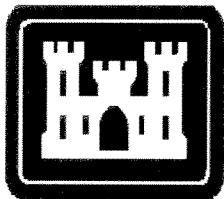


*Final
April 2005*

**Groundwater Investigation Report
Eastern Landfill
Fort Wingate Depot Activity, Gallup, New Mexico**

**Contract No. DACA63-97-D-0030; D.O. No. 024
Tetra Tech NUS Project No. 794A**

Prepared for:



**US Army Corps
of Engineers
Fort Worth District**

Prepared by:



**Tetra Tech NUS, Inc.
Houston, Texas**

GROUNDWATER INVESTIGATION REPORT

Groundwater Investigation - Eastern Landfill Fort Wingate Depot Activity, Gallup, New Mexico

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ACRONYMS AND ABBREVIATIONS

BRAC	Base Realignment and Closure Act of 1988
bgs	below ground surface
COCs	Contaminants of Concern
DQO	Data quality objective
EPA	Environmental Protection Agency
FWDA	Fort Wingate Depot Activity
GIR	Groundwater Investigation Report
ID	Inside Diameter
IDW	Investigation-derived waste
LDPE	Low Density Polyethylene
LEL	Lower Explosive Limit
MDL	Method Detection Limit
mg/L	milligrams per unit liter
mL	milliliters
mL/min	milliliters per minute
MS/MSD	Matrix spike/matrix spike duplicate
OD	Outside Diameter
PCB	Polychlorinated biphenyl
PID	Photoionization detector
PMC	Program Management Corporation
PVC	Polyvinyl Chloride
QA/QC	Quality Assurance/Quality Control
RCI	Reactivity, Corrosivity, Ignitability
RI	Remedial Investigation
RL	Reporting Limit
SOW	Statement of Work
SQL	Sample Quantitation Limit
STL	Severn Trent Laboratories
SVOC	Semivolatile organic compound
TAL	Target Analyte List
TCL	Target Compound List
TtNUS	Tetra Tech NUS, Inc.
ug/L	micrograms per liter
USACE	U.S. Army Corps of Engineers
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION

Tetra Tech NUS, Inc. (TtNUS) was commissioned by the U.S. Army Corps of Engineers (USACE) Fort Worth District, to conduct a Groundwater Investigation at the Eastern Landfill at Fort Wingate Depot Activity (FWDA), Gallup, New Mexico. Figure 1.0-1 depicts the location of FWDA. Figure 1.0-2 depicts the location of the Eastern Landfill site.

This Groundwater Investigation Report (GIR) has been prepared by TtNUS for the USACE Fort Worth District, under Contract No. DACA63-97-D-0030, Task Order No. 024 in accordance with USACE's Detailed Statement of Work (SOW) dated September 21, 2001 (revised July 23, 2003), work plan developed by TtNUS (Work Plan, Groundwater Investigation, Eastern Landfill, Fort Wingate Depot Activity, New Mexico, January 2004), and/or other guidance provided by the Fort Worth District Technical Manager.

1.1 Project Overview

The Groundwater Investigation activities described in this report focus on the Eastern Landfill of FWDA, as shown on Figure 1.0-2.

1.1.1 General

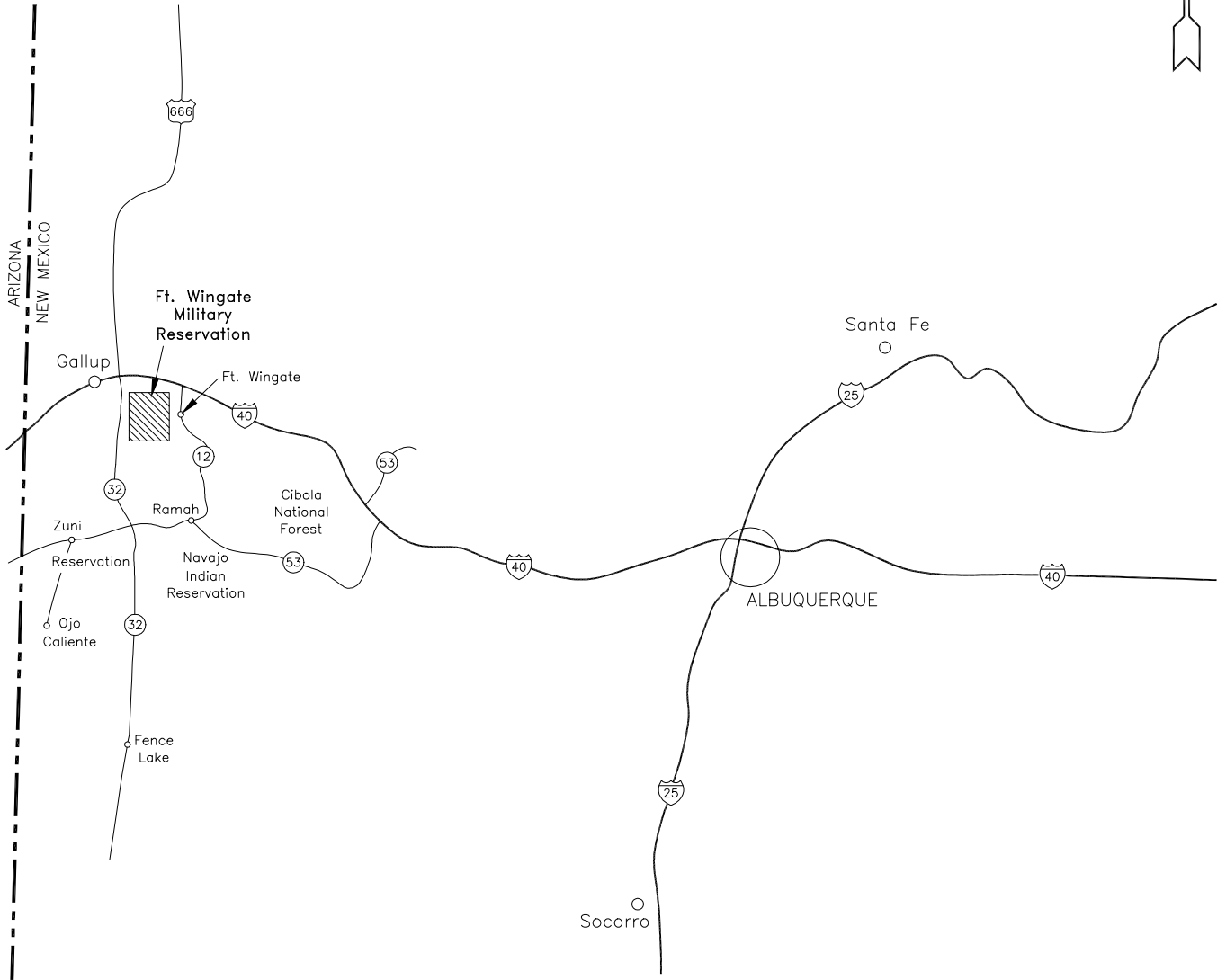
The Eastern Landfill is located approximately one half-mile northeast of the water towers, as shown on Figure 1.0-2. The landfill is reported to have been used for the disposal of garbage, trash, and debris from the Administration Area and for the burning of other solid waste from FWDA. In 1968, the landfill was closed and covered with a layer of soil.

1.1.2 Purpose of the Groundwater Investigation

The primary objective of the Groundwater Investigation was to determine if contaminants have impacted the groundwater beneath the Eastern Landfill at the FWDA.

1.2 Report Overview

The purpose of this GIR is to present the results of the groundwater investigation activities that TtNUS conducted at the Eastern Landfill at FWDA in July 2004.

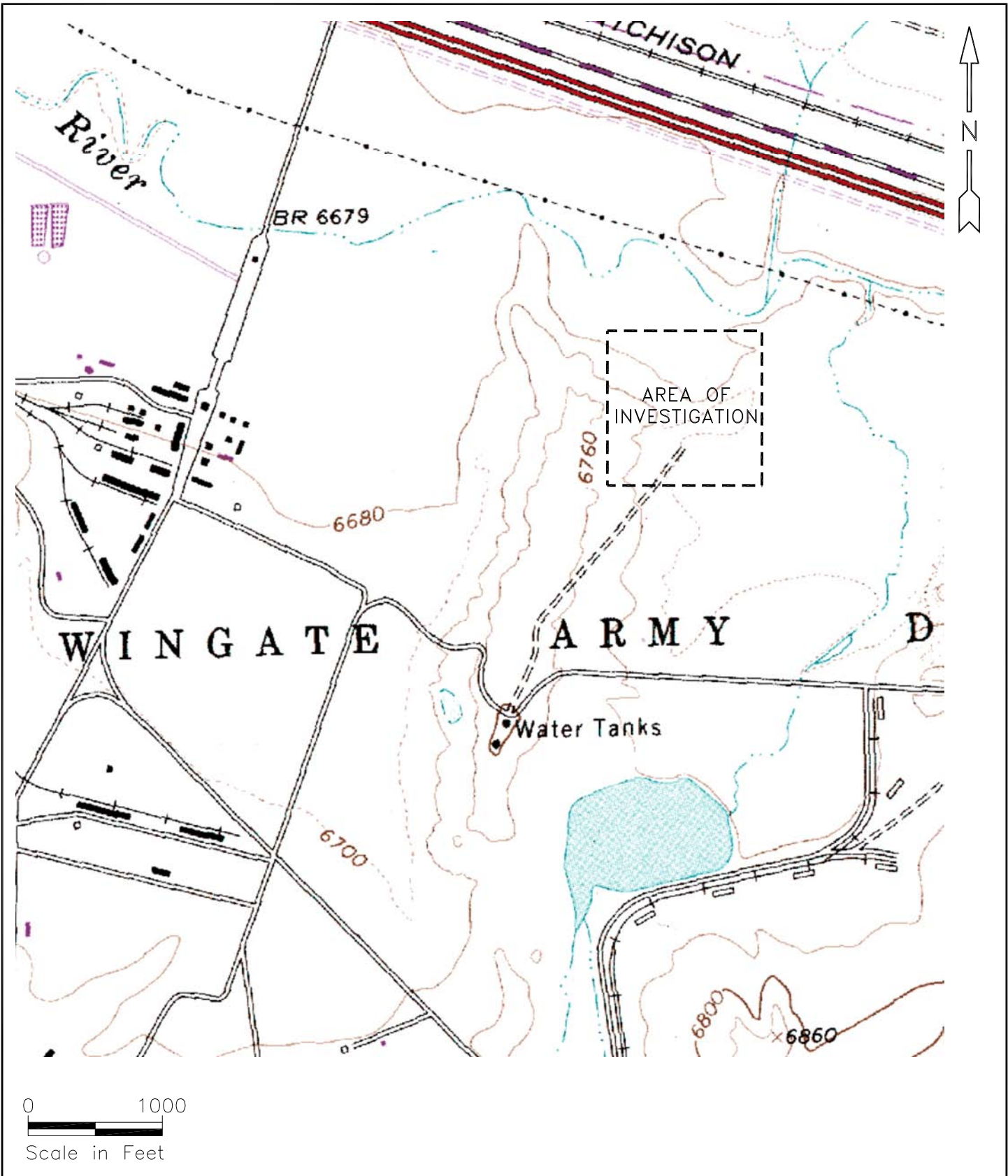


SITE MANAGER: L. BASILIO	
CHECKED BY: M. MASON	
DRAWN BY: J. FLESCHE	
DATE: 09-29-03	SCALE: NONE
CAD DWG. NO.: 287BSM	PROJ. NO.: N7551.158C



TETRA TECH NUS, INC.
Houston, Texas

FIGURE 1.0-1
SITE LOCATION MAP
FORT WINGATE DEPOT ACTIVITY
GALLUP, NEW MEXICO



SITE MANAGER: K. BELL	
CHECKED BY: K. BELL	
DRAWN BY: J. FLESCHE	
DATE: 11-21-00	SCALE: 1"=1000'
CAD DWG. NO.: 158C_TOPO	PROJ. NO.: N7551.158C



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Houston, Texas

FIGURE 1.0-2
EASTERN LANDFILL
SITE VICINITY MAP
FORT WINGATE DEPOT ACTIVITY
GALLUP, NEW MEXICO

This report is organized as follows:

- Section 1.0 – **Introduction**, provides a project overview.
- Section 2.0 – **Project Background**, presents a summary of the site background and history.
- Section 3.0 – **Field Operations**, presents a summary of the field investigation activities conducted by TtNUS as part of the groundwater investigation.
- Section 4.0 – **Quality Assurance/Quality Control**, discusses the quality assurance (QA) and quality control (QC) procedures that were effected during the groundwater investigation field activities to ensure the quality of the data.
- Section 5.0 – **Groundwater Investigation Results**, discusses the presence and character of identified contaminants at the Eastern Landfill.
- Section 6.0 – **Conclusions and Recommendations**, provides a summary of the conclusions and recommendations resulting from the groundwater investigation at the Eastern Landfill.

2.0 PROJECT BACKGROUND

The following sections provide a brief description of the background of FWDA and the Eastern Landfill along with a summary of the work completed at the Eastern Landfill.

2.1 FWDA Background

FWDA is an inactive U.S. Army depot whose former mission was to store, ship, and receive material and to dispose of obsolete or deteriorated explosives and ammunition. The active mission of FWDA ceased and the installation was closed in January 1993 as a result of the Defense Authorization Amendments and Base Realignment and Closure Act (BRAC) of 1988. Currently, the installation is undergoing final environmental restoration prior to property transfer/reuse.

FWDA is located in McKinley County in northwestern New Mexico, approximately 130 miles west of Albuquerque. The town of Gallup is located approximately 8 miles west of FWDA. FWDA covers approximately 34 square miles (22,120 acres). FWDA is almost entirely surrounded by federally owned or administered lands including both national forest and tribal lands. FWDA is divided into several areas which are defined by location and historical land use. These areas include: the Administrative Area, the Workshop Area, the Magazine Igloo Area, Open Burning and Detonation Area, and the Southern Properties.

2.2 Eastern Landfill Background

The Eastern Landfill is located approximately one half-mile northeast of the water towers, as shown on Figure 1.0-2. The landfill is reported to have been used for the disposal of garbage, trash, and debris from the Administration Area and for the burning of other solid waste from FWDA. In 1968, the landfill was closed and covered with a layer of soil.

As part of the Remedial Investigation (RI) conducted at FWDA by Program Management Corporation (PMC), an investigation of the Eastern Landfill was conducted. The RI results were documented in the “Final Remedial Investigation/Feasibility Study Report & RCRA Corrective Action Program” document dated November 15, 1997. During the RI, the Eastern Landfill was located and a geophysical survey was conducted. The results of soil sampling indicated that lead, mercury, and barium were present at levels slightly above background. The results of a soil gas survey indicated that low levels of methane were present. Hydrogen sulfide was not detected. Pesticides, volatile organic compounds and semi-volatile organic compounds also were not detected.

In October 1999, Safe Environment, Inc. removed surface debris in the area of the Eastern Landfill. The material removed consisted of metal ammunitions lids, wire rope, I-beams, pipe, tires, wire fencing, concrete blocks, expended ammunition casings, scrap wood, and tree branches/trunks.

In November 2000, TtNUS performed a site investigation to locate and define the lateral boundaries of the Eastern Landfill. The results are documented in the report entitled “Eastern Landfill Delineation Release Assessment Project” (TtNUS, November 2000).

The area was investigated using surface geophysical methodology (i.e., electromagnetic and magnetic). The geophysical results identified 10 anomalies, which required further investigation by visual or physical means. Ten locations were excavated, and the results confirmed the presence of landfill material in four out of ten anomalies.

The physical identification of the edge of the landfill was matched with geophysical anomalies and from the results identified that the Eastern Landfill consisted of several trenches or cells. The Eastern Landfill cells were identified along with other collections of burned material and debris. These results indicate that the Eastern Landfill consists of three trenches that are oriented parallel to one another and three areas of surface debris. A topographic survey was conducted at this area. The topographic survey consisted of a one-foot contour map over the area encompassing the Eastern Landfill cells.

3.0 FIELD OPERATIONS

The following subsections provide a detailed discussion of field operations that were performed during the course of the Groundwater Investigation conducted at the Eastern Landfill.

3.1 General Description and Information

The purpose of the Groundwater Investigation was to determine if contaminants of concern (COCs) have been released to the groundwater beneath the Eastern Landfill at FWDA.

The following groundwater investigation activities were performed at the Eastern Landfill at FWDA:

- Four groundwater monitor wells were installed;
- Groundwater samples were collected from two of the monitor wells to determine if impacts to groundwater are present;
- Aquifer testing (slug tests) was conducted on two of the monitor wells installed; and
- Groundwater elevation data was collected from nine existing monitor wells at FWDA.

3.2 Soil Boring Program

Four soil borings (EMW01 through EMW04) were drilled during the Groundwater Investigation at the Eastern Landfill to obtain lithologic data. Figure 3.2-1 depicts the locations of the soil borings. The soil borings were located as discussed in Section 3.2.1. Installation procedures for soil borings are discussed in Section 3.2.2.

The soil boring installations were carried out by using a hollow-stem auger drilling rig that was equipped with air rotary capabilities. Air rotary drilling techniques were used when hollow stem auger refusal (i.e., bedrock) was reached prior to the first shallow water-bearing zone. The boreholes were advanced to the first shallow water-bearing unit or to a maximum depth of 120 feet below ground surface (bgs), whichever came first.

According to the work plan, the soil borings were to be drilled to total depth and left open for 24 hours to determine if water was present. If water was present, the borings would be converted into monitor wells. If water was not present, the borings would be plugged and abandoned. During field activities, the USACE directed that all soil borings be converted to monitor wells.

3.2.1 Soil Boring Locations

The locations of the borings completed at Eastern Landfill are shown on Figure 3.2-1. The boring locations were selected by the USACE. The boring locations were situated so that one



LEGEND

■ MONITOR WELL LOCATION

--- CELL BOUNDARY (BASED ON GEOPHYSICAL SURVEY)

NOTES

1. TOPOGRAPHIC CONTOURS BASED ON SURVEY CONDUCTED BY TTNUS. "EASTERN LANDFILL DELINEATION, RELEASE ASSESSMENTS PROJECTS, FORT WINGATE DEPOT ACTIVITY, GALLUP, NEW MEXICO", FINAL, NOVEMBER 2000.



SITE MANAGER: L. BASILIO	
CHECKED BY: L. BASILIO	
DRAWN BY: J. FLESCH	
DATE: 08-19-04	SCALE: 1"=100'
CAD DWG. NO.: 794A_SM1	PROJ. NO.: N7551.794A



FIGURE 3.2-1
MONITOR WELL LOCATION MAP
GROUNDWATER INVESTIGATION
EASTERN LANDFILL
FORT WINGATE DEPOT ACTIVITY
GALLUP, NEW MEXICO

ORIGINAL PREPARED BY ASTS, INC., 500 COPPER AVE. NW, ALBUQUERQUE, NM 87102. MODIFIED 11-22-00 BY TTNUS.

boring (EMW01) was established immediately upgradient to the Eastern Landfill. The remaining three hydraulically downgradient locations were established along the perimeter of the landfill. The placement of “upgradient” and “downgradient” borings was based on the general surface topography as sufficient hydrogeologic information for this area did not exist to allow for the determination of groundwater flow direction. Following finalization of the work plan, the USACE requested that the location of EMW04 be moved to the south, closer to the Eastern Landfill. It was thought that this boring, EMW04, in its original proposed location would not be representative of groundwater conditions at the Eastern Landfill. The soil boring locations were spotted in the field by surveying using coordinates supplied by the USACE.

3.2.2 Installation of Soil Borings

All soil borings were drilled using a CME-75 drilling rig capable of using hollow-stem auger drilling techniques and air rotary techniques.

Hollow stem auger drilling was conducted using 7 3/4-inch outside diameter (OD) by 3 3/4-inch inside diameter (ID) auger flights. Air rotary drilling was conducted using a 6-inch OD blade bit. An air compressor with a capacity for delivering 600 cubic feet per minute was utilized during air rotary drilling. Air flow was directed through a Hankison air filter/dryer to treat the air and remove oil and moisture prior to the introduction of the air into the borehole.

Each soil boring was drilled to the first water-bearing zone, or to a maximum depth of 120 feet bgs. Table 3.2.2-1 summarizes the total depth of each boring. The minimum borehole diameter was 6 inches.

Table 3.2.2-1

SOIL BORING SUMMARY

Groundwater Investigation – Eastern Landfill Fort Wingate Depot Activity, Gallup, New Mexico

Soil Boring Number	Total Depth (feet bgs)	Drilling Method	Date Completed
EMW01	120	Hollow Stem Auger	07/14/04
EMW02	0 to 67.5 67.5 to 120	Hollow Stem Auger Air Rotary	07/19/04
EMW03	0 to 85 85 to 100	Hollow Stem Auger Air Rotary	07/21/04
EMW04	0 to 42 42 to 120	Hollow Stem Auger Air Rotary	07/23/04

Continuous sampling for lithology was conducted from ground surface until the total depth of each borehole was reached. Boreholes were continuously sampled for lithologic description while hollow stem auger drilling using a downhole sampling device (i.e., 5-ft CME sampler).

While air rotary drilling, lithologic descriptions were obtained from drill cuttings collected at the surface. Air rotary coring of rock was not conducted.

Hollow stem auger refusal was encountered in three of the soil borings (EMW02, EMW03 and EMW04) at depths of 67.5 feet bgs, 85 feet bgs and 42 feet bgs, respectively. Air rotary techniques were used to complete the drilling to total depth in these three borings.

Each boring was logged by an on-site geologist as it was being drilled. Completed field boring logs are included as Appendix A.

Soil cuttings generated during installation of soil borings were containerized and stored on-site pending subsequent disposal.

Collection of soil samples for laboratory analysis was not required for this project. According to the work plan, if first water was encountered in unconsolidated materials, then one soil sample (undisturbed) was to be collected from within the saturated portion of the screened interval of each well for geotechnical analysis. First water was not detected in unconsolidated material; therefore, no geotechnical samples were collected.

3.3 Groundwater Sampling

The following section pertains to the drilling and installation, construction and sample collection from monitor wells.

The locations of these groundwater samples are discussed in Section 3.3.1. Monitor well installation and construction are discussed in Section 3.3.2. Monitor well development is discussed in Section 3.3.3. The sampling methodology for groundwater sample collection is discussed in Section 3.3.4.

3.3.1 Groundwater Sample Locations

A total of four groundwater monitoring wells were drilled, installed and sampled in the vicinity of the Eastern Landfill, as shown in Figure 3.2-1.

Borings in which monitor wells were installed were advanced and documented using the procedures described in Section 3.2.2.

3.3.2 Monitor Well Installation and Construction

Monitor wells were constructed using new flush-threaded 2-inch diameter polyvinyl chloride (PVC) riser pipe and screen. The riser pipe was composed of Schedule 40 PVC. In each well, the screen consisted of 15-feet of flush-threaded Schedule 40 machine slotted PVC with 0.010-inch slots. No adhesives or solvents were used to join the threaded PVC sections. Teflon tape was used on the threaded joints to seal the joints.

Monitor well EMW01 was screened from 105 feet to 120 feet bgs. No obvious water was observed in the sediments while drilling EMW01. A sandy unit was encountered from 109 feet to 120 feet (total depth). Due to the lack of obvious water while drilling, this lower sandy unit was selected for screening.

Monitor well EMW02 was screened from 93 feet to 108 feet bgs. Air rotary drill cuttings exhibited signs of moisture (i.e., clumping) at approximately 103 feet bgs. Air rotary drilling continued to 120 ft with moist cuttings being brought to the surface. Once the drill bit was removed, the hole sloughed in approximately 12 feet. Therefore the bottom of the screen was set at 108 feet.

Monitor well EMW03 was screened from 78 feet to 93 feet bgs. At 80 feet bgs, the lithology exhibited a slight dampness to damp at 100 feet (total depth). Once the drill bit was removed, the hole sloughed in approximately 7 feet. Therefore the bottom of the screen was set at 93 feet.

Monitor well EMW04 was screened from 100 feet to 115 feet bgs. No obvious water was observed in the sediments while drilling EMW04. Due to the lack of obvious water while drilling, the lower most interval was selected for screening. Once the drill bit was removed, the hole sloughed in approximately 5 feet. Therefore the bottom of the screen was set at 115 feet.

The annular space surrounding each well screen was backfilled with a clean 20/40 silica sand filter pack. The sand filter pack extended from the bottom of the borehole to at least 3 feet above the top of the screen.

The annular space above the sand pack was backfilled with at least 3 feet of dry granular bentonite and allowed to hydrate sufficiently to prevent migration of grout into the sand pack. The annular area above the bentonite seal was backfilled with cement/bentonite grout emplaced via the tremie method from the top of the bentonite seal to the ground surface.

The PVC riser stickup equipped with a well cap was surrounded by a larger diameter protective steel casing rising approximately 24 to 36 inches above ground level and equipped with a locking cap and lock which was set into a concrete pad. Locks for all wells installed in the course of the work described herein were keyed alike. The protective steel casing contained no openings below its locking cap. The locks for the wells were delivered to Mr. Duke Davis, FWDA Caretaker, and the USACE.

A concrete pad measuring 4 feet by 4 feet by 6 inches thick was constructed around the protective steel casing at the final ground elevation, sloped slightly away from the well. Four 4-inch diameter protective steel posts were installed outside of the concrete surrounding the well pad and were filled with cement and painted with high visibility yellow paint. The well identification was marked onto the side of the protective casing.

Well construction diagrams were completed in the field for all monitor wells and are included as Appendix A.

During the construction of monitor well EMW02, a petroleum odor was noticed emanating from the borehole immediately after the placement of the bentonite chips into the annulus. The source of the petroleum odor was traced to the bentonite chips. It was discovered that a loose connection on a gasoline container located on the driller's work truck had allowed gasoline to spill on to one of the bags of bentonite chips stored on the work truck. Upon discovering this, the just installed well was immediately pulled from the borehole, the bentonite and sand pack were drilled out and the hole was then overdrilled with hollow stem augers to remove the bentonite. The hole was then plugged and abandoned with a cement/bentonite grout.

As a precaution, all the remaining bags of bentonite chips were removed from the site and replaced with new bags. For the remainder of the project, all bags of bentonite chips and sand filter pack were checked with a photoionization detector (PID) meter prior to their insertion into the borehole. No readings were detected with the PID on any of the bags of material used on the remaining wells.

The location for EMW02 was then moved 19 feet to the east, the borehole was redrilled and the monitor well was installed as described above.

Upon installation of the monitor wells, only two of the monitor wells (EMW02 and EMW03) contained water. The other monitor wells (EMW01 and EMW04) were initially dry upon completion.

3.3.3 Monitor Well Development

Monitor wells EMW02 and EMW03 were developed by pumping using an electric submersible pump. Monitor wells EMW01 and EMW04 were dry and thus were not developed. The work plan called for the removal of five saturated well volumes during the well development process. However, monitor wells EMW02 and EMW03 were initially pumped dry after 16 and 19 gallons were removed, respectively. In accordance with the work plan, the USACE was notified when the wells were pumped dry. The wells were allowed to recover overnight and one additional attempt was made to develop the wells. The wells were again pumped dry after removal of an additional 8 and 14 gallons, respectively. The turbidity of the formation water was recorded upon completion of the well development. Information collected during monitor well development was recorded on the Monitor Well Development Forms included as Appendix A.

Water generated during monitor well development was containerized and stored on-site pending subsequent disposal.

3.3.4 Sampling and Preservation Methodology for Chemical Analysis

Collection of groundwater samples for chemical analysis was performed using low flow/low stress groundwater sampling techniques.

Following well development activities described in Section 3.3.3, monitor wells EMW02 and EMW03 were allowed to stabilize overnight prior to commencement of groundwater sampling. Upon opening the cap of a monitor well for groundwater sampling purposes, a reading of the air

quality at the top of the well was measured using a PID; no volatile compounds were detected. The water level within the well was measured from a reference point on the PVC well casing of the well using a decontaminated electronic water level indicator. The possible presence of non-aqueous floating contaminants at the water surface was investigated using a hydrocarbon interface probe. Non-aqueous floating contaminants were not detected.

As the wells had been pumped dry during well development activities, sampling for chemical analysis was conducted as soon as the water level had recovered sufficiently to collect the appropriate volume needed for all the samples. A minimum of 750 milliliters (mL) was purged from each well prior to the filling of the sample containers to account for the bladder volume plus the extraction tubing volume. Samples were collected even though the indicator parameters had not stabilized.

A QED Sample Pro Bladder Pump (1.75-inch diameter) constructed of stainless steel with a Teflon bladder was used to collect the groundwater samples. The pump was placed within the lower 5 feet of the screen length within each monitor well. Low density polyethylene (LDPE) tubing was used for both the air line and groundwater discharge line of the bladder pump. Air for operation of the bladder pump was supplied using a QED Model 3020 12 Volt electric oil-less air compressor. The pump was started at the lowest setting and increased until discharge occurred. The pump speed was adjusted in an attempt to produce minimal drawdown. The flow rate was between 125 milliliters per minute (mL/min) to 200 mL/min. The flow rate did however exceed the recharge rate of the wells and the water level dropped continuously during the sampling process in both monitor wells.

Water samples were collected directly from the discharge tube into laboratory supplied containers. Samples for volatile organic analysis were collected prior to collection of other aliquots. Sample aliquots designated for semivolatile organics analysis were collected next, followed by the remaining sample aliquots. Filtered water samples for metals analyses were collected using the same low flow procedures. An in-line filter with an approximate pore size of 0.45 microns was used to collect the water sample. The filter was pre-rinsed with approximately 25 to 50 mL of groundwater prior to sample collection.

At the completion of sampling, field parameters (turbidity, temperature, specific conductance, pH, dissolved oxygen and oxidation reduction potential) were monitored and recorded using a Horiba U-22 water quality meter. Information collected during the groundwater sampling was recorded on the Groundwater Sample Log Sheets included as Appendix A.

Each member of the sampling crew donned a new pair of gloves at each sampling location. The person who actually collected the sample wore disposable latex gloves and changed them between each sample. Preservatives, where required, were placed into the sample containers at the analytical laboratory prior to transport of the sample containers to the site. Upon filling, sample containers were appropriately labeled, sealed in plastic "Ziplock" bags, and placed in an ice chest containing ice. The samples were packaged for shipment at the conclusion of each day's sample collection activities. Further details regarding sample management are provided in Section 4.0.

The analytical program for the groundwater samples collected during the Groundwater Investigation at the Eastern Landfill is discussed in Section 5.1.

Duplicate Groundwater Sample Collection

Field duplicate groundwater samples were divided into two portions at the time of sampling. The samples were prepared by alternately filling containers directly from the pump discharge tube. Sample aliquots designated for volatile organic analysis were collected first. Aliquots for semivolatile organic analysis were collected next, followed by aliquots pertaining to other analyses. Duplicate groundwater samples were submitted to the analytical laboratory for chemical analysis.

Triplicate Groundwater Sample Collection

Field triplicate groundwater samples were divided into three equal portions at the time of sampling. One portion was designated as the investigation sample, the second portion was a field duplicate, and the third portion was a triplicate. A triplicate sample was always collected along with a duplicate sample. Triplicate samples were collected in the same manner as duplicate samples were collected. Triplicate samples were forwarded directly to a separate laboratory under strict chain-of-custody procedures for chemical analysis.

3.4 Aquifer Testing

Monitor wells EMW02 and EMW03 were subjected to aquifer testing to determine aquifer characteristics. Monitor wells EMW01 and EMW04 were dry and thus were not subjected to aquifer testing. Slug tests (rising and falling head) were performed on monitor wells EMW02 and EMW03. An In-Situ MiniTroll downhole data logger was used to collect slug test data. The slug consisted of a solid PVC cylinder attached to a dedicated rope. The following is a description of the procedures utilized in the slug tests:

- The data logger pressure transducer probe was lowered into the well.
- The static water level in the well was measured to the nearest 0.01 foot using an electric water level meter with an audible alarm.
- The slug-in test commenced as the solid PVC slug of known volume was rapidly lowered into the well until the slug was fully submerged. The recording unit was activated just prior to the submersion of the slug.
- The change in height of the water column was recorded at logarithmic time intervals until the well reached equilibrium (in excess of 90 percent recovery) or the test had run for a minimum of 30 minutes.
- The data logger was then recalibrated for the slug-out test.
- The slug out test commenced with the rapid removal of the PVC slug. The recording unit was activated just prior to the removal of the slug.
- The change in height of the water column was recorded at logarithmic time intervals until the well reached equilibrium (in excess of 90 percent recovery) or the test had run for a minimum of 30 minutes.

Because of the slow recharge rate of the wells, none of the tests reached recovery equilibrium. The results of the slug testing activities at the Eastern Landfill are discussed in Section 5.4.

3.5 Groundwater Elevation Measurements

A groundwater elevation survey was conducted at nine existing monitor wells located at the Eastern Landfill, Work Shop, Administration and TNT Leaching Bed Areas. These monitor wells included TMW02, TMW05, TMW14A, TMW16, TMW17, TMW18, TMW19, FW35 and TMW28. A summary of the groundwater elevation measurements is presented in Section 5.3.

All water level measurements were obtained with an electronic water level monitor. Measurements were made relative to a notch or other permanent mark which serves as a consistent reference point. These measurements were accurate to 0.01 feet.

3.6 Field Measurements

Field parameters measured during the course of the Groundwater Investigation conducted at the Eastern Landfill were as follows:

- Volatile organics scanning of worker's breathing space and recovered soil and groundwater samples;
- pH, temperature, turbidity, dissolved oxygen, oxidation reduction potential and conductivity of water samples; and
- Personnel safety monitoring of Lower Explosive Limit (LEL), Oxygen (O₂), Hydrogen Sulfide (H₂S) and Carbon Monoxide (CO).

Volatile organics scanning was conducted using a Thermo Environmental Instruments Model 580S Organic Vapor Meter PID. Recovered soil samples were field scanned with a PID. All PID field-screening readings were recorded in the field logs. No positive PID readings were detected. There was no background PID reading.

Conductivity, pH, turbidity, dissolved oxygen, oxidation reduction potential and temperature were measured using a Horiba U-22 water quality meter.

Personnel safety monitoring was conducted using a RAE Systems, Inc. gas meter.

Instruments used to collect field data were identified with a unique identification number so that the instrument calibration and maintenance history can be traced. Each instrument was calibrated prior to its delivery to the field, daily or as required and supplied with fresh calibration standards.

The project field notebook or the project calibration logbook was used to document the calibration of field testing equipment. Documentation of calibration included the following:

- Date of calibration;
- Identification number of instrument being calibrated;

- Initials of the person performing the calibration; and
- Instrument readings versus standard value.

Equipment used by TtNUS was maintained in accordance with the manufacturer's instructions.

3.7 Field Documentation

Field documentation and tracking of sample custody are integral portions of the overall QA/QC process for the Groundwater Investigation. The field documentation system serves as a record of activities conducted in the field during sample collection and data generation and provides the means to identify, track, and monitor each sample from the time of collection through final reporting of data. All field documentation was completed in the field log book or data sheets (e.g., boring log forms, sampling sheets, etc.) using indelible ink. Procedures pertaining to sample custody and documentation employed during the Groundwater Investigation conducted at Eastern Landfill are discussed in Section 4.0.

3.7.1 Sample Identification

The sample identification scheme presented below was used to identify and label all field samples collected and all field QC blanks created during the Groundwater Investigation activities at the Eastern Landfill. The sample identification procedure was used for all sample labels and chain-of-custody documents in order to maintain consistency in the labeling process and to allow efficient handling of a large number of samples from different sources.

The sampling numbers were assigned as follows:

aa-bbbb-cccc-ddd

- **aa** - refers to the site location, where:
 - FW = Fort Wingate
- **bbbb** - describes the sample location and sequence number or QA/QC modifier, where:
 - EMW01 to EMW04 = Eastern Landfill sample locations
- **cccc** - describes the QA/QC modifier, where:
 - RNSW = Equipment Rinsate Blank
 - FLBK = Field Blank
 - DUP = Field Duplicate
 - FTRP = Field Triplicate
- **ddd** - indicates the depth of the sample, where applicable

In the case where a QA/QC modifier was used (i.e., RNSW or FLBK), the depth indicator was separately and sequentially incremented for each type of blank. The first equipment blank was labeled 001, the second 002, etc.

3.7.2 Field Log Books

The sampling coordinator maintained a field notebook and field data sheets containing pertinent information regarding the samples. The field logs are intended to provide sufficient data and observations to enable the field team and other interested parties to reconstruct events that occurred during field activities. The field notebook was a bound book with consecutively numbered pages. Entries in the field notebook and the associated field data sheets were made in indelible ink. A chronology of site activities is included as Appendix B.

3.7.3 Boring Logs and Well Construction Diagrams

Boring logs were maintained for the four soil borings identified in Section 3.2. Copies of the boring logs and well construction diagrams are included as Appendix A.

3.8 Land Surveying

Land surveying was conducted by a licensed surveyor to determine the horizontal and vertical locations (XYZ) location of all soil boring and monitoring well locations. Horizontal control was referenced to an existing datum (i.e., 1983 New Mexico West State Plane Coordinate System). Vertical control was referenced to the 1988 North American Vertical Datum.

Table 3.8-1 summarizes the horizontal and vertical locations of the monitor well. Monitor well locations are shown on Figure 3.2-1.

Table 3.8-1

SUMMARY OF SURVEY POINTS

Groundwater Investigation – Eastern Landfill Fort Wingate Depot Activity, New Mexico

Boring Number	Northing	Easting	Top of Casing Elevation	Ground Elevation
EMW01	1643653.28	2502047.57	6717.61	6715.16
EMW02	1643388.64	2502478.93	6701.57	6699.14
EMW03	1643684.94	2502802.90	6700.21	6697.69
EMW04	1643812.62	2502421.78	6707.51	6704.84

Note:

Horizontal and vertical locations of all sample locations referenced to existing site datum (New Mexico West State Plane Coordinates, North American Datum 1983 and North American Vertical Datum 1988).

4.0 QUALITY ASSURANCE/QUALITY CONTROL

The objectives of the QA/QC program were to determine the quality of data (precision and bias) and to allow assessment of the quality of the data (variability).

4.1 Sample Management

The proper management of samples collected throughout the course of the Eastern Landfill Groundwater Investigation is discussed in the following subsections.

The following record keeping items were used to document sample collection and handling:

- Chain-of-custody records;
- Sample Data Sheets;
- Freight bills for samples shipped via an overnight carrier; and
- Analytical reports (electronic file and hard copy).

Samples collected during the course of the investigation were placed in appropriate laboratory-supplied, decontaminated sample containers, with the exception of water sample aliquots designated for pH/temperature/conductivity/dissolved oxygen/turbidity/oxidation reduction potential testing. These samples were placed directly into the sample analysis reservoir of the meter or into a previously unused laboratory-supplied, decontaminated glass sample container for testing.

The following guidelines and procedures pertaining to sample containers were effected throughout the course of the investigation:

- The analytical laboratory added the appropriate chemical preservatives to the sample containers prior to sample collection.
- After samples were collected, caps were screwed tightly onto the containers.
- Each member of the sampling crew donned a new pair of gloves at each sampling location. The person who collected the samples wore disposable latex gloves and changed them between collection of each sample.

4.1.1 Sample Custody

The following chain-of-custody procedures documented sample possession from the time of sample collection until ultimate disposal of the sample. For the purposes of these procedures, a sample was considered to be in custody if it was:

- In one's actual possession,
- In view after being in one's possession,

- Secured (i.e., locked up) so that no one could tamper with it, or
- In a secured area, available to authorized personnel only.

Strict chain-of-custody procedures were maintained throughout the duration of the investigation. These procedures included the following:

- A custody seal, which was an integral part of the custody process, was used to detect unauthorized tampering with shipping/sample containers. The seal was signed, dated, and affixed to the shipping container. After the custody seal was attached to the shipping container, the only access to the shipping container was by breaking the custody seal.
- A chain-of-custody record was completed in the field. The original accompanied the samples, and copies were maintained at intermediate steps.
- At every point where the responsibility for custody of the samples changed, the new custodian signed the chain-of-custody record and noted the date and time.

4.1.2 Sample Packaging and Shipping Procedures

The following guidelines and procedures pertaining to sample packaging and shipping were effected throughout the investigation:

- The samples were properly labeled and sealed.
- Sample containers were placed in previously unused polyethylene Ziplock bags to keep them dry during shipment to the analytical laboratory. Only one sample container was placed in each bag. As much air as possible was removed from the bag to conserve space within the shipping container.
- Sample containers were then placed in shipping coolers containing packing materials and ice.
- A temperature blank sample was placed in each shipping container amongst the sample containers.
- Several double-bagged and sealed Ziplock bags of ice were placed atop the sample containers.
- The completed and signed chain-of-custody form was placed within a Ziplock bag, and the bag was taped to the inside cover of the ice chest.
- The lid of the ice chest was closed and packing/strapping tape was wrapped around the ice chest on both ends and completely around the lid opening. The drain plug of the ice chest was taped shut securely.

- Custody seals were affixed to the ice chest, extending across the junction between the lid and the body of the ice chest, and were secured by placing clear packing/strapping tape over the custody seals and onto the exterior of the shipping container.
- Appropriate shipping labels were secured to the shipping container and the freight bill number was recorded within the field notebook.
- The shipping container(s) were delivered to an overnight carrier for shipment.

According to the cooler receipt forms completed at the laboratory upon receipt of samples, all samples arrived at the laboratory in good condition with custody seals intact.

4.2 Decontamination Procedures

Proper decontamination of field equipment was an integral part of the overall QA/QC process. A decontamination pad was constructed for heavy equipment. The dimensions of the pad were approximately 18 feet by 20 feet. The pad was lined with a 30-mil high-density polyethylene membrane liner. Wooden pallets were used at the decontamination pad to hold the equipment above ground to facilitate cleaning during decontamination activities. All decontamination liquids were collected from the decontamination pad and stored in a 330-gallon plastic tote container pending analyses prior to disposal.

The following subsections detail decontamination procedures that were effected throughout the duration of field activities associated with the investigation.

4.2.1 Drilling Equipment

Heavy equipment (e.g., hollow stem augers, etc.) were pressure washed at the designated decontamination area prior to commencement of operations, after completion of each boring, and upon the conclusion of intrusive operations.

4.2.2 Soil Sampling Equipment

Collection of soil samples for chemical analysis was not required for this project. However, sampling equipment (e.g., CME sampler, etc.) was decontaminated by pressure washing or through the following steps:

- Wash in solution of tap water and Alconox or equivalent;
- Tap water rinse;
- Double rinse with distilled water; and
- Air dry.

4.2.3 Field Measurement Equipment

Field measurement equipment that did not directly contact environmental media (i.e., PID) was maintained in a clean manner. Field measurement equipment that directly contacted environmental media (i.e., water quality meter or water level indicator) was rinsed with distilled water after each usage.

Prior to recording field measurements involving groundwater samples, the probes of the equipment were rinsed twice with aliquots of the groundwater sample.

4.2.4 Well Development and Groundwater Sampling Equipment

Well development and sampling equipment were decontaminated prior to insertion into the wells by the following steps:

- Wash in a solution of tap water and Alconox or equivalent;
- Tap water rinse;
- Double rinse with distilled water.

The wash and rinse solution was also pumped through the well development and sampling equipment. Dedicated LDPE tubing was used for the bladder pump at each well location. A new disposable bladder was also used for each well sampled.

4.3 Investigative Derived Waste (IDW) Management

The type of wastes generated as a result of the investigation activities at the Eastern Landfill were drill cuttings, purge water and decontamination liquids. All drill cuttings were collected at the individual boring locations and loaded into a roll-off bin located at the decontamination pad area. Purge water and decontamination liquids were collected and loaded into a 330-gallon plastic tote, also located at the decontamination area. All containers used to containerize waste were clearly identified and labeled "PENDING ANALYSIS".

One grab sample was collected from the roll-off bin containing solids and submitted to the laboratory for chemical analysis. One grab sample was also collected from the plastic tote containing liquids and submitted to the laboratory for chemical analysis. The solid and liquid IDW samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs), herbicides, explosives, metals, and reactivity, corrosivity and ignitability (RCI).

The roll-off bin and plastic totes were removed from FWDA by the IDW contractor, Rinchem, Inc., on August 3, 2004 and temporarily stored at their facility in Albuquerque, NM pending results of the waste profiling.

The solid waste was transported to and disposed of at the Rio Rancho Sanitary Landfill in Rio Rancho, New Mexico on October 15, 2004. The liquid waste was transported to and disposed of at the City of Albuquerque Public Works Wastewater Utility facility on August 25, 2004. Copies of the manifests for the disposal of the IDW materials are included as Appendix C.

4.4 Field QA/QC Sample Description

Field quality control measures included the collection and analysis of QA/QC samples. The QA/QC samples were collected during the sampling activities to assess the variability introduced in sampling, handling, shipping and analysis. Field QC samples included field blanks, equipment blanks, trip blanks and field duplicates. Field QA samples included field triplicates. The types and frequency of field QA/QC samples are described in the following subsections.

4.4.1 Field Blanks

Field blanks are samples of source water used for decontamination. In accordance with the work plan, one field blank was collected of water from the driller's water storage tank and one field blank was collected of water from the FWDA standpipe identified by the FWDA caretaker.

4.4.2 Trip Blanks

Trip blanks were fabricated in the analytical laboratory by pouring analyte-free reagent water into 40-mL Teflon-lined septum vials. They accompanied the sample containers into the field, but remained unopened until analyzed in the laboratory after being returned from the field. Trip blanks thus served to identify contamination of the samples or sample containers that might have occurred during transport of sample containers from the laboratory to the field and from the field to the laboratory.

One trip blank accompanied each sample container in which groundwater samples designated for VOC analysis were contained. Trip blanks were tested only for VOCs.

4.4.3 Equipment (Rinsate) Blanks

Equipment blanks samples are prepared in the field to assess the effectiveness of decontamination procedures applicable to groundwater sampling equipment. Equipment blanks were prepared by pouring analyte-free distilled water through the decontaminated sampling equipment and collecting the rinsate in appropriate clean sample containers.

Equipment blanks were collected at a rate of 10 percent, being defined as one equipment blank for every 10 or less samples per matrix. One equipment blank was collected at the Eastern Landfill.

4.4.4 Field Duplicates

Field duplicates are samples that are divided into two portions at the time of sampling. Field duplication provides precision information regarding homogeneity, handling, shipping, storing, preparation, and analysis. Field duplicates were collected at a frequency of one per every 10 or less samples per matrix.

One field duplicate groundwater sample was collected using methods described in Section 3.3.4 at the Eastern Landfill and submitted to the laboratory for chemical analysis.

4.4.5 Field Triplicates

Field triplicates are samples that are divided into three portions at the time of sampling. The purpose of a field triplicate was to allow for assessment of the laboratory data by an independent laboratory. One field triplicate groundwater sample was collected at the Eastern Landfill using methods described in Section 3.3.4 and forwarded to a separate quality assurance laboratory under strict chain-of-custody procedures described in Section 4.1.1.

4.4.6 Temperature Blanks

Temperature blanks, supplied by the analytical laboratories, were included in each cooler containing samples that were shipped to the laboratories, including the QA samples shipped to the QA laboratory.

4.5 Data Validation Results Summary

The objective of TtNUS data validation was to review laboratory analytical procedures and quality control results to verify the usability of data toward meeting project data quality objectives (DQOs) established in the Work Plan (January 2004). To validate the analytical data obtained as part of the Groundwater Investigation, the analytical test results (including laboratory QC data) for soil and water samples received from the testing laboratories were reviewed in accordance with “USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review” and “USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review”. The validation was conducted based on the Level III data package deliverables.

The data were evaluated based on accuracy, precision, representativeness, completeness, and sensitivity which measured the reproducibility of analytical results, the representativeness of site environmental conditions, and the consistency in the performance of the analytical methods. The sensitivity parameters, such as the method detection limits (MDL), sample quantitation limit (SQL), and reporting limit (RL) were approved by the USACE before the investigation. The SQL was defined as the MDL adjusted for sample-specific action such as dilution or use of varying sample aliquot sizes. The RL was set at the lowest standard used for the initial calibration curve for each target analyte. Target analyte values detected and reported below the RL were flagged as an estimated quantity (i.e., J-flag).

A total of one soil sample (IDW-Soils) and eight water samples (two investigation water samples, one

IDW-Water sample, one quality control water sample, one quality assurance water sample, two field blanks, and one equipment blank) were collected and analyzed. The following EPA SW-846 Methods and other EPA methods were used to analyze the samples:

- Method 6010B Inductively Coupled Plasma Atomic Emission Spectroscopy (Trace ICP) or Method 6020A (ICP/Mass Spectrometry (MS)) for metals in total and dissolved fractions;
- Method 7470A/7471A cold vapor for mercury in total and dissolved fractions;
- Method 8260B for volatile organics;
- Method 8270C for semi-volatile organics;
- Method 8151A for herbicides;
- Method 8081A for pesticides;
- Method 8141 for organophosphorus pesticides;
- Method 8082 for polychlorinated biphenyls (PCBs);
- Method 8082 for PCB congeners;
- Method 8290 for Dioxins/Furans;
- Method 8330 for explosives; and
- Wet Chemistry: pH (EPA 150.1); Total Dissolved (TDS, EPA 160.1); chloride, fluoride, sulfate, and nitrate as nitrogen (NO₃-N, EPA 300); nitrite as nitrogen (NO₂-N, EPA 353.2); sulfide (EPA 376.1); and Cyanide (SW846, 9012A).

Based on the results of this evaluation, validated data were qualified to alert the user of limitations. The following definitions provide brief explanations of the nationally used qualifiers assigned to results in the data review process:

- U** The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J** The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ** The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R** The sample results were rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria.

Narrative Report, Chain-of-Custody Record, Cooler Receipt/Sample Log-in Sheet, Run Logs, and data sheets including the quality control package and instrument analysis results were complete and contained the required information. The data meet the general requirements of the approved work plan for the site, and should be considered valid and acceptable.

A complete copy of the Data Usability Report for this investigation is included as Appendix D. The

electronic data deliverable is included in Appendix E. A summary of the analytical data with TtNUS data validation qualifiers and analytical laboratory qualifiers are provided as Appendix F.

5.0 GROUNDWATER INVESTIGATION RESULTS

5.1 Analytical Parameters and Methods

5.1.1 Soil Samples

Soil samples for chemical analysis were not collected during the Groundwater Investigation.

5.1.2 Groundwater Samples

Four (4) groundwater samples (2 investigation, 1 duplicate [QC] and 1 triplicate [QA]) were collected for chemical analysis as described in Section 3.3.4. Groundwater samples collected for chemical analysis were analyzed using the methods listed in Table 5.1.2-1. A list of site-specific constituents is presented in table 5.1.2-2.

