTEX per EPA Method 8021; Preparation and submittal of QMR.

# 3.1 Qualified Personnel

All work will be completed under the direct responsible supervisory control of Ross Kennemer, Project Manager, and Elizabeth McNally, New Mexico registered Professional Engineer #15799. Ross Kennemer and AES hold New Mexico Construction Industries Division (CID) applicable licenses, including the GS-29, which is required for soil and groundwater remediation activities.

# 3.2 Work Notification

AES will notify the property owner, NMOCD, and Williams by telephone or in writing, preferably within seven days, but not less than 96 hours, before the start of any field activities. This notification will include a schedule of the proposed work. Additionally, AES will make no modification to the approved work plan without consultation and written approval of NMOCD and Williams.

# 3.3 Health and Safety Plan Preparation

AES has a company health and safety plan in place, and each employee is required to complete a health and safety orientation prior to participating in field operations for the first time. All on-site personnel are 40-hour HazWoper trained in accordance with OSHA regulations outlined in 29 CFR 1910.120(e). A site-specific health and safety plan (HASP) was developed for this site and includes monitoring and sampling tasks and will be kept on site during field activities.

# 4.0 Groundwater Sampling

# 4.1 Depth to Groundwater Measurements

A Keck water level meter will be utilized to record the distance from the top of the well casing to the top of groundwater. Measurements will be recorded onto a Water Sample Collection Form. In the event that free product is found to be present, an interface probe will be used to measure the depth to the top of product and the depth to the top of water. This data will be recorded onto a Water Sample Collection Form, and no analytical groundwater samples will be collected from the well.

# 4.2 Purging

Prior to sample collection, at least three well volumes will be purged from each well with a disposable bailer. During purging, pH, temperature, conductivity, and oxygen reduction potential (ORP) will be monitored. Purging data will be documented on a Water Sample Collection Form along with purged water volume. All purging equipment will be thoroughly

decontaminated between uses. Purged water will be disposed of on-site by allowing it to evaporate. No purge water will be allowed to enter stormwater drains or conveyances.

# 4.3 Sample Collection

Groundwater sample collection will follow applicable guidelines for sample preservation, quality assurance and quality control (QA/QC), and sample collection procedures. Groundwater samples will be collected with a disposable bailer equipped with a low-flow release valve. All sample collection data will be documented on a Water Sample Collection Form.

# 4.4 Groundwater Laboratory Analyses

Groundwater samples will be analyzed as follows:

**Tasks 1 through 4** – Four quarters of groundwater sampling in MW-1 through MW-6 for BTEX per EPA Method 8021.

Task 5 – BTEX per EPA Method 8021 in MW-2.

Groundwater samples will be analyzed at Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. The travel blank from each sampling event will be analyzed for BTEX per EPA Method 8021.

Although non-aqueous phase liquid (NAPL) has not been documented at the site, monitor wells will not be sampled if NAPL is encountered during sampling activities. If observed, AES will measure the depth to NAPL and the depth to water in each well and will remove NAPL with a disposable bailer. Recovered NAPL will be stored in a sealed and labeled DOT drum. The drum(s) will be transported to Cummins Burner Fuel, an approved facility in Bloomfield, New Mexico, for recycling. NAPL measurements and recovered volumes will be documented and included within each quarterly report.

# 5.0 Equipment Decontamination Protocols

In order to ensure data validity and prevent cross-contamination the following decontamination protocols will be employed prior to and during sampling:

- Hand wash with detergent (Alconox) and water
- Hand rinse with water
- Repeat hand wash with detergent (Alconox) and water
- Repeat hand rinse with water

# 6.0 Waste Disposal

# 6.1 Contaminated Groundwater Disposal

Waste water resulting from groundwater sample purging and which does not contain NAPL will be allowed to evaporate on site. If NAPL is present within the development or sample purge water, it will be drummed, properly labeled, and proper disposal/recycling will be arranged through Cummins Burner Fuel. Any drummed water will be removed from the site and stored at the Envirotech Yard pending disposal approval at the Envirotech Landfarm, Bloomfield, New Mexico.

#### 7.0 Deliverables

# 7.1 Quarterly Groundwater Monitoring Reports

Quarterly groundwater monitoring and sampling reports will be prepared and will include descriptions of all sampling procedures utilized during the sampling event, along with the laboratory analyses and associated tables and figures. Figures will include NAPL thickness and recovered volumes from applicable monitoring wells (if applicable), groundwater gradient contours, contaminant concentration contours, and comparisons to previously collected data and analytical results. Copies of the report will be completed and submitted to the NMOCD, Williams, and the property owner.

# 8.0 Implementation Schedule

AES proposes the following timeline to implement continued groundwater monitoring and sampling activities, once NMOCD approval has been received. The proposed schedule will allow for a continuous quarterly monitoring schedule from the previous year of sampling. This schedule assumes that no inclement weather occurs, which could result in a delay in implementing field activities.

Task	<b>Proposed Quarterly Schedule</b>
1. 2 <sup>nd</sup> Quarter 2011 Groundwater Sampling	April 2011
2. 3 <sup>rd</sup> Quarter 2011 Groundwater Sampling	July 2011
3. 4 <sup>th</sup> Quarter 2011 Groundwater Sampling	October 2011
4. 1st Quarter 2012 Groundwater Sampling	January 2012
5. 2 <sup>nd</sup> Quarter 2012 Groundwater Sampling (MW-2 only)	April 2012

#### 9.0 Certification

AES has prepared this Groundwater Investigation workplan on behalf of Williams Four Corners, LLC to complete a continued environmental compliance groundwater monitoring and sampling for the Sammons #2 Pipeline Release, which was discovered on December 3, 2009.

Respectfully submitted,

Elizabeth McNally, P.E.

Tami C. Ross

**Project Manager** 

Williams Four Corners, LLC Sammons #2 Pipeline December 2009 Release Groundwater Sampling Workplan

March 3, 2011, p. 6

#### 10.0 References

- Animas Environmental Services, LLC. 2011. 1st Quarter 2011 Groundwater Monitoring Report, dated February 7, 2011.
- U.S. Environmental Protection Agency (USEPA). 1982. *Methods for Chemical Analysis for Water and Wastes*. Document EPA-600, July, 1982.
- USEPA. 1992. SW-846, 3rd Edition, *Test Methods for Evaluating Solid Waste: Physical Chemical Methods*, dated November, 1986, and as amended by Update One, July, 1992.
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- USEPA. 1997. Expedited Site Assessment Tools for Underground Storage Tank Sites. OSWER 5403G and EPA 510B-97-001, March, 1997.
- USEPA. 2001. Contract Laboratory Program (CLP) Guidance for Field Samplers. OSWER 9240.0-35, EPA 540-R-00-003. June, 2001.