Table 5.1.2-1

SUMMARY OF CHEMICAL ANALYSES FOR GROUNDWATER SAMPLES

Groundwater Investigation – Eastern Landfill Fort Wingate Depot Activity, Gallup, New Mexico

Analysis	Test Method
Appendix IX VOCs + Methyl Tert Butyl Ether (MTBE)	SW-846 8260B
Appendix IX SVOCs	SW-846 8270C
Appendix IX Pesticides	SW-846 8081A
Appendix IX Pesticides	SW-846 8141
Appendix IX PCBs	SW-846 8082
Appendix IX Herbicides	SW-846 8151A
Appendix IX Dioxins	SW-846 8290
Appendix IX Metals (totals) + Al, Fe, Mn	SW-846 6010B, 6020, 7470
Appendix IX Metals (dissolved) + Al, Fe, Mn	SW-846 6010B, 6020, 7470
Anions (Nitrate as Nitrogen, Chloride, Fluoride, Sulfate)	EPA 300.0
Cyanide	SW-846 9012A
Expanded List Explosives	SW-846 8330 Mod.
Nitrate/Nitrite Nonspecific	EPA 353.2
pH	EPA 150.1
Sulfide	EPA 376.1
Total Dissolved Solids	EPA 160.1

Table 5.1.2-2

**Analytical Constituents
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Gallup, New Mexico**

Metals	Appendix IX VOCs (8260B)	Appendix IX SVOCs (8270)	Explosives (8330 Mod)	Appendix IX PCBs (8082)	Appendix IX Herbicides (8151)	Appendix IX Pesticides (8081)	Appendix IX OP Pesticides (8141)	Appendix IX PCDDs and PCDFs (8290)	Other Constituents		
Aluminum	1,1,1,2-Tetrachloroethane										
Antimony	1,1,1-Trichloroethane	1,2,4,5-Tetrachlorobenzene									
Arsenic	1,1,2,2-Tetrachloroethane	1,4-Naphthoquinone									
Barium	1,1,2-Trichloroethane	1-Naphthylamine									
Beryllium	1,1-Dichloroethane	2,3,4,6-Tetrachlorophenol									
Cadmium	1,1-Dichloroethane	2-AAF									
Chromium	1,2-Dibromo-3-Chloropropane	2-Naphthylamine									
Cobalt	1,2-Dibromoethane	2-Picoline									
Copper	1,2-Dichloroethane	3,3-Dimethylbenzidine									
Cyanide	1,2-Dichloropropane	3-Methylcholanthrene									
Iron	1,4-Dioxane	4,6-Dinitro-2-methylphenol									
Lead	2-Hexanone	4-Aminobiphenyl									
Manganese	4-Methyl-2-Pentanone	4-Chloro-3-methylphenol									
Mercury	Acetone	4-Nitroquinoline-1-oxide									
Nickel	Acetonitrile	5-Nitro-o-toluidine									
Selenium	Acrolein	7,12-Dimethylbenz(a)anthracene									
Silver	Acrylonitrile	Acenaphthene									
Thallium	Allyl chloride	Acenaphthylene									
Tin	Benzene	Acetophenone									
Vanadium	Bromodichloromethane	alpha,alpha-Dimethylphenethylamine									
Zinc	Bromoform	Aniline									
	Bromomethane	Anthracene									
	Carbon Disulfide	Aramite									
	Carbon Tetrachloride	Benzo(a)anthracene									
	Chlorobenzene	Benzo(a)pyrene									
	Chloroethane	Benzo(b)fluoranthene									
	Chloroform	Benzo(g,h,i)perylene									
	Chloromethane	Benzo(k)fluoranthene									
	Chloroprene	Benzyl alcohol									
	cis-1,3-Dichloropropene	Bis(2-chloroethoxy)methane									
	Dibromochloromethane	Bis(2-chloroethyl)ether									
	Dibromomethane	Bis(2-chloroisopropyl)ether									
	Dichlorodifluoromethane	Bis(2-ethylhexyl)phthalate									
	Dichloromethane	Bromophenyl phenyl ether,4-									
	Ethyl methacrylate	Butyl benzyl phthalate									
	Ethylbenzene	Chlorobenzilate									
	Iodomethane	Chloronaphthalene, 2-									
	MEK	Chlorophenol,2-									
	methacrylonitrile	Chlorophenyl phenyl ether,4-									
	Methy methacrylate	Chrysene									
	Methyl-tertbutyl-Ether (MTBE)	Diallate									
	Propionitrile	Dibenzo(a,h)anthracene									
	Styrene	Dibenzofuran									
	Tetrachloroethane	Dichlorobenzene, 1,2-									
	Toluene	Dichlorobenzene, 1,3-									
	cis-1,2-Dichloroethane	Dichlorobenzene,1,4-									
	trans-1,2-Dichloroethane	Dichlorobenzidine,3,3-									
	trans-1,3-Dichloropropene	Dichlorophenol,2,4-									
	trans-1,4-Dichloro-2-butene	Dichlorophenol,2,6-									
	Trichloroethene	Diethyl phthalate									
	Trichlorofluoromethane	Dimethyl phthalate									
	Vinyl Acetate	Dimethylphenol,2,4-									
	Vinyl Chloride	Di-n-butylphthalate									
	Xylene (Total)	Dinitrophenol,2,4-									
	Isobutyl alcohol	Dinitrotoluene, 2,4-									
	1,2,3-Trichloropropane	Dinitrotoluene, 2,6-									
		Di-n-octylphthalate									
		Dinoseb									
		Diphenylamine									
		Ethyl methanesulfonate									

5.1.3 QA/QC Samples

QA/QC for samples collected during the Groundwater Investigation at the Eastern Landfill included the following:

- Field Blanks (see Section 4.4.1);
- Trip Blanks (see Section 4.4.2);
- Equipment blanks (see Section 4.4.3);
- Duplicates (see Section 4.4.4);
- Triplicates (see Section 4.4.5); and
- Temperature Blanks (see Section 4.4.6).

Trip blanks were analyzed for volatile organics only. QA/QC samples were analyzed for the full suite of parameters using the methods listed in Table 5.1.2-1.

5.2 Discussion of Analytical Results

The Groundwater Investigation conducted at the Eastern Landfill consisted of the installation of four monitor wells. Two groundwater samples were collected from two of the four monitor wells for chemical analysis. Groundwater samples were collected from monitor wells EMW02 and EMW03. Monitor wells EMW01 and EMW04 did not contain a sufficient amount of water for sampling.

The analytical data presented in this Groundwater Investigation Report were subjected to a data validation process performed by TtNUS personnel to ensure the integrity and defensibility of the data. The Data Validation Report is presented in Appendix D. A list of the data qualified by TtNUS personnel is included in Appendix F. Samples collected for chemical analysis during the Groundwater Investigation were analyzed by Severn Trent Laboratories of Houston, Texas. Quality assurance samples (triplicates) were analyzed by Datachem Laboratories of Salt Lake City, Utah.

For reporting purposes, all detected concentrations of analyzed groundwater samples are discussed in this section. Chemical analytical results discussed in this section are summarized in Table 5.2-1 for organic compounds and in Table 5.2-2 for metals. As discussed in the following subsections, analytical results were compared to EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003). It should be noted that not all compounds detected had corresponding screening levels.

5.2.1 Volatiles

Four volatile organics (acetone, toluene, xylene-totals, and methyl ethyl ketone) were detected above the reporting limits in the groundwater samples collected at the Eastern Landfill site. The compounds were all detected in samples collected from one location, monitor well EMW03. The concentrations detected are less than the respective EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for these compounds.

Table 5.2-1

ANALYTICAL RESULTS - ORGANICS

Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Gallup, New Mexico

Appendix IX VOCs (8260B)	Screening Level	EMW02	EMW03	EMW03 DUP	EMW03 FTRP
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Acetone	33		0.0136	0.0133	0.011
Toluene	0.72				0.00087 J
Xylene, Total	0.2				0.00065 J
MEK	7.1		0.00285	0.0029	0.0029
Appendix IX SVOCs (8270)		EMW02	EMW03	EMW03 DUP	EMW03 FTRP
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Bis(2-ethylhexyl)phthalate	0.0048	0.00479 J		0.00682 J	
Acetophenone	3.7				0.0016 J
Butylbenzylphthalate	7.3				0.00041 J
2-Methylnaphthalene	(1)				0.00019 J
Naphthalene	0.0062				0.00024 J
Phenol	11.0	0.0178			0.0032 J
Appendix IX Pesticides (8081 and 8141)		EMW02	EMW03	EMW03 DUP	EMW03 FTRP
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Dieldrin	0.000042				0.000139 J
Endosulfan II	(1)				0.0000138 J
Endrin Aldehyde	(1)				0.0000813
gamma-BHC	(1)				0.0000112 J
Heptachlor Epoxide	0.000074				0.000587
Appendix IX Herbicides (8151)		EMW02	EMW03	EMW03 DUP	EMW03 FTRP
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
All compounds were non detect					
Explosives (8330 Mod)		EMW02	EMW03	EMW03 DUP	EMW03 FTRP
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
RDX	0.61	2.9			
Nitrobenzene	3.4	0.22 J			
2,4,6-TNT	2.2	0.38	0.11 J	0.11 J	
Nitroglycerin	(1)	7.4	30 J		
DNX	(1)	3.4 J	0.51 J	0.53 J	
Appendix IX PCB and Conjoiners (8082)		EMW02	EMW03	EMW03 DUP	EMW03 FTRP
	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
2-monochlorobiphenyl	(1)	0.028 J			
Appendix IX PCDDs and PCDFs (8290)		EMW02	EMW03	EMW03 DUP	EMW03 FTRP
	(pg/L)	(pg/L)	(pg/L)	(pg/L)	(pg/L)
All compounds were non detect					
Water Quality Parameters (Various)		EMW02	EMW03	EMW03 DUP	EMW03 FTRP
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
pH (pH units)	(1)	11.47	11.63	11.55	11.5
Nitrate as Nitrogen	10	0.189 B		0.122 B	0.274
Chloride	(1)	258	213	212	213
Fluoride	2.2	0.848	1.7	2.48	3.76
Sulfate	(1)	2550	2130	2110	2190
Nitrate/Nitrite Nonspecific	1.0	0.082	0.669	0.466	0.36
Total Dissolved Solids	(1)	4940	3920	4050	4110

Note:

1. No Screening Level provided by US EPA.

Analytical results are compared to EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003).

Blank entry indicates the analyte was not detected above the reporting limit.

Bold indicates an exceedance of Screening Level.

B - analyte was found in the associated blank as well as the sample.

J - indicates estimated value.

mg/L - milligrams per liter

ug/L - micrograms per liter

pg/L - picograms per liter

Table 5.2-2

ANALYTICAL RESULTS - METALS

Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Gallup, New Mexico

Metals (6000/7000)	Screening Level	EMW02 (Dissolved)	EMW02 (Total)	EMW03 (Dissolved)	EMW03 (Total)	EMW03 DUP (Dissolved)	EMW03 DUP (Total)	EMW03 FTRP (Dissolved)	EMW03 FTRP (Total)
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Aluminum	37	0.0427	1.14	1.6	1.46	1.99	1.75	1.5	1.75
Antimony	0.015							0.000393	0.000852
Arsenic	0.000045			0.00355		0.005		0.00725	0.00586
Barium	2.6	0.0641	0.06	0.107	0.113	0.0954	0.119	0.0978	0.131
Beryllium	0.073								0.000182
Cadmium	0.018								0.000168
Chromium	0.11 ⁽¹⁾	0.00952	0.00985	0.103	0.0941	0.117	0.0882	0.0986	0.0898
Cobalt	0.73		0.00125		0.00082		0.00092	0.000663	0.00108
Copper	1.4	0.00598	0.00597	0.0117	0.0122	0.0136	0.0116	0.0135	0.0123
Iron	11	0.148	0.473	0.0703	0.151	0.0969	0.169	0.075	0.225
Lead	0.015							0.000325	0.00069
Manganese	1.7	0.00218	0.0781	0.00144	0.00214	0.00276	0.004		0.0056
Mercury	0.011					0.000031			
Nickel	0.73							0.00917	0.00929
Selenium	0.18							0.0131	0.00882
Silver	0.18								
Thallium	(2)	0.00586			0.00509		0.00511		0.0000973
Tin	22					0.00331		0.000753	0.000665
Vanadium	0.037		0.00302	0.0859	0.0871	0.0936	0.081	0.0893	0.0865
Zinc	11	0.0244	0.00862	0.0132	0.00799		0.0142	0.00297	0.00537

Note:

1. Screening Level for Chromium VI used for comparison.

2. No Screening Level provided by US EPA.

Analytical results are compared to EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003).

Blank entry indicates the analyte was not detected above the reporting limit.

Bold indicates an exceedance of Screening Level.

mg/L - milligrams per liter

5.2.2 Semivolatiles

Six semivolatile organics (acetophenone, butylbenzophthalate, 2-methylnaphthalene, bis(2-ethylhexyl)phthalate, naphthalene and phenol) were detected above the reporting limits in groundwater samples collected at the Eastern Landfill site. With the exception of one compound in one sample, the concentrations detected are less than the respective EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for these compounds.

The concentration of bis(2-ethylhexyl)phthalate in the duplicate sample collected from monitor well EMW03 (0.00682 mg/L) exceeds the EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for bis(2-ethylhexyl)phthalate of 0.0048 mg/L.

5.2.3 Pesticides

Five pesticides (Dieldrin, Endosulfan II, Endrin Aldehyde, gamma-BHC and Heptachlor Epoxide) were detected above the reporting limits in one groundwater sample collected at the Eastern Landfill site. The concentrations of Dieldrin (0.0000139 mg/L) and Heptachlor Epoxide (0.0000587 mg/L) detected in the triplicate sample collected from monitor well EMW03 exceed the EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for these compounds of 0.0000042 mg/L and 0.0000074 mg/L, respectively.

5.2.4 Polychlorinated Biphenyls and Congeners

One PCB congener (2-monochlorobiphenyl) was detected above the reporting limit in one groundwater sample collected at the Eastern Landfill site. An EPA Region 6 Human Health Medium-Specific Screening Level for Tap Water (Version 6, November 2003) for this compound is not available.

5.2.5 Herbicides

Herbicides were not detected above the reporting limits in the groundwater samples collected at the Eastern Landfill site.

5.2.6 Dioxins and Furans

Dioxins and Furans were not detected above the reporting limits in the groundwater samples collected at the Eastern Landfill site.

5.2.7 Explosives

Five explosives (RDX, nitrobenzene, 2,4,6-TNT, nitroglycerin and DNX) were detected above the reporting limits in groundwater samples collected at the Eastern Landfill site. The concentration of RDX (2.9 micrograms per liter [µg/L]) detected in one groundwater sample collected from monitor well EMW02 exceeds the EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water

(Version 6, November 2003) for this compound of 0.61 ug/L.

5.2.8 Metals

Analyzed metals were detected in the groundwater samples collected at the Eastern Landfill site. Sixteen metals (aluminum, antimony, barium, beryllium, cadmium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, thallium, tin and zinc) were detected above the reporting limits but at concentrations below the respective EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for these compounds. One compound (silver) was not detected above the reporting limits in any of the groundwater samples.

Arsenic was detected above the reporting limit in three groundwater samples collected from monitor well EMW03 at concentrations ranging from 0.00355 mg/L to 0.00725 mg/L. The concentrations detected exceed the EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for arsenic of 0.000045 mg/L.

Chromium was detected above the reporting limit in four groundwater samples collected from monitor wells EMW02 and EMW03 at concentrations ranging from 0.00952 mg/L to 0.117 mg/L. The concentration (0.117 mg/L) detected in the duplicate sample collected from monitor well EMW03 exceeds the EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for chromium VI of 0.11 mg/L.

Vanadium was detected above the reporting limit in four groundwater samples collected from monitor wells EMW02 and EMW03 at concentrations ranging from 0.00302 mg/L to 0.0936 mg/L. The concentrations (0.081 mg/L to 0.0936 mg/L) detected in the groundwater samples collected from monitor well EMW03 exceeds the EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for vanadium of 0.037 mg/L.

5.2.9 Water Quality Parameters

Various water quality parameters were analyzed for as part of the Groundwater Investigation. The analytical results for the water quality parameters are presented in Table 5.2-1.

5.3 Groundwater Elevation Measurements

A groundwater elevation survey was conducted at nine monitoring wells located at the Eastern Landfill, Work Shop, Administration and TNT Leaching Bed Areas. These monitor wells included TMW02, TMW05, TMW14A, TMW16, TMW17, TMW18, TMW19, FW35 and TMW28.

All water level measurements were obtained with an electronic water level monitor. Measurements were made relative to a notch or other permanent mark which serves as a consistent reference point. These measurements were accurate to 0.01 feet. Table 5.3-1 presents the results of the groundwater

elevation measurements. Water level measurements were collected on July 30, 2004.

Table 5.3-1

WATER LEVEL MEASUREMENTS FOR EXISTING MONITOR WELLS

**Groundwater Investigation – Eastern Landfill
Fort Wingate Depot Activity, Gallup, New Mexico**

Monitor Well	Depth to Water (feet)
TMW02	53.88
TMW05	35.88
TMW14A	62.95
TMW16	54.58
TMW17	61.46
TMW18	53.27
TMW19	41.00
TMW28	18.45
FW35	14.50

Note:

1. Water level measurements collected between 1215 and 1340 hours on 07/30/04.
2. Water level measured in feet from top of casing.

Water level measurements were collected at the monitor wells installed during the Groundwater Investigation. Table 5.3-2 presents the results of the water level measurements at the monitor wells EMW01 through EMW04 installed as part of the Groundwater Investigation.

Monitor well EMW01 was installed on July 14, 2004. Water was not detected in the monitor well until August 2, 2004. At the completion of field activities on August 3, 2004, the height of the column of water measured was approximately 14 feet.

Monitor well EMW02 was installed on July 19, 2004. Water was detected in the well the next day. The maximum water column height measured was approximately 75 feet.

Monitor well EMW03 was installed on July 21, 2004. Water was detected in the well the next day. The maximum water column height measured was approximately 64 feet high.

Monitor well EMW04 was installed on July 23, 2004. Water was not detected in the monitor well until August 2, 2004. At the completion of field activities on August 3, 2004, the maximum water column height measured was approximately 0.5 feet.

Table 5.3-2

WATER LEVEL MEASUREMENTS FOR NEWLY INSTALLED MONITOR WELLS

**Groundwater Investigation – Eastern Landfill
Fort Wingate Depot Activity, Gallup, New Mexico**

Date	EMW01	EMW02	EMW03	EMW04	Comments
7/14/04	Dry	--	--	--	
7/16/04	Dry	--	--	--	
7/20/04	--	98.05	--	--	
7/21/04	Dry	86.64	89.80	--	
7/22/04	--	68.51	79.66	--	
7/23/04	Dry	56.35	48.71	--	
7/26/04	Dry	35.55	36.30	Dry	Developed EMW02 and EMW03
7/27/04	--	77.95	63.65	--	Developed EMW02 and EMW03
7/28/04	--	80.56	--	--	Sampled EMW02
7/29/04	--	--	54.88	--	Sampled EMW03
7/30/04	Dry	66.90	77.35	Dry	
8/2/04	119.90	50.61	46.30	116.99	
8/3/04	106.95	47.57	43.78	117.05	

Note:

1. -- indicates that the well was not yet installed or a measurement was not collected for that day.
2. Water level measured in feet from top of casing.

As discussed above and shown on Table 5.3-2, recharge to the wells was very slow. The water levels did not reach stabilization in any of the wells during the field activities. Because of this lack of stabilization, the direction and gradient of groundwater flow at the Eastern Landfill could not be determined.

5.4 Aquifer Testing

Aquifer tests (rising and falling head slug tests) were performed on monitor wells EMW02 and EMW03 to estimate hydraulic conductivity. The procedures employed for performing the slug tests are discussed in Section 3.4.

Hydraulic conductivities were calculated using the slug test methods of Bouwer and Rice, 1976 and Hvorslev, 1951. Graphical solutions and calculations were performed using AQTESOLV for Windows Professional (Version 3.50), an aquifer test analysis software package. Aquifer test data and calculations are included in Appendix G.

Table 5.4-1 presents hydraulic conductivity estimates for monitor wells EMW02 and EMW03.

Table 5.4-1

SUMMARY OF AQUIFER TEST RESULTS

**Groundwater Investigation – Eastern Landfill
Fort Wingate Depot Activity, Gallup, New Mexico**

Monitor Well	Falling Head ⁽¹⁾ (ft/sec)	Rising Head ⁽¹⁾ (ft/sec)	Falling Head ⁽²⁾ (ft/sec)	Rising Head ⁽²⁾ (ft/sec)
EMW02	9.219×10^{-6}	5.925×10^{-7}	1.856×10^{-5}	1.183×10^{-6}
EMW03	2.294×10^{-7}	1.196×10^{-7}	4.625×10^{-7}	1.879×10^{-7}

Note:

1. Bouwer-Rice Method.
2. Hvorslev Method.

ft/sec – feet second

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Analytical Findings and Conclusions

The Groundwater Investigation conducted at the Eastern Landfill at FWDA consisted of the collection and chemical analysis of two groundwater samples.

Groundwater

In summary, VOCs, SVOCs, pesticides, explosives, PCBs, and metals were detected in the groundwater samples collected from the Eastern Landfill for chemical analysis. Herbicides and dioxins/furans were not detected in the groundwater samples. One SVOC, two pesticides, one explosive and three metals exceeded their respective EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003).

The concentration of bis(2-ethylhexyl)phthalate in the duplicate sample collected from monitor well EMW03 (0.00682 mg/L) exceeds the EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for bis(2-ethylhexyl)phthalate of 0.0048 mg/L.

The concentrations of Dieldrin (0.0000139 mg/L) and Heptachlor Epoxide (0.0000587 mg/L) detected in the triplicate sample collected from monitor well EMW03 exceed the EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for these compounds of 0.0000042 mg/L and 0.0000074 mg/L, respectively.

The concentration of RDX (2.9 micrograms per liter [ug/L]) detected in one groundwater sample collected from monitor well EMW02 exceeds the EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for this compound of 0.61 ug/L.

The concentrations of arsenic detected (0.00355 mg/L to 0.00725 mg/L) in the groundwater samples collected from monitor well EMW03 exceed the EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for arsenic of 0.000045 mg/L.

The concentration of chromium detected (0.117 mg/L) in one groundwater sample collected from monitor well EMW03 exceeds the EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for chromium VI of 0.11 mg/L.

The concentrations of vanadium detected (0.081 mg/L to 0.0936 mg/L) in the groundwater samples collected from monitor well EMW03 exceeds the EPA Region 6 Human Health Medium-Specific Screening Levels for Tap Water (Version 6, November 2003) for vanadium of 0.037 mg/L.

The water levels in the monitor wells did not reach stabilization during the field activities. Because of this lack of stabilization, the direction and gradient of groundwater flow at the Eastern Landfill could not be

determined.

6.2 Recommendations

This section presents recommendations for further action at the Eastern Landfill site based on the results of the Groundwater Investigation.

The following further action recommendations are presented:

1. Conduct one round of groundwater elevation measurements to determine groundwater flow direction and gradient.
2. Confirm the detections of analytes in groundwater by conducting a second round of groundwater sampling.
3. Develop and collect groundwater samples from monitor wells EMW01 and EMW04.

APPENDIX A

FIELD LOGS AND SAMPLE SHEETS

SOIL BORING LOGS



PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	Eastern Landfill	DRILLING CO.:	Enviro-Drill
SITE LOCATION:	Fort Wingate Depot Activity	DRILLER:	Matt Cain
JOB NO.:	794A	RIG TYPE:	CME 75
LOGGED BY:	Larry Basilio	METHOD OF DRILLING:	Hollow Stem Auger / Air Rotary
PROJECT MANAGER:	Theresa Thompson	SAMPLING METHODS:	5 ft CME Barrel / Drill Cuttings
DATE DRILLED:	7/13/04 to 7/14/04	TOTAL DEPTH:	120 feet BGS
NOTES: Dry, Sparse Vegetation		☞	Initial Water Level
		☞	Static Water Level

DEPTH (FEET)	SOIL SYMBOL	USCS: SOIL DESCRIPTION	SAMPLE NUMBER/ INTERVAL	RECOVER/ ADVANCE (inches)	PID (ppm)	WELL DETAIL	WELL DESCRIPTION
0		ML: SILT - red (2.5 YR 4/6), loose, poorly consolidated, dry, trace of < 1/2-inch gravel	No soil or groundwater samples were collected for laboratory analyses.	48/60			4 ft x 4 ft aboveground concrete surface completion
-5				60/60	0		
-10				12/60	0		Borehole diameter 7 3/4" to 120 ft using hollow stem augers
-15		SM: SAND - red (2.5 YR 4/8), very silty to very clayey in parts, dry, increasing clay content with depth		60/60	0		
-20		CL: CLAY - reddish brown (2.5 YR 4/4), very silty, partially indurated, broken, dry, sandy in parts, gray clay inclusions		60/60	0		
-25		ML: SILT - red (2.5 YR 4/6), very clayey, very stiff, broken to blocky, dry, gray clay inclusions		60/60	0		2" PVC riser with cement/bentonite grout
-30		CL: CLAY - red (2.5 YR 4/8), very stiff to hard, broken to crumbly, very silty, non to very slightly plastic, dry, trace to abundant gray clay inclusions		60/60	0		
-35		ML: SILT - red (2.5 YR 5/6), very clayey, poor to fair induration, slightly sandy in parts, dry		60/60	0		
-40		ML: SILT - dark red (2.5 YR 3/6), trace of gray mottle, very clayey, slightly to moderately indurated, more indurated with depth, broken, blocky, dry		60/60	0		
-45		CL: CLAY - red (2.5 YR 4/6), very stiff to hard, blocky, crumbly, silty, trace of soft to hard gray clay inclusions, dry		60/60	0		
-50		CL: CLAY - reddish brown (2.5 YR 4/4), very stiff to hard, blocky, crumbly, silty, dry		60/60	0		
-55		CL: CLAY - red (2.5 YR 4/6), hard, dense, non plastic, slightly silty, dry		60/60	0		
-60		CL: CLAY - red (2.5 YR 4/6), hard, dense, non plastic, slightly silty, dry		60/60	0		
-65				60/60	0		
-70		CL: CLAY - red (2.5 YR 4/6), some light gray		60/60	0		



PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	Eastern Landfill	DRILLING CO.:	Enviro-Drill
SITE LOCATION:	Fort Wingate Depot Activity	DRILLER:	Matt Cain
JOB NO.:	794A	RIG TYPE:	CME 75
LOGGED BY:	Larry Basilio	METHOD OF DRILLING:	Hollow Stem Auger / Air Rotary
PROJECT MANAGER:	Theresa Thompson	SAMPLING METHODS:	5 ft CME Barrel / Drill Cuttings
DATE DRILLED:	7/15/04 to 7/19/04	TOTAL DEPTH:	120 feet BGS
NOTES: Dry, Sparse Vegetation		≡	Initial Water Level
		≡	Static Water Level

DEPTH (FEET)	SOIL SYMBOL	USCS: SOIL DESCRIPTION	SAMPLE NUMBER/ INTERVAL	RECOVER/ ADVANCE (inches)	PID (ppm)	WELL DETAIL	WELL DESCRIPTION
0		CL: CLAY - dark reddish brown (2.5 YR 3/3), very stiff, slightly plastic, very silty, trace rootlets, trace caliche, homogenous, slightly damp	One groundwater sample (FW-EMW02) along with a QA and QC sample was collected for laboratory analyses. No soil samples were collected for laboratory analyses.	48/60	0		4 ft x 4 ft aboveground concrete surface completion
-5		CL: CLAY - dark reddish brown (2.5 YR 3/3), very stiff to hard, very slightly plastic, silty, fairly dense, homogenous, slightly damp, trace caliche from 12 to 14 ft bgs, trace coal inclusions		60/60	0		
-10				60/60	0		
-15				60/60	0		
-20		ML: SILT - dark red (2.5 YR 3/6), poorly indurated, broken, clayey laminae, non plastic, weak dry strength, dry, trace of very fine grained sand		60/60	0		Borehole diameter 7 3/4" to 67.5 ft using hollow stem augers
-25		ML: SILT - dark red (2.5 YR 3/6), very stiff to hard, very clayey to slightly sandy in parts, non to very slightly plastic, slightly damp, trace scattered caliche, towards base interbedded with < 1/2-inch thick gray very fine grained sandstone, well cemented, dry, slightly to moderately friable		60/60	0		
-30				60/60	0		
-35		CL: CLAY - red (2.5 YR 4/6), very sandy, less sandy with depth, very stiff to hard, non to very slightly plastic, silty, slightly damp in parts, trace mica crystals		48/60	0		
-40				48/60	0		
-45		CL: CLAY - red (2.5 YR 5/6), some varigated shades of red, hard, non to very slightly plastic, dense, broken, crumbly in parts, silty, trace gray caliche, dry		36/60	0		2" PVC riser with cement/bentonite grout
-50				60/60	0		
-55		CL: CLAY - very stiff to hard, non to very slightly plastic, broken to dense, slightly silty, trace sand, dry		60/60	0		
-60		SC: SAND - gray, hard, very fine grained, well to poorly indurated, interbedded with clays, hard drilling - drill rig is chattering		60/60	0		
-65		ML: SILT - reddish brown (2.5 YR 5/4), dense to brittle, crumbly, fair induration in parts, clayey, trace gray clay inclusion		50/60	0		
-70		ML: SILT - red (2.5 YR 5/8), some varigated colors, dense, blocky to crumbly, gray very fine grained sandstone scattered throughout, dry,			0		Encounter refusal with HSA. Switch to

DEPTH (FEET)	SOIL SYMBOLS	USCS: SOIL DESCRIPTION	SAMPLE NUMBER	ADVANCE/RECOVER (feet)	PID ppm	BORING COMPLETION	WELL DESCRIPTION
-75		hard drilling - drill rig is chattering ML: SILT - reddish brown (2.5 YR 4/4), clayey, trace of fine grained sand, dry					air rotary drilling at 67.5 ft. Borehole diameter 6", 67.5 ft to 120 ft.
-80		ML: SILT - red (2.5 YR 5/6), very clayey, crumbly, dry					Bentonite Seal
-85		CL: CLAY - red (2.5 YR 5/6), silty, very stiff to hard, blocky, dry					
-90		ML: SILT - reddish brown (2.5 YR 4/4), clayey, fair induration, dry					
-95							
-100		CL: CLAY - reddish brown (2.5 YR 5/4), very stiff, broken, silty, moist at 103 ft bgs					0.010" slot 2" diameter PVC screen with 20/40 silica sand filter pack
-105							
-110		ML: SILT - very clayey, slightly plastic, loose, moist					
-115							Slough
-120		Total Depth = 120 feet below ground surface					



PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	Eastern Landfill	DRILLING CO.:	Enviro-Drill
SITE LOCATION:	Fort Wingate Depot Activity	DRILLER:	Matt Cain
JOB NO.:	794A	RIG TYPE:	CME 75
LOGGED BY:	Larry Basilio	METHOD OF DRILLING:	Hollow Stem Auger / Air Rotary
PROJECT MANAGER:	Theresa Thompson	SAMPLING METHODS:	5 ft CME Barrel / Drill Cuttings
DATE DRILLED:	7/19/04 to 7/21/04	TOTAL DEPTH:	100 feet BGS
NOTES: Dry, Sparse Vegetation		≡	Initial Water Level
		≡	Static Water Level

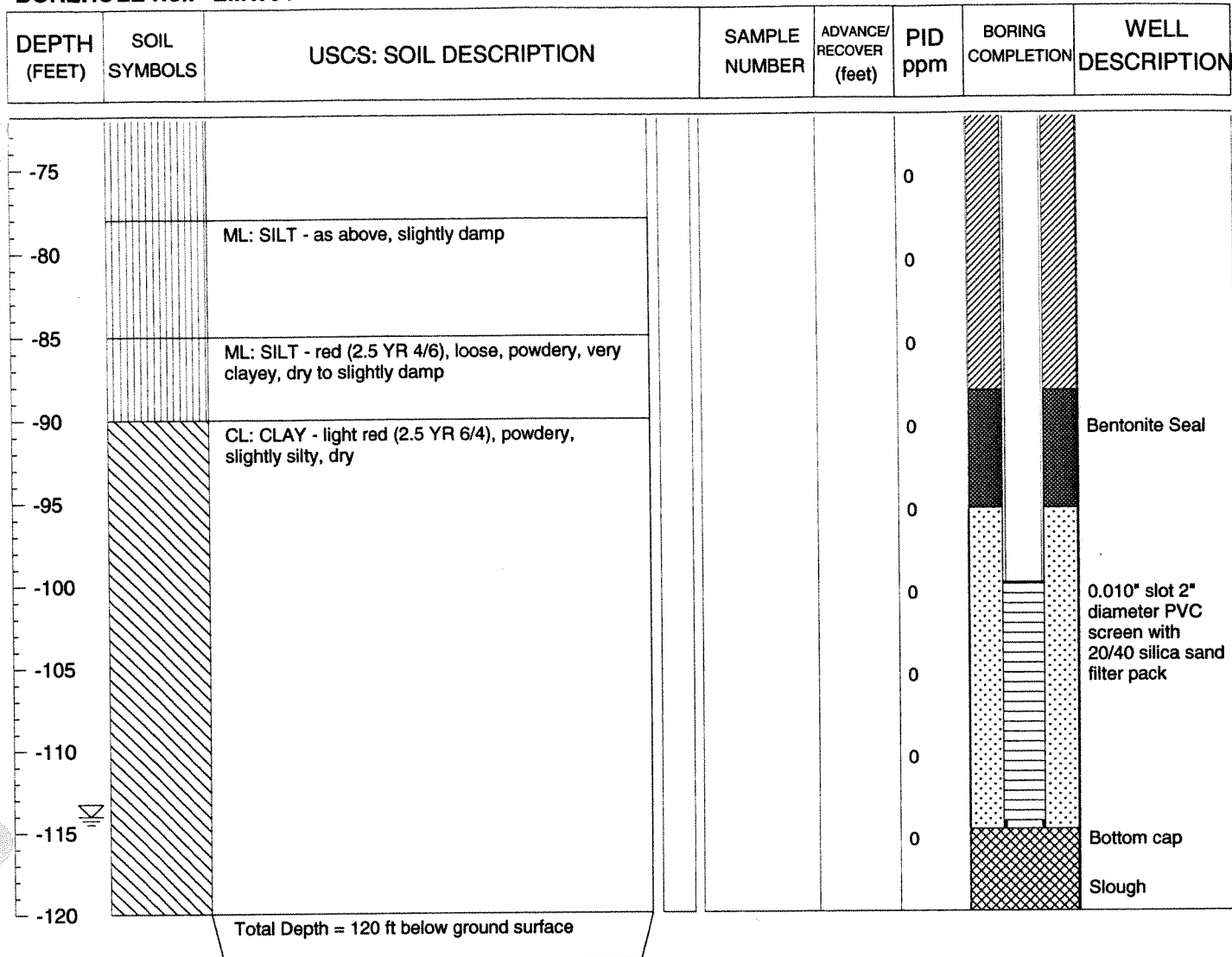
DEPTH (FEET)	SOIL SYMBOL	USCS: SOIL DESCRIPTION	SAMPLE NUMBER/ INTERVAL	RECOVER/ ADVANCE (inches)	PID (ppm)	WELL DETAIL	WELL DESCRIPTION
0		CL: CLAY - silty, very stiff, very slightly plastic, dry, fair dry strength, rootlets present	One groundwater sample (FW-EMW03) was collected for laboratory analyses. No soil samples were collected for laboratory analyses.	48/60	0	Borehole diameter 7 3/4" to 85 ft using hollow stem augers	4 ft x 4 ft aboveground concrete surface completion
-5		ML: SILT - light reddish brown (2.5 YR 6/4), very stiff to hard, non plastic, fair induration, clayey, dry		60/60	0		
-10		CL: CLAY - very stiff to hard, non plastic, silty, broken, abundant soft gray inclusions		60/60	0		
-15		ML: SILT - reddish brown (2.5 YR 5/4), clayey, crumbly, dry, low dry strength		60/60	0		
-20		ML: SILT - reddish brown (2.5 YR 5/4), clayey, crumbly, dry, low dry strength		60/60	0		
-25		ML: SILT - hard, blocky, slightly clayey, laminated with gray sandstone, dry, less sandy with depth		60/60	0		
-30		ML: SILT - hard, blocky, slightly clayey, laminated with gray sandstone, dry, less sandy with depth		60/60	0		
-35		ML: SILT - hard, blocky, slightly clayey, laminated with gray sandstone, dry, less sandy with depth		60/60	0		
-40		CL: CLAY - red (2.5 YR 4/6), silty, hard, non plastic, blocky, very silty in parts		60/60	0		
-45		CL: CLAY - red (2.5 YR 4/6), silty, hard, non plastic, blocky, very silty in parts		60/60	0		
-50		CL: CLAY - red (2.5 YR 4/6), some variegated shades of red, very stiff to hard, non to very slightly plastic, silty, more silty with depth, crumbly, dry	48/60	0	2" PVC riser with cement/bentonite grout		
-55		CL: CLAY - red (2.5 YR 4/6), some variegated shades of red, very stiff to hard, non to very slightly plastic, silty, more silty with depth, crumbly, dry	40/60	0			
-60		ML: SILT - red (2.5 YR 5/6), crumbly, broken, clayey in parts, dry	60/60	0			
-65		ML: SILT - red (2.5 YR 5/6), crumbly, broken, clayey in parts, dry	60/60	0			
-70		ML: SILT - red (2.5 YR 5/6), crumbly, broken, clayey in parts, dry	60/60	0			
-75		ML: SILT - red (2.5 YR 5/6), crumbly, broken, clayey in parts, dry	60/60	0		Bentonite Seal	

DEPTH (FEET)	SOIL SYMBOLS	USCS: SOIL DESCRIPTION	SAMPLE NUMBER	ADVANCE/RECOVER (feet)	PID ppm	BORING COMPLETION	WELL DESCRIPTION
-75		ML: SILT - light reddish brown (2.5 YR 6/4), fair to well indurated in parts, slightly sandy, dry, gray sandy laminae towards base, dry to very slightly damp		60/60			0.010" slot 2" diameter PVC screen with 20/40 silica sand filter pack Encounter refusal with HSA. Switch to air rotary drilling at 85 ft. Borehole diameter 6", 85 ft to 100 ft. Slough
-80		ML: SILT - reddish brown (2.5 YR 4/4), hard, fair to good induration towards base, trace of gray sand, very fine grained, damp		48/60			
-85		ML: SILT - red (2.5 YR 4/8), powdery, clayey, to very slightly sandy, damp		60/60			
-90							
-95							
-100		Total Depth = 100 ft below ground surface					



PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	Eastern Landfill	DRILLING CO.:	Enviro-Drill
SITE LOCATION:	Fort Wingate Depot Activity	DRILLER:	Matt Cain
JOB NO.:	794A	RIG TYPE:	CME 75
LOGGED BY:	Larry Basilio	METHOD OF DRILLING:	Hollow Stem Auger / Air Rotary
PROJECT MANAGER:	Theresa Thompson	SAMPLING METHODS:	5 ft CME Barrel / Drill Cuttings
DATE DRILLED:	7/21/04 to 7/23/04	TOTAL DEPTH:	120 feet bgs
NOTES: Dry, Sparse Vegetation		☞	Initial Water Level
		☞	Static Water Level

DEPTH (FEET)	SOIL SYMBOL	USCS: SOIL DESCRIPTION	SAMPLE NUMBER/ INTERVAL	RECOVER/ ADVANCE (inches)	PID (ppm)	WELL DETAIL	WELL DESCRIPTION
0		ML: SILT - reddish brown (2.5 YR 4/4), very clayey, broken to powdery, dry	No soil or groundwater samples were collected for laboratory analyses.	36/60			4 ft x 4 ft aboveground concrete surface completion
-5		CL: CLAY - reddish brown (2.5 YR 5/4), very hard, non plastic, very silty, well to poorly indurated, blocky in parts, dry, abundant weathered white caliche, abundant soft gray clay inclusions		60/60	0		
-10				60/60	0		
-15		ML: SILT - reddish brown (2.5 YR 4/4), more red (2.5 YR 4/6) with depth, hard, well indurated, clayey, slightly sandy, dry, broken, looser and more powdery with depth, less inclusions		60/60	0		Borehole diameter 7 3/4" to 42 ft using hollow stem augers
-20				60/60	0		
-25		ML: SILT - reddish brown (2.5 YR 4/4), very clayey, fair induration, broken and powdery in parts, dry, trace gray clay inclusions		60/60	0		
-30				60/60	0		
-35		ML: SILT - red (2.5 YR 4/6), very clayey, increased clay content with depth, broken to crumbly, hard in parts, dry, trace gray clay inclusions		60/60	0		2" PVC riser with cement/bentonite grout
-40		CL: CLAY - red (2.5 YR 5/6), hard, non to slightly plastic in parts, blocky to crumbly, dry		60/60	0		
-45		CL: CLAY - reddish brown (2.5 YR 5/4), hard, broken, blocky, silty to very silty in parts, fair to well indurated, dry		60/60	0		
-50		ML: SILT - reddish brown (2.5 YR 5/4), hard, blocky, clayey, slightly sandy, well indurated, dry		24/24	0		Encounter refusal with HSA. Switch to air rotary drilling at 42 ft. Borehole diameter 6", 42 ft to 120 ft
-55		ML: SILT - red (2.5 YR 5/6), clayey, powdery, dry			0		
-60					0		
-65		ML: SILT - light red (2.5 YR 6/6), crumbly to powdery, dry			0		
-70					0		



WELL CONSTRUCTION DIAGRAMS

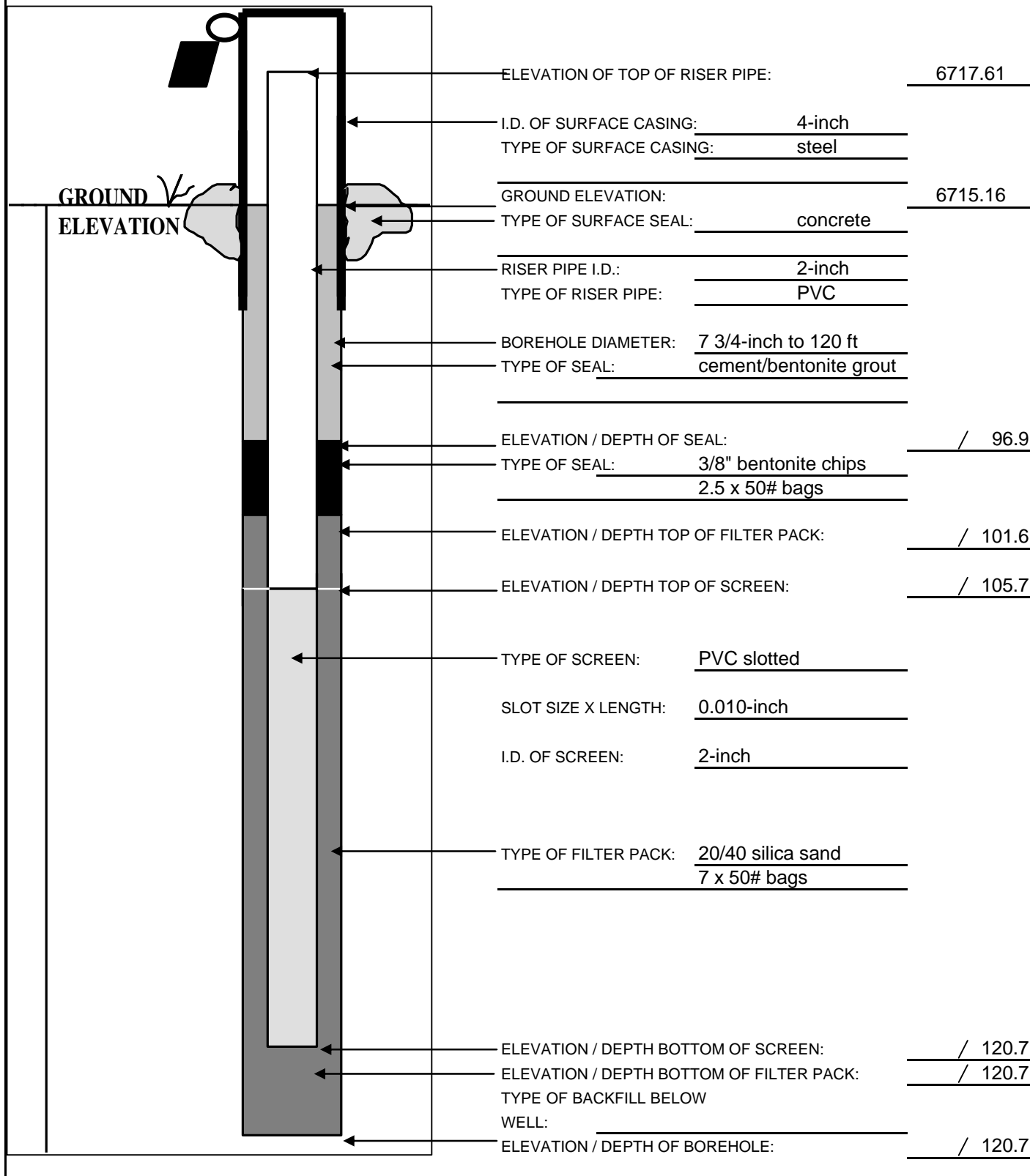


Tetra Tech NUS, Inc.
Houston, Texas

BORING NO.: EMW01

MONITORING WELL CONSTRUCTION SHEET

PROJECT:	<u>Eastern Landfill</u>	DRILLING Co.:	<u>EnviroDrill</u>	BORING No.:	<u>EMW01</u>
PROJECT No.:	<u>N7551 - 794A</u>	DRILLER:	<u>M. Cain</u>	DATE COMPLETED:	<u>7/14/2004</u>
SITE:	<u>Fort Wingate, NM</u>	DRILLING METHOD:	<u>HS</u>	NORTHING:	<u>1643653.28</u>
GEOLOGIST:	<u>L. Basilio</u>	DEV. METHOD:	<u>NA</u>	EASTING:	<u>2502047.57</u>



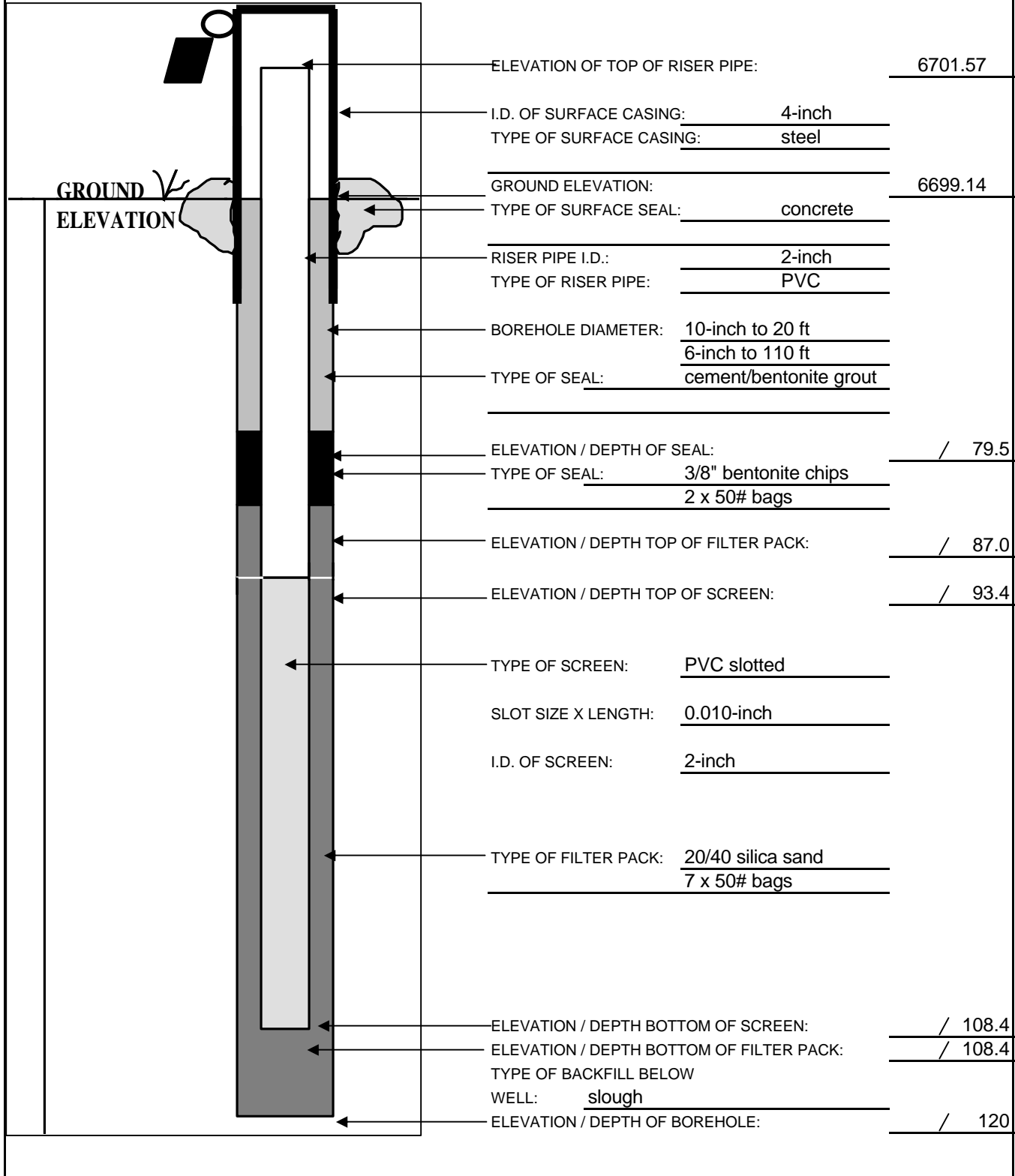


Tetra Tech NUS, Inc.
Houston, Texas

BORING NO.: EMW02

MONITORING WELL CONSTRUCTION SHEET

PROJECT:	<u>Eastern Landfill</u>	DRILLING Co.:	<u>EnviroDrill</u>	BORING No.:	<u>EMW02</u>
PROJECT No.:	<u>N7551 - 794A</u>	DRILLER:	<u>M. Cain</u>	DATE COMPLETED:	<u>7/19/2004</u>
SITE:	<u>Fort Wingate, NM</u>	DRILLING METHOD:	<u>HS/AR</u>	NORTHING:	<u>1643388.64</u>
GEOLOGIST:	<u>L. Basilio</u>	DEV. METHOD:	<u>Pump</u>	EASTING:	<u>2502478.93</u>



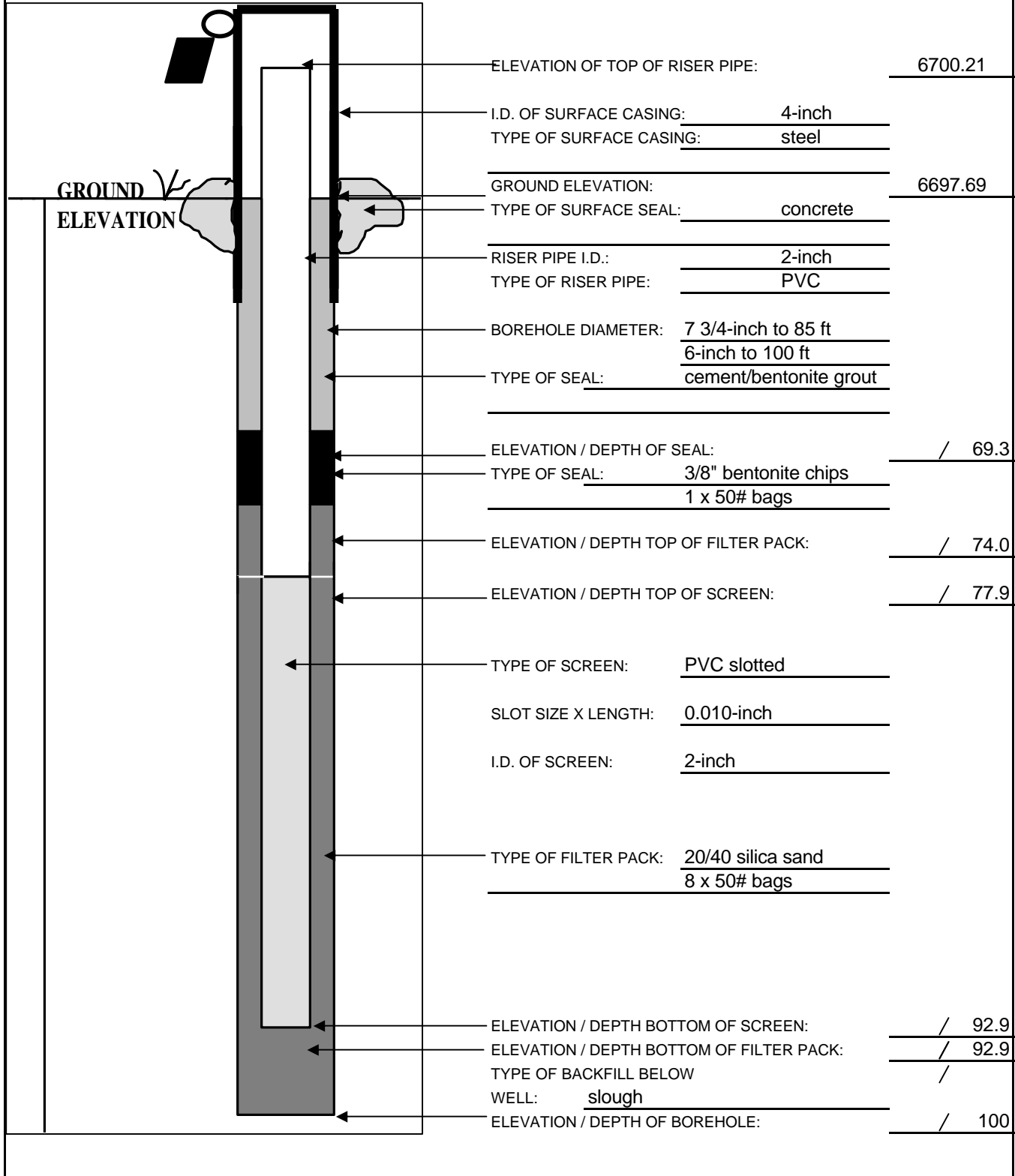


Tetra Tech NUS, Inc.
Houston, Texas

BORING NO.: EMW03

MONITORING WELL CONSTRUCTION SHEET

PROJECT:	<u>Eastern Landfill</u>	DRILLING Co.:	<u>EnviroDrill</u>	BORING No.:	<u>EMW03</u>
PROJECT No.:	<u>N7551 - 794A</u>	DRILLER:	<u>M. Cain</u>	DATE COMPLETED:	<u>7/21/2004</u>
SITE:	<u>Fort Wingate, NM</u>	DRILLING METHOD:	<u>HS/AR</u>	NORTHING:	<u>1643684.94</u>
GEOLOGIST:	<u>L. Basilio</u>	DEV. METHOD:	<u>Pump</u>	EASTING:	<u>2502802.90</u>



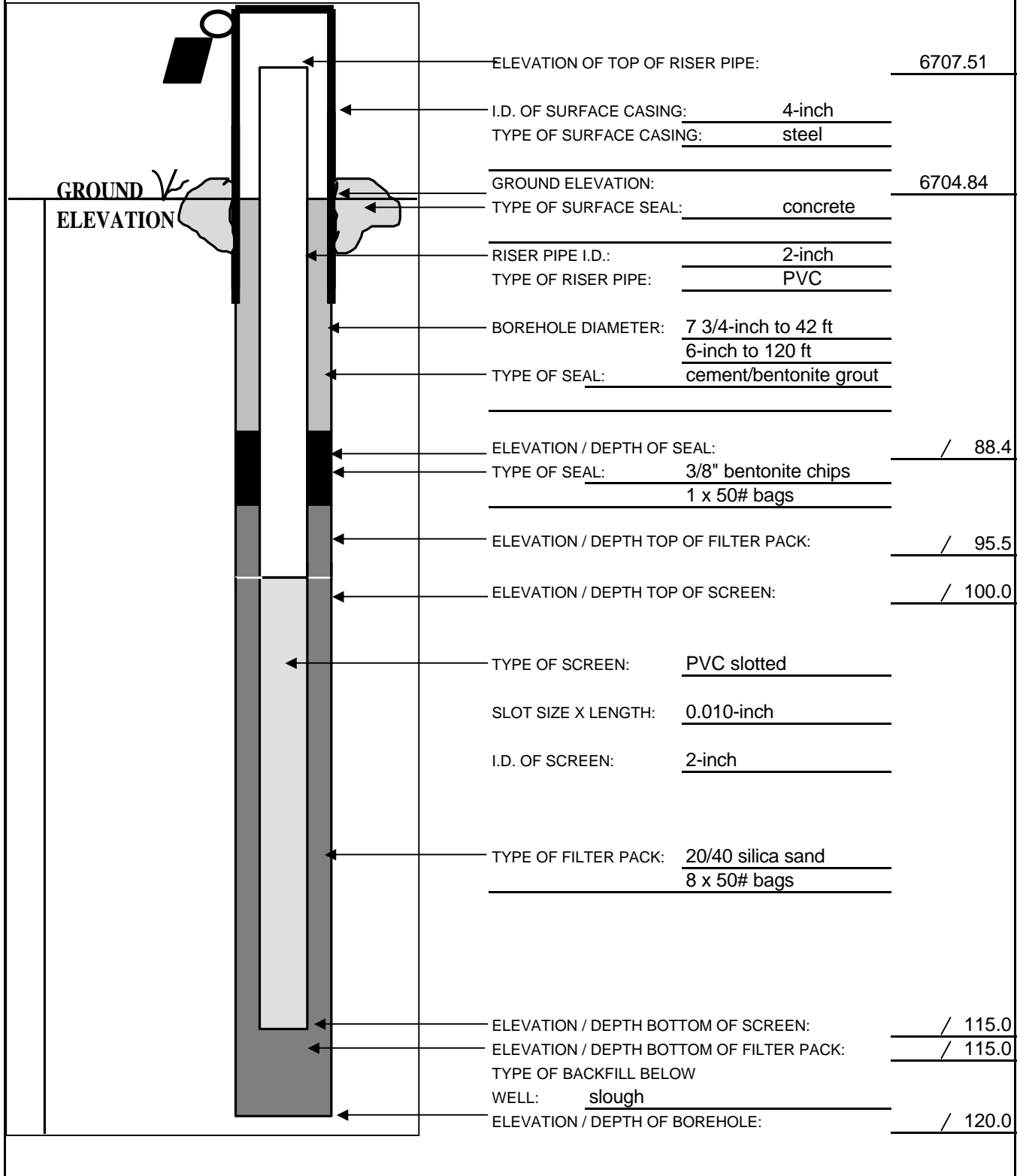


Tetra Tech NUS, Inc.
Houston, Texas

BORING NO.: EMW04

MONITORING WELL CONSTRUCTION SHEET

PROJECT:	<u>Eastern Landfill</u>	DRILLING Co.:	<u>EnviroDrill</u>	BORING No.:	<u>EMW04</u>
PROJECT No.:	<u>N7551 - 794A</u>	DRILLER:	<u>M. Cain</u>	DATE COMPLETED:	<u>7/23/2004</u>
SITE:	<u>Fort Wingate, NM</u>	DRILLING METHOD:	<u>HS/AR</u>	NORTHING:	<u>1643812.62</u>
GEOLOGIST:	<u>L. Basilio</u>	DEV. METHOD:	<u>Pump</u>	EASTING:	<u>2502421.78</u>



MONITOR WELL DEVELOPMENT FORMS



Tetra Tech NUS, Inc.
Houston, Texas

MONITORING WELL DEVELOPMENT RECORD

Well: EMW02
Site: Eastern Landfill
Date Installed: 07/19/04
Date Developed: 7/26-27/04
Dev. Method: Summersible Pump
Pump Type: Grundfos MP1

Depth to Bottom (ft.): 108.4
Static Water Level Before (ft.): 35.55
Static Water Level After (ft.): Pumped dry
Screen Length (ft.): 15 ft, 93 ft to 108 ft
Casing ID (in.): 2
Casing Type: PVC

Responsible Personnel: L. Basilio
Drilling Co.: EnviroDrill
Project Name: Fort Wingate Depot Activity - Eastern Landfill
Project Number: N7551-794A

Date/Time	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential	Remarks
7-26/1319	0.0	23.55	--	--	--	--	--	--	water level at 23.55 w/pump inserted
1323	1.5	--	16.99	12.33	9.07	999	8.86	-40	
1327	3.5	65.50	16.21	12.23	8.60	130	9.00	-40	
1331	7.0	(1)	16.43	12.30	9.29	150	8.32	-81	water is slightly cloudy
1335	9.0	(1)	15.72	12.37	9.72	347	8.82	-87	water is brownish color
1339	12.0	(1)	16.94	12.30	9.02	711	7.70	-90	water is cloudy
1345	15.0	(1)	17.90	12.06	7.28	656	7.89	-92	
1347	16.0	(1)	--	--	--	--	--	--	well is pumped dry
1443	16.2	98.00	--	--	--	--	--	--	well is pumped dry
7-27/1317	--	73.80	--	--	--	--	--	--	well recovers overnight
1320	17.2	(1)	17.44	10.50	5.40	107	11.19	119	
1322	21.2	(1)	13.94	12.00	7.56	356	10.18	32	water is tan and cloudy
1325	24.2	(1)	14.10	12.18	8.26	477	9.72	-18	well is pumped dry

1. Water level meter became entangled with lines for summersible pump and was unable to be lowered in the well.



Tetra Tech NUS, Inc.
Houston, Texas

MONITORING WELL DEVELOPMENT RECORD

Well: EMW03
Site: Eastern Landfill
Date Installed: 07/19/04
Date Developed: 7/26-27/04
Dev. Method: Sumpersible Pump
Pump Type: Grundfos MP1

Depth to Bottom (ft.): 92.9
Static Water Level Before (ft.): 36.30
Static Water Level After (ft.): Pumped dry
Screen Length (ft.): 15 ft, 78 ft to 93 ft
Casing ID (in.): 2
Casing Type: PVC

Responsible Personnel: L. Basilio
Drilling Co.: EnviroDrill
Project Name: Fort Wingate Depot Activity - Eastern Landfill
Project Number: N7551-794A

Date/Time	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential	Remarks
7-26/1000	0.0	35.70	--	--	--	--	--	--	
1004	5.0	74.90	15.31	11.64	6.70	129	13.27	22	water is cloudy, no odor
1017	15.0	82.40	16.29	11.98	6.80	162	12.04	-13	
1026	17.0	84.40	17.48	11.85	6.84	999	9.60	-55	
1035	--	--	--	--	--	--	--	--	well is pumped dry
1057	18.0	(1)	18.26	11.75	6.71	999	9.26	14	water is brown and silty
1219	18.7	(1)	16.85	11.89	6.85	999	9.63	12	water is brown and silty
1225		83.70	--	--	--	--	--	--	well is pumped dry
7-27/1355	--	59.40	--	--	--	--	--	--	well recovers overnight
1401	20.0	(1)	15.53	11.98	7.67	207	9.08	9	well is pumped dry
1403	23	(1)	14.51	11.98	7.54	188	9.65	-22	water is cloudy
1407	25	(1)	15.12	12.21	7.78	72	9.76	-37	water is slightly cloudy
1413	27	(1)	16.10	12.12	7.30	100	9.68	-54	no odor
1418	31	(1)	16.56	11.88	5.04	311	9.13	-65	water has red tint, slightly cloudy
1421	--	--	--	--	--	--	--	--	well is pumped dry

1. Water level meter became entangled with lines for sumpersible pump and was unable to be lowered in the well.

GROUNDWATER SAMPLE LOG SHEETS



GROUNDWATER SAMPLE LOG SHEET

Project Site Name:	<u>Eastern Landfill - Fort Wingate Depot Activity</u>	Sample ID No.:	<u>FW-EMW02</u>
Project No.:	<u>N7551-794A</u>	Sample Location:	<u>EMW02</u>
<input type="checkbox"/> Domestic Well Data		Sampled By:	<u>Basilio</u>
<input checked="" type="checkbox"/> Monitoring Well Data		C.O.C. No.:	_____
<input type="checkbox"/> Other Well Type:	_____	Type of Sample:	<input checked="" type="checkbox"/> Low Concentration
<input type="checkbox"/> QA Sample Type:	_____		<input type="checkbox"/> High Concentration

SAMPLING DATA:

Date:	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	TBD
<u>7/28/2004</u>	<u>Visual</u>	<u>Standard</u>	<u>mS/cm</u>	<u>°C</u>	<u>NTU</u>	<u>mg/l</u>	<u>-83</u>	
Time: <u>1100</u>	Method: <u>Low flow bladder</u>	<u>clear</u>	<u>11.69</u>	<u>6.99</u>	<u>17.97</u>	<u>177</u>	<u>12.72</u>	

PURGE DATA:

Date:	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
<u>7/28/2004</u>								
Method: <u>Low flow bladder</u>								
Monitor Reading (ppm): <u>0</u>								
Well Casing Diameter & Material Type: <u>2-inch PVC</u>								
Total Well Depth (TD): <u>110.83</u>								
Static Water Level (WL): <u>80.56</u>								

N/A

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Appendix IX VOCs plus MTBE (8260)			
Appendix IX SVOC (8270)			
Appendix IX Pesticides (8081/8141)			
Appendix IX PCBs (8082)			
Appendix IX Herbicides (8151)			
Appendix IX Dioxins (8280)			
Appendix IX Metals Totals/Dissolved (6000/7000)			
Anions (300.0)			
Cyanide (9012)			
Expanded List Explosives (8330 Mod.)			
Nitrite/Nitrate (353.2)			
pH (150.1)			
Sulfide (376.1)			
Total Dissolved Solids (160.1)			

OBSERVATIONS / NOTES:

1000 - begin pumping using bladder pump. Pump 1 liter to clear tubing prior to beginning sample collection. The well was pumped dry during well development activities. Groundwater sampling commenced immediately after the initial 1 liter purge.

Initial static water level - 80.56 ft TOC

1026 - water level - 82.80 ft TOC; flow rate - 150 ml/min

1120 - water level - 89.10 ft TOC, flow rate - 140 ml/min

1144 - water level - 91.45 ft TOC, flow rate - 125 ml/min

1215 - water level - 94.90 ft TOC, complete sample collection; measure water quality parameters;

water is clear, slightly cloudy, no odor

Circle if Applicable:		Signature(s):
<input type="checkbox"/> MS/MSD	<input type="checkbox"/> Duplicate ID No.:	



GROUNDWATER SAMPLE LOG SHEET

Project Site Name:	Eastern Landfill - Fort Wingate Depot Activity	Sample ID No.:	FW-EMW03
Project No.:	N7551-794A	Sample Location:	EMW03
<input type="checkbox"/> Domestic Well Data		Sampled By:	Basilio
<input checked="" type="checkbox"/> Monitoring Well Data		C.O.C. No.:	
<input type="checkbox"/> Other Well Type:		Type of Sample:	<input checked="" type="checkbox"/> Low Concentration
<input type="checkbox"/> QA Sample Type:			<input type="checkbox"/> High Concentration

SAMPLING DATA:									
Date:	7/29/2004	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	TBD
Time:	800	Visual	Standard	mS/cm	°C	NTU	mg/l		
Method:	Low flow bladder	clear	11.41	6.01	15.39	8.6	6.9	-18	

PURGE DATA:									
Date:	7/29/2004	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
Method:	Low flow bladder								
Monitor Reading (ppm):	0								
Well Casing Diameter & Material		N/A							
Type:	2-inch PVC								
Total Well Depth (TD):	95.45								
Static Water Level (WL):	53.65 ft								

SAMPLE COLLECTION INFORMATION:			
Analysis	Preservative	Container Requirements	Collected
Appendix IX VOCs plus MTBE (8260)			
Appendix IX SVOC (8270)			
Appendix IX Pesticides (8081/8141)			
Appendix IX PCBs (8082)			
Appendix IX Herbicides (8151)			
Appendix IX Dioxins (8280)			
Appendix IX Metals Totals/Dissolved (6000/7000)			
Anions (300.0)			
Cyanide (9012)			
Expanded List Explosives (8330 Mod.)			
Nitrite/Nitrate (353.2)			
pH (150.1)			
Sulfide (376.1)			
Total Dissolved Solids (160.1)			

OBSERVATIONS / NOTES:

0750 - begin pumping using bladder pump. Pump 750 ml to clear tubing prior to beginning sample collection. The well was pumped dry during well development activities. Groundwater sampling commenced immediately after the initial 750 ml purge.

Initial static water level - 53.65 ft TOC

0804 - water level - 54.44 ft TOC; flow rate - 175 ml/min

0855 - water level - 56.40 ft TOC, flow rate - 175 ml/min

0946 - water level - 67.45 ft TOC, flow rate - 175 ml/min

1036 - water level - 71.05 ft TOC, flow rate - 175 ml/min

1100 - water level - 74.00 ft TOC, flow rate - 200 ml/min

1205 - water level - 82.75 ft TOC, flow rate - 200 ml/min

1307 - water level - 86.85 ft TOC, flow rate - 160 ml/min

1445 - water level - 88.05 ft TOC, complete sample collection; measure water quality parameters;

water is clear, no odor

Circle if Applicable:		Signature(s):
<input type="checkbox"/> MS/MSD	<input type="checkbox"/> Duplicate/Triplicate ID No.: Duplicate - FW-EMW03-FDUP Triplicate - FW-EMW03-FTRP	

TBD: To Be Determined

APPENDIX B

CHRONOLOGY OF FIELD EVENTS

APPENDIX B

CHRONOLOGY OF FIELD EVENTS Eastern Landfill, Fort Wingate Depot Activity, Gallup, New Mexico

- 12 JUL 04 L. Basilio and J. Robertson (TtNUS) arrived at site. Met with Duke Davis (FWDA Caretaker) and Steve Deeter (PMC) to discuss field program and site activities. Met with Mike Sisk (TPL) to coordinate access into TPL controlled areas. Surveyor (ASTS, Inc.) arrived to stake proposed boring locations. IDW contractor (Rinchem, Inc.) delivered roll-off bin for solid IDW and plastic totes for liquid IDW. Drilling contractor (Enviro-Drill) arrived at site. Health and safety briefing was conducted for drillers and field personnel. Driller sets up decontamination pad and equipment staging area. The drilling rig and equipment were decontaminated. Set up at soil boring location EMW01.
- 13 JUL 04 Soil boring EMW01 drilled to 115 ft bgs using hollow stem augers.
- 14 JUL 04 Resumed drilling soil boring EMW01 with hollow stem augers to 120 ft bgs. Installed monitor well, 2-inch PVC with 15 feet of screen, into the soil boring. Added filter pack and bentonite seal. The bearing seals on drill rig drive shaft required repair. Shutdown operations as driller had to go into town for parts repair.
- 15 JUL 04 Set up at soil boring location EMW02. Soil boring EMW02 drilled to refusal at 67.5 ft bgs using hollow stem augers. The drilling rig was reconfigured for air rotary drilling. At 1330 hrs, lightning was spotted in the area. Drilling operations were suspended for the remainder of the day due to weather.
- 16 JUL 04 Resumed drilling soil boring EMW02. Soil boring EMW02 was drilled to 120 ft bgs using air rotary technique. Installed monitor well, 2-inch PVC with 15 feet of screen, into the soil boring. During construction of the monitor well, immediately after the placement of the bentonite chips into the annulus, a petroleum odor was noticed emanating from the borehole. The source of the petroleum odor was traced to the bentonite chips. It was discovered that a loose connection on a gasoline container located on the driller's work truck had allowed gasoline to spill on to one of the bags of bentonite chips stored on the work truck. Upon discovering this, the just installed well was immediately pulled from the borehole, the bentonite and sand pack were drilled out and the hole was then overdrilled with hollow stem augers to a

total depth of 120 ft bgs. The hole was then plugged and abandoned with a cement/bentonite grout.

- 19 JUL 04 Moved location of soil boring EMW02 approximately 19 feet to east. Redrilled soil boring EMW02 to a total depth of 110 ft bgs using air rotary drilling technique. Installed monitor well, 2-inch PVC with 15 feet of screen, into the soil boring. Added filter pack and bentonite seal. Set up drill rig at soil boring location EMW03. Soil boring EMW03 was drilled to 10 ft bgs using hollow stem augers.
- 20 JUL 04 Resumed drilling soil boring EMW03. At 75 ft bgs the CME sampler unscrewed from the drill rods. The driller had to fish the sampler out of the hole. Soil boring EMW03 was drilled to refusal at 85 ft bgs using hollow stem augers. The drilling rig was reconfigured for air rotary drilling.
- 21 JUL 04 Resumed drilling soil boring EMW03 with air rotary technique. Soil boring EMW03 was drilled to 100 ft bgs. Installed monitor well, 2-inch PVC with 15 feet of screen, into the soil boring. Added filter pack and bentonite seal. Set drill rig up at soil boring location EMW04. Soil boring EMW04 drilled to refusal at 42 ft bgs with hollow stem augers. Completed well construction at EMW02 by grouting annulus.
- 22 JUL 04 Completed well construction at monitor wells EMW02 and EMW03 by grouting annulus. Configure drilling rig air rotary drilling. Collected field blank FW-EMW04-FBLK01, a water sample from the drill rig holding tank. Sample was delivered to FEDEX for overnight delivery to Severn Trent Laboratories.
- 23 JUL 04 Resumed drilling soil boring EMW04 with air rotary techniques. Soil boring EMW04 was drilled to total depth of 120 ft bgs. Installed monitor well, 2-inch PVC with 15 feet of screen, into the soil boring. Added filter pack and bentonite seal. Collected field blank FW-EMW04-FBLK02, a water sample from the designated FWDA standpipe. Collected a soil IDW composite sample from the roll-off bin, IDW-SOIL. Samples were delivered to FEDEX for overnight delivery to Severn Trent Laboratories.
- 26 JUL 04 Developed monitor wells EMW02 and EMW03. The wells were pumped dry and TtNUS informed USACE. USACE instructed TtNUS to develop wells as best as possible under circumstances and to complete all soil borings as permanent monitor wells.

27 JUL 04 Completed well construction at monitor wells EMW01 and EMW04 by grouting annulus. Developed monitor wells EMW02 and EMW03. Both wells were pumped dry again. Drill set surface pads and posts.

28 JUL 04 Collected rinsate blank FW-EMW02-RNSW. Collected groundwater sample from monitor well EMW02 using a bladder pump. Collected sample FW-EMW02. Collected composite sample of IDW liquids, IDW-WATER. Continued setting surface pads and posts. Driller demobilized from site. Samples were delivered to FEDEX for overnight delivery to Severn Trent Laboratories.

29 JUL 04 Collected groundwater sample from monitor well EMW03 using a bladder pump. Collected sample FW-EMW03, FW-EMW03-FDUP (duplicate sample), and FW-EMW03-FTRP (triplicate sample). Surveyor was onsite to measure horizontal and vertical coordinates of monitor well locations. Samples were delivered to FEDEX for overnight delivery to Severn Trent Laboratories. Triplicate water sample shipped to Datchem Laboratory by overnight carrier.

30 JUL 04 Conducted slug testing of monitor wells EMW02 and EMW03. Collected water level measurements from nine existing FWDA monitor wells.

02 AUG 04 Measured water levels in newly installed monitor wells. Begin to demobilize from site.

03 AUG 04 Measured water levels in newly installed monitor wells. IDW contractor (Rinchem) picked up roll-off bin and plastic totes. TtNUS demobilizes and leaves site. Field activities completed.

APPENDIX C

INVESTIGATION-DERIVED WASTE DISPOSAL MANIFESTS

SPECIAL WASTE SHIPMENT RECORD

BIN # 104051

Rio Rancho Sanitary Landfill

Shipment # 35779

Mailing Address: P.O. Box 15700
 Rio Rancho, NM 87174
 505/892-2055

Physical Address: 33rd St. & Northern Blvd.
 Rio Rancho, NM 87144
 SWM #231402

Profile # CI 0834

1. Generator's work site name and address Rinchem Company, Inc 5133 Edith Blvd NE Albuquerque NM 87107		
2. Generator's name and address Rinchem Company, Inc 5133 Edith Blvd NE Albuquerque, NM 87107		Generator's Telephone no.
3. Authorized Agent's name and mailing address (if different from #2) Rinchem Company, Inc 5133 Edith Blvd NE Albuquerque, NM 87107		Agent's Telephone no.
4. Proper name and type of waste TRM < 1000 PPM NON DOT NON RCRA REGULATED (SOIL CONTAMINATED WITH OIL) Soil from Drilling	5. Containers No. Type 1 CM Roll-off	6. Total quantity (yd3) (tons) 15 00 YD
7. Special handling instructions:		
8. GENERATOR'S OR AUTHORIZED AGENT'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway in accordance with applicable international and government regulations. I hereby certify that the above named material does not contain free liquid as defined by 40CFR Part 258.28 and is not a hazardous waste as defined by 40CFR 261 or any applicable state law.		
Generator's or Authorized Agent's printed/typed name Kenneth Sanchez	Signature <i>[Signature]</i>	Month / Day / Year 10 / 14 / 04
9. Transporter 1 (Acknowledgement of receipt of materials)		
Printed/typed name, address, telephone no. Rinchem Company, Inc 5133 Edith Blvd NE Albuquerque, NM 87107	Signature <i>[Signature]</i>	Month / Day / Year 10 / 15 / 04
10. Transporter 2 (Acknowledgement of receipt of materials)		
Printed/typed name, address, telephone no.	Signature	Month / Day / Year
11. Discrepancy indication space		
12. Waste disposal site location coordinates N 35° 16.22' E W 106° 39.977 E 0575		
Received By (printed/typed name): Carmie Hickman	Signature <i>[Signature]</i>	Month / Day / Year 11 / 15 / 04



City of Albuquerque

PUBLIC WORKS DEPARTMENT
WATER SUPPLY AND WASTEWATER UTILITIES GROUP
WASTEWATER UTILITY DIVISION
4201 SECOND ST., S.W., ALBUQUERQUE, NEW MEXICO 87105 (505) 873-6200



DISPOSAL TRIP MANIFEST

014000

WASTE PRODUCER

PRODUCER'S NAME RINCHM PHONE _____

ADDRESS 6133 EDITH RD

CITY ALB STATE NM ZIP _____

RESPON PERSON X DATE 8/25/04

WASTE TRANSPORTER

TRUCK DRIVER'S SIGNATURE [Signature]

DATE 8/25/04 PERMIT NO. 4028

REASON FOR DISAPPROVAL OF WASTE FOR DISCHARGE TO SEPTIC TANK MANHOLE

DISAPPROVED BY _____ DATE / /
COMPANY NAME _____ IF OTHER THAN PRODUCER PHONE _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____
RESPON PERSON X

DISPOSAL SITE DATE STAMP _____ HAULER'S BILLING INFORMATION _____

INVOICE NUMBER	INVOICE DATE	INVOICE AMOUNT

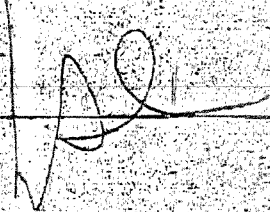
Each person signing certifies that the information is correct. The Industrial Waste Section reserves the right to file legal action against the permittee and/or the producer for falsification of information or knowingly discharging unacceptable waste into the sewerage system.
PRODUCER COPY

A&W MARKETING SERVICE
(505) 886-3383

NO# 39779

"I certify that the waste I delivered to this facility on this date does not contain any regulated hazardous, toxic, radioactive wastes or substances, or other non-allowable wastes. I also agree to remove any non-allowable wastes I bring to this facility, or pay all costs for proper removal of such wastes, upon request from this facility."

DRIVER: PLEASE SIGN HERE



RIO RANCHO SANITARY LANDFILL
 PO BOX 15700
 RIO RANCHO, NM 87174

219321

TRUCK #	DRIVER	ARRIVAL TIME	DEPARTURE TIME	DATE
RIN1	ANNIE ANNIE	13:36:00	13:36:25	10/15/2004

CUSTOMER: RIN / RINCHEM COMPANY
 MASH#: 0000023
 ORIGIN: /
 LICENSE: RINCHEM P.O.: GELL A NORTH
 GENERATOR: RIN / RINCHEM COMPANY
 PROFILE #: CI-0034
 MANIFEST: 35779

GROSS: 0 LBS
 TARE: 27680 LBS
 NET: 0 LBS



WASTE MANAGEMENT

MATERIAL DESCRIPTION	QUANTITY	UNIT	TAXES	TOTAL
946 / CUBIC YARD CONTAINER	15.00	Y		
FUELSUR / FUEL SURCHARGE	1,500.00	Y		
			Taxes Total	

Shipping Report



Manifest #: Ship Date: Person Shipping:
 TSD#:

DOT Shipping Name	Container	Volume	Weight	Generator	Receiving Manifest #	Cell	Bar code
NR-15CY SOIL FROM DRILLING	TI	15 Cubic Yr	15000 Pounds	TETRA TECH EM FORT WING	040308	EYARD	17665

8/9/2004

APPENDIX D

DATA VALIDATION REPORT

DATA USABILITY SUMMARY

Groundwater Investigation Fort Wingate Depot Activity (FWDA) Gallup, New Mexico.

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DATA USABILITY SUMMARY

Groundwater Investigation - Eastern Landfill Fort Wingate Depot Activity, Gallup, New Mexico

ACRONYMS AND ABBREVIATIONS

BS	Blank spike
BSD	Blank spike duplicate
CCV	Continuing calibration verification
%D	Percent difference
DQO	Data quality objective
EPA	Environmental Protection Agency
FWDA	Fort Wingate Depot Activity
GC	Gas Chromatography
HPLC	High performance laboratory chromatography
ICP	Inductively Coupled Plasma
IDW	Investigation-derived waste
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MB	Method Blank
MDL	Method Detection Limit
mg/L	milligrams per unit liter
mL	milliliters
MQL	Method quantitation limit
MS	Mass spectrometry
MS/MSD	Matrix spike/matrix spike duplicate
PCB	Polychlorinated biphenyl
PDA	Photo diode array
pg/L	Picograms per liter
PSD	Post digestion spike
QA/QC	Quality Assurance/Quality Control
%R	Percent recovery
RCI	Reactivity, Corrosivity, Ignitability
RL	Reporting Limit
RPD	Relative Percent Difference
SDG	Sample Delivery Group
SQL	Sample Quantitation Limit
STL	Severn Trent Laboratories
SVOC	Semivolatile organic compound
TtNUS	Tetra Tech NUS, Inc.
ug/L	micrograms per liter
USACE	U.S. Army Corps of Engineers
VOCs	Volatile Organic Compounds

1.0 EXECUTIVE SUMMARY

Eight (8) water samples (including two investigation water samples, one investigation-derived waste [IDW] sample, one quality control (QC) sample, one quality assurance (QA) sample, two field blanks and one equipment blank) and one soil sample were collected from July 22 to July 29, 2004, by Tetra Tech NUS, Inc. (TtNUS) for the Groundwater Investigation of the Eastern Landfill at the Fort Wingate Depot Activity (FWDA), Gallup, New Mexico.

The analytical results and the associated QC data were received and reviewed in accordance with “USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review” and “USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review”. The validation was conducted based on the United States Environmental Protection Agency (USEPA) Functional Guidelines for Level III data package deliverables. The data were evaluated based on accuracy, precision, representativeness, completeness and sensitivity.

Chain-of-Custody Forms, Cooler Receipt Forms, and data sheets including the quality control package were complete and contained the required information.

One QA water sample was sent to the U.S. Army Corps of Engineers (USACE) certified laboratory (DataChem Laboratories) for analysis. This data review also includes a discussion of the QA sample results.

Overall, the data meet the general requirements of the approved work plan (January 2004) for the site and should be considered valid and acceptable.

2.0 INTRODUCTION

This data validation report represents a comprehensive data quality assessment of analytical data generated by TtNUS as part of the Groundwater Investigation of the Eastern Landfill at FWDA, Gallup, New Mexico. The environmental samples collected at the site from July 22 to July 29, 2004 were analyzed by Severn Trent Laboratories (STL).

2.1 Testing Laboratory Identification Numbers

The analytical results of the Groundwater Investigation sampling events were reported and assigned a Sample Delivery Group (SDG) for each event.

2.2 Number of Samples Tested by Medium

Eight (8) water samples (including two investigation water samples, one IDW sample, one QC sample, one QA sample, two field blanks and one equipment blank) were collected. Additionally, one soil sample from IDW (IDW-Soils) was collected. These samples were analyzed by STL.

One QA water sample (FW-EMW03-FTRP) was sent to the USACE certified laboratory (DataChem Laboratories) for analysis. This data review also includes a discussion of the QA sample results in Section 6.0.

2.3 Analytical Methods Used

The water and soil samples were analyzed by STL in accordance with federal guidance documents which establish definitive analytical/technical elements, i.e., Environmental Protection Agency (EPA) SW-846 Methods and other EPA methods. The following analytical methods were used:

- Method 6010B Inductively Coupled Plasma Atomic Emission Spectroscopy (Trace ICP) or Method 6020A (ICP/Mass Spectrometry (MS)) for metals in total and dissolved fractions;
- Method 7470A/7471A cold vapor for mercury in total and dissolved fractions;
- Method 8260B for volatile organics;
- Method 8270C for semi-volatile organics;
- Method 8151A for herbicides;
- Method 8081A for pesticides;
- Method 8141 for organophosphorus pesticides;
- Method 8082 for polychlorinated biphenyls (PCBs);
- Method 8082 for PCB congeners;
- Method 8290 for Dioxins/Furans;
- Method 8330 for explosives; and
- Wet Chemistry: pH (EPA 150.1); Total Dissolved (TDS, EPA 160.1); chloride, fluoride, sulfate, and nitrate as nitrogen (NO₃-N, EPA 300); nitrite as nitrogen (NO₂-N, EPA 353.2); sulfide (EPA 376.1); and Cyanide (SW846, 9012A).

3.0 OBJECTIVES

Data Quality Objectives (DQOs) are qualitative and quantitative statements that specify the quality of data required to support decisions made during the investigative activities of a project. The objective of this data validation is to review laboratory analytical procedures and quality control results to verify the usability of data toward meeting project DQOs as provided in the USACE approved “Work Plans” dated January 2004.

Data collected as part of the Groundwater Investigation at Fort Wingate Depot Activity, Gallup, New Mexico will be used to determine if metals, volatile organics, semivolatile organics, herbicides, pesticides, PCBs and PCB congeners, dioxins/furans, and explosives have been released to the groundwater.

DQOs define the methods to be used in site activities and were developed to ensure the following:

- Precision and accuracy of data are well defined and adequate to provide defensible data.
- Samples are collected using approved techniques and are representative of existing environmental conditions.
- QA/QC procedures for both field and laboratory procedures meet the USACE’s guidance document requirements.

4.0 DATA REVIEW / VALIDATION RESULTS

The validation procedures used for this report are based on “USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review” and “USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review”. The validation was conducted based on Level III data package deliverables. The data are evaluated based on accuracy, precision, representativeness, completeness, and sensitivity.

Level III data deliverables were composed of the following:

- Original Chain of Custody for referencing field identification and laboratory identification for each sample, and dates for sample collection, receiving, and tests required;
- Case narrative discussing any anomalies encountered in the handling and analysis of the samples;
- List of sample quantitation or reporting limit for each analyte;
- Data report for field samples; and
- Quality Control Documentation:
 - Method blank data
 - Surrogate recovery results
 - Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) results
 - Matrix Spike/Matrix Spike Duplicate (MS/MSD) results

Data were evaluated based on the following parameters as appropriate:

- Data completeness
- Holding time
- Gas Chromatography/Mass Spectrometry (GC/MS) tuning and system performance
- Laboratory method and field quality control blank results
- Initial and continuing calibration
- Surrogate spike recovery
- Matrix Spike/Matrix Spike Duplicate results (MS/MSD)
- Laboratory control samples or blank spike samples (LCS/LCSD)
- Internal standard performance
- Relative Percent Difference (RPD)
- Compound identification
- Compound quantitation
- Detection limits and Reporting limits

Each of these parameters is discussed in each SDG.

4.1 Holding Time

Holding times are defined as the time between sample collection and extraction or sample collection and analysis. If a sample exceeds a holding time for a specified method, then the results may be biased low.

4.2 **Blanks**

The purpose of laboratory or field blank analysis is to determine the existence and magnitude of contamination resulting from laboratory or field activities. The criteria for evaluation of blanks apply to any blank associated with the sample (e.g., method blanks and equipment blanks). Method blanks (MB) consist of high-performance liquid chromatography (HPLC) water that is carried through the analytical scheme like the environmental sample. A method blank is prepared and analyzed for each batch of samples. A trip blank is prepared at the analytical laboratory by pouring analyte-free reagent water into a 40-ml Teflon-lined septum vial. The trip blank will accompany the sample containers into the field, but will remain unopened until analyzed in the laboratory after being returned from the field. A trip blank thus serves to identify contamination of the samples that might occur during transport of sample containers from the laboratory to the field and from the field to the laboratory. A rinsate or equipment blank is a vial of rinsate collected in the field following the cleaning of the sampling equipment and analyzed to determine any contaminant carry-over from the previous sampling event. A field blank is a sample of source water used for decontamination. In accordance with the work plan, one field blank was collected of water from the driller's water storage tank and one field blank was collected of water from the FWDA standpipe identified by the FWDA caretaker.

4.3 **Laboratory Control Samples**

The LCS recovery is performed with each analytical batch, method, and matrix. LCS samples are the best indicator for the laboratory as to their instrument performance (accuracy and precision); thus indicating whether or not there are matrix effects.

4.4 **Surrogate Recovery**

Surrogates are compounds that are chemically representative of the method target compounds. Once the analysis is performed, the surrogate percent recovery (%R) is calculated. If a sample requires dilution for analysis, the surrogate is typically diluted below detectable concentrations. In these cases, an evaluation of recovery can not be made.

4.5 **Matrix Spike and Matrix Spike Duplicate**

Matrix spikes (MS) are aliquots of samples to which known amounts of analytes have been added or "spiked" into the matrix of interest. MS and MS duplicate (MSD) samples are subject to the same preparation or extraction procedure and analyzed as the normal environmental samples. MS/MSD samples are analyzed per 10 samples or per batch. The percent spike recovery measures sample matrix interference effects, and reflects the accuracy of the determination. Accuracy is expressed as the percent recovery of an analyte from a surrogate or matrix spike sample or from a laboratory control sample. If a problem is due to matrix interference with a particular sample or group of samples, this information should be noted in the report.

4.6 Relative Percent Difference

Precision for a single analyte is expressed as a relative percent difference (RPD) between results of MS and MSD or duplicates. Accuracy is a measure of bias in the analysis process. For laboratory duplicate analysis, if the RPD value is greater than 20% for water samples and 35% for soil samples, a qualifier "J" or "UJ" is applied for positive and nondetected results, respectively. For field duplicate analysis, if the RPD value is greater than 30% for water and 50% for soil samples, a qualifier "J" or "UJ" is applied for positive and nondetected results, respectively. If the concentration of the sample is less than 5 times of method quantitation limit (MQL) or reporting limit (RL), the duplicate sample difference is greater than two times of MQL for water, or three times of MQL for soil samples, a qualifier "J" or "UJ" is applied for positive and nondetected results, respectively.

Based on the results of this evaluation, validated data may be qualified to alert the user of limitations associated with the data.

The following definitions provide brief explanations of the nationally used qualifiers assigned to results in the data review process:

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria.

5.0 RESULTS

This data validation report represents a comprehensive data quality assessment of analytical data generated by TtNUS as part of the Groundwater Investigation of the Eastern Landfill at Fort Wingate Depot Activity, Gallup, New Mexico.

Eight (8) water samples (including investigation samples, equipment rinsate sample, trip blank, hydrant water, drilling rig tank water, and investigation-derived water) were collected from July 22 to July 29, 2004, by TtNUS. Additionally, one investigation-derived soil sample was collected. The samples collected were analyzed by Severn Trent Laboratories (STL).

Findings from each analytical report are discussed in the following subsections, and the appropriate qualifiers and their rationale for each finding are reported. Data quality is assessed by accuracy, precision, representativeness and completeness parameters which measured the reproducibility of analytical results, the representativeness of site environmental conditions, and the consistency in the performance of the analytical methods. These parameters are discussed for each fraction of analyses (Metals and Mercury, VOCs, SVOCs, Herbicides, Pesticides, Organophosphorus Pesticides, PCBs and its congeners, dioxins/furans, Explosives, and Wet Chemistry). It should be noted that only sample results with noncompliance or outside the quality control limits are mentioned in the following sections.

The Chain-of-Custody Forms and Cooler Receipt Forms were complete and contained the required information. Lists of the field sample identification, laboratory identification with respective sample delivery group (SDG) for the environmental samples, and the analytical parameters are presented in Table 1.

The sensitivity parameters, such as the method detection limits (MDL), sample quantitation limit (SQL), and reporting limit (RL) were approved by the client before the investigation. The SQL is defined as the MDL adjusted for sample-specific action such as dilution or use of varying sample aliquot sizes. The RL is set at the lowest standard used for the initial calibration curve for each target analyte. Target analyte value detected and reported below the RL must be flagged as an estimated quantity (i.e., J-flag).

Data quality is assessed only by accuracy, precision, representativeness and completeness parameters in the following subsections. The qualified analytical data with the rationale for each finding are provided for each fraction in each SDG in Table 2. Field precision is presented in Table 3.

5.1 Metals

SW-846 Method 6010B (Trace ICP) was used to analyze 19 metals (aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel, selenium, silver, thallium, tin, vanadium and zinc), and Method 7470 or 7471 (cold vapor) was used to analyze mercury for soil and water samples.

The following Sample Delivery Groups (SDGs) were analyzed: SDG 278051 (water samples), and SDG 278116 (soil sample). SDG 278051 consisted of seven samples with different laboratory identification (Lab. ID) numbers. SDG 278116 contained only one soil sample (IDW-Soils).

5.1.1 SDG: 278051

Seven (7) water samples were analyzed for metals.

5.1.1.1 Accuracy

For the metals analysis, seven samples were prepared and analyzed in three different batches. The %R criterion does not apply to the sample concentrations greater than 4 times the spike concentrations. FW-EMW04-FBLK01 was used as field MD/MSD and duplicate samples for the metals analysis. FW-EMW04-FBLK02 was used for the field MS/MSD and duplicate samples for mercury analysis. FW-EMW02 and IDW-Water were used for the field MS/MSD samples for metals analysis in lieu of laboratory control sample (LCS) and the duplicate (LCSD). The %Rs of aluminum MS/MSD in IDW-Water sample were greater than the QC limits, however, the post-digestion spike recoveries were acceptable, and the spike recoveries for LCS were within the quality control (QC) limits. Therefore, the matrix effect is suspected. The positive result of aluminum was qualified as estimated “J” for the affected sample (IDW-Water). All other %Rs of MS/MSD were within the acceptable QC limits.

5.1.1.2 Precision

Relative percent difference (RPD) values for duplicate samples (laboratory duplicate, field MS/MSD) were reported within QC limits with the following exceptions: tin and silver in the IDW-Water sample; and iron, manganese, thallium and zinc in FW-EMW02, due to low sample concentrations and no qualification is required.

5.1.1.3 Representativeness

The method blank analyses were reported within QC limits. All samples were digested and analyzed within the proper holding times. The Chain-of-Custody Form and Cooler Receipt Form were complete and contained the required information. The calibration blank and the initial and continuing calibration verification were acceptable.

5.1.1.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.1.2 **SDG: 278116**

One soil sample (IDW-Soils) was analyzed for metals.

5.1.2.1 Accuracy

IDW-Soil sample was used for field MD/MSD and duplicate samples for the metal analysis. The %R criterion does not apply to the sample concentrations greater than 4 times the spike concentrations (aluminum, barium, iron and manganese). The %Rs of antimony, selenium and tin recoveries in the MS/MSD were below the QC limits due to matrix interference. The post digestion spike (PDS) results were acceptable. The spike recoveries for LCS were within the quality control (QC) limits. The positive results were qualified as estimated “J” for the affected sample (IDW-Soil).

5.1.2.2 Precision

Eighteen relative percent difference (RPD) values for MS/MSD were above the QC limits due to the non-homogenous nature of the sample. No qualification was required. The RPD values for field duplicate results (IDW-Soil) were acceptable. No qualification was required.

The percent difference (%D) value of barium and iron for serial dilution check sample was outside the QC limits. A qualifier of “J” was applied to the positive results of the affected sample. No qualification is required for low analyte concentrations (less than 50 times of MDL).

5.1.2.3 Representativeness

The method blank analyses were reported within QC limits. All samples were digested and analyzed within the proper holding times. The Chain-of-Custody Form and Cooler Receipt Form were complete and contained the required information. The calibration blank and the initial and continuing calibration verification were acceptable.

5.1.2.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.2 VOCs

SW-846 Method 8260B was used to analyze volatile organic compounds (VOCs) for soil and water samples. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report. The following SDGs were analyzed: SDG 278051 (water samples), and SDG 278116 (soil sample).

5.2.1 SDG: 278051

Seven (7) water samples were analyzed for VOCs.

5.2.1.1 Accuracy

For the volatile organic analysis, the matrix spike recoveries (%R) were analyzed from non-project samples. The %R of styrene in MSD was below the QC limit due to matrix interference. No qualification is required.

The laboratory control sample (LCS) recoveries were within the QC limits. Surrogate recoveries for all samples were within QC limits. No qualification is required.

5.2.1.2 Precision

Relative percent difference (RPD) values for MS/MSD were reported within QC limits. The RPD for field duplicate samples (FW-EMW03 and FW-EMW03-Dup) were acceptable.

5.2.1.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The method blank analyses were reported within QC limits. No analytes of interest were detected in the method blank. However, acetone was detected in a trip blank (0.0012 mg/L). Acetone in the samples (FW-EMW02, FW-EMW02-RNSW and IDW-Water) were qualified as nondetected "U" since the values were less than ten times (10X) the trip blank value. All internal standard recoveries were within acceptable limits.

5.2.1.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.2.2 SDG 278116

One soil sample (IDW-Soils) was analyzed for VOCs.

5.2.2.1 Accuracy

For the volatile organic analysis, sample IDW-Soils was selected to analyze as MS/MSD in lieu of a laboratory control duplicate (LCD). The %R of 4-methyl-2-pentanone in MSD was slightly below the QC limit due to matrix interference. No qualification is required.

The laboratory control sample (LCS) recoveries were within the QC limits. Surrogate recoveries were within QC limits. No qualification is required.

5.2.2.2 Precision

All relative percent difference (RPD) values were reported within QC limits. The percent difference (%D) of acrolein in the continuing calibration verification (CCV) analysis was reported to be above in-house acceptance limit. Since the %D was within method acceptance limit, no corrective action was required.

5.2.2.3 Representativeness

The sample was prepared and analyzed within the proper holding times. The method blank analyses were reported within QC limits. No analytes of interest were detected in the method blank.

All internal standard recoveries were within acceptance limits. The 10 ppb standard for all compounds was not used to calibrate the initial curve due to equipment failure. The initial calibration was accepted since the remaining five levels were compliant with method requirements.

5.2.2.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.3 SVOCs

SW-846 Method 8270C was used to analyze SVOCs for soil and water samples. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report. The following SDGs were analyzed: SDG 278051 (water samples), and SDG 278116 (soil sample).

5.3.1 SDG: 278051

Seven (7) water samples were analyzed for SVOCs.

5.3.1.1 Accuracy

For the semivolatile organic analysis, several analytes in the matrix spike recoveries (%R) for field MS/MSD samples (FW-EMW03) were outside the QC limits due to matrix interference. Because the laboratory control sample (LCS) recoveries were within the QC limits. No qualification is required. Surrogate recoveries for all samples were within QC limits, no qualification is required.

5.3.1.2 Precision

Relative percent difference (RPD) values for most of duplicate samples (field MS/MSD) were reported within QC limits, some analytes were outside the QC limits due to matrix interference and no qualification is required.

5.3.1.3 Representativeness

The method blank was free of contamination and analyses were reported within QC limits. All samples were extracted and analyzed within the proper holding times. Initial calibration and calibration verification were within acceptable limits.

5.3.1.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.3.2 **SDG: 278116**

One soil sample (IDW-Soils) was analyzed for SVOCs.

5.3.2.1 Accuracy

For the semivolatile organic analysis, the sample IDW-Soils was selected to analyze as MS/SMD in lieu of a LCD. Several analytes in the matrix spike recoveries (%R) for field MS/MSD sample were outside the QC limits due to matrix interference. Because the laboratory control sample (LCS) recoveries were within the QC limits, no qualification is required. Surrogate recoveries for this sample were within QC limits, no qualification is required.

5.3.2.2 Precision

Relative percent difference (RPD) values for MS/MSD duplicate samples were reported within QC limits.

5.3.2.3 Representativeness

The method blank was free of contamination and analyses were reported within QC limits. All samples were extracted and analyzed within the proper holding times. Initial calibration and calibration verification were within acceptable limits.

5.3.2.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.4 **Herbicides**

SW-846 Method 8151A was used to analyze for herbicides in water and soil samples. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report. The following SDGs were analyzed: SDG 278051 (water samples), and SDG 278116 (soil sample).

5.4.1 SDG: 278051

Seven (7) water samples were analyzed for Herbicides.

5.4.1.1 Accuracy

For the herbicides analysis, the laboratory analyzed a Blank Spike/Blank Spike Duplicate (BS/BSD) with each extraction batch in lieu of LCD. All spike recoveries (%Rs) for BS/BSD were within the QC limits. Surrogate recoveries (%Rs) were within the QC limits.

5.4.1.2 Precision

Relative percent difference (RPD) values for BS/BSD were reported within QC limits. Initial calibration and CCVs were within acceptance limits.

5.4.1.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The method blank was free of contamination and analyses were reported within QC limits.

5.4.1.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.4.2 SDG: 278116

One soil sample was analyzed for Herbicides.

5.4.2.1 Accuracy

For the herbicide analysis, non-project MS/MSD samples were used. The LCS recoveries were within the QC limits. Surrogate recovery (%R) was within the QC limits.

5.4.2.2 Precision

Relative percent difference (RPD) values for MS/MSD were reported within QC limits. Initial calibration and calibration verification were within acceptance limits.

5.4.2.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The method blank was free of contamination and analyses were reported within QC limits.

5.4.2.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.5 Pesticides

SW-846 Method 8081A was used to analyze for Pesticides for soil and water samples. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report. The following SDGs were analyzed: SDG 278051 (water samples), and SDG 278116 (soil sample).

5.5.1 **SDG: 278051**

Seven (7) water samples were analyzed for Pesticides.

5.5.1.1 Accuracy

For the pesticides analysis, no MS or MSD sample was designated, so LCSs/LCDs were analyzed. Several analytes in LCS (PLCSW2) recoveries were below the acceptance criteria due to the laboratory inadvertently spilling the LCS during the extraction process. The %Rs of delta BHC in LCD (PLCSW2) on both columns were above the acceptance criteria. No qualifier was required for the nondetected result. Two other batches LCSs/LCDs recoveries were within the QC limits and no qualification is required. Surrogate recoveries for all samples were within QC limits.

5.5.1.2 Precision

Relative percent difference (RPD) values for duplicate samples (LCS/LCD) were reported within QC limits, and no qualification is required.

The percent difference (%D) of four compounds (Endosulfan II, Endosulfan sulfate, 4,4'-DDT and Methoxychlor) in Continuing Calibration Verification (CCVs) were above the QC limits. The nondetected results of these four analytes in the affected samples were qualified as estimated "UJ".

5.5.1.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The method blank was free of contamination and analyses were reported within QC limits.

5.5.1.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.5.2 SDG: 278116

One soil sample (IDW-Soils) was analyzed for Pesticides.

5.5.2.1 Accuracy

For the pesticides analysis, the matrix spike recoveries (%Rs) for field MS/MSD samples and LCS sample were within the QC limits. Surrogate recoveries of the sample were within QC limits.

5.5.2.2 Precision

Relative percent difference (RPD) values for duplicate samples (field MS/MSD) were reported within QC limits.

5.5.2.3 Representativeness

The sample was prepared and analyzed within the proper holding times. The method blank was free of contamination and analyses were reported within QC limits.

5.5.2.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.6 Organophosphorus Pesticides

EPA Method 8141 was used to analyze organophosphorus pesticides in water samples. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report. The following SDG was analyzed: SDG 278051.

Four (4) water samples were analyzed for organophosphorus pesticides at STL Tallahassee Laboratory. Samples FW-EMW04-FBLK01 and FW-EMW04-FBLK02 were assigned as T414636, and FW-EMW03 and FW-EMW03-Dup were assigned as T414726.

5.6.1 Accuracy

Surrogate recoveries (%Rs) for all samples were within the QC limits. The matrix spike recoveries (%Rs) for field MS/MSD samples were within QC limits. The laboratory blank and blank spike samples recoveries (LCS/LCSD) were within the QC limits and no qualifier is required.

5.6.2 Precision

Relative percent difference (RPD) values for LCS/LCSD were within the QC limits and no qualification is required.

5.6.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The method blank was free of contamination and analyses were reported within QC limits.

5.6.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.7 PCBs

SW-846 Method 8082 was used to analyze for PCBs in water and soil samples. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report. The following SDGs were analyzed: SDG 278051 (water samples), and SDG 278116 (soil sample).

5.7.1 SDG: 278051

Seven (7) water samples were analyzed for PCBs.

5.7.1.1 Accuracy

For the PCB analysis, all matrix spike recoveries (%Rs) for MS/MSD samples (non-project samples) were within the QC limits. The Aroclor 1016 recovery on column RTX-CLP1 in sample PLCSW2 was below the acceptance criteria. All data were reported from column RTX-CLP2. All analytes from the other LCSs and LCDs recoveries were within the QC limits. No qualification is required.

Surrogate recovery (%R) of decachlorobiphenyl (DCB) on column RTX-CLP1 in sample FW-EMW03-Dup and %R of tetrachloro-*m*-xylene (TCX) on column RTX-CLP1 in sample IDW-Water were marginally outside the acceptance limits. The %R DCB on column RTX-CLP2 in sample FW-EMW03-Dup was greater than the QC limits, and %R TCX on column RTX-CLP2 in sample IDW-Water was lower than the QC limit due to matrix interference. No qualification is required.

5.7.1.2 Precision

Relative percent difference (RPD) values for MS/MSD were reported within QC limits. Initial calibration met criteria. One individual %D each in five CCVs was above acceptance criteria. Since the average %Ds across all analytes in these CCVs were within acceptance limits, no qualification is required.

5.7.1.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The method blank was free of contamination and analyses were reported within QC limits.

5.7.1.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.7.2 **SDG: 278116**

One soil sample was analyzed for PCBs.

5.7.2.1 Accuracy

For the PCB analysis, all matrix spike recoveries (%Rs) for MS/MSD samples were within the QC limits. The LCS recoveries were within the QC limits. Surrogate recoveries were within the acceptable limits.

5.7.2.2 Precision

Relative percent difference (RPD) values for MS/MSD were reported within QC limits. Initial calibration and calibration verification were within acceptance limits.

5.7.2.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The method blank was free of contamination and analyses were reported within QC limits.

5.7.2.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.8 **PCB Congeners**

EPA Method 8082 was used to analyze PCB Congeners in water samples. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report. The following Sample Delivery Groups (SDGs) were analyzed: H4G280221 and H4H020105.

5.8.1 **SDG: H4G280221**

Two (2) water samples were analyzed for PCB Congeners at STL Knoxville Laboratory. Samples FW-EMW04-FBLK01 and FW-EMW04-FBLK02 were assigned as H4G280221-001 and H4G280221-002.

5.8.1.1 Accuracy

Surrogate recoveries (%Rs) for all samples were within the QC limits. The laboratory blank and blank spike sample recoveries (LCS/LCSD) were within the QC limits and no qualifier is required. Due to limited sample volume, MS/MSD analysis was not performed.

5.8.1.2 Precision

Relative percent difference (RPD) values for LCS/LCSD were within the QC limits and no qualification is required.

5.8.1.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The Chain-of-Custody Form and Cooler Receipt Form were complete and contained the required information. The calibration blank and the initial and continuing calibration verification were acceptable. The method blank contained a small amount of 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl (0.0012 microgram/liter (ug/L)) and 2,2',5-trichlorobiphenyl (0.0096 (ug/L)). The two field samples also contained a small amount of 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl due to blank contamination. A nondetected qualifier of "U" is applied to the analytical result of these two samples. Other analyses were reported within QC limits.

5.8.1.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.8.2 SDG: H4H020105

Four water samples were analyzed for PCB Congeners at STL Knoxville Laboratory. Samples FW-EMW03 was assigned as H4H020105-001, FW-EMW03-DUP was assigned as H4H020105-002, FW-EMW02 was assigned as H4H020105-003 and FW-EM02-RNSW was assigned as H4H020105-004.

5.8.2.1 Accuracy

Surrogate recoveries (%Rs) for all samples were within the QC limits. The laboratory blank and blank spike sample recoveries (LCS/LCSD) were within the QC limits and no qualifier is required. Due to limited sample volume, MS/MSD analysis was not performed.

5.8.2.2 Precision

Relative percent difference (RPD) values for LCS/LCSD were within the QC limits and no qualification is required.

5.8.2.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The Chain-of-Custody Form and Cooler Receipt Form were complete and contained the required information. The calibration blank and the initial and continuing calibration verification were acceptable. The method blank contained a small amount of 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl (0.0013 ug/L). The three field samples also contained a small amount of this analyte due to blank contamination. A nondetected qualifier of "U" is applied to the analytical result of these three samples. Other analyses were reported within QC limits.

5.8.2.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.9 Dioxins/Furans

EPA Method 8290 was used to analyze Dioxins/Furans in water samples. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report. The following Sample Delivery Groups (SDGs) were analyzed: H4G280221 and H4H020105.

5.9.1 **SDG: H4G280221**

Two (2) water samples were analyzed for Dioxins/Furans at STL Knoxville Laboratory. Samples FW-EMW04-FBLK01 and FW-EMW04-FBLK02 were assigned as H4G280221-001 and H4G280221-002.

5.9.1.1 Accuracy

Internal standard recoveries (%Rs) for all samples were within the QC limits. The laboratory blank and blank spike sample recoveries (LCS/LCSD) were within the QC limits and no qualifier is required. Due to limited sample volume, MS/MSD analysis was not performed.

5.9.1.2 Precision

Relative percent difference (RPD) values for LCS/LCSD were within the QC limits and no qualification is required.

5.9.1.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The method blank contained a small amount of OCDD (4.5 picogram per liter (pg/L)), 1,2,3,4,7,8-HxCDF (0.85 pg/L), 2,3,4,7,8-PeCDF (1.3 pg/L) and OCDF (2.8 pg/L). However, these analytes were not detected in the field samples. No qualification is required. Other analyses were reported within QC limits.

The Chain-of-Custody Form and Cooler Receipt Form were complete and contained the required information. The calibration blank and the initial and continuing calibration verification were acceptable.

5.9.1.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.9.2 SDG: H4H020105

Four water samples were analyzed for Dioxins/Furans at STL Knoxville Laboratory. Sample FW-EMW03 was assigned as H4H020105-001, FW-EMW03-DUP was assigned as H4H020105-002, FW-EMW02 was assigned as H4H020105-003 and FW-EM02-RNSW was assigned as H4H020105-004.

5.9.2.1 Accuracy

The %Rs of internal standards for all samples were within the QC limits. The laboratory blank and blank spike sample recoveries (LCS/LCSD) were within the QC limits and no qualifier is required. Due to limited sample volume, MS/MSD analysis was not performed.

5.9.2.2 Precision

Relative percent difference (RPD) values for LCS/LCSD were within the QC limits and no qualification is required.

5.9.2.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The method blank contained a small amount of OCDD (3.4 picogram per liter (pg/L)), 1,2,3,4,6,7,8-HpCCD (0.9 pg/L), 1,2,3,4,7,8-HxCDF (0.75 pg/L), and OCDF (3.0 pg/L). A nondetected qualifier of "U" is applied to the analyte of the affected samples. Other analyses were reported within QC limits.

The Chain-of-Custody Form and Cooler Receipt Form were complete and contained the required information. The calibration blank and the initial and continuing calibration verification were acceptable.

5.9.2.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.10 **Explosives**

SW-846 Method 8330 was used to analyze for explosives in water and soil samples at STL Burlington laboratory. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report. The following SDGs were analyzed: SDG 278051 (water samples), and SDG 278116 (soil sample). The results have been reported from the LC-18 analytical column only. The Photo Diode Array Spectra (PDA) was also performed for further confirmation of the results.

5.10.1 **SDG: 278051**

Seven (7) water samples were analyzed for Explosives at STL Burlington laboratory. Samples FW-EMW04-FBLK01 and FW-EMW04-FBLK02 were assigned as ETR 101499, samples FW-EMW02 and FW-EMW02-RNSW were assigned as ETR 101563, samples FW-EMW03 and FW-EMW03-Dup were assigned as ETR 101579, and the sample IDW-WATER was assigned as ETR 101562. The results have been reported from the LC-18 analytical column only.

5.10.1.1 **Accuracy**

In ETR 101499, the surrogate recoveries were within the QC limits. The analysis of the blank spike sample U3LCS exhibited percent recoveries of the target compounds HMX and TNX that were marginally below the control limits. No qualification is required. No MS/MSD analysis was requested and performed by the laboratory. The LCS recoveries were within the QC limits.

In ETR 101563 and ETR 101579, surrogate recoveries of 1,2-dinitrobenzene on the CN column for samples FW-EMW02, FW-EMW02RNSW, FW-EMW03 and FW-EMW03-Dup were above the QC limits. The laboratory suspected that the anomaly may be due to the sample matrix. However, only the results of the primary column (LC-18) were reported and they were all within the QC limits. No MS/MSD analysis was requested and performed by the laboratory. The LCS recoveries were within the QC limits.

In ETR 101562, the surrogate recoveries were within the QC limits. No MS/MSD analysis was requested and performed by the laboratory. The LCS recoveries were within the QC limits.

5.10.1.2 **Precision**

Relative percent difference (RPD) values for LCS/LCSD were within the QC limits. Percent difference (%D) in Calibration Verification (CV) were above the criteria for TNX and DNX in the affected samples (FW-EMW02, FW-EMW02-RNSW, FW-EMW03, and FW-EMW03-Dup). The affected analytes were qualified as estimated “J” for positive results, and estimated nondetect “UJ” for the nondetected results.

The detected analytes were confirmed by a second column (CN column) and by the Photo Diode Array Spectra (PDA). The results have been reported from the LC-18 analytical column only.

5.10.1.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The method blank was free of contamination and analyses were reported within QC limits.

In ETR 101499, during the analysis of LCS sample (U3LCS) on the CN analytical column, the following coelutions occur: Picric acid with 2,6 dinitrotoluene and DNX with 2,6-dinitrotoluene and 2,4-dinitrotoluene.

During the analysis of the laboratory standards on the CN column, the following coelutions occur: 1,3,5-trinitrobenzene with 1,3-dinitrobenzene, 2,4,6-trinitrotoluene with 2,4-nitrotoluene, and 2-nitrotoluene with 3-nitrotoluene.

In ETR 101563 and ETR 101579, during the analysis of the blank spike and duplicate spike (V1LCS/V1LCSD) on the CN column, the following coelutions occurred: picric acid with 2,6-dinitrotoluene and DNX with 2,6-dinitrotoluene and 2,4-dinitrotoluene.

During the analysis of the laboratory standards on the CN column, the following coelutions occur: 1,3,5-trinitrobenzene with 1,3-dinitrobenzene, 2,4,6-trinitrotoluene with 2,4-nitrotoluene, and 2-nitrotoluene with 3-nitrotoluene and 4-nitrotoluene.

In ETR 101562, during the calibration on the CN column, the following coelutions occur: 2,4,6-trinitrotoluene with 2,4-dinitrotoluene, and 1,3,5-trinitrobenzene and 1,3-dinitrobenzene, 3-nitrotoluene, 2-nitrotoluene and 4-nitrotoluene. The laboratory suspected the presence of matrix interference in the field sample IDW-Water. As such, Photo Diode Array (PDA) spectra was utilized, however, the PDA was determined to be non-supportive of the reported concentrations of the target compounds. The laboratory noted a retention time shift on the CN column and utilized the quality control samples to assist in the identification of the target analytes RDX and 2-amino-4,6-dinitrotoluene. These target analytes were identified within their appropriate retention time windows.

5.10.1.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is at least 95.5% compared to the minimum acceptance limit of 90%.

5.10.2 SDG: 278116

One soil sample (IDW-Soils) was analyzed for Explosives by STL Burlington laboratory. IDW-soils was assigned as ETR 101500.

5.10.2.1 Accuracy

For the Explosives analysis, LCS recoveries were within the QC limits. Surrogate recovery of 1,2-dinitrobenzene was within the QC limits. No MS/MSD analysis was performed by the laboratory.

5.10.2.2 Precision

No laboratory duplicate samples were performed.

5.10.2.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The method blank was free of contamination and analyses were reported within QC limits. Initial calibration and calibration verification criteria were met.

5.10.2.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

5.11 Wet Chemistry

Wet Chemistry parameters were analyzed: pH (EPA 150.1); Total Dissolved Solids (TDS, EPA 160.1); chloride, fluoride, sulfate, and nitrate-nitrogen (NO₃-N, EPA 300); Nitrite-nitrogen (NO₂-N, EPA 353.2); sulfide (EPA 376.1); and cyanide (SW846, 9012A).

RCI (reactivity, corrosivity and ignitability) were measured for the IDW-Soils sample. Reactivity (cyanide and sulfide) by using EPA SW-846, Method 7.3; Corrosivity (pH) by using EPA SW-846, Method 9045C; and Ignitability (flashpoint) by using ASTM, Method D92-85.

5.11.1 SDG: 278051

Seven samples were analyzed for wet chemistry parameters. Since pH is a field parameter, the holding time had expired by the time the samples received at the laboratory, but it was analyzed as soon as received. The laboratory control sample (LCS) and its duplicate sample, LCD recoveries were within the quality control limits. FW-EMW02 and FW-EMW03 were selected to analyze as a duplicate sample (DUP) in lieu of a LCD. The RPD values were within the acceptable limit. All other quality criteria were met.

5.11.2 SDG: 278116

One sample (IDW-Soils) was analyzed for RCI parameters. All quality control criteria were met.

6.0 QUALITY ASSURANCE SAMPLE RESULTS

This data validation report represents a comprehensive data quality assessment of analytical data generated by TtNUS as part of the Groundwater Investigation of Eastern Landfill at Fort Wingate Depot Activity, Gallup, New Mexico. This investigation was conducted from July 22 to July 29, 2004.

One quality assurance (QA) water sample (FW-EMW03-FTRP) was sent to the U.S. Army Corps of Engineers certified laboratory (DataChem Laboratories and its subcontractors) for analysis. This section includes a discussion of the QA sample results.

Analytical reports were received from DataChem Laboratories. Findings from each analytical report are discussed in the following subsections, and the appropriate qualifiers and their rationale for each finding are reported. Data quality are assessed by accuracy, precision, representativeness and completeness parameters which measured the reproducibility of analytical results, the representativeness of site environmental conditions, and the consistency in the performance of the analytical methods. They are discussed for each fraction of analyses (Metals, VOCs, SVOCs, Herbicides, Pesticides, Organophosphorus Pesticides, PCBs and its congeners, dioxins/furans, Explosives, and Wet Chemistry). It should be noted that only sample results with noncompliance or outside the quality control limits were mentioned in the following sections.

The Chain-of-Custody Form and Cooler Receipt Form were complete and contained the required information.

The sensitivity parameters, such as the method detection limits (MDL), sample quantitation limit (SQL), and reporting limit (RL) were approved by the client before the investigation. The SQL is defined as the MDL adjusted for sample-specific action such as dilution or use of varying sample aliquot sizes. The RL is set at the lowest standard used for the initial calibration curve for each target analyte. Target analyte value detected and reported below the RL must be flagged as an estimated quantity (i.e., J-flag).

The qualified analytical data with the rationale for each finding are provided for each fraction in Table 4.

6.1 Metals

SW-846 Method 6010B (Trace ICP) was used to analyze two metals (aluminum and iron) in a water sample (FW-EMW03-FTRP). SW-846 Method 6020A (ICP/MS) was used to analyzed 17 metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, silver, thallium, tin, vanadium and zinc), and Method 7470A (cold vapor) was used to analyze mercury for the water sample.

6.1.1 Accuracy

In 6010B analysis, the percent recoveries (%Rs) of aluminum and iron in MS/MSD and LCS were within the QC limits. The post-digestion spike recoveries were acceptable. No qualification is required.

In 6020A analysis, the percent recoveries (%Rs) of TAL analytes in MSD and LCS were within the QC limits, except for nickel, selenium, silver and zinc in MS sample. The post-digestion spike recoveries were acceptable except for nickel due to matrix interference. No qualification is required.

In Method 7470A analysis, the %R of mercury in MS/MSD and LCS were within the QC limits.

6.1.2 Precision

Relative percent difference (RPD) values for duplicate samples (field MS/MSD and matrix duplicate (MD)) were reported within QC limits except for iron due to matrix interference.

The %D values for serial dilution check sample were within the QC limits. No qualification is required for low analyte concentrations (less than 50 times of MDL).

6.1.3 Representativeness

The method blank analyses were reported within QC limits. All samples were digested and analyzed within the proper holding times. The Chain-of-Custody Form and Cooler Receipt Form were complete and contained the required information. The calibration blank and the initial and continuing calibration verification were acceptable.

6.1.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

6.2 VOCs

SW-846 Method 8260B was used to analyze VOCs for two water samples (FW-EMW03-FTRP and a trip blank). A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report.

6.2.1 Accuracy

For the volatile organic analysis, the %Rs in MS/MSD was within the QC limits. No qualification is required.

The laboratory control sample (LCS) recoveries were within the QC limits except for iodomethane. Surrogate recoveries for all samples were within QC limits. No qualification is required.

6.2.2 Precision

Relative percent difference (RPD) values for MS/MSD were reported within QC limits. The RPD for field duplicate samples (FW-EMW03 and FW-EMW030Dup) were acceptable.

6.2.3 Representativeness

The sample was prepared and analyzed within the proper holding times. The method blank analyses were reported within QC limits. No analytes of interest were detected in the method blank. All internal standard recoveries were within acceptable limits.

Several of the Appendix IX compounds were not available at the laboratory for an MDL study before the expiration date of the samples. These compounds are not routinely analyzed and were not standardized for. They were, however, screened for and if detected would have been reported as unknowns. MDL values for the following compounds were taken from a 1997 study and are included for informational purposes only: methyl methacrylate, propionitrile, acetonitrile, 1,4-dioxane, isobutyl alcohol, methacrylonitrile, and 1-chloro-1-3-butadiene. However, none was detected in this analysis.

6.2.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

6.3 SVOCs

SW-846 Method 8270C was used to analyze SVOCs for a water sample (FW-EMW03-FTRP). A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report.

6.3.1 Accuracy

The spike recoveries (%R) for laboratory control samples (LCS/LCD) were within the QC limits. Matrix spike was not performed. No qualification is required. Surrogate recoveries for the sample were within QC limits, no qualification is required.

6.3.2 Precision

Relative percent difference (RPD) values for duplicate samples (LCS/LCD) were reported within QC limits.

6.3.3 Representativeness

The sample was extracted and analyzed within the proper holding time. Initial calibration and calibration verification were within acceptable limits.

The method blank contained di-n-butylphthalate (0.001mg/L). The di-n-butylphthalate in the sample (FW-EMW03) was qualified as nondetected “U” since the value was less than ten times (10X) the method blank value.

Hexachlorophene cannot be reported by this method. This analyte was not detected in the calibration standards even though it was included in the solution. N-nitrosodiphenylamine broke down to diphenylamine in the injection port and cannot be distinguished from diphenylamine. The 3-methylphenol coeluted with 4-methylphenol. The two isomers cannot be distinguished from each other.

6.3.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

6.4 Herbicides

SW-846 Method 8151A was used to analyze herbicides for a water sample (FW-EMW03-FTRP). A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report.

6.4.1 Accuracy

For the herbicides analysis, spike recoveries (%Rs) of laboratory control sample (LCS) and laboratory control duplicate (LCD) were within the QC limits. MS and MSD were not prepared. Surrogate recoveries (%Rs) were within the QC limits. All surrogate recoveries were within QC limits except for method blank that was 3% lower than QC limits.

6.4.2 Precision

Relative percent difference (RPD) values for LCS/LCD were reported within QC limits. Initial calibration and CCVs were within acceptance limits.

6.4.3 Representativeness

The sample was prepared and analyzed within the proper holding time. The method blank was free of contamination and analyses were reported within QC limits. Initial calibration and continuing calibration verification were within acceptable limits.

6.4.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

6.5 Pesticides

SW-846 Method 8081 A was used to analyze pesticides for a water sample (FW-EMW03-FTRP). A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report.

6.5.1 Accuracy

For the pesticides analysis, no MS or MSD sample was designated, so LCSs/LCDs were analyzed. Surrogate recoveries for all samples were within QC limits.

6.5.2 Precision

Relative percent difference (RPD) values for duplicate samples (LCS/LCD) were reported within QC limits, and no qualification is required.

6.5.3 Representativeness

The sample was prepared and analyzed within the proper holding time. The method blank contained 0.00000368 mg/L of 4,4'-DDD. The 4,4'-DDD in the sample (FW-EMW03) was qualified as nondetected "U" since the value was less than ten times (10X) the method blank value. Initial calibration and continuing calibration verification were within acceptable limits.

6.5.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

6.6 Organophosphorus Pesticides

EPA Method 8141 was used to analyze organophosphorus pesticides for a water sample (FW-EMW03-FTRP) by Columbia Analytical Services, Inc. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report.

6.6.1 Accuracy

Surrogate recoveries (%Rs) for all samples were within the QC limits. The matrix spike sample was not performed. The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries (LCS/LCSD) were within the QC limits and no qualifier is required.

6.6.2 Precision

Relative percent difference (RPD) values for LCS/LCSD were within the QC limits and no qualification is required.

6.6.3 Representativeness

The sample was prepared and analyzed within the proper holding time. The method blank was free of contamination and analyses were reported within QC limits.

6.6.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

6.7 PCBs

SW-846 Method 8082 was used to analyze PCBs for a water sample (FW-EMW03-FTRP). A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report.

6.7.1 Accuracy

For the PCB analysis, all data were reported from column RTX-CLP. All analytes from the LCSs and LCDs recoveries were within the QC limits. No MS/MSD was prepared.

Surrogate recoveries (%Rs) of tetrachloro-*m*-xylene (TCX) and decachlorobiphenyl (DCB) for all samples were within the QC limits except for the %R of DCB for the FW-EMW03 was below the QC limit. No qualification is required.

6.7.2 Precision

Relative percent difference (RPD) values for LCS/LCSD were within QC limits. Initial calibration and continuing calibration verification met criteria.

6.7.3 Representativeness

The sample was prepared and analyzed within the proper holding time. The method blank was free of contamination and analyses were reported within QC limits.

6.7.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

6.8 PCB Congeners

EPA Method 8082 was used to analyze PCB Congeners for a water sample (FW-EMW03-FTRP) by Northeast Analytical. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report.

6.8.1 Accuracy

Surrogate recovery (%R) for the sample was within the QC limits. The laboratory control sample spike recovery was within the QC limits and no qualifier is required.

6.8.2 Precision

No duplicate sample was performed.

6.8.3 Representativeness

The sample was prepared and analyzed within the proper holding time. The Chain-of-Custody Form and Cooler Receipt Form were complete and contained the required information.

6.8.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

6.9 Dioxins/Furans

EPA Method 8290 was used to analyze Dioxins/Furans for a water sample (FW-EMW03-FTRP) by Columbia Analytical Services, Inc. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report.

6.9.1 Accuracy

The standard recoveries (%Rs) for the samples were within the QC limits. The LCS recoveries were within the QC limits and no qualifier is required. The MS/MSD samples were performed from non-project sample, and the %Rs were acceptable.

6.9.2 Precision

Relative percent difference (RPD) values for MS/MSD were reported to be within the QC limits and no qualification is required.

6.9.3 Representativeness

All samples were prepared and analyzed within the proper holding time. The method blank contained a small amount of OCDD (7.982 picogram per liter (pg/L)). However, this analyte was not detected in the field sample. No qualification is required.

The Chain-of-Custody Form and Cooler Receipt Form were complete and contained the required information. The initial and continuing calibration verification were acceptable.

6.9.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

6.10 Explosives

SW-846 Method 8330 was used to analyze explosives in a water sample (FW-EMW03-FTRP). The results have been reported from the C18 column only. A list of site-specific analytes is presented in Table 5.1.2-2 of the Groundwater Investigation Report.

6.10.1 Accuracy

For the Explosives analysis, LCS recoveries were within the QC limits. Surrogate recovery of 3,4-dinitrobenzene was within the QC limits. No MS/MSD analysis was performed.

6.10.2 Precision

Relative percent difference (RPD) values for LCS/LCD were reported to be within the QC limits and no qualification is required.

6.10.3 Representativeness

All samples were prepared and analyzed within the proper holding times. The method blank was free of contamination and analyses were reported within QC limits. Initial calibration and calibration verification criteria were met.

6.10.4 Completeness

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. The completeness for this SDG is 100%.

6.11 Wet Chemistry

Wet Chemistry parameters were analyzed: pH (EPA 9040B); Total Dissolved Solids (TDS, EPA 160.1); chloride, fluoride, sulfate, and nitrate as nitrogen (NO₃-N, EPA 300); Nitrite as nitrogen (NO₂-N, EPA 353.2); sulfide (EPA 9030); and cyanide (SW846, 9012A).

One sample (FW-EMW03-FTRP) was analyzed for wet chemistry parameters. The laboratory control sample (LCS) recoveries were within the quality control limits with the exception of total sulfide. Low recovery is common for total sulfide because the sulfide reference solution is not stable. The RPD values were within the acceptable limit. MS/MSD recoveries and RPD were within the QC limits. All other quality criteria were met.

The sample was prepared and analyzed within the proper holding time. The method blank was free of contamination and analyses were reported within QC limits. Initial calibration and calibration verification criteria were met.

7.0 REFERENCES

EPA, Test Methods for Evaluating Solid Waste SW-846, 3rd Edition, 1994.

EPA, Test Methods for Evaluating Solid Waste SW-846, 3rd Edition, Final Update III, 1998.

USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, February 1994.

USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, February 1994.

Final Draft “Work Plans, Groundwater Investigation, Eastern Landfill, Fort Wingate Depot Activity, Gallup, New Mexico, January 2004. Contract No. DACA63-97-D-0030, D.O. No. 024.

**TABLE 1
CROSS-REFERENCE FOR SAMPLE IDENTIFICATIONS**

**Groundwater Investigation
Fort Wingate Depot Activity, Gallup, New Mexico**

Field ID	Lab. ID	Sample Date	Matrix	6010 /7000 (1)	8260 (2)	8270 (3)	8081A (4)	8082 (5)	8082 Cong. (6)	8330 (7)	8151A (8)	8290 (9)	8141 (10)
FW-EMW04-FBLK01 (Drilling Rig Tank Water)	278051-1	7/22/2004	Water	X	X	X	X	X	X	X	X	X	X
FW-EMW04-FBLK02 (Hydrant Water)	278115-1	7/23/2004	Water	X	X	X	X	X	X	X	X	X	X
IDW-Soils	278116-1	7/23/2004	Soil	X	X	X	X	X	--(11)	X	X	--	--
FW-EMW02	278374-1	7/28/2004	Water	X	X	X	X	X	X	X	X	X	--(12)
FW-EMW02-RNSW	278374-2	7/28/2004	Water	X	X	X	X	X	X	X	X	X	--(12)
IDW-Water	278374-3	7/28/2004	Water	X	X	X	X	X	--	X	X	--	--
FW-EMW03	278483-1	7/29/2004	Water	X	X	X	X	X	X	X	X	X	X
FW-EMW03-DUP	278483-3	7/29/2004	Water	X	X	X	X	X	X	X	X	X	X
Trip Blank	278483-2	7/29/2004	Water	--	X	--	--	--	--	--	--	--	--

- (1) Method 6010 for metals and Method 7470/7471 for mercury.
- (2) Method 8260 for volatile organics
- (3) Method 8270 for semivolatile organics.
- (4) Method 8081 for pesticides.
- (5) Method 8082 for Polychlorinated biphenyls (PCBs).
- (6) Method 8082 for PCB congeners.
- (7) Method 8330 for explosives.
- (8) Method 8151A for herbicides.
- (9) Method 8290 for Dibenzodioxins/Dibenzofurans.
- (10) Method 8141 for organophosphorus pesticides.
- (11) Laboratory inadvertently did not analyze for it.
- (12) Not analyze for

**TABLE 2
QUALIFIED ANALYTICAL DATA**

**Groundwater Investigation
Fort Wingate Depot Activity, Gallup, New Mexico**

Field Identification	Analyte	Qualification	Reason for Qualification
IDW-Soil	Barium and iron	"J"	Serial dilution %D >10.
IDW-Soil	Antimony, selenium and tin	"J" for (+); "UJ" for ND.	%Rs of Matrix Spike (MS)/MS Duplicate (MSD) <QC limits.
IDW-Water	Aluminum	"J"	%Rs of MS/MSD >QC limits.
FW-EMW02, FW-EMW02-RNSW and IDW-Water.	Acetone	"U"	Due to blank contamination.
FW-EMW02, FW-EMW02-RNSW, FW- EMW03, and FW-EMW03-Dup.	Endosulfan II, Endosulfan sulfate, 4,4'-DDT, and Methoxychlor.	"UJ" for ND.	Percent difference (%D) values in Continuing Calibration Verification (CCV) were above the criteria.
FW-EMW02, FW-EMW02-RNSW, FW- EMW03, and FW-EMW03-Dup.	TNX and DNX	"J" for (+); "UJ" for ND.	Percent difference (%D) values in CCV were above the criteria.
FW-EMW02, FW-EMW02-RNSW, FW- EMW03, and FW-EMW03-Dup.	OCDD	"U"	Due to blank contamination.
FW-EMW04-FBLK01 and FW-EMW04-FBLK02	PCB 206 (BZ)	"U"	Due to blank contamination.
FW-EMW02, FW-EMW02-RNSW, and FW-EMW03-Dup.	PCB 206 (BZ)	"U"	Due to blank contamination.
NOTE: U – The analyte was considered not detected due to blank contamination. JH – Estimated biased high. JL – Estimated biased low %D – percent difference QC limit – the quality control limit < – less than > – greater than %R – percent recovery RPD – Relative percent difference UJ – Estimated nondetected ND – Nondetected (+) – Positive result PCB 206 (BZ) = 2,2',3,3',4,4',5,5',6-nachlorobiphenyl			

**TABLE 3
FIELD PRECISION**

**Groundwater Investigation
Fort Wingate Depot Activity, Gallup, New Mexico**

Field Identification	Analyte	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD ⁽¹⁾	Qualified ⁽²⁾
FW-EMW03 FW-EMW03-Dup (Dissolved Metal)	Aluminum	1.6	1.99	22	A
	Antimony	ND ⁽³⁾	ND	NC ⁽⁴⁾	A
	Arsenic	0.00355	0.005	<2MQL	A
	Barium	0.107	0.0954	11	A
	Beryllium	ND	ND	NC	A
	Cadmium	ND	ND	NC	A
	Chromium	0.103	0.117	NC	A
	Cobalt	ND	ND	NC	A
	Copper	0.0117	0.0136	15	A
	Iron	0.0703	0.0969	<2MQL	A
	Lead	ND	ND	NC	A
	Manganese	0.00144	0.00276	<2MQL	A
	Mercury	ND	0.000031	<2MQL	A
	Nickel	ND	ND	NC	A
	Selenium	ND	ND	NC	A
	Silver	ND	ND	NC	A
	Thallium	ND	ND	NC	A
	Tin	ND	0.00331	<2MQL	A
	Vanadium	0.0859	0.0936	9	A
Zinc	0.0132	ND	<2MQL	A	

(1) RPD (Relative Percent Difference) = ((SR - DR)*20)/(SR + DR) .
(2) Acceptable (A) - If RPD for Soil <50%; for water <30% ; or <3MQL for soil, <2 MQL for water,
(3) ND - Not detected at method detection limit
(4) NC - not calculated for nondetects
J - estimated

**TABLE 3 (Continued)
FIELD PRECISION**

**Groundwater Investigation
Fort Wingate Depot Activity, Gallup, New Mexico**

Field Identification	Analyte	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD ⁽¹⁾	Qualified ⁽²⁾
FW-EMW03 FW-EMW03-Dup (Total Metal)	Aluminum	1.46	1.75	18	A
	Antimony	ND ⁽³⁾	ND	NC ⁽⁴⁾	A
	Arsenic	ND	ND	NC	A
	Barium	0.119	0.113	5	A
	Beryllium	ND	ND	NC	A
	Cadmium	ND	ND	NC	A
	Chromium	0.0882	0.0941	6	A
	Cobalt	0.00092	0.00082	11	A
	Copper	0.0116	0.0122	5	A
	Iron	0.169	0.151	11	A
	Lead	0.00210	ND	<2MQL	A
	Manganese	0.004	0.00214	<2MQL	A
	Mercury	ND	ND	NC	A
	Nickel	ND	ND	NC	A
	Selenium	ND	ND	NC	A
	Silver	ND	ND	NC	A
	Thallium	0.00511	0.00509	0.4	A
	Tin	0.0028	ND	<2MQL	A
	Vanadium	0.0810	0.0871	7	A
Zinc	0.0142	0.00799	<2MQL	A	

(1) RPD (Relative Percent Difference) = ((SR - DR)*20)/(SR + DR) .
(2) Acceptable (A) if RPD for Soil <50%; for water <30% ; or <3MQL for soil, <2 MQL for water,
(3) ND - Not detected at method detection limit
(4) NC - not calculated for nondetects
J - estimated

**TABLE 3 (Continued)
FIELD PRECISION**

**Groundwater Investigation
Fort Wingate Depot Activity, Gallup, New Mexico**

Field Identification	Analyte	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD ⁽¹⁾	Qualified ⁽²⁾
FW-EMW03 and FW-EMW03-DUP	Acetone	0.0136	0.0133	2	A
	Methyl Ethyl Ketone	0.00285	0.00290	2	A
	Other VOCs (8260B).	ND	ND ⁽³⁾	NC ⁽⁴⁾	A
FW-EMW03 and FW-EMW03-DUP	Bis(2)ethylhexyl)-Phthalate	ND	0.00682	<2MQL	A
	Other SVOCs (8270C).	ND	ND	NC ⁽⁴⁾	A
FW-EMW03 and FW-EMW03-DUP	Chlorinated Herbicides (8151A)	All ND	All ND	NC ⁽⁴⁾	A
FW-EMW03 and FW-EMW03-DUP	Organochlorine Pesticides (8081A)	All ND	All ND	NC ⁽⁴⁾	A
FW-EMW03 and FW-EMW03-DUP	PCSs (8082)	All ND	All ND	NC ⁽⁴⁾	A
FW-EMW03 and FW-EMW03-DUP	Other dioxins/Furans (8290)	All ND	All ND	NC ⁽⁴⁾	A
FW-EMW03 and FW-EMW03-DUP	Nitroglycerin	0.030	ND	200	J
	2,4,6-Trinitrotoluene	0.00011	0.00011	0	A
	DNX	0.00051	0.00053	4	A
	Other Explosives (8330)	All ND	All ND	NC ⁽⁴⁾	A
FW-EMW03 and FW-EMW03-DUP	Organophosphorus Pesticides (8141A)	All ND	All ND	NC ⁽⁴⁾	A
FW-EMW03 and FW-EMW03-DUP	PCB 206 (BZ) ⁽⁶⁾	0.0015	ND	<2MQL	A
	Other PCB Congeners (8082)	All ND	All ND	NC ⁽⁴⁾	A

(1) RPD (Relative Percent Difference) = ((SR - DR)*20)/(SR + DR) .
(2) Acceptable (A) if RPD for water <30%; or <2 MQL for water,
(3) ND- Not detected at method detection limit
(4) NC - not calculated for nondetects
(6) PCB 206 (BZ) = 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl

J- estimated.

TABLE 4
QUALIFIED ANALYTICAL DATA
FOR QUALITY ASSURANCE SAMPLE

Groundwater Investigation
Fort Wingate Depot Activity, Gallup, New Mexico

Field Identification	Analyte	Qualification	Reason for Qualification
FW-EMW03-FTRP	4,4'-DDD	"U"	Due to blank contamination.
FW-EMW03-FTRP	di-n-butylphthalate	"U"	Due to blank contamination.
NOTE: U – The analyte was considered not detected due to blank contamination. JH – Estimated biased high. JL – Estimated biased low %D – percent difference QC limit – the quality control limit < – less than > – greater than %R – percent recovery RPD – relative percent difference UJ – Estimated nondetected. ND – Nondetected (+) – Positive result			

APPENDIX E

ELECTRONIC DATA DELIVERABLE

The electronic data files for the Groundwater Investigation at the Eastern Landfill will be provided to the FWCOE Project Manager on a floppy disk as part of the Final Groundwater Investigation Report submittal.

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS

LIST OF TtNUS DATA QUALIFIERS

Groundwater Investigation – Eastern Landfill Fort Wingate Depot Activity, Gallup, New Mexico

The following qualifiers were used to validate the analytical data from the groundwater samples collected at Eastern Landfill. The following definitions, per EPA's National Functional Guidelines, provide brief explanations of the nationally used qualifiers assigned to analytical results during the data validation/review process:

- U** The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J** The analyte was positively identified, but the associated numerical value is an approximate concentration of the analyte in the sample.
- UJ** The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit necessary to accurately and precisely measure the analyte concentration in the sample.
- R** The sample was rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte can not be verified.

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW02	150.1	PH	pH		11.47	pH Units			Total	
FW-EMW02	160.1	TDS	Solids Total Dissolved (TDS)		4940	mg/L			Total	2.99
FW-EMW02	300.0	16887-00-6	Chloride		258	mg/L			Total	0.70
FW-EMW02	300.0	16984-48-8	Fluoride (F)		0.848	mg/L			Total	0.047
FW-EMW02	300.0	14808-79-8	Sulfate (SO4)		2550	mg/L			Total	40.5
FW-EMW02	376.1	18496-25-8	Sulfide	<	0.87	mg/L		U	Total	0.87
FW-EMW02	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		U	Dissolved	0.000031
FW-EMW02	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		U	Total	0.000031
FW-EMW02	8081	72-54-8	4 4'-DDD	<	0.000029	mg/L		U	Total	0.000029
FW-EMW02	8081	72-55-9	4 4'-DDE	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02	8081	50-29-3	4 4'-DDT	<	0.000038	mg/L	UJ	U	Total	0.000038
FW-EMW02	8081	309-00-2	Aldrin	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02	8081	319-84-6	alpha-BHC	<	0.000029	mg/L		U	Total	0.000029
FW-EMW02	8081	319-85-7	beta-BHC	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02	8081	12789-03-6	Chlordane	<	0.001285	mg/L		U	Total	0.001285
FW-EMW02	8081	319-86-8	delta-BHC	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02	8081	60-57-1	Dieldrin	<	0.000029	mg/L		U	Total	0.000029
FW-EMW02	8081	959-98-8	Endosulfan I	<	0.000086	mg/L		U	Total	0.000086
FW-EMW02	8081	33213-65-9	Endosulfan II	<	0.000057	mg/L	UJ	U	Total	0.000057
FW-EMW02	8081	1031-07-8	Endosulfan sulfate	<	0.000076	mg/L	UJ	U	Total	0.000076
FW-EMW02	8081	72-20-8	Endrin	<	0.000076	mg/L		U	Total	0.000076
FW-EMW02	8081	7421-93-4	Endrin aldehyde	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02	8081	58-89-9	gamma-BHC (Lindane)	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02	8081	76-44-8	Heptachlor	<	0.000114	mg/L		U	Total	0.000114
FW-EMW02	8081	1024-57-3	Heptachlor epoxide	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02	8081	72-43-5	Methoxychlor	<	0.000086	mg/L	UJ	U	Total	0.000086
FW-EMW02	8081	8001-35-2	Toxaphene	<	0.001742	mg/L		U	Total	0.001742
FW-EMW02	8082	12674-11-2	Aroclor 1016	<	0.00018	mg/L		U	Total	0.00018
FW-EMW02	8082	11104-28-2	Aroclor 1221	<	0.00043	mg/L		U	Total	0.00043
FW-EMW02	8082	11141-16-5	Aroclor 1232	<	0.00024	mg/L		U	Total	0.00024
FW-EMW02	8082	53469-21-9	Aroclor 1242	<	0.00028	mg/L		U	Total	0.00028
FW-EMW02	8082	12672-29-6	Aroclor 1248	<	0.00014	mg/L		U	Total	0.00014
FW-EMW02	8082	11097-69-1	Aroclor 1254	<	0.00013	mg/L		U	Total	0.00013
FW-EMW02	8082	11096-82-5	Aroclor 1260	<	0.00014	mg/L		U	Total	0.00014
FW-EMW02	8151	93-76-5	2 4 5-T	<	0.00026	mg/L		U	Total	0.00026
FW-EMW02	8151	93-72-1	2 4 5-TP (Silvex)	<	0.00026	mg/L		U	Total	0.00026
FW-EMW02	8151	94-75-7	2 4-D	<	0.00024	mg/L		U	Total	0.00024
FW-EMW02	8151	88-85-7	Dinoseb (DNBP)	<	0.00030	mg/L		U	Total	0.00030
FW-EMW02	8270	95-94-3	1 2 4 5-Tetrachlorobenzene	<	0.00139	mg/L		U	Total	0.00139
FW-EMW02	8270	120-82-1	1 2 4-Trichlorobenzene	<	0.00076	mg/L		U	Total	0.00076
FW-EMW02	8270	95-50-1	1 2-Dichlorobenzene	<	0.00060	mg/L		U	Total	0.00060
FW-EMW02	8270	541-73-1	1 3-Dichlorobenzene	<	0.00073	mg/L		U	Total	0.00073
FW-EMW02	8270	106-46-7	1 4-Dichlorobenzene	<	0.00093	mg/L		U	Total	0.00093
FW-EMW02	8270	130-15-4	1 4-Naphthoquinone	<	0.00128	mg/L		U	Total	0.00128
FW-EMW02	8270	134-32-7	1-Naphthylamine	<	0.00204	mg/L		U	Total	0.00204
FW-EMW02	8270	58-90-2	2 3 4 6-Tetrachlorophenol	<	0.00136	mg/L		U	Total	0.00136
FW-EMW02	8270	95-95-4	2 4 5-Trichlorophenol	<	0.00104	mg/L		U	Total	0.00104
FW-EMW02	8270	88-06-2	2 4 6-Trichlorophenol	<	0.00133	mg/L		U	Total	0.00133
FW-EMW02	8270	120-83-2	2 4-Dichlorophenol	<	0.00070	mg/L		U	Total	0.00070
FW-EMW02	8270	105-67-9	2 4-Dimethylphenol	<	0.00087	mg/L		U	Total	0.00087
FW-EMW02	8270	51-28-5	2 4-Dinitrophenol	<	0.00204	mg/L		U	Total	0.00204
FW-EMW02	8270	121-14-2	2 4-Dinitrotoluene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW02	8270	87-65-0	2 6-Dichlorophenol	<	0.00140	mg/L		U	Total	0.00140
FW-EMW02	8270	606-20-2	2 6-Dinitrotoluene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW02	8270	53-96-3	2-Acetylamino fluorene	<	0.00146	mg/L		U	Total	0.00146
FW-EMW02	8270	91-58-7	2-Chloronaphthalene	<	0.00093	mg/L		U	Total	0.00093
FW-EMW02	8270	95-57-8	2-Chlorophenol	<	0.00068	mg/L		U	Total	0.00068
FW-EMW02	8270	534-52-1	2-Methyl-4 6-dinitrophenol	<	0.00055	mg/L		U	Total	0.00055
FW-EMW02	8270	91-57-6	2-Methylnaphthalene	<	0.00085	mg/L		U	Total	0.00085
FW-EMW02	8270	95-48-7	2-Methylphenol (o-Cresol)	<	0.00108	mg/L		U	Total	0.00108
FW-EMW02	8270	91-59-8	2-Naphthylamine	<	0.00236	mg/L		U	Total	0.00236

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW02	8270	88-74-4	2-Nitroaniline	<	0.00066	mg/L		U	Total	0.00066
FW-EMW02	8270	88-75-5	2-Nitrophenol	<	0.00121	mg/L		U	Total	0.00121
FW-EMW02	8270	109-06-8	2-Picoline	<	0.00155	mg/L		U	Total	0.00155
FW-EMW02	8270	91-94-1	3 3'-Dichlorobenzidine	<	0.00103	mg/L		U	Total	0.00103
FW-EMW02	8270	119-93-7	3 3-Dimethylbenzidine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW02	8270	56-49-5	3-Methylcholanthrene	<	0.00206	mg/L		U	Total	0.00206
FW-EMW02	8270	108-39-4	3-Methylphenol (m-Cresol)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW02	8270	99-09-2	3-Nitroaniline	<	0.00110	mg/L		U	Total	0.00110
FW-EMW02	8270	92-67-1	4-Aminobiphenyl	<	0.00287	mg/L		U	Total	0.00287
FW-EMW02	8270	101-55-3	4-Bromophenyl Phenyl Ether	<	0.00079	mg/L		U	Total	0.00079
FW-EMW02	8270	59-50-7	4-Chloro-3-methylphenol	<	0.00080	mg/L		U	Total	0.00080
FW-EMW02	8270	106-47-8	4-Chloroaniline	<	0.00127	mg/L		U	Total	0.00127
FW-EMW02	8270	7005-72-3	4-Chlorophenyl Phenyl Ether	<	0.00071	mg/L		U	Total	0.00071
FW-EMW02	8270	106-44-5	4-Methylphenol (p-Cresol)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW02	8270	100-01-6	4-Nitroaniline	<	0.00156	mg/L		U	Total	0.00156
FW-EMW02	8270	100-02-7	4-Nitrophenol	<	0.00191	mg/L		U	Total	0.00191
FW-EMW02	8270	56-57-5	4-Nitroquinoline-1-oxide	<	0.00092	mg/L		U	Total	0.00092
FW-EMW02	8270	99-55-8	5-Nitro-o-toluidine	<	0.00124	mg/L		U	Total	0.00124
FW-EMW02	8270	57-97-6	7 12-Dimethylbenz(a)anthracene	<	0.00126	mg/L		U	Total	0.00126
FW-EMW02	8270	83-32-9	Acenaphthene	<	0.00090	mg/L		U	Total	0.00090
FW-EMW02	8270	208-96-8	Acenaphthylene	<	0.00092	mg/L		U	Total	0.00092
FW-EMW02	8270	98-86-2	Acetophenone	<	0.00148	mg/L		U	Total	0.00148
FW-EMW02	8270	122-09-8	alpha alpha-Dimethylphenethylamine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW02	8270	62-53-3	Aniline	<	0.00303	mg/L		U	Total	0.00303
FW-EMW02	8270	120-12-7	Anthracene	<	0.00065	mg/L		U	Total	0.00065
FW-EMW02	8270	140-57-8	Aramite	<	0.00413	mg/L		U	Total	0.00413
FW-EMW02	8270	56-55-3	Benzo(a)anthracene	<	0.00034	mg/L		U	Total	0.00034
FW-EMW02	8270	50-32-8	Benzo(a)pyrene	<	0.00058	mg/L		U	Total	0.00058
FW-EMW02	8270	205-99-2	Benzo(b)fluoranthene	<	0.00054	mg/L		U	Total	0.00054
FW-EMW02	8270	191-24-2	Benzo(ghi)perylene	<	0.00071	mg/L		U	Total	0.00071
FW-EMW02	8270	207-08-9	Benzo(k)fluoranthene	<	0.00076	mg/L		U	Total	0.00076
FW-EMW02	8270	100-51-6	Benzyl Alcohol	<	0.00058	mg/L		U	Total	0.00058
FW-EMW02	8270	111-91-1	bis(2-chloroethoxy)methane	<	0.00087	mg/L		U	Total	0.00087
FW-EMW02	8270	111-44-4	bis(2-Chloroethyl)ether	<	0.00068	mg/L		U	Total	0.00068
FW-EMW02	8270	108-60-1	bis(2-chloroisopropyl)ether	<	0.00104	mg/L		U	Total	0.00104
FW-EMW02	8270	117-81-7	bis(2-ethylhexyl)phthalate	<	0.00479	mg/L		J	Total	0.00046
FW-EMW02	8270	85-68-7	Butyl Benzyl Phthalate	<	0.00054	mg/L		U	Total	0.00054
FW-EMW02	8270	510-15-6	Chlorobenzilate	<	0.00148	mg/L		U	Total	0.00148
FW-EMW02	8270	218-01-9	Chrysene	<	0.00098	mg/L		U	Total	0.00098
FW-EMW02	8270	2303-16-4	Diallate	<	0.00123	mg/L		U	Total	0.00123
FW-EMW02	8270	53-70-3	Dibenzo(a h)anthracene	<	0.00087	mg/L		U	Total	0.00087
FW-EMW02	8270	132-64-9	Dibenzofuran	<	0.00049	mg/L		U	Total	0.00049
FW-EMW02	8270	84-66-2	Diethyl Phthalate	<	0.00056	mg/L		U	Total	0.00056
FW-EMW02	8270	60-51-5	Dimethoate	<	0.00164	mg/L		U	Total	0.00164
FW-EMW02	8270	131-11-3	Dimethyl Phthalate	<	0.00054	mg/L		U	Total	0.00054
FW-EMW02	8270	84-74-2	Di-n-butyl Phthalate	<	0.00056	mg/L		U	Total	0.00056
FW-EMW02	8270	117-84-0	Di-n-octyl Phthalate	<	0.00039	mg/L		U	Total	0.00039
FW-EMW02	8270	88-85-7	Dinoseb (DNBP)	<	0.00082	mg/L		U	Total	0.00082
FW-EMW02	8270	122-39-4	Diphenylamine	<	0.00080	mg/L		U	Total	0.00080
FW-EMW02	8270	62-50-0	Ethyl Methane Sulfonate	<	0.00169	mg/L		U	Total	0.00169
FW-EMW02	8270	206-44-0	Fluoranthene	<	0.00078	mg/L		U	Total	0.00078
FW-EMW02	8270	86-73-7	Fluorene	<	0.00050	mg/L		U	Total	0.00050
FW-EMW02	8270	118-74-1	Hexachlorobenzene	<	0.00132	mg/L		U	Total	0.00132
FW-EMW02	8270	87-68-3	Hexachlorobutadiene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW02	8270	77-47-4	Hexachlorocyclopentadiene	<	0.00066	mg/L		U	Total	0.00066
FW-EMW02	8270	67-72-1	Hexachloroethane	<	0.00104	mg/L		U	Total	0.00104
FW-EMW02	8270	70-30-4	Hexachlorophene	<	0.03179	mg/L		U	Total	0.03179
FW-EMW02	8270	1888-71-7	Hexachloropropene	<	0.00096	mg/L		U	Total	0.00096
FW-EMW02	8270	193-39-5	Indeno(1 2 3-cd)pyrene	<	0.00112	mg/L		U	Total	0.00112
FW-EMW02	8270	465-73-6	Isodrin	<	0.00166	mg/L		U	Total	0.00166
FW-EMW02	8270	78-59-1	Isophorone	<	0.00097	mg/L		U	Total	0.00097

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW02	8270	120-58-1	Isosafrole	<	0.00113	mg/L		U	Total	0.00113
FW-EMW02	8270	143-50-0	Kepona	<	0.02567	mg/L		U	Total	0.02567
FW-EMW02	8270	99-65-0	m-Dinitrobenzene	<	0.00110	mg/L		U	Total	0.00110
FW-EMW02	8270	91-80-5	Methapyriline	<	0.00110	mg/L		U	Total	0.00110
FW-EMW02	8270	66-27-3	Methyl Methane Sulfonate	<	0.00161	mg/L		U	Total	0.00161
FW-EMW02	8270	91-20-3	Naphthalene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW02	8270	98-95-3	Nitrobenzene	<	0.00089	mg/L		U	Total	0.00089
FW-EMW02	8270	55-18-5	n-Nitrosodiethylamine	<	0.00119	mg/L		U	Total	0.00119
FW-EMW02	8270	62-75-9	n-Nitrosodimethylamine	<	0.00048	mg/L		U	Total	0.00048
FW-EMW02	8270	924-16-3	n-Nitrosodi-n-butylamine	<	0.00155	mg/L		U	Total	0.00155
FW-EMW02	8270	621-64-7	n-Nitrosodi-n-propylamine	<	0.00080	mg/L		U	Total	0.00080
FW-EMW02	8270	86-30-6	n-Nitrosodiphenylamine	<	0.00071	mg/L		U	Total	0.00071
FW-EMW02	8270	10595-95-6	n-Nitrosomethylethylamine	<	0.00106	mg/L		U	Total	0.00106
FW-EMW02	8270	59-89-2	n-Nitrosomorpholine	<	0.00221	mg/L		U	Total	0.00221
FW-EMW02	8270	100-75-4	n-Nitrosopiperidine	<	0.00249	mg/L		U	Total	0.00249
FW-EMW02	8270	930-55-2	n-Nitrosopyrrolidine	<	0.00197	mg/L		U	Total	0.00197
FW-EMW02	8270	126-68-1	O O O-Triethyl phosphorothioate	<	0.00170	mg/L		U	Total	0.00170
FW-EMW02	8270	95-53-4	o-Toluidine	<	0.00320	mg/L		U	Total	0.00320
FW-EMW02	8270	60-11-7	p-Dimethylaminoazobenzene	<	0.00209	mg/L		U	Total	0.00209
FW-EMW02	8270	608-93-5	Pentachlorobenzene	<	0.00283	mg/L		U	Total	0.00283
FW-EMW02	8270	76-01-7	Pentachloroethane	<	0.00256	mg/L		U	Total	0.00256
FW-EMW02	8270	82-68-8	Pentachloronitrobenzene	<	0.00482	mg/L		U	Total	0.00482
FW-EMW02	8270	87-86-5	Pentachlorophenol	<	0.00399	mg/L		U	Total	0.00399
FW-EMW02	8270	62-44-2	Phenacetin	<	0.00136	mg/L		U	Total	0.00136
FW-EMW02	8270	85-01-8	Phenanthrene	<	0.00049	mg/L		U	Total	0.00049
FW-EMW02	8270	108-95-2	Phenol	<	0.0178	mg/L		U	Total	0.00080
FW-EMW02	8270	106-50-3	p-Phenylenediamine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW02	8270	23950-58-5	Pronamide	<	0.00125	mg/L		U	Total	0.00125
FW-EMW02	8270	129-00-0	Pyrene	<	0.00083	mg/L		U	Total	0.00083
FW-EMW02	8270	110-86-1	Pyridine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW02	8270	94-59-7	Safrole	<	0.00133	mg/L		U	Total	0.00133
FW-EMW02	8270	99-35-4	Sym-Trinitrobenzene	<	0.00182	mg/L		U	Total	0.00182
FW-EMW02	8270	3689-24-5	Tetraethyldithiopyrophosphate	<	0.00138	mg/L		U	Total	0.00138
FW-EMW02	8270	297-97-2	Thionazin	<	0.00105	mg/L		U	Total	0.00105
FW-EMW02	8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	39227-28-6	1,2,3,4,7,8-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	70648-26-9	1,2,3,4,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	57653-85-7	1,2,3,6,7,8-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	57117-44-9	1,2,3,6,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	19408-74-3	1,2,3,7,8,9-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	72918-21-9	1,2,3,7,8,9-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	40321-76-4	1,2,3,7,8-PeCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	57117-41-6	1,2,3,7,8-PeCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	60851-34-5	2,3,4,6,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	57117-31-4	2,3,4,7,8-PeCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	1746-01-6	2,3,7,8-TCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	51207-31-9	2,3,7,8-TCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02	8290	3268-87-9	OCDD	<	3.8	PG/L	U	B J	Total	0.0
FW-EMW02	8290	39001-02-0	OCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02	9012	57-12-5	Cyanide Total	<	3.579	ug/L		U	Total	3.579
FW-EMW02	9040	CORROSIVIT	Corrosivity (pH-Liquids)		11	pH Units			Total	
FW-EMW02	300SH	14797-55-8	Nitrogen Nitrate as N (NO3-N)		0.189	mg/L		B	Total	0.057
FW-EMW02	353.2P	7727-37-9	Nitrate + Nitrite as N		0.082	mg/L			Total	0.007
FW-EMW02	6010TR	7429-90-5	Aluminum (Al)		0.0427	mg/L		B	Dissolved	0.01800
FW-EMW02	6010TR	7429-90-5	Aluminum (Al)		1.14	mg/L			Total	0.01800
FW-EMW02	6010TR	7440-36-0	Antimony (Sb)	<	0.00350	mg/L		U	Dissolved	0.00350
FW-EMW02	6010TR	7440-36-0	Antimony (Sb)	<	0.00350	mg/L		U	Total	0.00350
FW-EMW02	6010TR	7440-38-2	Arsenic (As)	<	0.00340	mg/L		U	Dissolved	0.00340
FW-EMW02	6010TR	7440-38-2	Arsenic (As)	<	0.00340	mg/L		U	Total	0.00340

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW02	6010TR	7440-39-3	Barium (Ba)		0.0641	mg/L			Dissolved	0.0060
FW-EMW02	6010TR	7440-39-3	Barium (Ba)		0.0600	mg/L			Total	0.0060
FW-EMW02	6010TR	7440-41-7	Beryllium (Be)	<	0.00040	mg/L		U	Dissolved	0.00040
FW-EMW02	6010TR	7440-41-7	Beryllium (Be)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW02	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Dissolved	0.00050
FW-EMW02	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Total	0.00050
FW-EMW02	6010TR	7440-47-3	Chromium (Cr)		0.00952	mg/L		B	Dissolved	0.00130
FW-EMW02	6010TR	7440-47-3	Chromium (Cr)		0.00985	mg/L		B	Total	0.00130
FW-EMW02	6010TR	7440-48-4	Cobalt (Co)		0.00125	mg/L		B	Total	0.00070
FW-EMW02	6010TR	7440-48-4	Cobalt (Co)	<	0.00070	mg/L		U	Dissolved	0.00070
FW-EMW02	6010TR	7440-50-8	Copper (Cu)		0.00598	mg/L		B	Dissolved	0.00180
FW-EMW02	6010TR	7440-50-8	Copper (Cu)		0.00597	mg/L		B	Total	0.00180
FW-EMW02	6010TR	7439-89-6	Iron (Fe)		0.148	mg/L		B	Dissolved	0.04590
FW-EMW02	6010TR	7439-89-6	Iron (Fe)		0.473	mg/L			Total	0.04590
FW-EMW02	6010TR	7439-92-1	Lead (Pb)	<	0.00210	mg/L		U	Dissolved	0.00210
FW-EMW02	6010TR	7439-92-1	Lead (Pb)	<	0.00210	mg/L		U	Total	0.00210
FW-EMW02	6010TR	7439-96-5	Manganese (Mn)		0.00218	mg/L		B	Dissolved	0.00100
FW-EMW02	6010TR	7439-96-5	Manganese (Mn)		0.0781	mg/L			Total	0.00100
FW-EMW02	6010TR	7440-02-0	Nickel (Ni)	<	0.00180	mg/L		U	Dissolved	0.00180
FW-EMW02	6010TR	7440-02-0	Nickel (Ni)	<	0.00180	mg/L		U	Total	0.00180
FW-EMW02	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Dissolved	0.00370
FW-EMW02	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Total	0.00370
FW-EMW02	6010TR	7440-22-4	Silver (Ag)	<	0.00120	mg/L		U	Dissolved	0.00120
FW-EMW02	6010TR	7440-22-4	Silver (Ag)	<	0.00120	mg/L		U	Total	0.00120
FW-EMW02	6010TR	7440-28-0	Thallium (Tl)		0.00586	mg/L		B	Dissolved	0.00470
FW-EMW02	6010TR	7440-28-0	Thallium (Tl)	<	0.00470	mg/L		U	Total	0.00470
FW-EMW02	6010TR	7440-31-5	Tin (Sn)	<	0.00280	mg/L		U	Dissolved	0.00280
FW-EMW02	6010TR	7440-31-5	Tin (Sn)	<	0.00280	mg/L		U	Total	0.00280
FW-EMW02	6010TR	7440-62-2	Vanadium (V)		0.00302	mg/L		B	Total	0.00280
FW-EMW02	6010TR	7440-62-2	Vanadium (V)	<	0.00280	mg/L		U	Dissolved	0.00280
FW-EMW02	6010TR	7440-66-6	Zinc (Zn)		0.0244	mg/L		B	Dissolved	0.00260
FW-EMW02	6010TR	7440-66-6	Zinc (Zn)		0.00862	mg/L		B	Total	0.00260
FW-EMW02	8082 Con	2051-60-7	PCB 1 (BZ)		0.028	UG/L		J COL	Total	0.023
FW-EMW02	8082 Con	37680-73-2	PCB 101 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW02	8082 Con	38380-03-9	PCB 110 (BZ)	<	ND	UG/L		U	Total	0.0022
FW-EMW02	8082 Con	35065-28-2	PCB 138 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW02	8082 Con	52712-04-6	PCB 141 (BZ)	<	ND	UG/L		U	Total	0.0017
FW-EMW02	8082 Con	52663-63-5	PCB 151 (BZ)	<	ND	UG/L		U	Total	0.0011
FW-EMW02	8082 Con	35065-27-1	PCB 153 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW02	8082 Con	35065-30-6	PCB 170 (BZ)	<	ND	UG/L		U	Total	0.0024
FW-EMW02	8082 Con	37680-65-2	PCB 18 (BZ)	<	ND	UG/L		U	Total	0.0042
FW-EMW02	8082 Con	35065-29-3	PCB 180 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW02	8082 Con	52663-69-1	PCB 183 (BZ)	<	ND	UG/L		U	Total	0.0017
FW-EMW02	8082 Con	52663-68-0	PCB 187 (BZ)	<	ND	UG/L		U	Total	0.0021
FW-EMW02	8082 Con	40186-72-9	PCB 206 (BZ)		0.0016	UG/L	U	J B	Total	0.0010
FW-EMW02	8082 Con	16606-02-3	PCB 31 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW02	8082 Con	41464-39-5	PCB 44 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW02	8082 Con	16605-91-7	PCB 5 (BZ)	<	ND	UG/L		U	Total	0.0055
FW-EMW02	8082 Con	35693-99-3	PCB 52 (BZ)	<	ND	UG/L		U	Total	0.0049
FW-EMW02	8082 Con	32598-10-0	PCB 66 (BZ)	<	ND	UG/L		U	Total	0.0020
FW-EMW02	8082 Con	38380-02-8	PCB 87 (BZ)	<	ND	UG/L		U	Total	0.0020
FW-EMW02	8260M	630-20-6	1 1 1 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW02	8260M	71-55-6	1 1 1-Trichloroethane	<	0.00019	mg/L		U	Total	0.00019
FW-EMW02	8260M	79-34-5	1 1 2 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW02	8260M	79-00-5	1 1 2-Trichloroethane	<	0.00015	mg/L		U	Total	0.00015
FW-EMW02	8260M	75-34-3	1 1-Dichloroethane	<	0.00015	mg/L		U	Total	0.00015
FW-EMW02	8260M	75-35-4	1 1-Dichloroethene	<	0.00033	mg/L		U	Total	0.00033
FW-EMW02	8260M	96-18-4	1 2 3-Trichloropropane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW02	8260M	96-12-8	1 2-Dibromo-3-chloropropane	<	0.00044	mg/L		U	Total	0.00044
FW-EMW02	8260M	106-93-4	1 2-Dibromoethane (EDB)	<	0.00017	mg/L		U	Total	0.00017
FW-EMW02	8260M	107-06-2	1 2-Dichloroethane	<	0.00016	mg/L		U	Total	0.00016

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW02	8260M	78-87-5	1,2-Dichloropropane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW02	8260M	123-91-1	1,4-Dioxane	<	0.01328	mg/L		U	Total	0.01328
FW-EMW02	8260M	126-99-8	2-Chloro-1,3-butadiene (chloroprene)	<	0.00039	mg/L		U	Total	0.00039
FW-EMW02	8260M	591-78-6	2-Hexanone	<	0.00029	mg/L		U	Total	0.00029
FW-EMW02	8260M	108-10-1	4-Methyl-2-pentanone (MIBK)	<	0.00014	mg/L		U	Total	0.00014
FW-EMW02	8260M	67-64-1	Acetone		0.00489	mg/L	U		Total	0.00094
FW-EMW02	8260M	75-05-8	Acetonitrile	<	0.00132	mg/L		U	Total	0.00132
FW-EMW02	8260M	107-02-8	Acrolein	<	0.00215	mg/L		U	Total	0.00215
FW-EMW02	8260M	107-13-1	Acrylonitrile	<	0.00102	mg/L		U	Total	0.00102
FW-EMW02	8260M	107-05-1	Allyl chloride	<	0.00060	mg/L		U	Total	0.00060
FW-EMW02	8260M	71-43-2	Benzene	<	0.00008	mg/L		U	Total	0.00008
FW-EMW02	8260M	75-27-4	Bromodichloromethane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW02	8260M	75-25-2	Bromoform	<	0.00018	mg/L		U	Total	0.00018
FW-EMW02	8260M	74-83-9	Bromomethane	<	0.00045	mg/L		U	Total	0.00045
FW-EMW02	8260M	75-15-0	Carbon Disulfide	<	0.00030	mg/L		U	Total	0.00030
FW-EMW02	8260M	56-23-5	Carbon Tetrachloride	<	0.00022	mg/L		U	Total	0.00022
FW-EMW02	8260M	108-90-7	Chlorobenzene	<	0.00013	mg/L		U	Total	0.00013
FW-EMW02	8260M	75-00-3	Chloroethane	<	0.00021	mg/L		U	Total	0.00021
FW-EMW02	8260M	67-66-3	Chloroform	<	0.00024	mg/L		U	Total	0.00024
FW-EMW02	8260M	74-87-3	Chloromethane	<	0.00013	mg/L		U	Total	0.00013
FW-EMW02	8260M	156-59-2	cis-1,2-Dichloroethene	<	0.00023	mg/L		U	Total	0.00023
FW-EMW02	8260M	10061-01-5	cis-1,3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
FW-EMW02	8260M	124-48-1	Dibromochloromethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW02	8260M	74-95-3	Dibromomethane	<	0.00020	mg/L		U	Total	0.00020
FW-EMW02	8260M	75-71-8	Dichlorodifluoromethane	<	0.00031	mg/L		U	Total	0.00031
FW-EMW02	8260M	97-63-2	Ethyl Methacrylate	<	0.00038	mg/L		U	Total	0.00038
FW-EMW02	8260M	100-41-4	Ethylbenzene	<	0.00015	mg/L		U	Total	0.00015
FW-EMW02	8260M	74-88-4	Iodomethane	<	0.00021	mg/L		U	Total	0.00021
FW-EMW02	8260M	78-83-1	Isobutyl Alcohol	<	0.00313	mg/L		U	Total	0.00313
FW-EMW02	8260M	126-98-7	Methacrylonitrile	<	0.00059	mg/L		U	Total	0.00059
FW-EMW02	8260M	78-93-3	Methyl Ethyl Ketone (2-Butanone)	<	0.00034	mg/L		U	Total	0.00034
FW-EMW02	8260M	80-62-6	Methyl Methacrylate	<	0.00050	mg/L		U	Total	0.00050
FW-EMW02	8260M	1634-04-4	Methyl tert-Butyl ether	<	0.00056	mg/L		U	Total	0.00056
FW-EMW02	8260M	75-09-2	Methylene Chloride	<	0.00074	mg/L		U	Total	0.00074
FW-EMW02	8260M	107-12-0	Propionitrile	<	0.00068	mg/L		U	Total	0.00068
FW-EMW02	8260M	100-42-5	Styrene	<	0.00087	mg/L		U	Total	0.00087
FW-EMW02	8260M	127-18-4	Tetrachloroethene	<	0.00017	mg/L		U	Total	0.00017
FW-EMW02	8260M	108-88-3	Toluene	<	0.00015	mg/L		U	Total	0.00015
FW-EMW02	8260M	156-60-5	trans-1,2-Dichloroethene	<	0.00025	mg/L		U	Total	0.00025
FW-EMW02	8260M	10061-02-6	trans-1,3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
FW-EMW02	8260M	110-57-6	trans-1,4-Dichloro-2-butene	<	0.00029	mg/L		U	Total	0.00029
FW-EMW02	8260M	79-01-6	Trichloroethene	<	0.00026	mg/L		U	Total	0.00026
FW-EMW02	8260M	75-69-4	Trichlorofluoromethane	<	0.00030	mg/L		U	Total	0.00030
FW-EMW02	8260M	108-05-4	Vinyl Acetate	<	0.00045	mg/L		U	Total	0.00045
FW-EMW02	8260M	75-01-4	Vinyl Chloride	<	0.00018	mg/L		U	Total	0.00018
FW-EMW02	8260M	1330-20-7	Xylenes (total)	<	0.00046	mg/L		U	Total	0.00046
FW-EMW02	SW8330	99-35-4	1,3,5-Trinitrobenzene	<	0.25	ug/L		U	Total	0.182
FW-EMW02	SW8330	99-65-0	1,3-Dinitrobenzene	<	0.25	ug/L		U	Total	0.0550
FW-EMW02	SW8330		2,2'-Azoxy	<	0.25	ug/L		U	Total	0.05600
FW-EMW02	SW8330	118-96-7	2,4,6-Trinitrotoluene	<	0.38	ug/L			Total	0.0320
FW-EMW02	SW8330	6629-29-4	2,4-Diamino-6-nitrotoluene	<	0.25	ug/L		U	Total	0.112
FW-EMW02	SW8330	121-14-2	2,4-Dinitrotoluene	<	0.25	ug/L		U	Total	0.0440
FW-EMW02	SW8330	59229-75-3	2,6-Diamino-4-nitrotoluene	<	0.50	ug/L		U	Total	0.127
FW-EMW02	SW8330	606-20-2	2,6-Dinitrotoluene	<	0.25	ug/L		U	Total	0.0720
FW-EMW02	SW8330	35572-78-2	2-Amino-4,6-dinitrotoluene	<	0.25	ug/L		U	Total	0.0300
FW-EMW02	SW8330	88-72-2	2-Nitrotoluene	<	0.25	ug/L		U	Total	0.0190
FW-EMW02	SW8330	99-08-1	3-Nitrotoluene	<	0.25	ug/L		U	Total	0.0470
FW-EMW02	SW8330		4,4'-Azoxy	<	0.25	ug/L		U	Total	0.05600
FW-EMW02	SW8330	19406-51-0	4-Amino-2,6-dinitrotoluene	<	0.25	ug/L		U	Total	0.155
FW-EMW02	SW8330	99-99-0	4-Nitrotoluene	<	0.25	ug/L		U	Total	0.0480
FW-EMW02	SW8330	TEMPCAS2	DNX		3.4	ug/L	J		Total	0.06030

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW02	SW8330	2691-41-0	HMX	<	0.25	ug/L		U	Total	0.0540
FW-EMW02	SW8330	TEMPCAS1	MNX	<	0.25	ug/L		U	Total	0.03760
FW-EMW02	SW8330	98-95-3	Nitrobenzene		0.22	ug/L		J	Total	0.0550
FW-EMW02	SW8330	55-63-0	Nitroglycerin		7.4	ug/L			Total	4.212
FW-EMW02	SW8330	78-11-5	PETN	<	10	ug/L		U	Total	3.477
FW-EMW02	SW8330	88-89-1	Picric acid	<	0.25	ug/L		U	Total	0.172
FW-EMW02	SW8330	38082-89-2	PYX	<	0.25	ug/L		U	Total	0.05600
FW-EMW02	SW8330	121-82-4	RDX		2.9	ug/L			Total	0.0450
FW-EMW02	SW8330	479-45-8	Tetryl	<	0.25	ug/L		U	Total	0.105
FW-EMW02	SW8330	13980-04-6	TNX	<	0.25	ug/L	UJ	U	Total	0.0390
FW-EMW02-RNSW	300.0	16887-00-6	Chloride		0.221	mg/L		B	Total	0.070
FW-EMW02-RNSW	300.0	16984-48-8	Fluoride (F)	<	0.047	mg/L		U	Total	0.047
FW-EMW02-RNSW	300.0	14808-79-8	Sulfate (SO4)	<	0.405	mg/L		U	Total	0.405
FW-EMW02-RNSW	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		U	Dissolved	0.000031
FW-EMW02-RNSW	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		U	Total	0.000031
FW-EMW02-RNSW	8081	72-54-8	4 4'-DDD	<	0.000029	mg/L		U	Total	0.000029
FW-EMW02-RNSW	8081	72-55-9	4 4'-DDE	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02-RNSW	8081	50-29-3	4 4'-DDT	<	0.000038	mg/L	UJ	U	Total	0.000038
FW-EMW02-RNSW	8081	309-00-2	Aldrin	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02-RNSW	8081	319-84-6	alpha-BHC	<	0.000029	mg/L		U	Total	0.000029
FW-EMW02-RNSW	8081	319-85-7	beta-BHC	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02-RNSW	8081	12789-03-6	Chlordane	<	0.001299	mg/L		U	Total	0.001299
FW-EMW02-RNSW	8081	319-86-8	delta-BHC	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02-RNSW	8081	60-57-1	Dieldrin	<	0.000029	mg/L		U	Total	0.000029
FW-EMW02-RNSW	8081	959-98-8	Endosulfan I	<	0.000087	mg/L		U	Total	0.000087
FW-EMW02-RNSW	8081	33213-65-9	Endosulfan II	<	0.000058	mg/L	UJ	U	Total	0.000058
FW-EMW02-RNSW	8081	1031-07-8	Endosulfan sulfate	<	0.000077	mg/L	UJ	U	Total	0.000077
FW-EMW02-RNSW	8081	72-20-8	Endrin	<	0.000077	mg/L		U	Total	0.000077
FW-EMW02-RNSW	8081	7421-93-4	Endrin aldehyde	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02-RNSW	8081	58-89-9	gamma-BHC (Lindane)	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02-RNSW	8081	76-44-8	Heptachlor	<	0.000115	mg/L		U	Total	0.000115
FW-EMW02-RNSW	8081	1024-57-3	Heptachlor epoxide	<	0.000019	mg/L		U	Total	0.000019
FW-EMW02-RNSW	8081	72-43-5	Methoxychlor	<	0.000087	mg/L	UJ	U	Total	0.000087
FW-EMW02-RNSW	8081	8001-35-2	Toxaphene	<	0.001760	mg/L		U	Total	0.001760
FW-EMW02-RNSW	8082	12674-11-2	Aroclor 1016	<	0.00018	mg/L		U	Total	0.00018
FW-EMW02-RNSW	8082	11104-28-2	Aroclor 1221	<	0.00043	mg/L		U	Total	0.00043
FW-EMW02-RNSW	8082	11141-16-5	Aroclor 1232	<	0.00024	mg/L		U	Total	0.00024
FW-EMW02-RNSW	8082	53469-21-9	Aroclor 1242	<	0.00028	mg/L		U	Total	0.00028
FW-EMW02-RNSW	8082	12672-29-6	Aroclor 1248	<	0.00014	mg/L		U	Total	0.00014
FW-EMW02-RNSW	8082	11097-69-1	Aroclor 1254	<	0.00013	mg/L		U	Total	0.00013
FW-EMW02-RNSW	8082	11096-82-5	Aroclor 1260	<	0.00014	mg/L		U	Total	0.00014
FW-EMW02-RNSW	8151	93-76-5	2 4 5-T	<	0.00026	mg/L		U	Total	0.00026
FW-EMW02-RNSW	8151	93-72-1	2 4 5-TP (Silvex)	<	0.00026	mg/L		U	Total	0.00026
FW-EMW02-RNSW	8151	94-75-7	2 4-D	<	0.00024	mg/L		U	Total	0.00024
FW-EMW02-RNSW	8151	88-85-7	Dinoseb (DNBP)	<	0.00030	mg/L		U	Total	0.00030
FW-EMW02-RNSW	8270	95-94-3	1 2 4 5-Tetrachlorobenzene	<	0.00132	mg/L		U	Total	0.00132
FW-EMW02-RNSW	8270	120-82-1	1 2 4-Trichlorobenzene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW02-RNSW	8270	95-50-1	1 2-Dichlorobenzene	<	0.00057	mg/L		U	Total	0.00057
FW-EMW02-RNSW	8270	541-73-1	1 3-Dichlorobenzene	<	0.00070	mg/L		U	Total	0.00070
FW-EMW02-RNSW	8270	106-46-7	1 4-Dichlorobenzene	<	0.00089	mg/L		U	Total	0.00089
FW-EMW02-RNSW	8270	130-15-4	1 4-Naphthoquinone	<	0.00122	mg/L		U	Total	0.00122
FW-EMW02-RNSW	8270	134-32-7	1-Naphthylamine	<	0.00194	mg/L		U	Total	0.00194
FW-EMW02-RNSW	8270	58-90-2	2 3 4 6-Tetrachlorophenol	<	0.00130	mg/L		U	Total	0.00130
FW-EMW02-RNSW	8270	95-95-4	2 4 5-Trichlorophenol	<	0.000991	mg/L		U	Total	0.000991
FW-EMW02-RNSW	8270	88-06-2	2 4 6-Trichlorophenol	<	0.00127	mg/L		U	Total	0.00127
FW-EMW02-RNSW	8270	120-83-2	2 4-Dichlorophenol	<	0.00067	mg/L		U	Total	0.00067
FW-EMW02-RNSW	8270	105-67-9	2 4-Dimethylphenol	<	0.00083	mg/L		U	Total	0.00083
FW-EMW02-RNSW	8270	51-28-5	2 4-Dinitrophenol	<	0.00194	mg/L		U	Total	0.00194
FW-EMW02-RNSW	8270	121-14-2	2 4-Dinitrotoluene	<	0.00069	mg/L		U	Total	0.00069
FW-EMW02-RNSW	8270	87-65-0	2 6-Dichlorophenol	<	0.00133	mg/L		U	Total	0.00133
FW-EMW02-RNSW	8270	606-20-2	2 6-Dinitrotoluene	<	0.00069	mg/L		U	Total	0.00069

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
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Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW02-RNSW	8270	53-96-3	2-Acetylaminofluorene	<	0.00139	mg/L		U	Total	0.00139
FW-EMW02-RNSW	8270	91-58-7	2-Chloronaphthalene	<	0.00089	mg/L		U	Total	0.00089
FW-EMW02-RNSW	8270	95-57-8	2-Chlorophenol	<	0.00065	mg/L		U	Total	0.00065
FW-EMW02-RNSW	8270	534-52-1	2-Methyl-4,6-dinitrophenol	<	0.00052	mg/L		U	Total	0.00052
FW-EMW02-RNSW	8270	91-57-6	2-Methylnaphthalene	<	0.00081	mg/L		U	Total	0.00081
FW-EMW02-RNSW	8270	95-48-7	2-Methylphenol (o-Cresol)	<	0.00103	mg/L		U	Total	0.00103
FW-EMW02-RNSW	8270	91-59-8	2-Naphthylamine	<	0.00225	mg/L		U	Total	0.00225
FW-EMW02-RNSW	8270	88-74-4	2-Nitroaniline	<	0.00063	mg/L		U	Total	0.00063
FW-EMW02-RNSW	8270	88-75-5	2-Nitrophenol	<	0.00115	mg/L		U	Total	0.00115
FW-EMW02-RNSW	8270	109-06-8	2-Picoline	<	0.00148	mg/L		U	Total	0.00148
FW-EMW02-RNSW	8270	91-94-1	3,3'-Dichlorobenzidine	<	0.000982	mg/L		U	Total	0.000982
FW-EMW02-RNSW	8270	119-93-7	3,3'-Dimethylbenzidine	<	0.00953	mg/L		U	Total	0.00953
FW-EMW02-RNSW	8270	56-49-5	3-Methylcholanthrene	<	0.00196	mg/L		U	Total	0.00196
FW-EMW02-RNSW	8270	108-39-4	3-Methylphenol (m-Cresol)	<	0.00038	mg/L		U	Total	0.00038
FW-EMW02-RNSW	8270	99-09-2	3-Nitroaniline	<	0.00105	mg/L		U	Total	0.00105
FW-EMW02-RNSW	8270	92-67-1	4-Aminobiphenyl	<	0.00274	mg/L		U	Total	0.00274
FW-EMW02-RNSW	8270	101-55-3	4-Bromophenyl Phenyl Ether	<	0.00075	mg/L		U	Total	0.00075
FW-EMW02-RNSW	8270	59-50-7	4-Chloro-3-methylphenol	<	0.00076	mg/L		U	Total	0.00076
FW-EMW02-RNSW	8270	106-47-8	4-Chloroaniline	<	0.00121	mg/L		U	Total	0.00121
FW-EMW02-RNSW	8270	7005-72-3	4-Chlorophenyl Phenyl Ether	<	0.00068	mg/L		U	Total	0.00068
FW-EMW02-RNSW	8270	106-44-5	4-Methylphenol (p-Cresol)	<	0.00038	mg/L		U	Total	0.00038
FW-EMW02-RNSW	8270	100-01-6	4-Nitroaniline	<	0.00149	mg/L		U	Total	0.00149
FW-EMW02-RNSW	8270	100-02-7	4-Nitrophenol	<	0.00182	mg/L		U	Total	0.00182
FW-EMW02-RNSW	8270	56-57-5	4-Nitroquinoline-1-oxide	<	0.00088	mg/L		U	Total	0.00088
FW-EMW02-RNSW	8270	99-55-8	5-Nitro-o-toluidine	<	0.00118	mg/L		U	Total	0.00118
FW-EMW02-RNSW	8270	57-97-6	7,12-Dimethylbenz(a)anthracene	<	0.00120	mg/L		U	Total	0.00120
FW-EMW02-RNSW	8270	83-32-9	Acenaphthene	<	0.00086	mg/L		U	Total	0.00086
FW-EMW02-RNSW	8270	208-96-8	Acenaphthylene	<	0.00088	mg/L		U	Total	0.00088
FW-EMW02-RNSW	8270	98-86-2	Acetophenone	<	0.00141	mg/L		U	Total	0.00141
FW-EMW02-RNSW	8270	122-09-8	alpha, alpha-Dimethylphenethylamine	<	0.00953	mg/L		U	Total	0.00953
FW-EMW02-RNSW	8270	62-53-3	Aniline	<	0.00289	mg/L		U	Total	0.00289
FW-EMW02-RNSW	8270	120-12-7	Anthracene	<	0.00062	mg/L		U	Total	0.00062
FW-EMW02-RNSW	8270	140-57-8	Aramite	<	0.00394	mg/L		U	Total	0.00394
FW-EMW02-RNSW	8270	56-55-3	Benzo(a)anthracene	<	0.00032	mg/L		U	Total	0.00032
FW-EMW02-RNSW	8270	50-32-8	Benzo(a)pyrene	<	0.00055	mg/L		U	Total	0.00055
FW-EMW02-RNSW	8270	205-99-2	Benzo(b)fluoranthene	<	0.00051	mg/L		U	Total	0.00051
FW-EMW02-RNSW	8270	191-24-2	Benzo(ghi)perylene	<	0.00068	mg/L		U	Total	0.00068
FW-EMW02-RNSW	8270	207-08-9	Benzo(k)fluoranthene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW02-RNSW	8270	100-51-6	Benzyl Alcohol	<	0.00055	mg/L		U	Total	0.00055
FW-EMW02-RNSW	8270	111-91-1	bis(2-chloroethoxy)methane	<	0.00083	mg/L		U	Total	0.00083
FW-EMW02-RNSW	8270	111-44-4	bis(2-Chloroethyl)ether	<	0.00065	mg/L		U	Total	0.00065
FW-EMW02-RNSW	8270	108-60-1	bis(2-chloroisopropyl)ether	<	0.000991	mg/L		U	Total	0.000991
FW-EMW02-RNSW	8270	117-81-7	bis(2-ethylhexyl)phthalate	<	0.00044	mg/L		U	Total	0.00044
FW-EMW02-RNSW	8270	85-68-7	Butyl Benzyl Phthalate	<	0.00051	mg/L		U	Total	0.00051
FW-EMW02-RNSW	8270	510-15-6	Chlorobenzilate	<	0.00141	mg/L		U	Total	0.00141
FW-EMW02-RNSW	8270	218-01-9	Chrysene	<	0.00093	mg/L		U	Total	0.00093
FW-EMW02-RNSW	8270	2303-16-4	Diallate	<	0.00117	mg/L		U	Total	0.00117
FW-EMW02-RNSW	8270	53-70-3	Dibenzo(a,h)anthracene	<	0.00083	mg/L		U	Total	0.00083
FW-EMW02-RNSW	8270	132-64-9	Dibenzofuran	<	0.00047	mg/L		U	Total	0.00047
FW-EMW02-RNSW	8270	84-66-2	Diethyl Phthalate	<	0.00053	mg/L		U	Total	0.00053
FW-EMW02-RNSW	8270	60-51-5	Dimethoate	<	0.00156	mg/L		U	Total	0.00156
FW-EMW02-RNSW	8270	131-11-3	Dimethyl Phthalate	<	0.00051	mg/L		U	Total	0.00051
FW-EMW02-RNSW	8270	84-74-2	Di-n-butyl Phthalate	<	0.00053	mg/L		U	Total	0.00053
FW-EMW02-RNSW	8270	117-84-0	Di-n-octyl Phthalate	<	0.00037	mg/L		U	Total	0.00037
FW-EMW02-RNSW	8270	88-85-7	Dinoseb (DNBP)	<	0.00078	mg/L		U	Total	0.00078
FW-EMW02-RNSW	8270	122-39-4	Diphenylamine	<	0.00076	mg/L		U	Total	0.00076
FW-EMW02-RNSW	8270	62-50-0	Ethyl Methane Sulfonate	<	0.00161	mg/L		U	Total	0.00161
FW-EMW02-RNSW	8270	206-44-0	Fluoranthene	<	0.00074	mg/L		U	Total	0.00074
FW-EMW02-RNSW	8270	86-73-7	Fluorene	<	0.00048	mg/L		U	Total	0.00048
FW-EMW02-RNSW	8270	118-74-1	Hexachlorobenzene	<	0.00126	mg/L		U	Total	0.00126
FW-EMW02-RNSW	8270	87-68-3	Hexachlorobutadiene	<	0.00069	mg/L		U	Total	0.00069

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW02-RNSW	8270	77-47-4	Hexachlorocyclopentadiene	<	0.00063	mg/L		U	Total	0.00063
FW-EMW02-RNSW	8270	67-72-1	Hexachloroethane	<	0.000991	mg/L		U	Total	0.000991
FW-EMW02-RNSW	8270	70-30-4	Hexachlorophene	<	0.03030	mg/L		U	Total	0.03030
FW-EMW02-RNSW	8270	1888-71-7	Hexachloropropene	<	0.00091	mg/L		U	Total	0.00091
FW-EMW02-RNSW	8270	193-39-5	Indeno(1 2 3-cd)pyrene	<	0.00107	mg/L		U	Total	0.00107
FW-EMW02-RNSW	8270	465-73-6	Isodrin	<	0.00158	mg/L		U	Total	0.00158
FW-EMW02-RNSW	8270	78-59-1	Isophorone	<	0.00092	mg/L		U	Total	0.00092
FW-EMW02-RNSW	8270	120-58-1	Isosafrole	<	0.00108	mg/L		U	Total	0.00108
FW-EMW02-RNSW	8270	143-50-0	Kepone	<	0.02446	mg/L		U	Total	0.02446
FW-EMW02-RNSW	8270	99-65-0	m-Dinitrobenzene	<	0.00105	mg/L		U	Total	0.00105
FW-EMW02-RNSW	8270	91-80-5	Methapyrilene	<	0.00105	mg/L		U	Total	0.00105
FW-EMW02-RNSW	8270	66-27-3	Methyl Methane Sulfonate	<	0.00153	mg/L		U	Total	0.00153
FW-EMW02-RNSW	8270	91-20-3	Naphthalene	<	0.00069	mg/L		U	Total	0.00069
FW-EMW02-RNSW	8270	98-95-3	Nitrobenzene	<	0.00085	mg/L		U	Total	0.00085
FW-EMW02-RNSW	8270	55-18-5	n-Nitrosodiethylamine	<	0.00113	mg/L		U	Total	0.00113
FW-EMW02-RNSW	8270	62-75-9	n-Nitrosodimethylamine	<	0.00046	mg/L		U	Total	0.00046
FW-EMW02-RNSW	8270	924-16-3	n-Nitrosodi-n-butylamine	<	0.00148	mg/L		U	Total	0.00148
FW-EMW02-RNSW	8270	621-64-7	n-Nitrosodi-n-propylamine	<	0.00076	mg/L		U	Total	0.00076
FW-EMW02-RNSW	8270	86-30-6	n-Nitrosodiphenylamine	<	0.00068	mg/L		U	Total	0.00068
FW-EMW02-RNSW	8270	10595-95-6	n-Nitrosomethylethylamine	<	0.00101	mg/L		U	Total	0.00101
FW-EMW02-RNSW	8270	59-89-2	n-Nitrosomorpholine	<	0.00211	mg/L		U	Total	0.00211
FW-EMW02-RNSW	8270	100-75-4	n-Nitrosopiperidine	<	0.00237	mg/L		U	Total	0.00237
FW-EMW02-RNSW	8270	930-55-2	n-Nitrosopyrrolidine	<	0.00188	mg/L		U	Total	0.00188
FW-EMW02-RNSW	8270	126-68-1	O O O-Triethyl phosphorothioate	<	0.00162	mg/L		U	Total	0.00162
FW-EMW02-RNSW	8270	95-53-4	o-Toluidine	<	0.00305	mg/L		U	Total	0.00305
FW-EMW02-RNSW	8270	60-11-7	p-Dimethylaminoazobenzene	<	0.00199	mg/L		U	Total	0.00199
FW-EMW02-RNSW	8270	608-93-5	Pentachlorobenzene	<	0.00270	mg/L		U	Total	0.00270
FW-EMW02-RNSW	8270	76-01-7	Pentachloroethane	<	0.00244	mg/L		U	Total	0.00244
FW-EMW02-RNSW	8270	82-68-8	Pentachloronitrobenzene	<	0.00459	mg/L		U	Total	0.00459
FW-EMW02-RNSW	8270	87-86-5	Pentachlorophenol	<	0.00380	mg/L		U	Total	0.00380
FW-EMW02-RNSW	8270	62-44-2	Phenacetin	<	0.00130	mg/L		U	Total	0.00130
FW-EMW02-RNSW	8270	85-01-8	Phenanthrene	<	0.00047	mg/L		U	Total	0.00047
FW-EMW02-RNSW	8270	108-95-2	Phenol	<	0.00076	mg/L		U	Total	0.00076
FW-EMW02-RNSW	8270	106-50-3	p-Phenylenediamine	<	0.00953	mg/L		U	Total	0.00953
FW-EMW02-RNSW	8270	23950-58-5	Pronamide	<	0.00119	mg/L		U	Total	0.00119
FW-EMW02-RNSW	8270	129-00-0	Pyrene	<	0.00079	mg/L		U	Total	0.00079
FW-EMW02-RNSW	8270	110-86-1	Pyridine	<	0.00953	mg/L		U	Total	0.00953
FW-EMW02-RNSW	8270	94-59-7	Safrole	<	0.00127	mg/L		U	Total	0.00127
FW-EMW02-RNSW	8270	99-35-4	Sym-Trinitrobenzene	<	0.00173	mg/L		U	Total	0.00173
FW-EMW02-RNSW	8270	3689-24-5	Tetraethyldithiopyrophosphate	<	0.00132	mg/L		U	Total	0.00132
FW-EMW02-RNSW	8270	297-97-2	Thionazin	<	0.00100	mg/L		U	Total	0.00100
FW-EMW02-RNSW	8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	39227-28-6	1,2,3,4,7,8-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	70648-26-9	1,2,3,4,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	57653-85-7	1,2,3,6,7,8-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	57117-44-9	1,2,3,6,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	19408-74-3	1,2,3,7,8,9-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	72918-21-9	1,2,3,7,8,9-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	40321-76-4	1,2,3,7,8-PeCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	57117-41-6	1,2,3,7,8-PeCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	60851-34-5	2,3,4,6,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	57117-31-4	2,3,4,7,8-PeCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	1746-01-6	2,3,7,8-TCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	51207-31-9	2,3,7,8-TCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	3268-87-9	OCDD	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	8290	39001-02-0	OCDF	<	ND	PG/L		U	Total	0.0
FW-EMW02-RNSW	9012	57-12-5	Cyanide Total	<	3.579	ug/L		U	Total	3.579
FW-EMW02-RNSW	9040	CORROSIVIT	Corrosivity (pH-Liquids)	<	5.6	pH Units			Total	
FW-EMW02-RNSW	6010TR	7429-90-5	Aluminum (Al)	<	0.01800	mg/L		U	Dissolved	0.01800

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW02-RNSW	6010TR	7429-90-5	Aluminum (Al)	<	0.01800	mg/L		U	Total	0.01800
FW-EMW02-RNSW	6010TR	7440-36-0	Antimony (Sb)	<	0.00350	mg/L		U	Dissolved	0.00350
FW-EMW02-RNSW	6010TR	7440-36-0	Antimony (Sb)	<	0.00350	mg/L		U	Total	0.00350
FW-EMW02-RNSW	6010TR	7440-38-2	Arsenic (As)	<	0.00340	mg/L		U	Dissolved	0.00340
FW-EMW02-RNSW	6010TR	7440-38-2	Arsenic (As)	<	0.00340	mg/L		U	Total	0.00340
FW-EMW02-RNSW	6010TR	7440-39-3	Barium (Ba)		0.00096	mg/L		B	Dissolved	0.00060
FW-EMW02-RNSW	6010TR	7440-39-3	Barium (Ba)	<	0.00060	mg/L		U	Total	0.00060
FW-EMW02-RNSW	6010TR	7440-41-7	Beryllium (Be)	<	0.00040	mg/L		U	Dissolved	0.00040
FW-EMW02-RNSW	6010TR	7440-41-7	Beryllium (Be)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW02-RNSW	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Dissolved	0.00050
FW-EMW02-RNSW	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Total	0.00050
FW-EMW02-RNSW	6010TR	7440-47-3	Chromium (Cr)	<	0.00130	mg/L		U	Dissolved	0.00130
FW-EMW02-RNSW	6010TR	7440-47-3	Chromium (Cr)	<	0.00130	mg/L		U	Total	0.00130
FW-EMW02-RNSW	6010TR	7440-48-4	Cobalt (Co)	<	0.00070	mg/L		U	Dissolved	0.00070
FW-EMW02-RNSW	6010TR	7440-48-4	Cobalt (Co)	<	0.00070	mg/L		U	Total	0.00070
FW-EMW02-RNSW	6010TR	7440-50-8	Copper (Cu)		0.00261	mg/L		B	Dissolved	0.00180
FW-EMW02-RNSW	6010TR	7440-50-8	Copper (Cu)		0.00193	mg/L		B	Total	0.00180
FW-EMW02-RNSW	6010TR	7439-89-6	Iron (Fe)	<	0.04590	mg/L		U	Dissolved	0.04590
FW-EMW02-RNSW	6010TR	7439-89-6	Iron (Fe)	<	0.04590	mg/L		U	Total	0.04590
FW-EMW02-RNSW	6010TR	7439-92-1	Lead (Pb)	<	0.00210	mg/L		U	Dissolved	0.00210
FW-EMW02-RNSW	6010TR	7439-92-1	Lead (Pb)	<	0.00210	mg/L		U	Total	0.00210
FW-EMW02-RNSW	6010TR	7439-96-5	Manganese (Mn)		0.00767	mg/L		B	Dissolved	0.00100
FW-EMW02-RNSW	6010TR	7439-96-5	Manganese (Mn)	<	0.00100	mg/L		U	Total	0.00100
FW-EMW02-RNSW	6010TR	7440-02-0	Nickel (Ni)	<	0.00180	mg/L		U	Dissolved	0.00180
FW-EMW02-RNSW	6010TR	7440-02-0	Nickel (Ni)	<	0.00180	mg/L		U	Total	0.00180
FW-EMW02-RNSW	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Dissolved	0.00370
FW-EMW02-RNSW	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Total	0.00370
FW-EMW02-RNSW	6010TR	7440-22-4	Silver (Ag)	<	0.00120	mg/L		U	Dissolved	0.00120
FW-EMW02-RNSW	6010TR	7440-22-4	Silver (Ag)	<	0.00120	mg/L		U	Total	0.00120
FW-EMW02-RNSW	6010TR	7440-28-0	Thallium (Tl)	<	0.00470	mg/L		U	Dissolved	0.00470
FW-EMW02-RNSW	6010TR	7440-28-0	Thallium (Tl)	<	0.00470	mg/L		U	Total	0.00470
FW-EMW02-RNSW	6010TR	7440-31-5	Tin (Sn)	<	0.00280	mg/L		U	Dissolved	0.00280
FW-EMW02-RNSW	6010TR	7440-31-5	Tin (Sn)	<	0.00280	mg/L		U	Total	0.00280
FW-EMW02-RNSW	6010TR	7440-62-2	Vanadium (V)	<	0.00280	mg/L		U	Dissolved	0.00280
FW-EMW02-RNSW	6010TR	7440-62-2	Vanadium (V)	<	0.00280	mg/L		U	Total	0.00280
FW-EMW02-RNSW	6010TR	7440-66-6	Zinc (Zn)	<	0.00260	mg/L		U	Dissolved	0.00260
FW-EMW02-RNSW	6010TR	7440-66-6	Zinc (Zn)	<	0.00260	mg/L		U	Total	0.00260
FW-EMW02-RNSW	8082 Con	2051-60-7	PCB 1 (BZ)	<	ND	UG/L		U	Total	0.023
FW-EMW02-RNSW	8082 Con	37680-73-2	PCB 101 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW02-RNSW	8082 Con	38380-03-9	PCB 110 (BZ)	<	ND	UG/L		U	Total	0.0022
FW-EMW02-RNSW	8082 Con	35065-28-2	PCB 138 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW02-RNSW	8082 Con	52712-04-6	PCB 141 (BZ)	<	ND	UG/L		U	Total	0.0017
FW-EMW02-RNSW	8082 Con	52663-63-5	PCB 151 (BZ)	<	ND	UG/L		U	Total	0.0011
FW-EMW02-RNSW	8082 Con	35065-27-1	PCB 153 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW02-RNSW	8082 Con	35065-30-6	PCB 170 (BZ)	<	ND	UG/L		U	Total	0.0024
FW-EMW02-RNSW	8082 Con	37680-65-2	PCB 18 (BZ)	<	ND	UG/L		U	Total	0.0042
FW-EMW02-RNSW	8082 Con	35065-29-3	PCB 180 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW02-RNSW	8082 Con	52663-69-1	PCB 183 (BZ)	<	ND	UG/L		U	Total	0.0017
FW-EMW02-RNSW	8082 Con	52663-68-0	PCB 187 (BZ)	<	ND	UG/L		U	Total	0.0021
FW-EMW02-RNSW	8082 Con	40186-72-9	PCB 206 (BZ)		0.0011	UG/L	U	J B COL	Total	0.0010
FW-EMW02-RNSW	8082 Con	16606-02-3	PCB 31 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW02-RNSW	8082 Con	41464-39-5	PCB 44 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW02-RNSW	8082 Con	16605-91-7	PCB 5 (BZ)	<	ND	UG/L		U	Total	0.0055
FW-EMW02-RNSW	8082 Con	35693-99-3	PCB 52 (BZ)	<	ND	UG/L		U	Total	0.0049
FW-EMW02-RNSW	8082 Con	32598-10-0	PCB 66 (BZ)	<	ND	UG/L		U	Total	0.0020
FW-EMW02-RNSW	8082 Con	38380-02-8	PCB 87 (BZ)	<	ND	UG/L		U	Total	0.0020
FW-EMW02-RNSW	8260M	630-20-6	1 1 1 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW02-RNSW	8260M	71-55-6	1 1 1-Trichloroethane	<	0.00019	mg/L		U	Total	0.00019
FW-EMW02-RNSW	8260M	79-34-5	1 1 2 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW02-RNSW	8260M	79-00-5	1 1 2-Trichloroethane	<	0.00015	mg/L		U	Total	0.00015
FW-EMW02-RNSW	8260M	75-34-3	1 1-Dichloroethane	<	0.00015	mg/L		U	Total	0.00015

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW02-RNSW	8260M	75-35-4	1 1-Dichloroethene	<	0.00033	mg/L		U	Total	0.00033
FW-EMW02-RNSW	8260M	96-18-4	1 2 3-Trichloropropane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW02-RNSW	8260M	96-12-8	1 2-Dibromo-3-chloropropane	<	0.00044	mg/L		U	Total	0.00044
FW-EMW02-RNSW	8260M	106-93-4	1 2-Dibromoethane (EDB)	<	0.00017	mg/L		U	Total	0.00017
FW-EMW02-RNSW	8260M	107-06-2	1 2-Dichloroethane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW02-RNSW	8260M	78-87-5	1 2-Dichloropropane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW02-RNSW	8260M	123-91-1	1 4-Dioxane	<	0.01328	mg/L		U	Total	0.01328
FW-EMW02-RNSW	8260M	126-99-8	2-Chloro-1 3-butadiene (chloroprene)	<	0.00039	mg/L		U	Total	0.00039
FW-EMW02-RNSW	8260M	591-78-6	2-Hexanone	<	0.00029	mg/L		U	Total	0.00029
FW-EMW02-RNSW	8260M	108-10-1	4-Methyl-2-pentanone (MIBK)	<	0.00014	mg/L		U	Total	0.00014
FW-EMW02-RNSW	8260M	67-64-1	Acetone	<	0.00132	mg/L	U	J	Total	0.00094
FW-EMW02-RNSW	8260M	75-05-8	Acetonitrile	<	0.00132	mg/L		U	Total	0.00132
FW-EMW02-RNSW	8260M	107-02-8	Acrolein	<	0.00215	mg/L		U	Total	0.00215
FW-EMW02-RNSW	8260M	107-13-1	Acrylonitrile	<	0.00102	mg/L		U	Total	0.00102
FW-EMW02-RNSW	8260M	107-05-1	Allyl chloride	<	0.00060	mg/L		U	Total	0.00060
FW-EMW02-RNSW	8260M	71-43-2	Benzene	<	0.00008	mg/L		U	Total	0.00008
FW-EMW02-RNSW	8260M	75-27-4	Bromodichloromethane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW02-RNSW	8260M	75-25-2	Bromoform	<	0.00018	mg/L		U	Total	0.00018
FW-EMW02-RNSW	8260M	74-83-9	Bromomethane	<	0.00045	mg/L		U	Total	0.00045
FW-EMW02-RNSW	8260M	75-15-0	Carbon Disulfide	<	0.00030	mg/L		U	Total	0.00030
FW-EMW02-RNSW	8260M	56-23-5	Carbon Tetrachloride	<	0.00022	mg/L		U	Total	0.00022
FW-EMW02-RNSW	8260M	108-90-7	Chlorobenzene	<	0.00013	mg/L		U	Total	0.00013
FW-EMW02-RNSW	8260M	75-00-3	Chloroethane	<	0.00021	mg/L		U	Total	0.00021
FW-EMW02-RNSW	8260M	67-66-3	Chloroform	<	0.00024	mg/L		U	Total	0.00024
FW-EMW02-RNSW	8260M	74-87-3	Chloromethane	<	0.00013	mg/L		U	Total	0.00013
FW-EMW02-RNSW	8260M	156-59-2	cis-1 2-Dichloroethene	<	0.00023	mg/L		U	Total	0.00023
FW-EMW02-RNSW	8260M	10061-01-5	cis-1 3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
FW-EMW02-RNSW	8260M	124-48-1	Dibromochloromethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW02-RNSW	8260M	74-95-3	Dibromomethane	<	0.00020	mg/L		U	Total	0.00020
FW-EMW02-RNSW	8260M	75-71-8	Dichlorodifluoromethane	<	0.00031	mg/L		U	Total	0.00031
FW-EMW02-RNSW	8260M	97-63-2	Ethyl Methacrylate	<	0.00038	mg/L		U	Total	0.00038
FW-EMW02-RNSW	8260M	100-41-4	Ethylbenzene	<	0.00015	mg/L		U	Total	0.00015
FW-EMW02-RNSW	8260M	74-88-4	Iodomethane	<	0.00021	mg/L		U	Total	0.00021
FW-EMW02-RNSW	8260M	78-83-1	Isobutyl Alcohol	<	0.00313	mg/L		U	Total	0.00313
FW-EMW02-RNSW	8260M	126-98-7	Methacrylonitrile	<	0.00059	mg/L		U	Total	0.00059
FW-EMW02-RNSW	8260M	78-93-3	Methyl Ethyl Ketone (2-Butanone)	<	0.00034	mg/L		U	Total	0.00034
FW-EMW02-RNSW	8260M	80-62-6	Methyl Methacrylate	<	0.00050	mg/L		U	Total	0.00050
FW-EMW02-RNSW	8260M	1634-04-4	Methyl tert-Butyl ether	<	0.00056	mg/L		U	Total	0.00056
FW-EMW02-RNSW	8260M	75-09-2	Methylene Chloride	<	0.00074	mg/L		U	Total	0.00074
FW-EMW02-RNSW	8260M	107-12-0	Propionitrile	<	0.00068	mg/L		U	Total	0.00068
FW-EMW02-RNSW	8260M	100-42-5	Styrene	<	0.00087	mg/L		U	Total	0.00087
FW-EMW02-RNSW	8260M	127-18-4	Tetrachloroethene	<	0.00017	mg/L		U	Total	0.00017
FW-EMW02-RNSW	8260M	108-88-3	Toluene	<	0.00015	mg/L		U	Total	0.00015
FW-EMW02-RNSW	8260M	156-60-5	trans-1 2-Dichloroethene	<	0.00025	mg/L		U	Total	0.00025
FW-EMW02-RNSW	8260M	10061-02-6	trans-1 3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
FW-EMW02-RNSW	8260M	110-57-6	trans-1 4-Dichloro-2-butene	<	0.00029	mg/L		U	Total	0.00029
FW-EMW02-RNSW	8260M	79-01-6	Trichloroethene	<	0.00026	mg/L		U	Total	0.00026
FW-EMW02-RNSW	8260M	75-69-4	Trichlorofluoromethane	<	0.00030	mg/L		U	Total	0.00030
FW-EMW02-RNSW	8260M	108-05-4	Vinyl Acetate	<	0.00045	mg/L		U	Total	0.00045
FW-EMW02-RNSW	8260M	75-01-4	Vinyl Chloride	<	0.00018	mg/L		U	Total	0.00018
FW-EMW02-RNSW	8260M	1330-20-7	Xylenes (total)	<	0.00046	mg/L		U	Total	0.00046
FW-EMW02-RNSW	SW8330	99-35-4	1,3,5-Trinitrobenzene	<	0.25	ug/L		U	Total	0.182
FW-EMW02-RNSW	SW8330	99-65-0	1,3-Dinitrobenzene	<	0.25	ug/L		U	Total	0.0550
FW-EMW02-RNSW	SW8330		2,2'-Azoxy	<	0.25	ug/L		U	Total	0.05600
FW-EMW02-RNSW	SW8330	118-96-7	2,4,6-Trinitrotoluene	<	0.25	ug/L		U	Total	0.0320
FW-EMW02-RNSW	SW8330	6629-29-4	2,4-Diamino-6-nitrotoluene	<	0.25	ug/L		U	Total	0.112
FW-EMW02-RNSW	SW8330	121-14-2	2,4-Dinitrotoluene	<	0.25	ug/L		U	Total	0.0440
FW-EMW02-RNSW	SW8330	59229-75-3	2,6-Diamino-4-nitrotoluene	<	0.50	ug/L		U	Total	0.127
FW-EMW02-RNSW	SW8330	606-20-2	2,6-Dinitrotoluene	<	0.25	ug/L		U	Total	0.0720
FW-EMW02-RNSW	SW8330	35572-78-2	2-Amino-4,6-dinitrotoluene	<	0.25	ug/L		U	Total	0.0300
FW-EMW02-RNSW	SW8330	88-72-2	2-Nitrotoluene	<	0.25	ug/L		U	Total	0.0190

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW02-RNSW	SW8330	99-08-1	3-Nitrotoluene	<	0.25	ug/L		U	Total	0.0470
FW-EMW02-RNSW	SW8330		4,4'-Azoxy	<	0.25	ug/L		U	Total	0.05600
FW-EMW02-RNSW	SW8330	19406-51-0	4-Amino-2,6-dinitrotoluene	<	0.25	ug/L		U	Total	0.155
FW-EMW02-RNSW	SW8330	99-99-0	4-Nitrotoluene	<	0.25	ug/L		U	Total	0.0480
FW-EMW02-RNSW	SW8330	TEMPCAS2	DNX	<	0.25	ug/L	UJ	U	Total	0.06030
FW-EMW02-RNSW	SW8330	2691-41-0	HMX	<	0.25	ug/L		U	Total	0.0540
FW-EMW02-RNSW	SW8330	TEMPCAS1	MNX	<	0.25	ug/L		U	Total	0.03760
FW-EMW02-RNSW	SW8330	98-95-3	Nitrobenzene	<	0.25	ug/L		U	Total	0.0550
FW-EMW02-RNSW	SW8330	55-63-0	Nitroglycerin	<	5.0	ug/L		U	Total	4.212
FW-EMW02-RNSW	SW8330	78-11-5	PETN	<	10	ug/L		U	Total	3.477
FW-EMW02-RNSW	SW8330	88-89-1	Picric acid	<	0.25	ug/L		U	Total	0.172
FW-EMW02-RNSW	SW8330	38082-89-2	PYX	<	0.25	ug/L		U	Total	0.05600
FW-EMW02-RNSW	SW8330	121-82-4	RDX	<	0.25	ug/L		U	Total	0.0450
FW-EMW02-RNSW	SW8330	479-45-8	Tetryl	<	0.25	ug/L		U	Total	0.105
FW-EMW02-RNSW	SW8330	13980-04-6	TNX	<	0.25	ug/L	UJ	U	Total	0.0390
FW-EMW03	150.1	PH	pH		11.63	pH Units			Total	
FW-EMW03	160.1	TDS	Solids Total Dissolved (TDS)		3920	mg/L			Total	2.99
FW-EMW03	300.0	16887-00-6	Chloride		213	mg/L			Total	0.70
FW-EMW03	300.0	16984-48-8	Fluoride (F)		1.70	mg/L			Total	0.047
FW-EMW03	300.0	14808-79-8	Sulfate (SO4)		2130	mg/L			Total	40.5
FW-EMW03	376.1	18496-25-8	Sulfide	<	0.87	mg/L		U	Total	0.87
FW-EMW03	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		U	Dissolved	0.000031
FW-EMW03	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		U	Total	0.000031
FW-EMW03	8081	72-54-8	4 4'-DDD	<	0.000030	mg/L		U	Total	0.000030
FW-EMW03	8081	72-55-9	4 4'-DDE	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03	8081	50-29-3	4 4'-DDT	<	0.000040	mg/L	UJ	U	Total	0.000040
FW-EMW03	8081	309-00-2	Aldrin	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03	8081	319-84-6	alpha-BHC	<	0.000030	mg/L		U	Total	0.000030
FW-EMW03	8081	319-85-7	beta-BHC	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03	8081	12789-03-6	Chlordane	<	0.001350	mg/L		U	Total	0.001350
FW-EMW03	8081	319-86-8	delta-BHC	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03	8081	60-57-1	Dieldrin	<	0.000030	mg/L		U	Total	0.000030
FW-EMW03	8081	959-98-8	Endosulfan I	<	0.000090	mg/L		U	Total	0.000090
FW-EMW03	8081	33213-65-9	Endosulfan II	<	0.000060	mg/L	UJ	U	Total	0.000060
FW-EMW03	8081	1031-07-8	Endosulfan sulfate	<	0.000080	mg/L	UJ	U	Total	0.000080
FW-EMW03	8081	72-20-8	Endrin	<	0.000080	mg/L		U	Total	0.000080
FW-EMW03	8081	7421-93-4	Endrin aldehyde	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03	8081	58-89-9	gamma-BHC (Lindane)	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03	8081	76-44-8	Heptachlor	<	0.000120	mg/L		U	Total	0.000120
FW-EMW03	8081	1024-57-3	Heptachlor epoxide	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03	8081	72-43-5	Methoxychlor	<	0.000090	mg/L	UJ	U	Total	0.000090
FW-EMW03	8081	8001-35-2	Toxaphene	<	0.001830	mg/L		U	Total	0.001830
FW-EMW03	8082	12674-11-2	Aroclor 1016	<	0.00019	mg/L		U	Total	0.00019
FW-EMW03	8082	11104-28-2	Aroclor 1221	<	0.00045	mg/L		U	Total	0.00045
FW-EMW03	8082	11141-16-5	Aroclor 1232	<	0.00025	mg/L		U	Total	0.00025
FW-EMW03	8082	53469-21-9	Aroclor 1242	<	0.00029	mg/L		U	Total	0.00029
FW-EMW03	8082	12672-29-6	Aroclor 1248	<	0.00015	mg/L		U	Total	0.00015
FW-EMW03	8082	11097-69-1	Aroclor 1254	<	0.00014	mg/L		U	Total	0.00014
FW-EMW03	8082	11096-82-5	Aroclor 1260	<	0.00015	mg/L		U	Total	0.00015
FW-EMW03	8141	60-51-5	Dimethoate	<	2	ug/l		U	Total	0.2
FW-EMW03	8141	298-04-4	Disulfoton	<	2	ug/l		U	Total	0.44
FW-EMW03	8141	56-38-2	Ethyl Parathion	<	1	ug/l		U	Total	0.23
FW-EMW03	8141	52-85-7	Famphur	<	2	ug/l		U	Total	0.18
FW-EMW03	8141	298-00-0	Methyl parathion	<	0.5	ug/l		U	Total	0.34
FW-EMW03	8141	298-02-2	Phorate	<	1	ug/l		U	Total	0.3
FW-EMW03	8141	3689-24-5	Sulfotepp (Tetraethyl dithiopyrophosphate)	<	0.5	ug/l		U	Total	0.19
FW-EMW03	8151	93-76-5	2 4 5-T	<	0.00026	mg/L		U	Total	0.00026
FW-EMW03	8151	93-72-1	2 4 5-TP (Silvex)	<	0.00026	mg/L		U	Total	0.00026
FW-EMW03	8151	94-75-7	2 4-D	<	0.00024	mg/L		U	Total	0.00024
FW-EMW03	8151	88-85-7	Dinoseb (DNBP)	<	0.00030	mg/L		U	Total	0.00030
FW-EMW03	8270	95-94-3	1 2 4 5-Tetrachlorobenzene	<	0.00139	mg/L		U	Total	0.00139

APPENDIX F

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Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW03	8270	120-82-1	1 2 4-Trichlorobenzene	<	0.00076	mg/L		U	Total	0.00076
FW-EMW03	8270	95-50-1	1 2-Dichlorobenzene	<	0.00060	mg/L		U	Total	0.00060
FW-EMW03	8270	541-73-1	1 3-Dichlorobenzene	<	0.00073	mg/L		U	Total	0.00073
FW-EMW03	8270	106-46-7	1 4-Dichlorobenzene	<	0.00093	mg/L		U	Total	0.00093
FW-EMW03	8270	130-15-4	1 4-Naphthoquinone	<	0.00128	mg/L		U	Total	0.00128
FW-EMW03	8270	134-32-7	1-Naphthylamine	<	0.00204	mg/L		U	Total	0.00204
FW-EMW03	8270	58-90-2	2 3 4 6-Tetrachlorophenol	<	0.00136	mg/L		U	Total	0.00136
FW-EMW03	8270	95-95-4	2 4 5-Trichlorophenol	<	0.00104	mg/L		U	Total	0.00104
FW-EMW03	8270	88-06-2	2 4 6-Trichlorophenol	<	0.00133	mg/L		U	Total	0.00133
FW-EMW03	8270	120-83-2	2 4-Dichlorophenol	<	0.00070	mg/L		U	Total	0.00070
FW-EMW03	8270	105-67-9	2 4-Dimethylphenol	<	0.00087	mg/L		U	Total	0.00087
FW-EMW03	8270	51-28-5	2 4-Dinitrophenol	<	0.00204	mg/L		U	Total	0.00204
FW-EMW03	8270	121-14-2	2 4-Dinitrotoluene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW03	8270	87-65-0	2 6-Dichlorophenol	<	0.00140	mg/L		U	Total	0.00140
FW-EMW03	8270	606-20-2	2 6-Dinitrotoluene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW03	8270	53-96-3	2-Acetylaminofluorene	<	0.00146	mg/L		U	Total	0.00146
FW-EMW03	8270	91-58-7	2-Chloronaphthalene	<	0.00093	mg/L		U	Total	0.00093
FW-EMW03	8270	95-57-8	2-Chlorophenol	<	0.00068	mg/L		U	Total	0.00068
FW-EMW03	8270	534-52-1	2-Methyl-4-dinitrophenol	<	0.00055	mg/L		U	Total	0.00055
FW-EMW03	8270	91-57-6	2-Methylnaphthalene	<	0.00085	mg/L		U	Total	0.00085
FW-EMW03	8270	95-48-7	2-Methylphenol (o-Cresol)	<	0.00108	mg/L		U	Total	0.00108
FW-EMW03	8270	91-59-8	2-Naphthylamine	<	0.00236	mg/L		U	Total	0.00236
FW-EMW03	8270	88-74-4	2-Nitroaniline	<	0.00066	mg/L		U	Total	0.00066
FW-EMW03	8270	88-75-5	2-Nitrophenol	<	0.00121	mg/L		U	Total	0.00121
FW-EMW03	8270	109-06-8	2-Picoline	<	0.00155	mg/L		U	Total	0.00155
FW-EMW03	8270	91-94-1	3 3'-Dichlorobenzidine	<	0.00103	mg/L		U	Total	0.00103
FW-EMW03	8270	119-93-7	3 3-Dimethylbenzidine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW03	8270	56-49-5	3-Methylcholanthrene	<	0.00206	mg/L		U	Total	0.00206
FW-EMW03	8270	108-39-4	3-Methylphenol (m-Cresol)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW03	8270	99-09-2	3-Nitroaniline	<	0.00110	mg/L		U	Total	0.00110
FW-EMW03	8270	92-67-1	4-Aminobiphenyl	<	0.00287	mg/L		U	Total	0.00287
FW-EMW03	8270	101-55-3	4-Bromophenyl Phenyl Ether	<	0.00079	mg/L		U	Total	0.00079
FW-EMW03	8270	59-50-7	4-Chloro-3-methylphenol	<	0.00080	mg/L		U	Total	0.00080
FW-EMW03	8270	106-47-8	4-Chloroaniline	<	0.00127	mg/L		U	Total	0.00127
FW-EMW03	8270	7005-72-3	4-Chlorophenyl Phenyl Ether	<	0.00071	mg/L		U	Total	0.00071
FW-EMW03	8270	106-44-5	4-Methylphenol (p-Cresol)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW03	8270	100-01-6	4-Nitroaniline	<	0.00156	mg/L		U	Total	0.00156
FW-EMW03	8270	100-02-7	4-Nitrophenol	<	0.00191	mg/L		U	Total	0.00191
FW-EMW03	8270	56-57-5	4-Nitroquinoline-1-oxide	<	0.00092	mg/L		U	Total	0.00092
FW-EMW03	8270	99-55-8	5-Nitro-o-toluidine	<	0.00124	mg/L		U	Total	0.00124
FW-EMW03	8270	57-97-6	7 12-Dimethylbenz(a)anthracene	<	0.00126	mg/L		U	Total	0.00126
FW-EMW03	8270	83-32-9	Acenaphthene	<	0.00090	mg/L		U	Total	0.00090
FW-EMW03	8270	208-96-8	Acenaphthylene	<	0.00092	mg/L		U	Total	0.00092
FW-EMW03	8270	98-86-2	Acetophenone	<	0.00148	mg/L		U	Total	0.00148
FW-EMW03	8270	122-09-8	alpha alpha-Dimethylphenethylamine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW03	8270	62-53-3	Aniline	<	0.00303	mg/L		U	Total	0.00303
FW-EMW03	8270	120-12-7	Anthracene	<	0.00065	mg/L		U	Total	0.00065
FW-EMW03	8270	140-57-8	Aramite	<	0.00413	mg/L		U	Total	0.00413
FW-EMW03	8270	56-55-3	Benzo(a)anthracene	<	0.00034	mg/L		U	Total	0.00034
FW-EMW03	8270	50-32-8	Benzo(a)pyrene	<	0.00058	mg/L		U	Total	0.00058
FW-EMW03	8270	205-99-2	Benzo(b)fluoranthene	<	0.00054	mg/L		U	Total	0.00054
FW-EMW03	8270	191-24-2	Benzo(ghi)perylene	<	0.00071	mg/L		U	Total	0.00071
FW-EMW03	8270	207-08-9	Benzo(k)fluoranthene	<	0.00076	mg/L		U	Total	0.00076
FW-EMW03	8270	100-51-6	Benzyl Alcohol	<	0.00058	mg/L		U	Total	0.00058
FW-EMW03	8270	111-91-1	bis(2-chloroethoxy)methane	<	0.00087	mg/L		U	Total	0.00087
FW-EMW03	8270	111-44-4	bis(2-Chloroethyl)ether	<	0.00068	mg/L		U	Total	0.00068
FW-EMW03	8270	108-60-1	bis(2-chloroisopropyl)ether	<	0.00104	mg/L		U	Total	0.00104
FW-EMW03	8270	117-81-7	bis(2-ethylhexyl)phthalate	<	0.00046	mg/L		U	Total	0.00046
FW-EMW03	8270	85-68-7	Butyl Benzyl Phthalate	<	0.00054	mg/L		U	Total	0.00054
FW-EMW03	8270	510-15-6	Chlorobenzilate	<	0.00148	mg/L		U	Total	0.00148
FW-EMW03	8270	218-01-9	Chrysene	<	0.00098	mg/L		U	Total	0.00098

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW03	8270	2303-16-4	Diallate	<	0.00123	mg/L		U	Total	0.00123
FW-EMW03	8270	53-70-3	Dibenzo(a,h)anthracene	<	0.00087	mg/L		U	Total	0.00087
FW-EMW03	8270	132-64-9	Dibenzofuran	<	0.00049	mg/L		U	Total	0.00049
FW-EMW03	8270	84-66-2	Diethyl Phthalate	<	0.00056	mg/L		U	Total	0.00056
FW-EMW03	8270	60-51-5	Dimethoate	<	0.00164	mg/L		U	Total	0.00164
FW-EMW03	8270	131-11-3	Dimethyl Phthalate	<	0.00054	mg/L		U	Total	0.00054
FW-EMW03	8270	84-74-2	Di-n-butyl Phthalate	<	0.00056	mg/L		U	Total	0.00056
FW-EMW03	8270	117-84-0	Di-n-octyl Phthalate	<	0.00039	mg/L		U	Total	0.00039
FW-EMW03	8270	88-85-7	Dinoseb (DNBP)	<	0.00082	mg/L		U	Total	0.00082
FW-EMW03	8270	122-39-4	Diphenylamine	<	0.00080	mg/L		U	Total	0.00080
FW-EMW03	8270	62-50-0	Ethyl Methane Sulfonate	<	0.00169	mg/L		U	Total	0.00169
FW-EMW03	8270	206-44-0	Fluoranthene	<	0.00078	mg/L		U	Total	0.00078
FW-EMW03	8270	86-73-7	Fluorene	<	0.00050	mg/L		U	Total	0.00050
FW-EMW03	8270	118-74-1	Hexachlorobenzene	<	0.00132	mg/L		U	Total	0.00132
FW-EMW03	8270	87-68-3	Hexachlorobutadiene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW03	8270	77-47-4	Hexachlorocyclopentadiene	<	0.00066	mg/L		U	Total	0.00066
FW-EMW03	8270	67-72-1	Hexachloroethane	<	0.00104	mg/L		U	Total	0.00104
FW-EMW03	8270	70-30-4	Hexachlorophene	<	0.03179	mg/L		U	Total	0.03179
FW-EMW03	8270	1888-71-7	Hexachloropropene	<	0.00096	mg/L		U	Total	0.00096
FW-EMW03	8270	193-39-5	Indeno(1,2,3-cd)pyrene	<	0.00112	mg/L		U	Total	0.00112
FW-EMW03	8270	465-73-6	Isodrin	<	0.00166	mg/L		U	Total	0.00166
FW-EMW03	8270	78-59-1	Isophorone	<	0.00097	mg/L		U	Total	0.00097
FW-EMW03	8270	120-58-1	Isosafrole	<	0.00113	mg/L		U	Total	0.00113
FW-EMW03	8270	143-50-0	Kepone	<	0.02567	mg/L		U	Total	0.02567
FW-EMW03	8270	99-65-0	m-Dinitrobenzene	<	0.00110	mg/L		U	Total	0.00110
FW-EMW03	8270	91-80-5	Methapyriline	<	0.00110	mg/L		U	Total	0.00110
FW-EMW03	8270	66-27-3	Methyl Methane Sulfonate	<	0.00161	mg/L		U	Total	0.00161
FW-EMW03	8270	91-20-3	Naphthalene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW03	8270	98-95-3	Nitrobenzene	<	0.00089	mg/L		U	Total	0.00089
FW-EMW03	8270	55-18-5	n-Nitrosodiethylamine	<	0.00119	mg/L		U	Total	0.00119
FW-EMW03	8270	62-75-9	n-Nitrosodimethylamine	<	0.00048	mg/L		U	Total	0.00048
FW-EMW03	8270	924-16-3	n-Nitrosodi-n-butylamine	<	0.00155	mg/L		U	Total	0.00155
FW-EMW03	8270	621-64-7	n-Nitrosodi-n-propylamine	<	0.00080	mg/L		U	Total	0.00080
FW-EMW03	8270	86-30-6	n-Nitrosodiphenylamine	<	0.00071	mg/L		U	Total	0.00071
FW-EMW03	8270	10595-95-6	n-Nitrosomethylethylamine	<	0.00106	mg/L		U	Total	0.00106
FW-EMW03	8270	59-89-2	n-Nitrosomorpholine	<	0.00221	mg/L		U	Total	0.00221
FW-EMW03	8270	100-75-4	n-Nitrosopiperidine	<	0.00249	mg/L		U	Total	0.00249
FW-EMW03	8270	930-55-2	n-Nitrosopyrrolidine	<	0.00197	mg/L		U	Total	0.00197
FW-EMW03	8270	126-68-1	O O O-Triethyl phosphorothioate	<	0.00170	mg/L		U	Total	0.00170
FW-EMW03	8270	95-53-4	o-Toluidine	<	0.00320	mg/L		U	Total	0.00320
FW-EMW03	8270	60-11-7	p-Dimethylaminoazobenzene	<	0.00209	mg/L		U	Total	0.00209
FW-EMW03	8270	608-93-5	Pentachlorobenzene	<	0.00283	mg/L		U	Total	0.00283
FW-EMW03	8270	76-01-7	Pentachloroethane	<	0.00256	mg/L		U	Total	0.00256
FW-EMW03	8270	82-68-8	Pentachloronitrobenzene	<	0.00482	mg/L		U	Total	0.00482
FW-EMW03	8270	87-86-5	Pentachlorophenol	<	0.00399	mg/L		U	Total	0.00399
FW-EMW03	8270	62-44-2	Phenacetin	<	0.00136	mg/L		U	Total	0.00136
FW-EMW03	8270	85-01-8	Phenanthrene	<	0.00049	mg/L		U	Total	0.00049
FW-EMW03	8270	108-95-2	Phenol	<	0.00080	mg/L		U	Total	0.00080
FW-EMW03	8270	106-50-3	p-Phenylenediamine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW03	8270	23950-58-5	Pronamide	<	0.00125	mg/L		U	Total	0.00125
FW-EMW03	8270	129-00-0	Pyrene	<	0.00083	mg/L		U	Total	0.00083
FW-EMW03	8270	110-86-1	Pyridine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW03	8270	94-59-7	Safrole	<	0.00133	mg/L		U	Total	0.00133
FW-EMW03	8270	99-35-4	Sym-Trinitrobenzene	<	0.00182	mg/L		U	Total	0.00182
FW-EMW03	8270	3689-24-5	Tetraethyldithiopyrophosphate	<	0.00138	mg/L		U	Total	0.00138
FW-EMW03	8270	297-97-2	Thionazin	<	0.00105	mg/L		U	Total	0.00105
FW-EMW03	8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	67562-39-4	1,2,3,4,6,7,8,9-HpCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	39227-28-6	1,2,3,4,7,8-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	70648-26-9	1,2,3,4,7,8-HxCDF	<	ND	PG/L		U	Total	0.0

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW03	8290	57653-85-7	1,2,3,6,7,8-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	57117-44-9	1,2,3,6,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	19408-74-3	1,2,3,7,8,9-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	72918-21-9	1,2,3,7,8,9-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	40321-76-4	1,2,3,7,8-PeCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	57117-41-6	1,2,3,7,8-PeCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	60851-34-5	2,3,4,6,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	57117-31-4	2,3,4,7,8-PeCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	1746-01-6	2,3,7,8-TCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	51207-31-9	2,3,7,8-TCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03	8290	3268-87-9	OCDD	<	8.0	PG/L	U	B J	Total	0.0
FW-EMW03	8290	39001-02-0	OCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03	9012	57-12-5	Cyanide Total	<	3.579	ug/L		U	Total	3.579
FW-EMW03	300SH	14797-55-8	Nitrogen Nitrate as N (NO3-N)	<	0.057	mg/L		U	Total	0.057
FW-EMW03	353.2P	7727-37-9	Nitrate + Nitrite as N	<	0.669	mg/L			Total	0.007
FW-EMW03	6010TR	7429-90-5	Aluminum (Al)	<	1.60	mg/L			Dissolved	0.01800
FW-EMW03	6010TR	7429-90-5	Aluminum (Al)	<	1.46	mg/L			Total	0.01800
FW-EMW03	6010TR	7440-36-0	Antimony (Sb)	<	0.00350	mg/L		U	Dissolved	0.00350
FW-EMW03	6010TR	7440-36-0	Antimony (Sb)	<	0.00350	mg/L		U	Total	0.00350
FW-EMW03	6010TR	7440-38-2	Arsenic (As)	<	0.00355	mg/L		B	Dissolved	0.00340
FW-EMW03	6010TR	7440-38-2	Arsenic (As)	<	0.00340	mg/L		U	Total	0.00340
FW-EMW03	6010TR	7440-39-3	Barium (Ba)	<	0.107	mg/L			Dissolved	0.00060
FW-EMW03	6010TR	7440-39-3	Barium (Ba)	<	0.113	mg/L			Total	0.00060
FW-EMW03	6010TR	7440-41-7	Beryllium (Be)	<	0.00040	mg/L		U	Dissolved	0.00040
FW-EMW03	6010TR	7440-41-7	Beryllium (Be)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW03	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Dissolved	0.00050
FW-EMW03	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Total	0.00050
FW-EMW03	6010TR	7440-47-3	Chromium (Cr)	<	0.103	mg/L			Dissolved	0.00130
FW-EMW03	6010TR	7440-47-3	Chromium (Cr)	<	0.0941	mg/L			Total	0.00130
FW-EMW03	6010TR	7440-48-4	Cobalt (Co)	<	0.00082	mg/L		B	Total	0.00070
FW-EMW03	6010TR	7440-48-4	Cobalt (Co)	<	0.00070	mg/L		U	Dissolved	0.00070
FW-EMW03	6010TR	7440-50-8	Copper (Cu)	<	0.0117	mg/L			Dissolved	0.00180
FW-EMW03	6010TR	7440-50-8	Copper (Cu)	<	0.0122	mg/L			Total	0.00180
FW-EMW03	6010TR	7439-89-6	Iron (Fe)	<	0.0703	mg/L		B	Dissolved	0.04590
FW-EMW03	6010TR	7439-89-6	Iron (Fe)	<	0.151	mg/L		B	Total	0.04590
FW-EMW03	6010TR	7439-92-1	Lead (Pb)	<	0.00210	mg/L		U	Dissolved	0.00210
FW-EMW03	6010TR	7439-92-1	Lead (Pb)	<	0.00210	mg/L		U	Total	0.00210
FW-EMW03	6010TR	7439-96-5	Manganese (Mn)	<	0.00144	mg/L		B	Dissolved	0.00100
FW-EMW03	6010TR	7439-96-5	Manganese (Mn)	<	0.00214	mg/L		B	Total	0.00100
FW-EMW03	6010TR	7440-02-0	Nickel (Ni)	<	0.00180	mg/L		U	Dissolved	0.00180
FW-EMW03	6010TR	7440-02-0	Nickel (Ni)	<	0.00180	mg/L		U	Total	0.00180
FW-EMW03	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Dissolved	0.00370
FW-EMW03	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Total	0.00370
FW-EMW03	6010TR	7440-22-4	Silver (Ag)	<	0.00120	mg/L		U	Dissolved	0.00120
FW-EMW03	6010TR	7440-22-4	Silver (Ag)	<	0.00120	mg/L		U	Total	0.00120
FW-EMW03	6010TR	7440-28-0	Thallium (Tl)	<	0.00509	mg/L		B	Total	0.00470
FW-EMW03	6010TR	7440-28-0	Thallium (Tl)	<	0.00470	mg/L		U	Dissolved	0.00470
FW-EMW03	6010TR	7440-31-5	Tin (Sn)	<	0.00280	mg/L		U	Dissolved	0.00280
FW-EMW03	6010TR	7440-31-5	Tin (Sn)	<	0.00280	mg/L		U	Total	0.00280
FW-EMW03	6010TR	7440-62-2	Vanadium (V)	<	0.0859	mg/L			Dissolved	0.00280
FW-EMW03	6010TR	7440-62-2	Vanadium (V)	<	0.0871	mg/L			Total	0.00280
FW-EMW03	6010TR	7440-66-6	Zinc (Zn)	<	0.0132	mg/L		B	Dissolved	0.00260
FW-EMW03	6010TR	7440-66-6	Zinc (Zn)	<	0.00799	mg/L		B	Total	0.00260
FW-EMW03	8082 Con	2051-60-7	PCB 1 (BZ)	<	ND	UG/L		U	Total	0.023
FW-EMW03	8082 Con	37680-73-2	PCB 101 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW03	8082 Con	38380-03-9	PCB 110 (BZ)	<	ND	UG/L		U	Total	0.0022
FW-EMW03	8082 Con	35065-28-2	PCB 138 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW03	8082 Con	52712-04-6	PCB 141 (BZ)	<	ND	UG/L		U	Total	0.0017
FW-EMW03	8082 Con	52663-63-5	PCB 151 (BZ)	<	ND	UG/L		U	Total	0.0011
FW-EMW03	8082 Con	35065-27-1	PCB 153 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW03	8082 Con	35065-30-6	PCB 170 (BZ)	<	ND	UG/L		U	Total	0.0024

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW03	8082 Con	37680-65-2	PCB 18 (BZ)	<	ND	UG/L		U	Total	0.0042
FW-EMW03	8082 Con	35065-29-3	PCB 180 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW03	8082 Con	52663-69-1	PCB 183 (BZ)	<	ND	UG/L		U	Total	0.0017
FW-EMW03	8082 Con	52663-68-0	PCB 187 (BZ)	<	ND	UG/L		U	Total	0.0021
FW-EMW03	8082 Con	40186-72-9	PCB 206 (BZ)	<	0.0015	UG/L	U	J B	Total	0.0010
FW-EMW03	8082 Con	16606-02-3	PCB 31 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW03	8082 Con	41464-39-5	PCB 44 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW03	8082 Con	16605-91-7	PCB 5 (BZ)	<	ND	UG/L		U	Total	0.0055
FW-EMW03	8082 Con	35693-99-3	PCB 52 (BZ)	<	ND	UG/L		U	Total	0.0049
FW-EMW03	8082 Con	32598-10-0	PCB 66 (BZ)	<	ND	UG/L		U	Total	0.0020
FW-EMW03	8082 Con	38380-02-8	PCB 87 (BZ)	<	ND	UG/L		U	Total	0.0020
FW-EMW03	8260M	630-20-6	1 1 1 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW03	8260M	71-55-6	1 1 1-Trichloroethane	<	0.00019	mg/L		U	Total	0.00019
FW-EMW03	8260M	79-34-5	1 1 2 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW03	8260M	79-00-5	1 1 2-Trichloroethane	<	0.00015	mg/L		U	Total	0.00015
FW-EMW03	8260M	75-34-3	1 1-Dichloroethane	<	0.00015	mg/L		U	Total	0.00015
FW-EMW03	8260M	75-35-4	1 1-Dichloroethene	<	0.00033	mg/L		U	Total	0.00033
FW-EMW03	8260M	96-18-4	1 2 3-Trichloropropane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW03	8260M	96-12-8	1 2-Dibromo-3-chloropropane	<	0.00044	mg/L		U	Total	0.00044
FW-EMW03	8260M	106-93-4	1 2-Dibromoethane (EDB)	<	0.00017	mg/L		U	Total	0.00017
FW-EMW03	8260M	107-06-2	1 2-Dichloroethane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW03	8260M	78-87-5	1 2-Dichloropropane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW03	8260M	123-91-1	1 4-Dioxane	<	0.01328	mg/L		U	Total	0.01328
FW-EMW03	8260M	126-99-8	2-Chloro-1 3-butadiene (chloroprene)	<	0.00039	mg/L		U	Total	0.00039
FW-EMW03	8260M	591-78-6	2-Hexanone	<	0.00029	mg/L		U	Total	0.00029
FW-EMW03	8260M	108-10-1	4-Methyl-2-pentanone (MIBK)	<	0.00014	mg/L		U	Total	0.00014
FW-EMW03	8260M	67-64-1	Acetone	<	0.0136	mg/L			Total	0.00094
FW-EMW03	8260M	75-05-8	Acetonitrile	<	0.00132	mg/L		U	Total	0.00132
FW-EMW03	8260M	107-02-8	Acrolein	<	0.00215	mg/L		U	Total	0.00215
FW-EMW03	8260M	107-13-1	Acrylonitrile	<	0.00102	mg/L		U	Total	0.00102
FW-EMW03	8260M	107-05-1	Allyl chloride	<	0.00060	mg/L		U	Total	0.00060
FW-EMW03	8260M	71-43-2	Benzene	<	0.00008	mg/L		U	Total	0.00008
FW-EMW03	8260M	75-27-4	Bromodichloromethane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW03	8260M	75-25-2	Bromoform	<	0.00018	mg/L		U	Total	0.00018
FW-EMW03	8260M	74-83-9	Bromomethane	<	0.00045	mg/L		U	Total	0.00045
FW-EMW03	8260M	75-15-0	Carbon Disulfide	<	0.00030	mg/L		U	Total	0.00030
FW-EMW03	8260M	56-23-5	Carbon Tetrachloride	<	0.00022	mg/L		U	Total	0.00022
FW-EMW03	8260M	108-90-7	Chlorobenzene	<	0.00013	mg/L		U	Total	0.00013
FW-EMW03	8260M	75-00-3	Chloroethane	<	0.00021	mg/L		U	Total	0.00021
FW-EMW03	8260M	67-66-3	Chloroform	<	0.00024	mg/L		U	Total	0.00024
FW-EMW03	8260M	74-87-3	Chloromethane	<	0.00013	mg/L		U	Total	0.00013
FW-EMW03	8260M	156-59-2	cis-1 2-Dichloroethene	<	0.00023	mg/L		U	Total	0.00023
FW-EMW03	8260M	10061-01-5	cis-1 3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
FW-EMW03	8260M	124-48-1	Dibromochloromethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW03	8260M	74-95-3	Dibromomethane	<	0.00020	mg/L		U	Total	0.00020
FW-EMW03	8260M	75-71-8	Dichlorodifluoromethane	<	0.00031	mg/L		U	Total	0.00031
FW-EMW03	8260M	97-63-2	Ethyl Methacrylate	<	0.00038	mg/L		U	Total	0.00038
FW-EMW03	8260M	100-41-4	Ethylbenzene	<	0.00015	mg/L		U	Total	0.00015
FW-EMW03	8260M	74-88-4	Iodomethane	<	0.00021	mg/L		U	Total	0.00021
FW-EMW03	8260M	78-83-1	Isobutyl Alcohol	<	0.00313	mg/L		U	Total	0.00313
FW-EMW03	8260M	126-98-7	Methacrylonitrile	<	0.00059	mg/L		U	Total	0.00059
FW-EMW03	8260M	78-93-3	Methyl Ethyl Ketone (2-Butanone)	<	0.00285	mg/L			Total	0.00034
FW-EMW03	8260M	80-62-6	Methyl Methacrylate	<	0.00050	mg/L		U	Total	0.00050
FW-EMW03	8260M	1634-04-4	Methyl tert-Butyl ether	<	0.00056	mg/L		U	Total	0.00056
FW-EMW03	8260M	75-09-2	Methylene Chloride	<	0.00074	mg/L		U	Total	0.00074
FW-EMW03	8260M	107-12-0	Propionitrile	<	0.00068	mg/L		U	Total	0.00068
FW-EMW03	8260M	100-42-5	Styrene	<	0.00087	mg/L		U	Total	0.00087
FW-EMW03	8260M	127-18-4	Tetrachloroethene	<	0.00017	mg/L		U	Total	0.00017
FW-EMW03	8260M	108-88-3	Toluene	<	0.00015	mg/L		U	Total	0.00015
FW-EMW03	8260M	156-60-5	trans-1 2-Dichloroethene	<	0.00025	mg/L		U	Total	0.00025
FW-EMW03	8260M	10061-02-6	trans-1 3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW03	8260M	110-57-6	trans-1,4-Dichloro-2-butene	<	0.00029	mg/L		U	Total	0.00029
FW-EMW03	8260M	79-01-6	Trichloroethene	<	0.00026	mg/L		U	Total	0.00026
FW-EMW03	8260M	75-69-4	Trichlorofluoromethane	<	0.00030	mg/L		U	Total	0.00030
FW-EMW03	8260M	108-05-4	Vinyl Acetate	<	0.00045	mg/L		U	Total	0.00045
FW-EMW03	8260M	75-01-4	Vinyl Chloride	<	0.00018	mg/L		U	Total	0.00018
FW-EMW03	8260M	1330-20-7	Xylenes (total)	<	0.00046	mg/L		U	Total	0.00046
FW-EMW03	SW8330	99-35-4	1,3,5-Trinitrobenzene	<	0.25	ug/L		U	Total	0.182
FW-EMW03	SW8330	99-65-0	1,3-Dinitrobenzene	<	0.25	ug/L		U	Total	0.0550
FW-EMW03	SW8330		2,2'-Azoxy	<	0.25	ug/L		U	Total	0.05600
FW-EMW03	SW8330	118-96-7	2,4,6-Trinitrotoluene	<	0.11	ug/L		J	Total	0.0320
FW-EMW03	SW8330	6629-29-4	2,4-Diamino-6-nitrotoluene	<	0.25	ug/L		U	Total	0.112
FW-EMW03	SW8330	121-14-2	2,4-Dinitrotoluene	<	0.25	ug/L		U	Total	0.0440
FW-EMW03	SW8330	59229-75-3	2,6-Diamino-4-nitrotoluene	<	0.50	ug/L		U	Total	0.127
FW-EMW03	SW8330	606-20-2	2,6-Dinitrotoluene	<	0.25	ug/L		U	Total	0.0720
FW-EMW03	SW8330	35572-78-2	2-Amino-4,6-dinitrotoluene	<	0.25	ug/L		U	Total	0.0300
FW-EMW03	SW8330	88-72-2	2-Nitrotoluene	<	0.25	ug/L		U	Total	0.0190
FW-EMW03	SW8330	99-08-1	3-Nitrotoluene	<	0.25	ug/L		U	Total	0.0470
FW-EMW03	SW8330		4,4'-Azoxy	<	0.25	ug/L		U	Total	0.05600
FW-EMW03	SW8330	19406-51-0	4-Amino-2,6-dinitrotoluene	<	0.25	ug/L		U	Total	0.155
FW-EMW03	SW8330	99-99-0	4-Nitrotoluene	<	0.25	ug/L		U	Total	0.0480
FW-EMW03	SW8330	TEMPCAS2	DNX	<	0.51	ug/L	J		Total	0.06030
FW-EMW03	SW8330	2691-41-0	HMX	<	0.25	ug/L		U	Total	0.0540
FW-EMW03	SW8330	TEMPCAS1	MNX	<	0.25	ug/L		U	Total	0.03760
FW-EMW03	SW8330	98-95-3	Nitrobenzene	<	0.25	ug/L		U	Total	0.0550
FW-EMW03	SW8330	55-63-0	Nitroglycerin	<	30	ug/L	J		Total	4.212
FW-EMW03	SW8330	78-11-5	PETN	<	10	ug/L		U	Total	3.477
FW-EMW03	SW8330	88-89-1	Picric acid	<	0.25	ug/L		U	Total	0.172
FW-EMW03	SW8330	38082-89-2	PYX	<	0.25	ug/L		U	Total	0.05600
FW-EMW03	SW8330	121-82-4	RDX	<	0.25	ug/L		U	Total	0.0450
FW-EMW03	SW8330	479-45-8	Tetryl	<	0.25	ug/L		U	Total	0.105
FW-EMW03	SW8330	13980-04-6	TNX	<	0.25	ug/L	UJ		Total	0.0390
FW-EMW03-DUP	150.1	PH	pH		11.55	pH Units			Total	
FW-EMW03-DUP	160.1	TDS	Solids Total Dissolved (TDS)		4050	mg/L			Total	2.99
FW-EMW03-DUP	300.0	16887-00-6	Chloride		21.201	mg/L			Total	0.070
FW-EMW03-DUP	300.0	16984-48-8	Fluoride (F)		2.4837	mg/L			Total	0.047
FW-EMW03-DUP	300.0	14808-79-8	Sulfate (SO4)		21.072	mg/L			Total	0.405
FW-EMW03-DUP	376.1	18496-25-8	Sulfide	<	0.87	mg/L		U	Total	0.87
FW-EMW03-DUP	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		B	Dissolved	0.000031
FW-EMW03-DUP	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		U	Total	0.000031
FW-EMW03-DUP	8081	72-54-8	4,4'-DDD	<	0.000030	mg/L		U	Total	0.000030
FW-EMW03-DUP	8081	72-55-9	4,4'-DDE	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03-DUP	8081	50-29-3	4,4'-DDT	<	0.000040	mg/L	UJ		Total	0.000040
FW-EMW03-DUP	8081	309-00-2	Aldrin	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03-DUP	8081	319-84-6	alpha-BHC	<	0.000030	mg/L		U	Total	0.000030
FW-EMW03-DUP	8081	319-85-7	beta-BHC	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03-DUP	8081	12789-03-6	Chlordane	<	0.001350	mg/L		U	Total	0.001350
FW-EMW03-DUP	8081	319-86-8	delta-BHC	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03-DUP	8081	60-57-1	Dieldrin	<	0.000030	mg/L		U	Total	0.000030
FW-EMW03-DUP	8081	959-98-8	Endosulfan I	<	0.000090	mg/L		U	Total	0.000090
FW-EMW03-DUP	8081	33213-65-9	Endosulfan II	<	0.000060	mg/L	UJ		Total	0.000060
FW-EMW03-DUP	8081	1031-07-8	Endosulfan sulfate	<	0.000080	mg/L	UJ		Total	0.000080
FW-EMW03-DUP	8081	72-20-8	Endrin	<	0.000080	mg/L		U	Total	0.000080
FW-EMW03-DUP	8081	7421-93-4	Endrin aldehyde	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03-DUP	8081	58-89-9	gamma-BHC (Lindane)	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03-DUP	8081	76-44-8	Heptachlor	<	0.000120	mg/L		U	Total	0.000120
FW-EMW03-DUP	8081	1024-57-3	Heptachlor epoxide	<	0.000020	mg/L		U	Total	0.000020
FW-EMW03-DUP	8081	72-43-5	Methoxychlor	<	0.000090	mg/L	UJ		Total	0.000090
FW-EMW03-DUP	8081	8001-35-2	Toxaphene	<	0.001830	mg/L		U	Total	0.001830
FW-EMW03-DUP	8082	12674-11-2	Aroclor 1016	<	0.00019	mg/L		U	Total	0.00019
FW-EMW03-DUP	8082	11104-28-2	Aroclor 1221	<	0.00045	mg/L		U	Total	0.00045
FW-EMW03-DUP	8082	11141-16-5	Aroclor 1232	<	0.00025	mg/L		U	Total	0.00025

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW03-DUP	8082	53469-21-9	Aroclor 1242	<	0.00029	mg/L		U	Total	0.00029
FW-EMW03-DUP	8082	12672-29-6	Aroclor 1248	<	0.00015	mg/L		U	Total	0.00015
FW-EMW03-DUP	8082	11097-69-1	Aroclor 1254	<	0.00014	mg/L		U	Total	0.00014
FW-EMW03-DUP	8082	11096-82-5	Aroclor 1260	<	0.00015	mg/L		U	Total	0.00015
FW-EMW03-DUP	8141	60-51-5	Dimethoate	<	2	ug/l		U	Total	0.2
FW-EMW03-DUP	8141	298-04-4	Disulfoton	<	2	ug/l		U	Total	0.44
FW-EMW03-DUP	8141	56-38-2	Ethyl Parathion	<	1	ug/l		U	Total	0.23
FW-EMW03-DUP	8141	52-85-7	Famphur	<	2	ug/l		U	Total	0.18
FW-EMW03-DUP	8141	298-00-0	Methyl parathion	<	0.5	ug/l		U	Total	0.34
FW-EMW03-DUP	8141	298-02-2	Phorate	<	1	ug/l		U	Total	0.3
FW-EMW03-DUP	8141	3689-24-5	Sulfotepp (Tetraethyl dithiopyrophosphate)	<	0.5	ug/l		U	Total	0.19
FW-EMW03-DUP	8151	93-76-5	2 4 5-T	<	0.00026	mg/L		U	Total	0.00026
FW-EMW03-DUP	8151	93-72-1	2 4 5-TP (Silvex)	<	0.00026	mg/L		U	Total	0.00026
FW-EMW03-DUP	8151	94-75-7	2 4-D	<	0.00024	mg/L		U	Total	0.00024
FW-EMW03-DUP	8151	88-85-7	Dinoseb (DNBP)	<	0.00030	mg/L		U	Total	0.00030
FW-EMW03-DUP	8270	95-94-3	1 2 4 5-Tetrachlorobenzene	<	0.00139	mg/L		U	Total	0.00139
FW-EMW03-DUP	8270	120-82-1	1 2 4-Trichlorobenzene	<	0.00076	mg/L		U	Total	0.00076
FW-EMW03-DUP	8270	95-50-1	1 2-Dichlorobenzene	<	0.00060	mg/L		U	Total	0.00060
FW-EMW03-DUP	8270	541-73-1	1 3-Dichlorobenzene	<	0.00073	mg/L		U	Total	0.00073
FW-EMW03-DUP	8270	106-46-7	1 4-Dichlorobenzene	<	0.00093	mg/L		U	Total	0.00093
FW-EMW03-DUP	8270	130-15-4	1 4-Naphthoquinone	<	0.00128	mg/L		U	Total	0.00128
FW-EMW03-DUP	8270	134-32-7	1-Naphthylamine	<	0.00204	mg/L		U	Total	0.00204
FW-EMW03-DUP	8270	58-90-2	2 3 4 6-Tetrachlorophenol	<	0.00136	mg/L		U	Total	0.00136
FW-EMW03-DUP	8270	95-95-4	2 4 5-Trichlorophenol	<	0.00104	mg/L		U	Total	0.00104
FW-EMW03-DUP	8270	88-06-2	2 4 6-Trichlorophenol	<	0.00133	mg/L		U	Total	0.00133
FW-EMW03-DUP	8270	120-83-2	2 4-Dichlorophenol	<	0.00070	mg/L		U	Total	0.00070
FW-EMW03-DUP	8270	105-67-9	2 4-Dimethylphenol	<	0.00087	mg/L		U	Total	0.00087
FW-EMW03-DUP	8270	51-28-5	2 4-Dinitrophenol	<	0.00204	mg/L		U	Total	0.00204
FW-EMW03-DUP	8270	121-14-2	2 4-Dinitrotoluene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW03-DUP	8270	87-65-0	2 6-Dichlorophenol	<	0.00140	mg/L		U	Total	0.00140
FW-EMW03-DUP	8270	606-20-2	2 6-Dinitrotoluene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW03-DUP	8270	53-96-3	2-Acetylaminofluorene	<	0.00146	mg/L		U	Total	0.00146
FW-EMW03-DUP	8270	91-58-7	2-Chloronaphthalene	<	0.00093	mg/L		U	Total	0.00093
FW-EMW03-DUP	8270	95-57-8	2-Chlorophenol	<	0.00068	mg/L		U	Total	0.00068
FW-EMW03-DUP	8270	534-52-1	2-Methyl-4 6-dinitrophenol	<	0.00055	mg/L		U	Total	0.00055
FW-EMW03-DUP	8270	91-57-6	2-Methylnaphthalene	<	0.00085	mg/L		U	Total	0.00085
FW-EMW03-DUP	8270	95-48-7	2-Methylphenol (o-Cresol)	<	0.00108	mg/L		U	Total	0.00108
FW-EMW03-DUP	8270	91-59-8	2-Naphthylamine	<	0.00236	mg/L		U	Total	0.00236
FW-EMW03-DUP	8270	88-74-4	2-Nitroaniline	<	0.00066	mg/L		U	Total	0.00066
FW-EMW03-DUP	8270	88-75-5	2-Nitrophenol	<	0.00121	mg/L		U	Total	0.00121
FW-EMW03-DUP	8270	109-06-8	2-Picoline	<	0.00155	mg/L		U	Total	0.00155
FW-EMW03-DUP	8270	91-94-1	3 3'-Dichlorobenzidine	<	0.00103	mg/L		U	Total	0.00103
FW-EMW03-DUP	8270	119-93-7	3 3-Dimethylbenzidine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW03-DUP	8270	56-49-5	3-Methylcholanthrene	<	0.00206	mg/L		U	Total	0.00206
FW-EMW03-DUP	8270	108-39-4	3-Methylphenol (m-Cresol)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW03-DUP	8270	99-09-2	3-Nitroaniline	<	0.00110	mg/L		U	Total	0.00110
FW-EMW03-DUP	8270	92-67-1	4-Aminobiphenyl	<	0.00287	mg/L		U	Total	0.00287
FW-EMW03-DUP	8270	101-55-3	4-Bromophenyl Phenyl Ether	<	0.00079	mg/L		U	Total	0.00079
FW-EMW03-DUP	8270	59-50-7	4-Chloro-3-methylphenol	<	0.00080	mg/L		U	Total	0.00080
FW-EMW03-DUP	8270	106-47-8	4-Chloroaniline	<	0.00127	mg/L		U	Total	0.00127
FW-EMW03-DUP	8270	7005-72-3	4-Chlorophenyl Phenyl Ether	<	0.00071	mg/L		U	Total	0.00071
FW-EMW03-DUP	8270	106-44-5	4-Methylphenol (p-Cresol)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW03-DUP	8270	100-01-6	4-Nitroaniline	<	0.00156	mg/L		U	Total	0.00156
FW-EMW03-DUP	8270	100-02-7	4-Nitrophenol	<	0.00191	mg/L		U	Total	0.00191
FW-EMW03-DUP	8270	56-57-5	4-Nitroquinoline-1-oxide	<	0.00092	mg/L		U	Total	0.00092
FW-EMW03-DUP	8270	99-55-8	5-Nitro-o-toluidine	<	0.00124	mg/L		U	Total	0.00124
FW-EMW03-DUP	8270	57-97-6	7 12-Dimethylbenz(a)anthracene	<	0.00126	mg/L		U	Total	0.00126
FW-EMW03-DUP	8270	83-32-9	Acenaphthene	<	0.00090	mg/L		U	Total	0.00090
FW-EMW03-DUP	8270	208-96-8	Acenaphthylene	<	0.00092	mg/L		U	Total	0.00092
FW-EMW03-DUP	8270	98-86-2	Acetophenone	<	0.00148	mg/L		U	Total	0.00148
FW-EMW03-DUP	8270	122-09-8	alpha alpha-Dimethylphenethylamine	<	0.0100	mg/L		U	Total	0.0100

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW03-DUP	8270	62-53-3	Aniline	<	0.00303	mg/L		U	Total	0.00303
FW-EMW03-DUP	8270	120-12-7	Anthracene	<	0.00065	mg/L		U	Total	0.00065
FW-EMW03-DUP	8270	140-57-8	Aramite	<	0.00413	mg/L		U	Total	0.00413
FW-EMW03-DUP	8270	56-55-3	Benzo(a)anthracene	<	0.00034	mg/L		U	Total	0.00034
FW-EMW03-DUP	8270	50-32-8	Benzo(a)pyrene	<	0.00058	mg/L		U	Total	0.00058
FW-EMW03-DUP	8270	205-99-2	Benzo(b)fluoranthene	<	0.00054	mg/L		U	Total	0.00054
FW-EMW03-DUP	8270	191-24-2	Benzo(ghi)perylene	<	0.00071	mg/L		U	Total	0.00071
FW-EMW03-DUP	8270	207-08-9	Benzo(k)fluoranthene	<	0.00076	mg/L		U	Total	0.00076
FW-EMW03-DUP	8270	100-51-6	Benzyl Alcohol	<	0.00058	mg/L		U	Total	0.00058
FW-EMW03-DUP	8270	111-91-1	bis(2-chloroethoxy)methane	<	0.00087	mg/L		U	Total	0.00087
FW-EMW03-DUP	8270	111-44-4	bis(2-Chloroethyl)ether	<	0.00068	mg/L		U	Total	0.00068
FW-EMW03-DUP	8270	108-60-1	bis(2-chloroisopropyl)ether	<	0.00104	mg/L		U	Total	0.00104
FW-EMW03-DUP	8270	117-81-7	bis(2-ethylhexyl)phthalate	<	0.00682	mg/L		J	Total	0.00046
FW-EMW03-DUP	8270	85-68-7	Butyl Benzyl Phthalate	<	0.00054	mg/L		U	Total	0.00054
FW-EMW03-DUP	8270	510-15-6	Chlorobenzilate	<	0.00148	mg/L		U	Total	0.00148
FW-EMW03-DUP	8270	218-01-9	Chrysene	<	0.00098	mg/L		U	Total	0.00098
FW-EMW03-DUP	8270	2303-16-4	Diallate	<	0.00123	mg/L		U	Total	0.00123
FW-EMW03-DUP	8270	53-70-3	Dibenzo(a,h)anthracene	<	0.00087	mg/L		U	Total	0.00087
FW-EMW03-DUP	8270	132-64-9	Dibenzofuran	<	0.00049	mg/L		U	Total	0.00049
FW-EMW03-DUP	8270	84-66-2	Diethyl Phthalate	<	0.00056	mg/L		U	Total	0.00056
FW-EMW03-DUP	8270	60-51-5	Dimethoate	<	0.00164	mg/L		U	Total	0.00164
FW-EMW03-DUP	8270	131-11-3	Dimethyl Phthalate	<	0.00054	mg/L		U	Total	0.00054
FW-EMW03-DUP	8270	84-74-2	Di-n-butyl Phthalate	<	0.00056	mg/L		U	Total	0.00056
FW-EMW03-DUP	8270	117-84-0	Di-n-octyl Phthalate	<	0.00039	mg/L		U	Total	0.00039
FW-EMW03-DUP	8270	88-85-7	Dinoseb (DNBP)	<	0.00082	mg/L		U	Total	0.00082
FW-EMW03-DUP	8270	122-39-4	Diphenylamine	<	0.00080	mg/L		U	Total	0.00080
FW-EMW03-DUP	8270	62-50-0	Ethyl Methane Sulfonate	<	0.00169	mg/L		U	Total	0.00169
FW-EMW03-DUP	8270	206-44-0	Fluoranthene	<	0.00078	mg/L		U	Total	0.00078
FW-EMW03-DUP	8270	86-73-7	Fluorene	<	0.00050	mg/L		U	Total	0.00050
FW-EMW03-DUP	8270	118-74-1	Hexachlorobenzene	<	0.00132	mg/L		U	Total	0.00132
FW-EMW03-DUP	8270	87-68-3	Hexachlorobutadiene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW03-DUP	8270	77-47-4	Hexachlorocyclopentadiene	<	0.00066	mg/L		U	Total	0.00066
FW-EMW03-DUP	8270	67-72-1	Hexachloroethane	<	0.00104	mg/L		U	Total	0.00104
FW-EMW03-DUP	8270	70-30-4	Hexachlorophene	<	0.03179	mg/L		U	Total	0.03179
FW-EMW03-DUP	8270	1888-71-7	Hexachloropropene	<	0.00096	mg/L		U	Total	0.00096
FW-EMW03-DUP	8270	193-39-5	Indeno(1,2,3-cd)pyrene	<	0.00112	mg/L		U	Total	0.00112
FW-EMW03-DUP	8270	465-73-6	Isodrin	<	0.00166	mg/L		U	Total	0.00166
FW-EMW03-DUP	8270	78-59-1	Isophorone	<	0.00097	mg/L		U	Total	0.00097
FW-EMW03-DUP	8270	120-58-1	Isosafrole	<	0.00113	mg/L		U	Total	0.00113
FW-EMW03-DUP	8270	143-50-0	Kepone	<	0.02567	mg/L		U	Total	0.02567
FW-EMW03-DUP	8270	99-65-0	m-Dinitrobenzene	<	0.00110	mg/L		U	Total	0.00110
FW-EMW03-DUP	8270	91-80-5	Methapyrilene	<	0.00110	mg/L		U	Total	0.00110
FW-EMW03-DUP	8270	66-27-3	Methyl Methane Sulfonate	<	0.00161	mg/L		U	Total	0.00161
FW-EMW03-DUP	8270	91-20-3	Naphthalene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW03-DUP	8270	98-95-3	Nitrobenzene	<	0.00089	mg/L		U	Total	0.00089
FW-EMW03-DUP	8270	55-18-5	n-Nitrosodiethylamine	<	0.00119	mg/L		U	Total	0.00119
FW-EMW03-DUP	8270	62-75-9	n-Nitrosodimethylamine	<	0.00048	mg/L		U	Total	0.00048
FW-EMW03-DUP	8270	924-16-3	n-Nitrosodi-n-butylamine	<	0.00155	mg/L		U	Total	0.00155
FW-EMW03-DUP	8270	621-64-7	n-Nitrosodi-n-propylamine	<	0.00080	mg/L		U	Total	0.00080
FW-EMW03-DUP	8270	86-30-6	n-Nitrosodiphenylamine	<	0.00071	mg/L		U	Total	0.00071
FW-EMW03-DUP	8270	10595-95-6	n-Nitrosomethylethylamine	<	0.00106	mg/L		U	Total	0.00106
FW-EMW03-DUP	8270	59-89-2	n-Nitrosomorpholine	<	0.00221	mg/L		U	Total	0.00221
FW-EMW03-DUP	8270	100-75-4	n-Nitrosopiperidine	<	0.00249	mg/L		U	Total	0.00249
FW-EMW03-DUP	8270	930-55-2	n-Nitrosopyrrolidine	<	0.00197	mg/L		U	Total	0.00197
FW-EMW03-DUP	8270	126-68-1	O O O-Triethyl phosphorothioate	<	0.00170	mg/L		U	Total	0.00170
FW-EMW03-DUP	8270	95-53-4	o-Toluidine	<	0.00320	mg/L		U	Total	0.00320
FW-EMW03-DUP	8270	60-11-7	p-Dimethylaminoazobenzene	<	0.00209	mg/L		U	Total	0.00209
FW-EMW03-DUP	8270	608-93-5	Pentachlorobenzene	<	0.00283	mg/L		U	Total	0.00283
FW-EMW03-DUP	8270	76-01-7	Pentachloroethane	<	0.00256	mg/L		U	Total	0.00256
FW-EMW03-DUP	8270	82-68-8	Pentachloronitrobenzene	<	0.00482	mg/L		U	Total	0.00482
FW-EMW03-DUP	8270	87-86-5	Pentachlorophenol	<	0.00399	mg/L		U	Total	0.00399

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW03-DUP	8270	62-44-2	Phenacetin	<	0.00136	mg/L		U	Total	0.00136
FW-EMW03-DUP	8270	85-01-8	Phenanthrene	<	0.00049	mg/L		U	Total	0.00049
FW-EMW03-DUP	8270	108-95-2	Phenol	<	0.00080	mg/L		U	Total	0.00080
FW-EMW03-DUP	8270	106-50-3	p-Phenylenediamine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW03-DUP	8270	23950-58-5	Pronamide	<	0.00125	mg/L		U	Total	0.00125
FW-EMW03-DUP	8270	129-00-0	Pyrene	<	0.00083	mg/L		U	Total	0.00083
FW-EMW03-DUP	8270	110-86-1	Pyridine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW03-DUP	8270	94-59-7	Safrole	<	0.00133	mg/L		U	Total	0.00133
FW-EMW03-DUP	8270	99-35-4	Sym-Trinitrobenzene	<	0.00182	mg/L		U	Total	0.00182
FW-EMW03-DUP	8270	3689-24-5	Tetraethylthiopyrophosphate	<	0.00138	mg/L		U	Total	0.00138
FW-EMW03-DUP	8270	297-97-2	Thionazin	<	0.00105	mg/L		U	Total	0.00105
FW-EMW03-DUP	8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	55673-89-7	1,2,3,4,7,8,9-HpCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	39227-28-6	1,2,3,4,7,8-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	70648-26-9	1,2,3,4,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	57653-85-7	1,2,3,6,7,8-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	57117-44-9	1,2,3,6,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	19408-74-3	1,2,3,7,8,9-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	72918-21-9	1,2,3,7,8,9-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	40321-76-4	1,2,3,7,8-PeCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	57117-41-6	1,2,3,7,8-PeCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	60851-34-5	2,3,4,6,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	57117-31-4	2,3,4,7,8-PeCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	1746-01-6	2,3,7,8-TCDD	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	51207-31-9	2,3,7,8-TCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	8290	3268-87-9	OCDD	<	2.2	PG/L	U	Q B J	Total	0.0
FW-EMW03-DUP	8290	39001-02-0	OCDF	<	ND	PG/L		U	Total	0.0
FW-EMW03-DUP	9012	57-12-5	Cyanide Total	<	3.579	ug/L		U	Total	3.579
FW-EMW03-DUP	300SH	14797-55-8	Nitrogen Nitrate as N (NO3-N)		0.1215	mg/L		B	Total	0.057
FW-EMW03-DUP	353.2P	7727-37-9	Nitrate + Nitrite as N		0.466	mg/L			Total	0.007
FW-EMW03-DUP	6010TR	7429-90-5	Aluminum (Al)		1.99	mg/L			Dissolved	0.01800
FW-EMW03-DUP	6010TR	7429-90-5	Aluminum (Al)		1.75	mg/L			Total	0.01800
FW-EMW03-DUP	6010TR	7440-36-0	Antimony (Sb)	<	0.00350	mg/L		U	Dissolved	0.00350
FW-EMW03-DUP	6010TR	7440-36-0	Antimony (Sb)	<	0.00350	mg/L		U	Total	0.00350
FW-EMW03-DUP	6010TR	7440-38-2	Arsenic (As)		0.00500	mg/L		B	Dissolved	0.00340
FW-EMW03-DUP	6010TR	7440-38-2	Arsenic (As)	<	0.00340	mg/L		U	Total	0.00340
FW-EMW03-DUP	6010TR	7440-39-3	Barium (Ba)		0.0954	mg/L			Dissolved	0.00060
FW-EMW03-DUP	6010TR	7440-39-3	Barium (Ba)		0.119	mg/L			Total	0.00060
FW-EMW03-DUP	6010TR	7440-41-7	Beryllium (Be)	<	0.00040	mg/L		U	Dissolved	0.00040
FW-EMW03-DUP	6010TR	7440-41-7	Beryllium (Be)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW03-DUP	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Dissolved	0.00050
FW-EMW03-DUP	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Total	0.00050
FW-EMW03-DUP	6010TR	7440-47-3	Chromium (Cr)		0.117	mg/L			Dissolved	0.00130
FW-EMW03-DUP	6010TR	7440-47-3	Chromium (Cr)		0.0882	mg/L			Total	0.00130
FW-EMW03-DUP	6010TR	7440-48-4	Cobalt (Co)		0.00092	mg/L		B	Total	0.00070
FW-EMW03-DUP	6010TR	7440-48-4	Cobalt (Co)	<	0.00070	mg/L		U	Dissolved	0.00070
FW-EMW03-DUP	6010TR	7440-50-8	Copper (Cu)		0.0136	mg/L			Dissolved	0.00180
FW-EMW03-DUP	6010TR	7440-50-8	Copper (Cu)		0.0116	mg/L			Total	0.00180
FW-EMW03-DUP	6010TR	7439-89-6	Iron (Fe)		0.0969	mg/L		B	Dissolved	0.04590
FW-EMW03-DUP	6010TR	7439-89-6	Iron (Fe)		0.169	mg/L		B	Total	0.04590
FW-EMW03-DUP	6010TR	7439-92-1	Lead (Pb)	<	0.00210	mg/L		U	Dissolved	0.00210
FW-EMW03-DUP	6010TR	7439-92-1	Lead (Pb)	<	0.00210	mg/L		U	Total	0.00210
FW-EMW03-DUP	6010TR	7439-96-5	Manganese (Mn)		0.00276	mg/L		B	Dissolved	0.00100
FW-EMW03-DUP	6010TR	7439-96-5	Manganese (Mn)		0.00400	mg/L		B	Total	0.00100
FW-EMW03-DUP	6010TR	7440-02-0	Nickel (Ni)	<	0.00180	mg/L		U	Dissolved	0.00180
FW-EMW03-DUP	6010TR	7440-02-0	Nickel (Ni)	<	0.00180	mg/L		U	Total	0.00180
FW-EMW03-DUP	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Dissolved	0.00370
FW-EMW03-DUP	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Total	0.00370
FW-EMW03-DUP	6010TR	7440-22-4	Silver (Ag)	<	0.00120	mg/L		U	Dissolved	0.00120
FW-EMW03-DUP	6010TR	7440-22-4	Silver (Ag)	<	0.00120	mg/L		U	Total	0.00120

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW03-DUP	6010TR	7440-28-0	Thallium (Tl)		0.00511	mg/L		B	Total	0.00470
FW-EMW03-DUP	6010TR	7440-28-0	Thallium (Tl)	<	0.00470	mg/L		U	Dissolved	0.00470
FW-EMW03-DUP	6010TR	7440-31-5	Tin (Sn)		0.00331	mg/L		B	Dissolved	0.00280
FW-EMW03-DUP	6010TR	7440-31-5	Tin (Sn)	<	0.00280	mg/L		U	Total	0.00280
FW-EMW03-DUP	6010TR	7440-62-2	Vanadium (V)		0.0936	mg/L			Dissolved	0.00280
FW-EMW03-DUP	6010TR	7440-62-2	Vanadium (V)		0.0810	mg/L			Total	0.00280
FW-EMW03-DUP	6010TR	7440-66-6	Zinc (Zn)		0.0142	mg/L		B	Total	0.00260
FW-EMW03-DUP	6010TR	7440-66-6	Zinc (Zn)	<	0.00260	mg/L		U	Dissolved	0.00260
FW-EMW03-DUP	8082 Con	2051-60-7	PCB 1 (BZ)	<	ND	UG/L		U	Total	0.023
FW-EMW03-DUP	8082 Con	37680-73-2	PCB 101 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW03-DUP	8082 Con	38380-03-9	PCB 110 (BZ)	<	ND	UG/L		U	Total	0.0022
FW-EMW03-DUP	8082 Con	35065-28-2	PCB 138 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW03-DUP	8082 Con	52712-04-6	PCB 141 (BZ)	<	ND	UG/L		U	Total	0.0017
FW-EMW03-DUP	8082 Con	52663-63-5	PCB 151 (BZ)	<	ND	UG/L		U	Total	0.0011
FW-EMW03-DUP	8082 Con	35065-27-1	PCB 153 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW03-DUP	8082 Con	35065-30-6	PCB 170 (BZ)	<	ND	UG/L		U	Total	0.0024
FW-EMW03-DUP	8082 Con	37680-65-2	PCB 18 (BZ)	<	ND	UG/L		U	Total	0.0042
FW-EMW03-DUP	8082 Con	35065-29-3	PCB 180 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW03-DUP	8082 Con	52663-69-1	PCB 183 (BZ)	<	ND	UG/L		U	Total	0.0017
FW-EMW03-DUP	8082 Con	52663-68-0	PCB 187 (BZ)	<	ND	UG/L		U	Total	0.0021
FW-EMW03-DUP	8082 Con	40186-72-9	PCB 206 (BZ)	<	ND	UG/L		U	Total	0.0010
FW-EMW03-DUP	8082 Con	16606-02-3	PCB 31 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW03-DUP	8082 Con	41464-39-5	PCB 44 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW03-DUP	8082 Con	16605-91-7	PCB 5 (BZ)	<	ND	UG/L		U	Total	0.0055
FW-EMW03-DUP	8082 Con	35693-99-3	PCB 52 (BZ)	<	ND	UG/L		U	Total	0.0049
FW-EMW03-DUP	8082 Con	32598-10-0	PCB 66 (BZ)	<	ND	UG/L		U	Total	0.0020
FW-EMW03-DUP	8082 Con	38380-02-8	PCB 87 (BZ)	<	ND	UG/L		U	Total	0.0020
FW-EMW03-DUP	8260M	630-20-6	1 1 1 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW03-DUP	8260M	71-55-6	1 1 1-Trichloroethane	<	0.00019	mg/L		U	Total	0.00019
FW-EMW03-DUP	8260M	79-34-5	1 1 2 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW03-DUP	8260M	79-00-5	1 1 2-Trichloroethane	<	0.00015	mg/L		U	Total	0.00015
FW-EMW03-DUP	8260M	75-34-3	1 1-Dichloroethane	<	0.00015	mg/L		U	Total	0.00015
FW-EMW03-DUP	8260M	75-35-4	1 1-Dichloroethene	<	0.00033	mg/L		U	Total	0.00033
FW-EMW03-DUP	8260M	96-18-4	1 2 3-Trichloropropane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW03-DUP	8260M	96-12-8	1 2-Dibromo-3-chloropropane	<	0.00044	mg/L		U	Total	0.00044
FW-EMW03-DUP	8260M	106-93-4	1 2-Dibromoethane (EDB)	<	0.00017	mg/L		U	Total	0.00017
FW-EMW03-DUP	8260M	107-06-2	1 2-Dichloroethane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW03-DUP	8260M	78-87-5	1 2-Dichloropropane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW03-DUP	8260M	123-91-1	1 4-Dioxane	<	0.01328	mg/L		U	Total	0.01328
FW-EMW03-DUP	8260M	126-99-8	2-Chloro-1 3-butadiene (chloroprene)	<	0.00039	mg/L		U	Total	0.00039
FW-EMW03-DUP	8260M	591-78-6	2-Hexanone	<	0.00029	mg/L		U	Total	0.00029
FW-EMW03-DUP	8260M	108-10-1	4-Methyl-2-pentanone (MIBK)	<	0.00014	mg/L		U	Total	0.00014
FW-EMW03-DUP	8260M	67-64-1	Acetone	<	0.0133	mg/L			Total	0.00094
FW-EMW03-DUP	8260M	75-05-8	Acetonitrile	<	0.00132	mg/L		U	Total	0.00132
FW-EMW03-DUP	8260M	107-02-8	Acrolein	<	0.00215	mg/L		U	Total	0.00215
FW-EMW03-DUP	8260M	107-13-1	Acrylonitrile	<	0.00102	mg/L		U	Total	0.00102
FW-EMW03-DUP	8260M	107-05-1	Allyl chloride	<	0.00060	mg/L		U	Total	0.00060
FW-EMW03-DUP	8260M	71-43-2	Benzene	<	0.00008	mg/L		U	Total	0.00008
FW-EMW03-DUP	8260M	75-27-4	Bromodichloromethane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW03-DUP	8260M	75-25-2	Bromoform	<	0.00018	mg/L		U	Total	0.00018
FW-EMW03-DUP	8260M	74-83-9	Bromomethane	<	0.00045	mg/L		U	Total	0.00045
FW-EMW03-DUP	8260M	75-15-0	Carbon Disulfide	<	0.00030	mg/L		U	Total	0.00030
FW-EMW03-DUP	8260M	56-23-5	Carbon Tetrachloride	<	0.00022	mg/L		U	Total	0.00022
FW-EMW03-DUP	8260M	108-90-7	Chlorobenzene	<	0.00013	mg/L		U	Total	0.00013
FW-EMW03-DUP	8260M	75-00-3	Chloroethane	<	0.00021	mg/L		U	Total	0.00021
FW-EMW03-DUP	8260M	67-66-3	Chloroform	<	0.00024	mg/L		U	Total	0.00024
FW-EMW03-DUP	8260M	74-87-3	Chloromethane	<	0.00013	mg/L		U	Total	0.00013
FW-EMW03-DUP	8260M	156-59-2	cis-1 2-Dichloroethene	<	0.00023	mg/L		U	Total	0.00023
FW-EMW03-DUP	8260M	10061-01-5	cis-1 3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
FW-EMW03-DUP	8260M	124-48-1	Dibromochloromethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW03-DUP	8260M	74-95-3	Dibromomethane	<	0.00020	mg/L		U	Total	0.00020

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW03-DUP	8260M	75-71-8	Dichlorodifluoromethane	<	0.00031	mg/L		U	Total	0.00031
FW-EMW03-DUP	8260M	97-63-2	Ethyl Methacrylate	<	0.00038	mg/L		U	Total	0.00038
FW-EMW03-DUP	8260M	100-41-4	Ethylbenzene	<	0.00015	mg/L		U	Total	0.00015
FW-EMW03-DUP	8260M	74-88-4	Iodomethane	<	0.00021	mg/L		U	Total	0.00021
FW-EMW03-DUP	8260M	78-83-1	Isobutyl Alcohol	<	0.00313	mg/L		U	Total	0.00313
FW-EMW03-DUP	8260M	126-98-7	Methacrylonitrile	<	0.00059	mg/L		U	Total	0.00059
FW-EMW03-DUP	8260M	78-93-3	Methyl Ethyl Ketone (2-Butanone)	<	0.00290	mg/L			Total	0.00034
FW-EMW03-DUP	8260M	80-62-6	Methyl Methacrylate	<	0.00050	mg/L		U	Total	0.00050
FW-EMW03-DUP	8260M	1634-04-4	Methyl tert-Butyl ether	<	0.00056	mg/L		U	Total	0.00056
FW-EMW03-DUP	8260M	75-09-2	Methylene Chloride	<	0.00074	mg/L		U	Total	0.00074
FW-EMW03-DUP	8260M	107-12-0	Propionitrile	<	0.00068	mg/L		U	Total	0.00068
FW-EMW03-DUP	8260M	100-42-5	Styrene	<	0.00087	mg/L		U	Total	0.00087
FW-EMW03-DUP	8260M	127-18-4	Tetrachloroethene	<	0.00017	mg/L		U	Total	0.00017
FW-EMW03-DUP	8260M	108-88-3	Toluene	<	0.00015	mg/L		U	Total	0.00015
FW-EMW03-DUP	8260M	156-60-5	trans-1 2-Dichloroethene	<	0.00025	mg/L		U	Total	0.00025
FW-EMW03-DUP	8260M	10061-02-6	trans-1 3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
FW-EMW03-DUP	8260M	110-57-6	trans-1 4-Dichloro-2-butene	<	0.00029	mg/L		U	Total	0.00029
FW-EMW03-DUP	8260M	79-01-6	Trichloroethene	<	0.00026	mg/L		U	Total	0.00026
FW-EMW03-DUP	8260M	75-69-4	Trichlorofluoromethane	<	0.00030	mg/L		U	Total	0.00030
FW-EMW03-DUP	8260M	108-05-4	Vinyl Acetate	<	0.00045	mg/L		U	Total	0.00045
FW-EMW03-DUP	8260M	75-01-4	Vinyl Chloride	<	0.00018	mg/L		U	Total	0.00018
FW-EMW03-DUP	8260M	1330-20-7	Xylenes (total)	<	0.00046	mg/L		U	Total	0.00046
FW-EMW03-DUP	SW8330	99-35-4	1,3,5-Trinitrobenzene	<	0.25	ug/L		U	Total	0.182
FW-EMW03-DUP	SW8330	99-65-0	1,3-Dinitrobenzene	<	0.25	ug/L		U	Total	0.0550
FW-EMW03-DUP	SW8330		2,2'-Azoxy	<	0.25	ug/L		U	Total	0.05600
FW-EMW03-DUP	SW8330	118-96-7	2,4,6-Trinitrotoluene	<	0.11	ug/L		J	Total	0.0320
FW-EMW03-DUP	SW8330	6629-29-4	2,4-Diamino-6-nitrotoluene	<	0.25	ug/L		U	Total	0.112
FW-EMW03-DUP	SW8330	121-14-2	2,4-Dinitrotoluene	<	0.25	ug/L		U	Total	0.0440
FW-EMW03-DUP	SW8330	59229-75-3	2,6-Diamino-4-nitrotoluene	<	0.50	ug/L		U	Total	0.127
FW-EMW03-DUP	SW8330	606-20-2	2,6-Dinitrotoluene	<	0.25	ug/L		U	Total	0.0720
FW-EMW03-DUP	SW8330	35572-78-2	2-Amino-4,6-dinitrotoluene	<	0.25	ug/L		U	Total	0.0300
FW-EMW03-DUP	SW8330	88-72-2	2-Nitrotoluene	<	0.25	ug/L		U	Total	0.0190
FW-EMW03-DUP	SW8330	99-08-1	3-Nitrotoluene	<	0.25	ug/L		U	Total	0.0470
FW-EMW03-DUP	SW8330		4,4'-Azoxy	<	0.25	ug/L		U	Total	0.05600
FW-EMW03-DUP	SW8330	19406-51-0	4-Amino-2,6-dinitrotoluene	<	0.25	ug/L		U	Total	0.155
FW-EMW03-DUP	SW8330	99-99-0	4-Nitrotoluene	<	0.25	ug/L		U	Total	0.0480
FW-EMW03-DUP	SW8330	TEMPCAS2	DNX	<	0.53	ug/L	J		Total	0.06030
FW-EMW03-DUP	SW8330	2691-41-0	HMX	<	0.25	ug/L		U	Total	0.0540
FW-EMW03-DUP	SW8330	TEMPCAS1	MNX	<	0.25	ug/L		U	Total	0.03760
FW-EMW03-DUP	SW8330	98-95-3	Nitrobenzene	<	0.25	ug/L		U	Total	0.0550
FW-EMW03-DUP	SW8330	55-63-0	Nitroglycerin	<	5.0	ug/L	UJ		Total	4.212
FW-EMW03-DUP	SW8330	78-11-5	PETN	<	10	ug/L		U	Total	3.477
FW-EMW03-DUP	SW8330	88-89-1	Picric acid	<	0.25	ug/L		U	Total	0.172
FW-EMW03-DUP	SW8330	38082-89-2	PYX	<	0.25	ug/L		U	Total	0.05600
FW-EMW03-DUP	SW8330	121-82-4	RDX	<	0.25	ug/L		U	Total	0.0450
FW-EMW03-DUP	SW8330	479-45-8	Tetryl	<	0.25	ug/L		U	Total	0.105
FW-EMW03-DUP	SW8330	13980-04-6	TNX	<	0.25	ug/L	UJ		Total	0.0390
FW-EMW04-FBLK01	150.1	PH	pH		8.00	pH Units			Total	
FW-EMW04-FBLK01	160.1	TDS	Solids Total Dissolved (TDS)		1170	mg/L			Total	2.99
FW-EMW04-FBLK01	300.0	16887-00-6	Chloride		3.74	mg/L			Total	0.070
FW-EMW04-FBLK01	300.0	16984-48-8	Fluoride (F)		0.380	mg/L			Total	0.047
FW-EMW04-FBLK01	300.0	14808-79-8	Sulfate (SO4)		543	mg/L			Total	40.5
FW-EMW04-FBLK01	376.1	18496-25-8	Sulfide	<	0.87	mg/L		U	Total	0.87
FW-EMW04-FBLK01	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		U	Dissolved	0.000031
FW-EMW04-FBLK01	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		U	Total	0.000031
FW-EMW04-FBLK01	8081	72-54-8	4 4'-DDD	<	0.00029	mg/L		U	Total	0.00029
FW-EMW04-FBLK01	8081	72-55-9	4 4'-DDE	<	0.000019	mg/L		U	Total	0.000019
FW-EMW04-FBLK01	8081	50-29-3	4 4'-DDT	<	0.000038	mg/L		U	Total	0.000038
FW-EMW04-FBLK01	8081	309-00-2	Aldrin	<	0.000019	mg/L		U	Total	0.000019
FW-EMW04-FBLK01	8081	319-84-6	alpha-BHC	<	0.000029	mg/L		U	Total	0.000029
FW-EMW04-FBLK01	8081	319-85-7	beta-BHC	<	0.000019	mg/L		U	Total	0.000019

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW04-FBLK01	8081	12789-03-6	Chlordane	<	0.001299	mg/L		U	Total	0.001299
FW-EMW04-FBLK01	8081	319-86-8	delta-BHC	<	0.000019	mg/L		U	Total	0.000019
FW-EMW04-FBLK01	8081	60-57-1	Dieldrin	<	0.000029	mg/L		U	Total	0.000029
FW-EMW04-FBLK01	8081	959-98-8	Endosulfan I	<	0.000087	mg/L		U	Total	0.000087
FW-EMW04-FBLK01	8081	33213-65-9	Endosulfan II	<	0.000058	mg/L		U	Total	0.000058
FW-EMW04-FBLK01	8081	1031-07-8	Endosulfan sulfate	<	0.000077	mg/L		U	Total	0.000077
FW-EMW04-FBLK01	8081	72-20-8	Endrin	<	0.000077	mg/L		U	Total	0.000077
FW-EMW04-FBLK01	8081	7421-93-4	Endrin aldehyde	<	0.000019	mg/L		U	Total	0.000019
FW-EMW04-FBLK01	8081	58-89-9	gamma-BHC (Lindane)	<	0.000019	mg/L		U	Total	0.000019
FW-EMW04-FBLK01	8081	76-44-8	Heptachlor	<	0.000115	mg/L		U	Total	0.000115
FW-EMW04-FBLK01	8081	1024-57-3	Heptachlor epoxide	<	0.000019	mg/L		U	Total	0.000019
FW-EMW04-FBLK01	8081	72-43-5	Methoxychlor	<	0.000087	mg/L		U	Total	0.000087
FW-EMW04-FBLK01	8081	8001-35-2	Toxaphene	<	0.001760	mg/L		U	Total	0.001760
FW-EMW04-FBLK01	8082	12674-11-2	Aroclor 1016	<	0.00018	mg/L		U	Total	0.00018
FW-EMW04-FBLK01	8082	11104-28-2	Aroclor 1221	<	0.00043	mg/L		U	Total	0.00043
FW-EMW04-FBLK01	8082	11141-16-5	Aroclor 1232	<	0.00024	mg/L		U	Total	0.00024
FW-EMW04-FBLK01	8082	53469-21-9	Aroclor 1242	<	0.00028	mg/L		U	Total	0.00028
FW-EMW04-FBLK01	8082	12672-29-6	Aroclor 1248	<	0.00014	mg/L		U	Total	0.00014
FW-EMW04-FBLK01	8082	11097-69-1	Aroclor 1254	<	0.00013	mg/L		U	Total	0.00013
FW-EMW04-FBLK01	8082	11096-82-5	Aroclor 1260	<	0.00014	mg/L		U	Total	0.00014
FW-EMW04-FBLK01	8141	60-51-5	Dimethoate	<	2	ug/l		U	Total	0.2
FW-EMW04-FBLK01	8141	298-04-4	Disulfoton	<	2	ug/l		U	Total	0.44
FW-EMW04-FBLK01	8141	56-38-2	Ethyl Parathion	<	1	ug/l		U	Total	0.23
FW-EMW04-FBLK01	8141	52-85-7	Famphur	<	2	ug/l		U	Total	0.18
FW-EMW04-FBLK01	8141	298-00-0	Methyl parathion	<	0.5	ug/l		U	Total	0.34
FW-EMW04-FBLK01	8141	298-02-2	Phorate	<	1	ug/l		U	Total	0.3
FW-EMW04-FBLK01	8141	3689-24-5	Sulfotepp (Tetraethyl dithiopyrophosphate)	<	0.5	ug/l		U	Total	0.19
FW-EMW04-FBLK01	8151	93-76-5	2 4 5-T	<	0.00026	mg/L		U	Total	0.00026
FW-EMW04-FBLK01	8151	93-72-1	2 4 5-TP (Silvex)	<	0.00026	mg/L		U	Total	0.00026
FW-EMW04-FBLK01	8151	94-75-7	2 4-D	<	0.00024	mg/L		U	Total	0.00024
FW-EMW04-FBLK01	8151	88-85-7	Dinoseb (DNBP)	<	0.00030	mg/L		U	Total	0.00030
FW-EMW04-FBLK01	8270	95-94-3	1 2 4 5-Tetrachlorobenzene	<	0.00139	mg/L		U	Total	0.00139
FW-EMW04-FBLK01	8270	120-82-1	1 2 4-Trichlorobenzene	<	0.00076	mg/L		U	Total	0.00076
FW-EMW04-FBLK01	8270	95-50-1	1 2-Dichlorobenzene	<	0.00060	mg/L		U	Total	0.00060
FW-EMW04-FBLK01	8270	541-73-1	1 3-Dichlorobenzene	<	0.00073	mg/L		U	Total	0.00073
FW-EMW04-FBLK01	8270	106-46-7	1 4-Dichlorobenzene	<	0.00093	mg/L		U	Total	0.00093
FW-EMW04-FBLK01	8270	130-15-4	1 4-Naphthoquinone	<	0.00128	mg/L		U	Total	0.00128
FW-EMW04-FBLK01	8270	134-32-7	1-Naphthylamine	<	0.00204	mg/L		U	Total	0.00204
FW-EMW04-FBLK01	8270	58-90-2	2 3 4 6-Tetrachlorophenol	<	0.00136	mg/L		U	Total	0.00136
FW-EMW04-FBLK01	8270	95-95-4	2 4 5-Trichlorophenol	<	0.00104	mg/L		U	Total	0.00104
FW-EMW04-FBLK01	8270	88-06-2	2 4 6-Trichlorophenol	<	0.00133	mg/L		U	Total	0.00133
FW-EMW04-FBLK01	8270	120-83-2	2 4-Dichlorophenol	<	0.00070	mg/L		U	Total	0.00070
FW-EMW04-FBLK01	8270	105-67-9	2 4-Dimethylphenol	<	0.00087	mg/L		U	Total	0.00087
FW-EMW04-FBLK01	8270	51-28-5	2 4-Dinitrophenol	<	0.00204	mg/L		U	Total	0.00204
FW-EMW04-FBLK01	8270	121-14-2	2 4-Dinitrotoluene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW04-FBLK01	8270	87-65-0	2 6-Dichlorophenol	<	0.00140	mg/L		U	Total	0.00140
FW-EMW04-FBLK01	8270	606-20-2	2 6-Dinitrotoluene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW04-FBLK01	8270	53-96-3	2-Acetylaminofluorene	<	0.00146	mg/L		U	Total	0.00146
FW-EMW04-FBLK01	8270	91-58-7	2-Chloronaphthalene	<	0.00093	mg/L		U	Total	0.00093
FW-EMW04-FBLK01	8270	95-57-8	2-Chlorophenol	<	0.00068	mg/L		U	Total	0.00068
FW-EMW04-FBLK01	8270	534-52-1	2-Methyl-4 6-dinitrophenol	<	0.00055	mg/L		U	Total	0.00055
FW-EMW04-FBLK01	8270	91-57-6	2-Methylnaphthalene	<	0.00085	mg/L		U	Total	0.00085
FW-EMW04-FBLK01	8270	95-48-7	2-Methylphenol (o-Cresol)	<	0.00108	mg/L		U	Total	0.00108
FW-EMW04-FBLK01	8270	91-59-8	2-Naphthylamine	<	0.00236	mg/L		U	Total	0.00236
FW-EMW04-FBLK01	8270	88-74-4	2-Nitroaniline	<	0.00066	mg/L		U	Total	0.00066
FW-EMW04-FBLK01	8270	88-75-5	2-Nitrophenol	<	0.00121	mg/L		U	Total	0.00121
FW-EMW04-FBLK01	8270	109-06-8	2-Picoline	<	0.00155	mg/L		U	Total	0.00155
FW-EMW04-FBLK01	8270	91-94-1	3 3'-Dichlorobenzidine	<	0.00103	mg/L		U	Total	0.00103
FW-EMW04-FBLK01	8270	119-93-7	3 3-Dimethylbenzidine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW04-FBLK01	8270	56-49-5	3-Methylcholanthrene	<	0.00206	mg/L		U	Total	0.00206
FW-EMW04-FBLK01	8270	108-39-4	3-Methylphenol (m-Cresol)	<	0.00040	mg/L		U	Total	0.00040

APPENDIX F

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Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW04-FBLK01	8270	99-09-2	3-Nitroaniline	<	0.00110	mg/L		U	Total	0.00110
FW-EMW04-FBLK01	8270	92-67-1	4-Aminobiphenyl	<	0.00287	mg/L		U	Total	0.00287
FW-EMW04-FBLK01	8270	101-55-3	4-Bromophenyl Phenyl Ether	<	0.00079	mg/L		U	Total	0.00079
FW-EMW04-FBLK01	8270	59-50-7	4-Chloro-3-methylphenol	<	0.00080	mg/L		U	Total	0.00080
FW-EMW04-FBLK01	8270	106-47-8	4-Chloroaniline	<	0.00127	mg/L		U	Total	0.00127
FW-EMW04-FBLK01	8270	7005-72-3	4-Chlorophenyl Phenyl Ether	<	0.00071	mg/L		U	Total	0.00071
FW-EMW04-FBLK01	8270	106-44-5	4-Methylphenol (p-Cresol)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW04-FBLK01	8270	100-01-6	4-Nitroaniline	<	0.00156	mg/L		U	Total	0.00156
FW-EMW04-FBLK01	8270	100-02-7	4-Nitrophenol	<	0.00191	mg/L		U	Total	0.00191
FW-EMW04-FBLK01	8270	56-57-5	4-Nitroquinoline-1-oxide	<	0.00092	mg/L		U	Total	0.00092
FW-EMW04-FBLK01	8270	99-55-8	5-Nitro-o-toluidine	<	0.00124	mg/L		U	Total	0.00124
FW-EMW04-FBLK01	8270	57-97-6	7,12-Dimethylbenz(a)anthracene	<	0.00126	mg/L		U	Total	0.00126
FW-EMW04-FBLK01	8270	83-32-9	Acenaphthene	<	0.00090	mg/L		U	Total	0.00090
FW-EMW04-FBLK01	8270	208-96-8	Acenaphthylene	<	0.00092	mg/L		U	Total	0.00092
FW-EMW04-FBLK01	8270	98-86-2	Acetophenone	<	0.00148	mg/L		U	Total	0.00148
FW-EMW04-FBLK01	8270	122-09-8	alpha, alpha-Dimethylphenethylamine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW04-FBLK01	8270	62-53-3	Aniline	<	0.00303	mg/L		U	Total	0.00303
FW-EMW04-FBLK01	8270	120-12-7	Anthracene	<	0.00065	mg/L		U	Total	0.00065
FW-EMW04-FBLK01	8270	140-57-8	Aramite	<	0.00413	mg/L		U	Total	0.00413
FW-EMW04-FBLK01	8270	56-55-3	Benzo(a)anthracene	<	0.00034	mg/L		U	Total	0.00034
FW-EMW04-FBLK01	8270	50-32-8	Benzo(a)pyrene	<	0.00058	mg/L		U	Total	0.00058
FW-EMW04-FBLK01	8270	205-99-2	Benzo(b)fluoranthene	<	0.00054	mg/L		U	Total	0.00054
FW-EMW04-FBLK01	8270	191-24-2	Benzo(ghi)perylene	<	0.00071	mg/L		U	Total	0.00071
FW-EMW04-FBLK01	8270	207-08-9	Benzo(k)fluoranthene	<	0.00076	mg/L		U	Total	0.00076
FW-EMW04-FBLK01	8270	100-51-6	Benzyl Alcohol	<	0.00058	mg/L		U	Total	0.00058
FW-EMW04-FBLK01	8270	111-91-1	bis(2-chloroethoxy)methane	<	0.00087	mg/L		U	Total	0.00087
FW-EMW04-FBLK01	8270	111-44-4	bis(2-Chloroethyl)ether	<	0.00068	mg/L		U	Total	0.00068
FW-EMW04-FBLK01	8270	108-60-1	bis(2-chloroisopropyl)ether	<	0.00104	mg/L		U	Total	0.00104
FW-EMW04-FBLK01	8270	117-81-7	bis(2-ethylhexyl)phthalate	<	0.00046	mg/L		U	Total	0.00046
FW-EMW04-FBLK01	8270	85-68-7	Butyl Benzyl Phthalate	<	0.00054	mg/L		U	Total	0.00054
FW-EMW04-FBLK01	8270	510-15-6	Chlorobenzilate	<	0.00148	mg/L		U	Total	0.00148
FW-EMW04-FBLK01	8270	218-01-9	Chrysene	<	0.00098	mg/L		U	Total	0.00098
FW-EMW04-FBLK01	8270	2303-16-4	Diallate	<	0.00123	mg/L		U	Total	0.00123
FW-EMW04-FBLK01	8270	53-70-3	Dibenzo(a,h)anthracene	<	0.00087	mg/L		U	Total	0.00087
FW-EMW04-FBLK01	8270	132-64-9	Dibenzofuran	<	0.00049	mg/L		U	Total	0.00049
FW-EMW04-FBLK01	8270	84-66-2	Diethyl Phthalate	<	0.00056	mg/L		U	Total	0.00056
FW-EMW04-FBLK01	8270	60-51-5	Dimethoate	<	0.00164	mg/L		U	Total	0.00164
FW-EMW04-FBLK01	8270	131-11-3	Dimethyl Phthalate	<	0.00054	mg/L		U	Total	0.00054
FW-EMW04-FBLK01	8270	84-74-2	Di-n-butyl Phthalate	<	0.00056	mg/L		U	Total	0.00056
FW-EMW04-FBLK01	8270	117-84-0	Di-n-octyl Phthalate	<	0.00039	mg/L		U	Total	0.00039
FW-EMW04-FBLK01	8270	88-85-7	Dinoseb (DNBP)	<	0.00082	mg/L		U	Total	0.00082
FW-EMW04-FBLK01	8270	122-39-4	Diphenylamine	<	0.00080	mg/L		U	Total	0.00080
FW-EMW04-FBLK01	8270	62-50-0	Ethyl Methane Sulfonate	<	0.00169	mg/L		U	Total	0.00169
FW-EMW04-FBLK01	8270	206-44-0	Fluoranthene	<	0.00078	mg/L		U	Total	0.00078
FW-EMW04-FBLK01	8270	86-73-7	Fluorene	<	0.00050	mg/L		U	Total	0.00050
FW-EMW04-FBLK01	8270	118-74-1	Hexachlorobenzene	<	0.00132	mg/L		U	Total	0.00132
FW-EMW04-FBLK01	8270	87-68-3	Hexachlorobutadiene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW04-FBLK01	8270	77-47-4	Hexachlorocyclopentadiene	<	0.00066	mg/L		U	Total	0.00066
FW-EMW04-FBLK01	8270	67-72-1	Hexachloroethane	<	0.00104	mg/L		U	Total	0.00104
FW-EMW04-FBLK01	8270	70-30-4	Hexachlorophene	<	0.03179	mg/L		U	Total	0.03179
FW-EMW04-FBLK01	8270	1888-71-7	Hexachloropropene	<	0.00096	mg/L		U	Total	0.00096
FW-EMW04-FBLK01	8270	193-39-5	Indeno(1,2,3-cd)pyrene	<	0.00112	mg/L		U	Total	0.00112
FW-EMW04-FBLK01	8270	465-73-6	Isodrin	<	0.00166	mg/L		U	Total	0.00166
FW-EMW04-FBLK01	8270	78-59-1	Isophorone	<	0.00097	mg/L		U	Total	0.00097
FW-EMW04-FBLK01	8270	120-58-1	Isosafrole	<	0.00113	mg/L		U	Total	0.00113
FW-EMW04-FBLK01	8270	143-50-0	Kepon	<	0.02567	mg/L		U	Total	0.02567
FW-EMW04-FBLK01	8270	99-65-0	m-Dinitrobenzene	<	0.00110	mg/L		U	Total	0.00110
FW-EMW04-FBLK01	8270	91-80-5	Methapyrilene	<	0.00110	mg/L		U	Total	0.00110
FW-EMW04-FBLK01	8270	66-27-3	Methyl Methane Sulfonate	<	0.00161	mg/L		U	Total	0.00161
FW-EMW04-FBLK01	8270	91-20-3	Naphthalene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW04-FBLK01	8270	98-95-3	Nitrobenzene	<	0.00089	mg/L		U	Total	0.00089

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW04-FBLK01	8270	55-18-5	n-Nitrosodiethylamine	<	0.00119	mg/L		U	Total	0.00119
FW-EMW04-FBLK01	8270	62-75-9	n-Nitrosodimethylamine	<	0.00048	mg/L		U	Total	0.00048
FW-EMW04-FBLK01	8270	924-16-3	n-Nitrosodi-n-butylamine	<	0.00155	mg/L		U	Total	0.00155
FW-EMW04-FBLK01	8270	621-64-7	n-Nitrosodi-n-propylamine	<	0.00080	mg/L		U	Total	0.00080
FW-EMW04-FBLK01	8270	86-30-6	n-Nitrosodiphenylamine	<	0.00071	mg/L		U	Total	0.00071
FW-EMW04-FBLK01	8270	10595-95-6	n-Nitrosomethylethylamine	<	0.00106	mg/L		U	Total	0.00106
FW-EMW04-FBLK01	8270	59-89-2	n-Nitrosomorpholine	<	0.00221	mg/L		U	Total	0.00221
FW-EMW04-FBLK01	8270	100-75-4	n-Nitrosopiperidine	<	0.00249	mg/L		U	Total	0.00249
FW-EMW04-FBLK01	8270	930-55-2	n-Nitrosopyrrolidine	<	0.00197	mg/L		U	Total	0.00197
FW-EMW04-FBLK01	8270	126-68-1	O O O-Triethyl phosphorothioate	<	0.00170	mg/L		U	Total	0.00170
FW-EMW04-FBLK01	8270	95-53-4	o-Toluidine	<	0.00320	mg/L		U	Total	0.00320
FW-EMW04-FBLK01	8270	60-11-7	p-Dimethylaminoazobenzene	<	0.00209	mg/L		U	Total	0.00209
FW-EMW04-FBLK01	8270	608-93-5	Pentachlorobenzene	<	0.00283	mg/L		U	Total	0.00283
FW-EMW04-FBLK01	8270	76-01-7	Pentachloroethane	<	0.00256	mg/L		U	Total	0.00256
FW-EMW04-FBLK01	8270	82-68-8	Pentachloronitrobenzene	<	0.00482	mg/L		U	Total	0.00482
FW-EMW04-FBLK01	8270	87-86-5	Pentachlorophenol	<	0.00399	mg/L		U	Total	0.00399
FW-EMW04-FBLK01	8270	62-44-2	Phenacetin	<	0.00136	mg/L		U	Total	0.00136
FW-EMW04-FBLK01	8270	85-01-8	Phenanthrene	<	0.00049	mg/L		U	Total	0.00049
FW-EMW04-FBLK01	8270	108-95-2	Phenol	<	0.00080	mg/L		U	Total	0.00080
FW-EMW04-FBLK01	8270	106-50-3	p-Phenylenediamine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW04-FBLK01	8270	23950-58-5	Pronamide	<	0.00125	mg/L		U	Total	0.00125
FW-EMW04-FBLK01	8270	129-00-0	Pyrene	<	0.00083	mg/L		U	Total	0.00083
FW-EMW04-FBLK01	8270	110-86-1	Pyridine	<	0.0100	mg/L		U	Total	0.0100
FW-EMW04-FBLK01	8270	94-59-7	Safrole	<	0.00133	mg/L		U	Total	0.00133
FW-EMW04-FBLK01	8270	99-35-4	Sym-Trinitrobenzene	<	0.00182	mg/L		U	Total	0.00182
FW-EMW04-FBLK01	8270	3689-24-5	Tetraethyldithiopyrophosphate	<	0.00138	mg/L		U	Total	0.00138
FW-EMW04-FBLK01	8270	297-97-2	Thionazin	<	0.00105	mg/L		U	Total	0.00105
FW-EMW04-FBLK01	8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	55673-89-7	1,2,3,4,7,8,9-HpCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	39227-28-6	1,2,3,4,7,8-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	70648-26-9	1,2,3,4,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	57653-85-7	1,2,3,6,7,8-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	57117-44-9	1,2,3,6,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	19408-74-3	1,2,3,7,8,9-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	72918-21-9	1,2,3,7,8,9-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	40321-76-4	1,2,3,7,8-PeCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	57117-41-6	1,2,3,7,8-PeCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	60851-34-5	2,3,4,6,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	57117-31-4	2,3,4,7,8-PeCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	1746-01-6	2,3,7,8-TCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	51207-31-9	2,3,7,8-TCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	3268-87-9	OCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	8290	39001-02-0	OCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK01	9012	57-12-5	Cyanide Total	<	3.579	ug/L		U	Total	3.579
FW-EMW04-FBLK01	300SH	14797-55-8	Nitrogen Nitrate as N (NO3-N)	<	0.057	mg/L		U	Total	0.057
FW-EMW04-FBLK01	353.2P	7727-37-9	Nitrate + Nitrite as N		0.037	mg/L		B	Total	0.007
FW-EMW04-FBLK01	6010TR	7429-90-5	Aluminum (Al)		0.0408	mg/L		B	Total	0.01800
FW-EMW04-FBLK01	6010TR	7429-90-5	Aluminum (Al)	<	0.01800	mg/L		U	Dissolved	0.01800
FW-EMW04-FBLK01	6010TR	7440-36-0	Antimony (Sb)		0.00351	mg/L		B	Total	0.00350
FW-EMW04-FBLK01	6010TR	7440-36-0	Antimony (Sb)	<	0.00350	mg/L		U	Dissolved	0.00350
FW-EMW04-FBLK01	6010TR	7440-38-2	Arsenic (As)	<	0.00340	mg/L		U	Dissolved	0.00340
FW-EMW04-FBLK01	6010TR	7440-38-2	Arsenic (As)	<	0.00340	mg/L		U	Total	0.00340
FW-EMW04-FBLK01	6010TR	7440-39-3	Barium (Ba)		0.0150	mg/L		B	Dissolved	0.00060
FW-EMW04-FBLK01	6010TR	7440-39-3	Barium (Ba)		0.0162	mg/L		B	Total	0.00060
FW-EMW04-FBLK01	6010TR	7440-41-7	Beryllium (Be)	<	0.00040	mg/L		U	Dissolved	0.00040
FW-EMW04-FBLK01	6010TR	7440-41-7	Beryllium (Be)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW04-FBLK01	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Dissolved	0.00050
FW-EMW04-FBLK01	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Total	0.00050
FW-EMW04-FBLK01	6010TR	7440-47-3	Chromium (Cr)	<	0.00130	mg/L		U	Dissolved	0.00130
FW-EMW04-FBLK01	6010TR	7440-47-3	Chromium (Cr)	<	0.00130	mg/L		U	Total	0.00130

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW04-FBLK01	6010TR	7440-48-4	Cobalt (Co)		0.00130	mg/L		B	Dissolved	0.00070
FW-EMW04-FBLK01	6010TR	7440-48-4	Cobalt (Co)	<	0.00070	mg/L		U	Total	0.00070
FW-EMW04-FBLK01	6010TR	7440-50-8	Copper (Cu)		0.00571	mg/L		B	Total	0.00180
FW-EMW04-FBLK01	6010TR	7440-50-8	Copper (Cu)	<	0.00180	mg/L		U	Dissolved	0.00180
FW-EMW04-FBLK01	6010TR	7439-89-6	Iron (Fe)		0.226	mg/L		B	Dissolved	0.04590
FW-EMW04-FBLK01	6010TR	7439-89-6	Iron (Fe)		0.759	mg/L			Total	0.04590
FW-EMW04-FBLK01	6010TR	7439-92-1	Lead (Pb)	<	0.00210	mg/L		U	Dissolved	0.00210
FW-EMW04-FBLK01	6010TR	7439-92-1	Lead (Pb)	<	0.00210	mg/L		U	Total	0.00210
FW-EMW04-FBLK01	6010TR	7439-96-5	Manganese (Mn)		0.0382	mg/L			Dissolved	0.00100
FW-EMW04-FBLK01	6010TR	7439-96-5	Manganese (Mn)		0.0323	mg/L			Total	0.00100
FW-EMW04-FBLK01	6010TR	7440-02-0	Nickel (Ni)		0.00396	mg/L		B	Total	0.00180
FW-EMW04-FBLK01	6010TR	7440-02-0	Nickel (Ni)		0.0586	mg/L			Dissolved	0.00180
FW-EMW04-FBLK01	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Dissolved	0.00370
FW-EMW04-FBLK01	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Total	0.00370
FW-EMW04-FBLK01	6010TR	7440-22-4	Silver (Ag)	<	0.00120	mg/L		U	Dissolved	0.00120
FW-EMW04-FBLK01	6010TR	7440-22-4	Silver (Ag)	<	0.00120	mg/L		U	Total	0.00120
FW-EMW04-FBLK01	6010TR	7440-28-0	Thallium (Tl)	<	0.00470	mg/L		U	Dissolved	0.00470
FW-EMW04-FBLK01	6010TR	7440-28-0	Thallium (Tl)	<	0.00470	mg/L		U	Total	0.00470
FW-EMW04-FBLK01	6010TR	7440-31-5	Tin (Sn)	<	0.00280	mg/L		U	Dissolved	0.00280
FW-EMW04-FBLK01	6010TR	7440-31-5	Tin (Sn)	<	0.00280	mg/L		U	Total	0.00280
FW-EMW04-FBLK01	6010TR	7440-62-2	Vanadium (V)	<	0.00280	mg/L		U	Dissolved	0.00280
FW-EMW04-FBLK01	6010TR	7440-62-2	Vanadium (V)	<	0.00280	mg/L		U	Total	0.00280
FW-EMW04-FBLK01	6010TR	7440-66-6	Zinc (Zn)		0.0619	mg/L			Dissolved	0.00260
FW-EMW04-FBLK01	6010TR	7440-66-6	Zinc (Zn)		0.114	mg/L			Total	0.00260
FW-EMW04-FBLK01	8082 Con	2051-60-7	PCB 1 (BZ)	<	ND	UG/L		U	Total	0.023
FW-EMW04-FBLK01	8082 Con	37680-73-2	PCB 101 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW04-FBLK01	8082 Con	38380-03-9	PCB 110 (BZ)	<	ND	UG/L		U	Total	0.0022
FW-EMW04-FBLK01	8082 Con	35065-28-2	PCB 138 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW04-FBLK01	8082 Con	52712-04-6	PCB 141 (BZ)	<	ND	UG/L		U	Total	0.0017
FW-EMW04-FBLK01	8082 Con	52663-63-5	PCB 151 (BZ)	<	ND	UG/L		U	Total	0.0011
FW-EMW04-FBLK01	8082 Con	35065-27-1	PCB 153 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW04-FBLK01	8082 Con	35065-30-6	PCB 170 (BZ)	<	ND	UG/L		U	Total	0.0024
FW-EMW04-FBLK01	8082 Con	37680-65-2	PCB 18 (BZ)	<	ND	UG/L		U	Total	0.0042
FW-EMW04-FBLK01	8082 Con	35065-29-3	PCB 180 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW04-FBLK01	8082 Con	52663-69-1	PCB 183 (BZ)	<	ND	UG/L		U	Total	0.0017
FW-EMW04-FBLK01	8082 Con	52663-68-0	PCB 187 (BZ)	<	ND	UG/L		U	Total	0.0021
FW-EMW04-FBLK01	8082 Con	40186-72-9	PCB 206 (BZ)		0.0013	UG/L	U	J B	Total	0.0010
FW-EMW04-FBLK01	8082 Con	16606-02-3	PCB 31 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW04-FBLK01	8082 Con	41464-39-5	PCB 44 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW04-FBLK01	8082 Con	16605-91-7	PCB 5 (BZ)	<	ND	UG/L		U	Total	0.0055
FW-EMW04-FBLK01	8082 Con	35693-99-3	PCB 52 (BZ)	<	ND	UG/L		U	Total	0.0049
FW-EMW04-FBLK01	8082 Con	32598-10-0	PCB 66 (BZ)	<	ND	UG/L		U	Total	0.0020
FW-EMW04-FBLK01	8082 Con	38380-02-8	PCB 87 (BZ)	<	ND	UG/L		U	Total	0.0020
FW-EMW04-FBLK01	8260M	630-20-6	1 1 1 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW04-FBLK01	8260M	71-55-6	1 1 1-Trichloroethane	<	0.00019	mg/L		U	Total	0.00019
FW-EMW04-FBLK01	8260M	79-34-5	1 1 2 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW04-FBLK01	8260M	79-00-5	1 1 2-Trichloroethane	<	0.00015	mg/L		U	Total	0.00015
FW-EMW04-FBLK01	8260M	75-34-3	1 1-Dichloroethane	<	0.00015	mg/L		U	Total	0.00015
FW-EMW04-FBLK01	8260M	75-35-4	1 1-Dichloroethene	<	0.00033	mg/L		U	Total	0.00033
FW-EMW04-FBLK01	8260M	96-18-4	1 2 3-Trichloropropane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW04-FBLK01	8260M	96-12-8	1 2-Dibromo-3-chloropropane	<	0.00044	mg/L		U	Total	0.00044
FW-EMW04-FBLK01	8260M	106-93-4	1 2-Dibromoethane (EDB)	<	0.00017	mg/L		U	Total	0.00017
FW-EMW04-FBLK01	8260M	107-06-2	1 2-Dichloroethane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW04-FBLK01	8260M	78-87-5	1 2-Dichloropropane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW04-FBLK01	8260M	123-91-1	1 4-Dioxane	<	0.01328	mg/L		U	Total	0.01328
FW-EMW04-FBLK01	8260M	126-99-8	2-Chloro-1 3-butadiene (chloroprene)	<	0.00039	mg/L		U	Total	0.00039
FW-EMW04-FBLK01	8260M	591-78-6	2-Hexanone	<	0.00029	mg/L		U	Total	0.00029
FW-EMW04-FBLK01	8260M	108-10-1	4-Methyl-2-pentanone (MIBK)	<	0.00014	mg/L		U	Total	0.00014
FW-EMW04-FBLK01	8260M	67-64-1	Acetone	<	0.00094	mg/L		U	Total	0.00094
FW-EMW04-FBLK01	8260M	75-05-8	Acetonitrile	<	0.00132	mg/L		U	Total	0.00132
FW-EMW04-FBLK01	8260M	107-02-8	Acrolein	<	0.00215	mg/L		U	Total	0.00215

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW04-FBLK01	8260M	107-13-1	Acrylonitrile	<	0.00102	mg/L		U	Total	0.00102
FW-EMW04-FBLK01	8260M	107-05-1	Allyl chloride	<	0.00060	mg/L		U	Total	0.00060
FW-EMW04-FBLK01	8260M	71-43-2	Benzene	<	0.00008	mg/L		U	Total	0.00008
FW-EMW04-FBLK01	8260M	75-27-4	Bromodichloromethane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW04-FBLK01	8260M	75-25-2	Bromoform	<	0.00018	mg/L		U	Total	0.00018
FW-EMW04-FBLK01	8260M	74-83-9	Bromomethane	<	0.00045	mg/L		U	Total	0.00045
FW-EMW04-FBLK01	8260M	75-15-0	Carbon Disulfide	<	0.00030	mg/L		U	Total	0.00030
FW-EMW04-FBLK01	8260M	56-23-5	Carbon Tetrachloride	<	0.00022	mg/L		U	Total	0.00022
FW-EMW04-FBLK01	8260M	108-90-7	Chlorobenzene	<	0.00013	mg/L		U	Total	0.00013
FW-EMW04-FBLK01	8260M	75-00-3	Chloroethane	<	0.00021	mg/L		U	Total	0.00021
FW-EMW04-FBLK01	8260M	67-66-3	Chloroform	<	0.00024	mg/L		U	Total	0.00024
FW-EMW04-FBLK01	8260M	74-87-3	Chloromethane	<	0.00013	mg/L		U	Total	0.00013
FW-EMW04-FBLK01	8260M	156-59-2	cis-1 2-Dichloroethene	<	0.00023	mg/L		U	Total	0.00023
FW-EMW04-FBLK01	8260M	10061-01-5	cis-1 3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
FW-EMW04-FBLK01	8260M	124-48-1	Dibromochloromethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW04-FBLK01	8260M	74-95-3	Dibromomethane	<	0.00020	mg/L		U	Total	0.00020
FW-EMW04-FBLK01	8260M	75-71-8	Dichlorodifluoromethane	<	0.00031	mg/L		U	Total	0.00031
FW-EMW04-FBLK01	8260M	97-63-2	Ethyl Methacrylate	<	0.00038	mg/L		U	Total	0.00038
FW-EMW04-FBLK01	8260M	100-41-4	Ethylbenzene	<	0.00015	mg/L		U	Total	0.00015
FW-EMW04-FBLK01	8260M	74-88-4	Iodomethane	<	0.00021	mg/L		U	Total	0.00021
FW-EMW04-FBLK01	8260M	78-83-1	Isobutyl Alcohol	<	0.00313	mg/L		U	Total	0.00313
FW-EMW04-FBLK01	8260M	126-98-7	Methacrylonitrile	<	0.00059	mg/L		U	Total	0.00059
FW-EMW04-FBLK01	8260M	78-93-3	Methyl Ethyl Ketone (2-Butanone)	<	0.00034	mg/L		U	Total	0.00034
FW-EMW04-FBLK01	8260M	80-62-6	Methyl Methacrylate	<	0.00050	mg/L		U	Total	0.00050
FW-EMW04-FBLK01	8260M	1634-04-4	Methyl tert-Butyl ether	<	0.00056	mg/L		U	Total	0.00056
FW-EMW04-FBLK01	8260M	75-09-2	Methylene Chloride	<	0.00074	mg/L		U	Total	0.00074
FW-EMW04-FBLK01	8260M	107-12-0	Propionitrile	<	0.00068	mg/L		U	Total	0.00068
FW-EMW04-FBLK01	8260M	100-42-5	Styrene	<	0.00087	mg/L		U	Total	0.00087
FW-EMW04-FBLK01	8260M	127-18-4	Tetrachloroethene	<	0.00017	mg/L		U	Total	0.00017
FW-EMW04-FBLK01	8260M	108-88-3	Toluene	<	0.00015	mg/L		U	Total	0.00015
FW-EMW04-FBLK01	8260M	156-60-5	trans-1 2-Dichloroethene	<	0.00025	mg/L		U	Total	0.00025
FW-EMW04-FBLK01	8260M	10061-02-6	trans-1 3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
FW-EMW04-FBLK01	8260M	110-57-6	trans-1 4-Dichloro-2-butene	<	0.00029	mg/L		U	Total	0.00029
FW-EMW04-FBLK01	8260M	79-01-6	Trichloroethene	<	0.00026	mg/L		U	Total	0.00026
FW-EMW04-FBLK01	8260M	75-69-4	Trichlorofluoromethane	<	0.00030	mg/L		U	Total	0.00030
FW-EMW04-FBLK01	8260M	108-05-4	Vinyl Acetate	<	0.00045	mg/L		U	Total	0.00045
FW-EMW04-FBLK01	8260M	75-01-4	Vinyl Chloride	<	0.00018	mg/L		U	Total	0.00018
FW-EMW04-FBLK01	8260M	1330-20-7	Xylenes (total)	<	0.00046	mg/L		U	Total	0.00046
FW-EMW04-FBLK01	SW8330	99-35-4	1,3,5-Trinitrobenzene	<	0.25	ug/L		U	Total	0.182
FW-EMW04-FBLK01	SW8330	99-65-0	1,3-Dinitrobenzene	<	0.25	ug/L		U	Total	0.0550
FW-EMW04-FBLK01	SW8330		2,2'-Azoxy	<	0.25	ug/L		U	Total	0.05600
FW-EMW04-FBLK01	SW8330	118-96-7	2,4,6-Trinitrotoluene	<	0.25	ug/L		U	Total	0.0320
FW-EMW04-FBLK01	SW8330	6629-29-4	2,4-Diamino-6-nitrotoluene	<	0.25	ug/L		U	Total	0.112
FW-EMW04-FBLK01	SW8330	121-14-2	2,4-Dinitrotoluene	<	0.25	ug/L		U	Total	0.0440
FW-EMW04-FBLK01	SW8330	59229-75-3	2,6-Diamino-4-nitrotoluene	<	0.50	ug/L		U	Total	0.127
FW-EMW04-FBLK01	SW8330	606-20-2	2,6-Dinitrotoluene	<	0.25	ug/L		U	Total	0.0720
FW-EMW04-FBLK01	SW8330	35572-78-2	2-Amino-4,6-dinitrotoluene	<	0.25	ug/L		U	Total	0.0300
FW-EMW04-FBLK01	SW8330	88-72-2	2-Nitrotoluene	<	0.25	ug/L		U	Total	0.0190
FW-EMW04-FBLK01	SW8330	99-08-1	3-Nitrotoluene	<	0.25	ug/L		U	Total	0.0470
FW-EMW04-FBLK01	SW8330		4,4'-Azoxy	<	0.25	ug/L		U	Total	0.05600
FW-EMW04-FBLK01	SW8330	19406-51-0	4-Amino-2,6-dinitrotoluene	<	0.25	ug/L		U	Total	0.155
FW-EMW04-FBLK01	SW8330	99-99-0	4-Nitrotoluene	<	0.25	ug/L		U	Total	0.0480
FW-EMW04-FBLK01	SW8330	TEMPCAS2	DNX	<	0.25	ug/L		U	Total	0.06030
FW-EMW04-FBLK01	SW8330	2691-41-0	HMX	<	0.25	ug/L		U	Total	0.0540
FW-EMW04-FBLK01	SW8330	TEMPCAS1	MXN	<	0.25	ug/L		U	Total	0.03760
FW-EMW04-FBLK01	SW8330	98-95-3	Nitrobenzene	<	0.25	ug/L		U	Total	0.0550
FW-EMW04-FBLK01	SW8330	55-63-0	Nitroglycerin	<	3.7	ug/L		J	Total	4.212
FW-EMW04-FBLK01	SW8330	78-11-5	PETN	<	10	ug/L		U	Total	3.477
FW-EMW04-FBLK01	SW8330	88-89-1	Picric acid	<	0.25	ug/L		U	Total	0.172
FW-EMW04-FBLK01	SW8330	38082-89-2	PYX	<	0.25	ug/L		U	Total	0.05600
FW-EMW04-FBLK01	SW8330	121-82-4	RDX	<	0.25	ug/L		U	Total	0.0450

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW04-FBLK01	SW8330	479-45-8	Tetryl	<	0.25	ug/L		U	Total	0.105
FW-EMW04-FBLK01	SW8330	13980-04-6	TNX	<	0.25	ug/L		U	Total	0.0390
FW-EMW04-FBLK02	8141	60-51-5	Dimethoate	<	2	ug/l		U	Total	0.2
FW-EMW04-FBLK02	8141	298-04-4	Disulfoton	<	2	ug/l		U	Total	0.44
FW-EMW04-FBLK02	8141	56-38-2	Ethyl Parathion	<	1	ug/l		U	Total	0.23
FW-EMW04-FBLK02	8141	52-85-7	Famphur	<	2	ug/l		U	Total	0.18
FW-EMW04-FBLK02	8141	298-00-0	Methyl parathion	<	0.5	ug/l		U	Total	0.34
FW-EMW04-FBLK02	8141	298-02-2	Phorate	<	1	ug/l		U	Total	0.3
FW-EMW04-FBLK02	8141	3689-24-5	Sulfotepp (Tetraethyl dithiopyrophosphate)	<	0.5	ug/l		U	Total	0.19
FW-EMW04-FBLK02	8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	39227-28-6	1,2,3,4,7,8-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	70648-26-9	1,2,3,4,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	57653-85-7	1,2,3,6,7,8-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	57117-44-9	1,2,3,6,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	19408-74-3	1,2,3,7,8,9-HxCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	72918-21-9	1,2,3,7,8,9-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	40321-76-4	1,2,3,7,8-PeCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	57117-41-6	1,2,3,7,8-PeCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	60851-34-5	2,3,4,6,7,8-HxCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	57117-31-4	2,3,4,7,8-PeCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	1746-01-6	2,3,7,8-TCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	51207-31-9	2,3,7,8-TCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	3268-87-9	OCDD	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8290	39001-02-0	OCDF	<	ND	PG/L		U	Total	0.0
FW-EMW04-FBLK02	8082 Con	2051-60-7	PCB 1 (BZ)	<	ND	UG/L		U	Total	0.023
FW-EMW04-FBLK02	8082 Con	37680-73-2	PCB 101 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW04-FBLK02	8082 Con	38380-03-9	PCB 110 (BZ)	<	ND	UG/L		U	Total	0.0022
FW-EMW04-FBLK02	8082 Con	35065-28-2	PCB 138 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW04-FBLK02	8082 Con	52712-04-6	PCB 141 (BZ)	<	ND	UG/L		U	Total	0.0017
FW-EMW04-FBLK02	8082 Con	52663-63-5	PCB 151 (BZ)	<	ND	UG/L		U	Total	0.0011
FW-EMW04-FBLK02	8082 Con	35065-27-1	PCB 153 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW04-FBLK02	8082 Con	35065-30-6	PCB 170 (BZ)	<	ND	UG/L		U	Total	0.0024
FW-EMW04-FBLK02	8082 Con	37680-65-2	PCB 18 (BZ)	<	ND	UG/L		U	Total	0.0042
FW-EMW04-FBLK02	8082 Con	35065-29-3	PCB 180 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW04-FBLK02	8082 Con	52663-69-1	PCB 183 (BZ)	<	ND	UG/L		U	Total	0.0017
FW-EMW04-FBLK02	8082 Con	52663-68-0	PCB 187 (BZ)	<	ND	UG/L		U	Total	0.0021
FW-EMW04-FBLK02	8082 Con	40186-72-9	PCB 206 (BZ)	<	0.0013	UG/L	U	J B	Total	0.0010
FW-EMW04-FBLK02	8082 Con	16606-02-3	PCB 31 (BZ)	<	ND	UG/L		U	Total	0.0034
FW-EMW04-FBLK02	8082 Con	41464-39-5	PCB 44 (BZ)	<	ND	UG/L		U	Total	0.0018
FW-EMW04-FBLK02	8082 Con	16605-91-7	PCB 5 (BZ)	<	ND	UG/L		U	Total	0.0055
FW-EMW04-FBLK02	8082 Con	35693-99-3	PCB 52 (BZ)	<	ND	UG/L		U	Total	0.0049
FW-EMW04-FBLK02	8082 Con	32598-10-0	PCB 66 (BZ)	<	ND	UG/L		U	Total	0.0020
FW-EMW04-FBLK02	8082 Con	38380-02-8	PCB 87 (BZ)	<	ND	UG/L		U	Total	0.0020
FW-EMW04-FBLK02	SW8330	99-35-4	1,3,5-Trinitrobenzene	<	0.25	ug/L		U	Total	0.182
FW-EMW04-FBLK02	SW8330	99-65-0	1,3-Dinitrobenzene	<	0.25	ug/L		U	Total	0.0550
FW-EMW04-FBLK02	SW8330		2,2'-Azoxy	<	0.25	ug/L		U	Total	0.05600
FW-EMW04-FBLK02	SW8330	118-96-7	2,4,6-Trinitrotoluene	<	0.25	ug/L		U	Total	0.0320
FW-EMW04-FBLK02	SW8330	6629-29-4	2,4-Diamino-6-nitrotoluene	<	0.25	ug/L		U	Total	0.112
FW-EMW04-FBLK02	SW8330	121-14-2	2,4-Dinitrotoluene	<	0.25	ug/L		U	Total	0.0440
FW-EMW04-FBLK02	SW8330	59229-75-3	2,6-Diamino-4-nitrotoluene	<	0.50	ug/L		U	Total	0.127
FW-EMW04-FBLK02	SW8330	606-20-2	2,6-Dinitrotoluene	<	0.25	ug/L		U	Total	0.0720
FW-EMW04-FBLK02	SW8330	35572-78-2	2-Amino-4,6-dinitrotoluene	<	0.93	ug/L		U	Total	0.0300
FW-EMW04-FBLK02	SW8330	88-72-2	2-Nitrotoluene	<	0.25	ug/L		U	Total	0.0190
FW-EMW04-FBLK02	SW8330	99-08-1	3-Nitrotoluene	<	0.25	ug/L		U	Total	0.0470
FW-EMW04-FBLK02	SW8330		4,4'-Azoxy	<	0.25	ug/L		U	Total	0.05600
FW-EMW04-FBLK02	SW8330	19406-51-0	4-Amino-2,6-dinitrotoluene	<	0.25	ug/L		U	Total	0.155
FW-EMW04-FBLK02	SW8330	99-99-0	4-Nitrotoluene	<	0.25	ug/L		U	Total	0.0480
FW-EMW04-FBLK02	SW8330	TEMPCAS2	DNX	<	0.25	ug/L		U	Total	0.06030
FW-EMW04-FBLK02	SW8330	2691-41-0	HMX	<	0.25	ug/L		U	Total	0.0540

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW04-FBLK02	SW8330	TEMPCAS1	MNX	<	0.25	ug/L		U	Total	0.03760
FW-EMW04-FBLK02	SW8330	98-95-3	Nitrobenzene	<	0.25	ug/L		U	Total	0.0550
FW-EMW04-FBLK02	SW8330	55-63-0	Nitroglycerin	<	5.0	ug/L		U	Total	4.212
FW-EMW04-FBLK02	SW8330	78-11-5	PETN	<	10	ug/L		U	Total	3.477
FW-EMW04-FBLK02	SW8330	88-89-1	Picric acid	<	0.25	ug/L		U	Total	0.172
FW-EMW04-FBLK02	SW8330	38082-89-2	PYX	<	0.25	ug/L		U	Total	0.05600
FW-EMW04-FBLK02	SW8330	121-82-4	RDX	<	0.25	ug/L		U	Total	0.0450
FW-EMW04-FBLK02	SW8330	479-45-8	Tetryl	<	0.25	ug/L		U	Total	0.105
FW-EMW04-FBLK02	SW8330	13980-04-6	TNX	<	0.25	ug/L		U	Total	0.0390
FW-EMW-04-FBLK02	150.1	PH	pH		7.76	pH Units			Total	
FW-EMW-04-FBLK02	160.1	TDS	Solids Total Dissolved (TDS)		1190	mg/L			Total	2.99
FW-EMW-04-FBLK02	300.0	16887-00-6	Chloride		3.55	mg/L			Total	0.070
FW-EMW-04-FBLK02	300.0	16984-48-8	Fluoride (F)		0.346	mg/L			Total	0.047
FW-EMW-04-FBLK02	300.0	14808-79-8	Sulfate (SO4)		535	mg/L			Total	40.5
FW-EMW-04-FBLK02	376.1	18496-25-8	Sulfide	<	0.87	mg/L		U	Total	0.87
FW-EMW-04-FBLK02	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		U	Dissolved	0.000031
FW-EMW-04-FBLK02	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		U	Total	0.000031
FW-EMW-04-FBLK02	8081	72-54-8	4 4'-DDD	<	0.000029	mg/L		U	Total	0.000029
FW-EMW-04-FBLK02	8081	72-55-9	4 4'-DDE	<	0.000019	mg/L		U	Total	0.000019
FW-EMW-04-FBLK02	8081	50-29-3	4 4'-DDT	<	0.000039	mg/L		U	Total	0.000039
FW-EMW-04-FBLK02	8081	309-00-2	Aldrin	<	0.000019	mg/L		U	Total	0.000019
FW-EMW-04-FBLK02	8081	319-84-6	alpha-BHC	<	0.000029	mg/L		U	Total	0.000029
FW-EMW-04-FBLK02	8081	319-85-7	beta-BHC	<	0.000019	mg/L		U	Total	0.000019
FW-EMW-04-FBLK02	8081	12789-03-6	Chlordane	<	0.001311	mg/L		U	Total	0.001311
FW-EMW-04-FBLK02	8081	319-86-8	delta-BHC	<	0.000019	mg/L		U	Total	0.000019
FW-EMW-04-FBLK02	8081	60-57-1	Dieldrin	<	0.000029	mg/L		U	Total	0.000029
FW-EMW-04-FBLK02	8081	959-98-8	Endosulfan I	<	0.000087	mg/L		U	Total	0.000087
FW-EMW-04-FBLK02	8081	33213-65-9	Endosulfan II	<	0.000058	mg/L		U	Total	0.000058
FW-EMW-04-FBLK02	8081	1031-07-8	Endosulfan sulfate	<	0.000078	mg/L		U	Total	0.000078
FW-EMW-04-FBLK02	8081	72-20-8	Endrin	<	0.000078	mg/L		U	Total	0.000078
FW-EMW-04-FBLK02	8081	7421-93-4	Endrin aldehyde	<	0.000019	mg/L		U	Total	0.000019
FW-EMW-04-FBLK02	8081	58-89-9	gamma-BHC (Lindane)	<	0.000019	mg/L		U	Total	0.000019
FW-EMW-04-FBLK02	8081	76-44-8	Heptachlor	<	0.000117	mg/L		U	Total	0.000117
FW-EMW-04-FBLK02	8081	1024-57-3	Heptachlor epoxide	<	0.000019	mg/L		U	Total	0.000019
FW-EMW-04-FBLK02	8081	72-43-5	Methoxychlor	<	0.000087	mg/L		U	Total	0.000087
FW-EMW-04-FBLK02	8081	8001-35-2	Toxaphene	<	0.001777	mg/L		U	Total	0.001777
FW-EMW-04-FBLK02	8082	12674-11-2	Aroclor 1016	<	0.00018	mg/L		U	Total	0.00018
FW-EMW-04-FBLK02	8082	11104-28-2	Aroclor 1221	<	0.00044	mg/L		U	Total	0.00044
FW-EMW-04-FBLK02	8082	11141-16-5	Aroclor 1232	<	0.00024	mg/L		U	Total	0.00024
FW-EMW-04-FBLK02	8082	53469-21-9	Aroclor 1242	<	0.00028	mg/L		U	Total	0.00028
FW-EMW-04-FBLK02	8082	12672-29-6	Aroclor 1248	<	0.00015	mg/L		U	Total	0.00015
FW-EMW-04-FBLK02	8082	11097-69-1	Aroclor 1254	<	0.00014	mg/L		U	Total	0.00014
FW-EMW-04-FBLK02	8082	11096-82-5	Aroclor 1260	<	0.00015	mg/L		U	Total	0.00015
FW-EMW-04-FBLK02	8151	93-76-5	2 4 5-T	<	0.00026	mg/L		U	Total	0.00026
FW-EMW-04-FBLK02	8151	93-72-1	2 4 5-TP (Silvex)	<	0.00026	mg/L		U	Total	0.00026
FW-EMW-04-FBLK02	8151	94-75-7	2 4-D	<	0.00024	mg/L		U	Total	0.00024
FW-EMW-04-FBLK02	8151	88-85-7	Dinoseb (DNBP)	<	0.00030	mg/L		U	Total	0.00030
FW-EMW-04-FBLK02	8270	95-94-3	1 2 4 5-Tetrachlorobenzene	<	0.00132	mg/L		U	Total	0.00132
FW-EMW-04-FBLK02	8270	120-82-1	1 2 4-Trichlorobenzene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW-04-FBLK02	8270	95-50-1	1 2-Dichlorobenzene	<	0.00057	mg/L		U	Total	0.00057
FW-EMW-04-FBLK02	8270	541-73-1	1 3-Dichlorobenzene	<	0.00070	mg/L		U	Total	0.00070
FW-EMW-04-FBLK02	8270	106-46-7	1 4-Dichlorobenzene	<	0.00089	mg/L		U	Total	0.00089
FW-EMW-04-FBLK02	8270	130-15-4	1 4-Naphthoquinone	<	0.00122	mg/L		U	Total	0.00122
FW-EMW-04-FBLK02	8270	134-32-7	1-Naphthylamine	<	0.00194	mg/L		U	Total	0.00194
FW-EMW-04-FBLK02	8270	58-90-2	2 3 4 6-Tetrachlorophenol	<	0.00130	mg/L		U	Total	0.00130
FW-EMW-04-FBLK02	8270	95-95-4	2 4 5-Trichlorophenol	<	0.00091	mg/L		U	Total	0.00091
FW-EMW-04-FBLK02	8270	88-06-2	2 4 6-Trichlorophenol	<	0.00127	mg/L		U	Total	0.00127
FW-EMW-04-FBLK02	8270	120-83-2	2 4-Dichlorophenol	<	0.00067	mg/L		U	Total	0.00067
FW-EMW-04-FBLK02	8270	105-67-9	2 4-Dimethylphenol	<	0.00083	mg/L		U	Total	0.00083
FW-EMW-04-FBLK02	8270	51-28-5	2 4-Dinitrophenol	<	0.00194	mg/L		U	Total	0.00194
FW-EMW-04-FBLK02	8270	121-14-2	2 4-Dinitrotoluene	<	0.00069	mg/L		U	Total	0.00069

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW-04-FBLK02	8270	87-65-0	2 6-Dichlorophenol	<	0.00133	mg/L		U	Total	0.00133
FW-EMW-04-FBLK02	8270	606-20-2	2 6-Dinitrotoluene	<	0.00069	mg/L		U	Total	0.00069
FW-EMW-04-FBLK02	8270	53-96-3	2-Acetylaminofluorene	<	0.00139	mg/L		U	Total	0.00139
FW-EMW-04-FBLK02	8270	91-58-7	2-Chloronaphthalene	<	0.00089	mg/L		U	Total	0.00089
FW-EMW-04-FBLK02	8270	95-57-8	2-Chlorophenol	<	0.00065	mg/L		U	Total	0.00065
FW-EMW-04-FBLK02	8270	534-52-1	2-Methyl-4 6-dinitrophenol	<	0.00052	mg/L		U	Total	0.00052
FW-EMW-04-FBLK02	8270	91-57-6	2-Methylnaphthalene	<	0.00081	mg/L		U	Total	0.00081
FW-EMW-04-FBLK02	8270	95-48-7	2-Methylphenol (o-Cresol)	<	0.00103	mg/L		U	Total	0.00103
FW-EMW-04-FBLK02	8270	91-59-8	2-Naphthylamine	<	0.00225	mg/L		U	Total	0.00225
FW-EMW-04-FBLK02	8270	88-74-4	2-Nitroaniline	<	0.00063	mg/L		U	Total	0.00063
FW-EMW-04-FBLK02	8270	88-75-5	2-Nitrophenol	<	0.00115	mg/L		U	Total	0.00115
FW-EMW-04-FBLK02	8270	109-06-8	2-Picoline	<	0.00148	mg/L		U	Total	0.00148
FW-EMW-04-FBLK02	8270	91-94-1	3 3'-Dichlorobenzidine	<	0.000982	mg/L		U	Total	0.000982
FW-EMW-04-FBLK02	8270	119-93-7	3 3-Dimethylbenzidine	<	0.00953	mg/L		U	Total	0.00953
FW-EMW-04-FBLK02	8270	56-49-5	3-Methylcholanthrene	<	0.00196	mg/L		U	Total	0.00196
FW-EMW-04-FBLK02	8270	108-39-4	3-Methylphenol (m-Cresol)	<	0.00038	mg/L		U	Total	0.00038
FW-EMW-04-FBLK02	8270	99-09-2	3-Nitroaniline	<	0.00105	mg/L		U	Total	0.00105
FW-EMW-04-FBLK02	8270	92-67-1	4-Aminobiphenyl	<	0.00274	mg/L		U	Total	0.00274
FW-EMW-04-FBLK02	8270	101-55-3	4-Bromophenyl Phenyl Ether	<	0.00075	mg/L		U	Total	0.00075
FW-EMW-04-FBLK02	8270	59-50-7	4-Chloro-3-methylphenol	<	0.00076	mg/L		U	Total	0.00076
FW-EMW-04-FBLK02	8270	106-47-8	4-Chloroaniline	<	0.00121	mg/L		U	Total	0.00121
FW-EMW-04-FBLK02	8270	7005-72-3	4-Chlorophenyl Phenyl Ether	<	0.00068	mg/L		U	Total	0.00068
FW-EMW-04-FBLK02	8270	106-44-5	4-Methylphenol (p-Cresol)	<	0.00038	mg/L		U	Total	0.00038
FW-EMW-04-FBLK02	8270	100-01-6	4-Nitroaniline	<	0.00149	mg/L		U	Total	0.00149
FW-EMW-04-FBLK02	8270	100-02-7	4-Nitrophenol	<	0.00182	mg/L		U	Total	0.00182
FW-EMW-04-FBLK02	8270	56-57-5	4-Nitroquinoline-1-oxide	<	0.00088	mg/L		U	Total	0.00088
FW-EMW-04-FBLK02	8270	99-55-8	5-Nitro-o-toluidine	<	0.00118	mg/L		U	Total	0.00118
FW-EMW-04-FBLK02	8270	57-97-6	7 12-Dimethylbenz(a)anthracene	<	0.00120	mg/L		U	Total	0.00120
FW-EMW-04-FBLK02	8270	83-32-9	Acenaphthene	<	0.00086	mg/L		U	Total	0.00086
FW-EMW-04-FBLK02	8270	208-96-8	Acenaphthylene	<	0.00088	mg/L		U	Total	0.00088
FW-EMW-04-FBLK02	8270	98-86-2	Acetophenone	<	0.00141	mg/L		U	Total	0.00141
FW-EMW-04-FBLK02	8270	122-09-8	alpha alpha-Dimethylphenethylamine	<	0.00953	mg/L		U	Total	0.00953
FW-EMW-04-FBLK02	8270	62-53-3	Aniline	<	0.00289	mg/L		U	Total	0.00289
FW-EMW-04-FBLK02	8270	120-12-7	Anthracene	<	0.00062	mg/L		U	Total	0.00062
FW-EMW-04-FBLK02	8270	140-57-8	Aramite	<	0.00394	mg/L		U	Total	0.00394
FW-EMW-04-FBLK02	8270	56-55-3	Benzo(a)anthracene	<	0.00032	mg/L		U	Total	0.00032
FW-EMW-04-FBLK02	8270	50-32-8	Benzo(a)pyrene	<	0.00055	mg/L		U	Total	0.00055
FW-EMW-04-FBLK02	8270	205-99-2	Benzo(b)fluoranthene	<	0.00051	mg/L		U	Total	0.00051
FW-EMW-04-FBLK02	8270	191-24-2	Benzo(ghi)perylene	<	0.00068	mg/L		U	Total	0.00068
FW-EMW-04-FBLK02	8270	207-08-9	Benzo(k)fluoranthene	<	0.00072	mg/L		U	Total	0.00072
FW-EMW-04-FBLK02	8270	100-51-6	Benzyl Alcohol	<	0.00055	mg/L		U	Total	0.00055
FW-EMW-04-FBLK02	8270	111-91-1	bis(2-chloroethoxy)methane	<	0.00083	mg/L		U	Total	0.00083
FW-EMW-04-FBLK02	8270	111-44-4	bis(2-Chloroethyl)ether	<	0.00065	mg/L		U	Total	0.00065
FW-EMW-04-FBLK02	8270	108-60-1	bis(2-chloroisopropyl)ether	<	0.000991	mg/L		U	Total	0.000991
FW-EMW-04-FBLK02	8270	117-81-7	bis(2-ethylhexyl)phthalate	<	0.00044	mg/L		U	Total	0.00044
FW-EMW-04-FBLK02	8270	85-68-7	Butyl Benzyl Phthalate	<	0.00051	mg/L		U	Total	0.00051
FW-EMW-04-FBLK02	8270	510-15-6	Chlorobenzilate	<	0.00141	mg/L		U	Total	0.00141
FW-EMW-04-FBLK02	8270	218-01-9	Chrysene	<	0.00093	mg/L		U	Total	0.00093
FW-EMW-04-FBLK02	8270	2303-16-4	Diallate	<	0.00117	mg/L		U	Total	0.00117
FW-EMW-04-FBLK02	8270	53-70-3	Dibenzo(a h)anthracene	<	0.00083	mg/L		U	Total	0.00083
FW-EMW-04-FBLK02	8270	132-64-9	Dibenzofuran	<	0.00047	mg/L		U	Total	0.00047
FW-EMW-04-FBLK02	8270	84-66-2	Diethyl Phthalate	<	0.00053	mg/L		U	Total	0.00053
FW-EMW-04-FBLK02	8270	60-51-5	Dimethoate	<	0.00156	mg/L		U	Total	0.00156
FW-EMW-04-FBLK02	8270	131-11-3	Dimethyl Phthalate	<	0.00051	mg/L		U	Total	0.00051
FW-EMW-04-FBLK02	8270	84-74-2	Di-n-butyl Phthalate	<	0.00053	mg/L		U	Total	0.00053
FW-EMW-04-FBLK02	8270	117-84-0	Di-n-octyl Phthalate	<	0.00037	mg/L		U	Total	0.00037
FW-EMW-04-FBLK02	8270	88-85-7	Dinoseb (DNBP)	<	0.00078	mg/L		U	Total	0.00078
FW-EMW-04-FBLK02	8270	122-39-4	Diphenylamine	<	0.00076	mg/L		U	Total	0.00076
FW-EMW-04-FBLK02	8270	62-50-0	Ethyl Methane Sulfonate	<	0.00161	mg/L		U	Total	0.00161
FW-EMW-04-FBLK02	8270	206-44-0	Fluoranthene	<	0.00074	mg/L		U	Total	0.00074
FW-EMW-04-FBLK02	8270	86-73-7	Fluorene	<	0.00048	mg/L		U	Total	0.00048

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW-04-FBLK02	8270	118-74-1	Hexachlorobenzene	<	0.00126	mg/L		U	Total	0.00126
FW-EMW-04-FBLK02	8270	87-68-3	Hexachlorobutadiene	<	0.00069	mg/L		U	Total	0.00069
FW-EMW-04-FBLK02	8270	77-47-4	Hexachlorocyclopentadiene	<	0.00063	mg/L		U	Total	0.00063
FW-EMW-04-FBLK02	8270	67-72-1	Hexachloroethane	<	0.000991	mg/L		U	Total	0.000991
FW-EMW-04-FBLK02	8270	70-30-4	Hexachlorophene	<	0.03030	mg/L		U	Total	0.03030
FW-EMW-04-FBLK02	8270	1888-71-7	Hexachloropropene	<	0.00091	mg/L		U	Total	0.00091
FW-EMW-04-FBLK02	8270	193-39-5	Indeno(1 2 3-cd)pyrene	<	0.00107	mg/L		U	Total	0.00107
FW-EMW-04-FBLK02	8270	465-73-6	Isodrin	<	0.00158	mg/L		U	Total	0.00158
FW-EMW-04-FBLK02	8270	78-59-1	Isophorone	<	0.00092	mg/L		U	Total	0.00092
FW-EMW-04-FBLK02	8270	120-58-1	Isosafrole	<	0.00108	mg/L		U	Total	0.00108
FW-EMW-04-FBLK02	8270	143-50-0	Keponone	<	0.02446	mg/L		U	Total	0.02446
FW-EMW-04-FBLK02	8270	99-65-0	m-Dinitrobenzene	<	0.00105	mg/L		U	Total	0.00105
FW-EMW-04-FBLK02	8270	91-80-5	Methapyrilene	<	0.00105	mg/L		U	Total	0.00105
FW-EMW-04-FBLK02	8270	66-27-3	Methyl Methane Sulfonate	<	0.00153	mg/L		U	Total	0.00153
FW-EMW-04-FBLK02	8270	91-20-3	Naphthalene	<	0.00069	mg/L		U	Total	0.00069
FW-EMW-04-FBLK02	8270	98-95-3	Nitrobenzene	<	0.00085	mg/L		U	Total	0.00085
FW-EMW-04-FBLK02	8270	55-18-5	n-Nitrosodiethylamine	<	0.00113	mg/L		U	Total	0.00113
FW-EMW-04-FBLK02	8270	62-75-9	n-Nitrosodimethylamine	<	0.00046	mg/L		U	Total	0.00046
FW-EMW-04-FBLK02	8270	924-16-3	n-Nitrosodi-n-butylamine	<	0.00148	mg/L		U	Total	0.00148
FW-EMW-04-FBLK02	8270	621-64-7	n-Nitrosodi-n-propylamine	<	0.00076	mg/L		U	Total	0.00076
FW-EMW-04-FBLK02	8270	86-30-6	n-Nitrosodiphenylamine	<	0.00068	mg/L		U	Total	0.00068
FW-EMW-04-FBLK02	8270	10595-95-6	n-Nitrosomethylethylamine	<	0.00101	mg/L		U	Total	0.00101
FW-EMW-04-FBLK02	8270	59-89-2	n-Nitrosomorpholine	<	0.00211	mg/L		U	Total	0.00211
FW-EMW-04-FBLK02	8270	100-75-4	n-Nitrosopiperidine	<	0.00237	mg/L		U	Total	0.00237
FW-EMW-04-FBLK02	8270	930-55-2	n-Nitrosopyrrolidine	<	0.00188	mg/L		U	Total	0.00188
FW-EMW-04-FBLK02	8270	126-68-1	O O O-Triethyl phosphorothioate	<	0.00162	mg/L		U	Total	0.00162
FW-EMW-04-FBLK02	8270	95-53-4	o-Toluidine	<	0.00305	mg/L		U	Total	0.00305
FW-EMW-04-FBLK02	8270	60-11-7	p-Dimethylaminoazobenzene	<	0.00199	mg/L		U	Total	0.00199
FW-EMW-04-FBLK02	8270	608-93-5	Pentachlorobenzene	<	0.00270	mg/L		U	Total	0.00270
FW-EMW-04-FBLK02	8270	76-01-7	Pentachloroethane	<	0.00244	mg/L		U	Total	0.00244
FW-EMW-04-FBLK02	8270	82-68-8	Pentachloronitrobenzene	<	0.00459	mg/L		U	Total	0.00459
FW-EMW-04-FBLK02	8270	87-86-5	Pentachlorophenol	<	0.00380	mg/L		U	Total	0.00380
FW-EMW-04-FBLK02	8270	62-44-2	Phenacetin	<	0.00130	mg/L		U	Total	0.00130
FW-EMW-04-FBLK02	8270	85-01-8	Phenanthrene	<	0.00047	mg/L		U	Total	0.00047
FW-EMW-04-FBLK02	8270	108-95-2	Phenol	<	0.00076	mg/L		U	Total	0.00076
FW-EMW-04-FBLK02	8270	106-50-3	p-Phenylenediamine	<	0.00953	mg/L		U	Total	0.00953
FW-EMW-04-FBLK02	8270	23950-58-5	Pronamide	<	0.00119	mg/L		U	Total	0.00119
FW-EMW-04-FBLK02	8270	129-00-0	Pyrene	<	0.00079	mg/L		U	Total	0.00079
FW-EMW-04-FBLK02	8270	110-86-1	Pyridine	<	0.00953	mg/L		U	Total	0.00953
FW-EMW-04-FBLK02	8270	94-59-7	Safrole	<	0.00127	mg/L		U	Total	0.00127
FW-EMW-04-FBLK02	8270	99-35-4	Sym-Trinitrobenzene	<	0.00173	mg/L		U	Total	0.00173
FW-EMW-04-FBLK02	8270	3689-24-5	Tetraethyldithiopyrophosphate	<	0.00132	mg/L		U	Total	0.00132
FW-EMW-04-FBLK02	8270	297-97-2	Thionazin	<	0.00100	mg/L		U	Total	0.00100
FW-EMW-04-FBLK02	9012	57-12-5	Cyanide Total	<	3.579	ug/L		U	Total	3.579
FW-EMW-04-FBLK02	300SH	14797-55-8	Nitrogen Nitrate as N (NO3-N)		0.126	mg/L		B	Total	0.057
FW-EMW-04-FBLK02	353.2P	7727-37-9	Nitrate + Nitrite as N		0.256	mg/L			Total	0.007
FW-EMW-04-FBLK02	6010TR	7429-90-5	Aluminum (Al)	<	0.01800	mg/L		U	Dissolved	0.01800
FW-EMW-04-FBLK02	6010TR	7429-90-5	Aluminum (Al)	<	0.01800	mg/L		U	Total	0.01800
FW-EMW-04-FBLK02	6010TR	7440-36-0	Antimony (Sb)	<	0.00350	mg/L		U	Dissolved	0.00350
FW-EMW-04-FBLK02	6010TR	7440-36-0	Antimony (Sb)	<	0.00350	mg/L		U	Total	0.00350
FW-EMW-04-FBLK02	6010TR	7440-38-2	Arsenic (As)	<	0.00340	mg/L		U	Dissolved	0.00340
FW-EMW-04-FBLK02	6010TR	7440-38-2	Arsenic (As)	<	0.00340	mg/L		U	Total	0.00340
FW-EMW-04-FBLK02	6010TR	7440-39-3	Barium (Ba)	<	0.0127	mg/L		B	Dissolved	0.00060
FW-EMW-04-FBLK02	6010TR	7440-39-3	Barium (Ba)	<	0.0161	mg/L		B	Total	0.00060
FW-EMW-04-FBLK02	6010TR	7440-41-7	Beryllium (Be)	<	0.00040	mg/L		U	Dissolved	0.00040
FW-EMW-04-FBLK02	6010TR	7440-41-7	Beryllium (Be)	<	0.00040	mg/L		U	Total	0.00040
FW-EMW-04-FBLK02	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Dissolved	0.00050
FW-EMW-04-FBLK02	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Total	0.00050
FW-EMW-04-FBLK02	6010TR	7440-47-3	Chromium (Cr)	<	0.00130	mg/L		U	Dissolved	0.00130
FW-EMW-04-FBLK02	6010TR	7440-47-3	Chromium (Cr)	<	0.00130	mg/L		U	Total	0.00130
FW-EMW-04-FBLK02	6010TR	7440-48-4	Cobalt (Co)	<	0.00070	mg/L		U	Dissolved	0.00070

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW-04-FBLKO2	6010TR	7440-48-4	Cobalt (Co)	<	0.00070	mg/L		U	Total	0.00070
FW-EMW-04-FBLKO2	6010TR	7440-50-8	Copper (Cu)		0.00812	mg/L		B	Total	0.00180
FW-EMW-04-FBLKO2	6010TR	7440-50-8	Copper (Cu)	<	0.00180	mg/L		U	Dissolved	0.00180
FW-EMW-04-FBLKO2	6010TR	7439-89-6	Iron (Fe)		0.179	mg/L		B	Dissolved	0.04590
FW-EMW-04-FBLKO2	6010TR	7439-89-6	Iron (Fe)		0.593	mg/L			Total	0.04590
FW-EMW-04-FBLKO2	6010TR	7439-92-1	Lead (Pb)	<	0.00210	mg/L		U	Dissolved	0.00210
FW-EMW-04-FBLKO2	6010TR	7439-92-1	Lead (Pb)	<	0.00210	mg/L		U	Total	0.00210
FW-EMW-04-FBLKO2	6010TR	7439-96-5	Manganese (Mn)		0.00698	mg/L		B	Dissolved	0.00100
FW-EMW-04-FBLKO2	6010TR	7439-96-5	Manganese (Mn)		0.0131	mg/L		B	Total	0.00100
FW-EMW-04-FBLKO2	6010TR	7440-02-0	Nickel (Ni)	<	0.00180	mg/L		U	Dissolved	0.00180
FW-EMW-04-FBLKO2	6010TR	7440-02-0	Nickel (Ni)	<	0.00180	mg/L		U	Total	0.00180
FW-EMW-04-FBLKO2	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Dissolved	0.00370
FW-EMW-04-FBLKO2	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Total	0.00370
FW-EMW-04-FBLKO2	6010TR	7440-22-4	Silver (Ag)	<	0.00120	mg/L		U	Dissolved	0.00120
FW-EMW-04-FBLKO2	6010TR	7440-22-4	Silver (Ag)	<	0.00120	mg/L		U	Total	0.00120
FW-EMW-04-FBLKO2	6010TR	7440-28-0	Thallium (Tl)	<	0.00470	mg/L		U	Dissolved	0.00470
FW-EMW-04-FBLKO2	6010TR	7440-28-0	Thallium (Tl)	<	0.00470	mg/L		U	Total	0.00470
FW-EMW-04-FBLKO2	6010TR	7440-31-5	Tin (Sn)	<	0.00280	mg/L		U	Dissolved	0.00280
FW-EMW-04-FBLKO2	6010TR	7440-31-5	Tin (Sn)	<	0.00280	mg/L		U	Total	0.00280
FW-EMW-04-FBLKO2	6010TR	7440-62-2	Vanadium (V)	<	0.00280	mg/L		U	Dissolved	0.00280
FW-EMW-04-FBLKO2	6010TR	7440-62-2	Vanadium (V)	<	0.00280	mg/L		U	Total	0.00280
FW-EMW-04-FBLKO2	6010TR	7440-66-6	Zinc (Zn)		0.0436	mg/L			Dissolved	0.00260
FW-EMW-04-FBLKO2	6010TR	7440-66-6	Zinc (Zn)		0.0671	mg/L			Total	0.00260
FW-EMW-04-FBLKO2	8260M	630-20-6	1 1 1 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW-04-FBLKO2	8260M	71-55-6	1 1 1-Trichloroethane	<	0.00019	mg/L		U	Total	0.00019
FW-EMW-04-FBLKO2	8260M	79-34-5	1 1 2 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW-04-FBLKO2	8260M	79-00-5	1 1 2-Trichloroethane	<	0.00015	mg/L		U	Total	0.00015
FW-EMW-04-FBLKO2	8260M	75-34-3	1 1-Dichloroethane	<	0.00015	mg/L		U	Total	0.00015
FW-EMW-04-FBLKO2	8260M	75-35-4	1 1-Dichloroethene	<	0.00033	mg/L		U	Total	0.00033
FW-EMW-04-FBLKO2	8260M	96-18-4	1 2 3-Trichloropropane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW-04-FBLKO2	8260M	96-12-8	1 2-Dibromo-3-chloropropane	<	0.00044	mg/L		U	Total	0.00044
FW-EMW-04-FBLKO2	8260M	106-93-4	1 2-Dibromoethane (EDB)	<	0.00017	mg/L		U	Total	0.00017
FW-EMW-04-FBLKO2	8260M	107-06-2	1 2-Dichloroethane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW-04-FBLKO2	8260M	78-87-5	1 2-Dichloropropane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW-04-FBLKO2	8260M	123-91-1	1 4-Dioxane	<	0.01328	mg/L		U	Total	0.01328
FW-EMW-04-FBLKO2	8260M	126-99-8	2-Chloro-1 3-butadiene (chloroprene)	<	0.00039	mg/L		U	Total	0.00039
FW-EMW-04-FBLKO2	8260M	591-78-6	2-Hexanone	<	0.00029	mg/L		U	Total	0.00029
FW-EMW-04-FBLKO2	8260M	108-10-1	4-Methyl-2-pentanone (MIBK)	<	0.00014	mg/L		U	Total	0.00014
FW-EMW-04-FBLKO2	8260M	67-64-1	Acetone	<	0.00094	mg/L		U	Total	0.00094
FW-EMW-04-FBLKO2	8260M	75-05-8	Acetonitrile	<	0.00132	mg/L		U	Total	0.00132
FW-EMW-04-FBLKO2	8260M	107-02-8	Acrolein	<	0.00215	mg/L		U	Total	0.00215
FW-EMW-04-FBLKO2	8260M	107-13-1	Acrylonitrile	<	0.00102	mg/L		U	Total	0.00102
FW-EMW-04-FBLKO2	8260M	107-05-1	Allyl chloride	<	0.00060	mg/L		U	Total	0.00060
FW-EMW-04-FBLKO2	8260M	71-43-2	Benzene	<	0.00008	mg/L		U	Total	0.00008
FW-EMW-04-FBLKO2	8260M	75-27-4	Bromodichloromethane	<	0.00016	mg/L		U	Total	0.00016
FW-EMW-04-FBLKO2	8260M	75-25-2	Bromoform	<	0.00018	mg/L		U	Total	0.00018
FW-EMW-04-FBLKO2	8260M	74-83-9	Bromomethane	<	0.00045	mg/L		U	Total	0.00045
FW-EMW-04-FBLKO2	8260M	75-15-0	Carbon Disulfide	<	0.00030	mg/L		U	Total	0.00030
FW-EMW-04-FBLKO2	8260M	56-23-5	Carbon Tetrachloride	<	0.00022	mg/L		U	Total	0.00022
FW-EMW-04-FBLKO2	8260M	108-90-7	Chlorobenzene	<	0.00013	mg/L		U	Total	0.00013
FW-EMW-04-FBLKO2	8260M	75-00-3	Chloroethane	<	0.00021	mg/L		U	Total	0.00021
FW-EMW-04-FBLKO2	8260M	67-66-3	Chloroform	<	0.00024	mg/L		U	Total	0.00024
FW-EMW-04-FBLKO2	8260M	74-87-3	Chloromethane	<	0.00013	mg/L		U	Total	0.00013
FW-EMW-04-FBLKO2	8260M	156-59-2	cis-1 2-Dichloroethene	<	0.00023	mg/L		U	Total	0.00023
FW-EMW-04-FBLKO2	8260M	10061-01-5	cis-1 3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
FW-EMW-04-FBLKO2	8260M	124-48-1	Dibromochloromethane	<	0.00017	mg/L		U	Total	0.00017
FW-EMW-04-FBLKO2	8260M	74-95-3	Dibromomethane	<	0.00020	mg/L		U	Total	0.00020
FW-EMW-04-FBLKO2	8260M	75-71-8	Dichlorodifluoromethane	<	0.00031	mg/L		U	Total	0.00031
FW-EMW-04-FBLKO2	8260M	97-63-2	Ethyl Methacrylate	<	0.00038	mg/L		U	Total	0.00038
FW-EMW-04-FBLKO2	8260M	100-41-4	Ethylbenzene	<	0.00015	mg/L		U	Total	0.00015
FW-EMW-04-FBLKO2	8260M	74-88-4	Iodomethane	<	0.00021	mg/L		U	Total	0.00021

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FW-EMW-04-FBLKO2	8260M	78-83-1	Isobutyl Alcohol	<	0.00313	mg/L		U	Total	0.00313
FW-EMW-04-FBLKO2	8260M	126-98-7	Methacrylonitrile	<	0.00059	mg/L		U	Total	0.00059
FW-EMW-04-FBLKO2	8260M	78-93-3	Methyl Ethyl Ketone (2-Butanone)	<	0.00034	mg/L		U	Total	0.00034
FW-EMW-04-FBLKO2	8260M	80-62-6	Methyl Methacrylate	<	0.00050	mg/L		U	Total	0.00050
FW-EMW-04-FBLKO2	8260M	1634-04-4	Methyl tert-Butyl ether	<	0.00056	mg/L		U	Total	0.00056
FW-EMW-04-FBLKO2	8260M	75-09-2	Methylene Chloride	<	0.00074	mg/L		U	Total	0.00074
FW-EMW-04-FBLKO2	8260M	107-12-0	Propionitrile	<	0.00068	mg/L		U	Total	0.00068
FW-EMW-04-FBLKO2	8260M	100-42-5	Styrene	<	0.00087	mg/L		U	Total	0.00087
FW-EMW-04-FBLKO2	8260M	127-18-4	Tetrachloroethene	<	0.00017	mg/L		U	Total	0.00017
FW-EMW-04-FBLKO2	8260M	108-88-3	Toluene	<	0.00015	mg/L		U	Total	0.00015
FW-EMW-04-FBLKO2	8260M	156-60-5	trans-1 2-Dichloroethene	<	0.00025	mg/L		U	Total	0.00025
FW-EMW-04-FBLKO2	8260M	10061-02-6	trans-1 3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
FW-EMW-04-FBLKO2	8260M	110-57-6	trans-1 4-Dichloro-2-butene	<	0.00029	mg/L		U	Total	0.00029
FW-EMW-04-FBLKO2	8260M	79-01-6	Trichloroethene	<	0.00026	mg/L		U	Total	0.00026
FW-EMW-04-FBLKO2	8260M	75-69-4	Trichlorofluoromethane	<	0.00030	mg/L		U	Total	0.00030
FW-EMW-04-FBLKO2	8260M	108-05-4	Vinyl Acetate	<	0.00045	mg/L		U	Total	0.00045
FW-EMW-04-FBLKO2	8260M	75-01-4	Vinyl Chloride	<	0.00018	mg/L		U	Total	0.00018
FW-EMW-04-FBLKO2	8260M	1330-20-7	Xylenes (total)	<	0.00046	mg/L		U	Total	0.00046
IDW-Soil	SW8330	528-29-0	1,2-Dinitrobenzene	<	2100	ug/Kg			Total	
IDW-Soil	SW8330	99-35-4	1,3,5-Trinitrobenzene	<	120	ug/Kg		U	Total	23.5
IDW-Soil	SW8330	99-65-0	1,3-Dinitrobenzene	<	120	ug/Kg		U	Total	5.49
IDW-Soil	SW8330	118-96-7	2,4,6-Trinitrotoluene	<	120	ug/Kg		U	Total	7.72
IDW-Soil	SW8330	121-14-2	2,4-Dinitrotoluene	<	120	ug/Kg		U	Total	9.94
IDW-Soil	SW8330	606-20-2	2,6-Dinitrotoluene	<	120	ug/Kg		U	Total	11
IDW-Soil	SW8330	35572-78-2	2-Amino-4,6-dinitrotoluene	<	120	ug/Kg		U	Total	7.68
IDW-Soil	SW8330	88-72-2	2-Nitrotoluene	<	120	ug/Kg		U	Total	7.87
IDW-Soil	SW8330	99-08-1	3-Nitrotoluene	<	120	ug/Kg		U	Total	51.9
IDW-Soil	SW8330	19406-51-0	4-Amino-2,6-dinitrotoluene	<	120	ug/Kg		U	Total	10.9
IDW-Soil	SW8330	99-99-0	4-Nitrotoluene	<	120	ug/Kg		U	Total	13.2
IDW-Soil	SW8330	2691-41-0	HMX	<	120	ug/Kg		U	Total	20.2
IDW-Soil	SW8330	98-95-3	Nitrobenzene	<	120	ug/Kg		U	Total	5.49
IDW-Soil	SW8330	121-82-4	RDX	<	120	ug/Kg		U	Total	7.04
IDW-Soil	SW8330	479-45-8	Tetryl	<	120	ug/Kg		U	Total	9.47
IDW-SOILS	7471	7439-97-6	Mercury (Hg)	<	0.0042	mg/Kg		B	Total	0.0037
IDW-SOILS	8081	72-54-8	4 4'-DDD	<	0.000655	mg/Kg		U	Total	0.000655
IDW-SOILS	8081	72-55-9	4 4'-DDE	<	0.000579	mg/Kg		U	Total	0.000579
IDW-SOILS	8081	50-29-3	4 4'-DDT	<	0.00106	mg/Kg		U	Total	0.00106
IDW-SOILS	8081	309-00-2	Aldrin	<	0.000306	mg/Kg		U	Total	0.000306
IDW-SOILS	8081	319-84-6	alpha-BHC	<	0.000797	mg/Kg		U	Total	0.000797
IDW-SOILS	8081	319-85-7	beta-BHC	<	0.000950	mg/Kg		U	Total	0.000950
IDW-SOILS	8081	12789-03-6	Chlordane	<	0.008388	mg/Kg		U	Total	0.008388
IDW-SOILS	8081	319-86-8	delta-BHC	<	0.000666	mg/Kg		U	Total	0.000666
IDW-SOILS	8081	60-57-1	Dieldrin	<	0.000535	mg/Kg		U	Total	0.000535
IDW-SOILS	8081	959-98-8	Endosulfan I	<	0.000339	mg/Kg		U	Total	0.000339
IDW-SOILS	8081	33213-65-9	Endosulfan II	<	0.000765	mg/Kg		U	Total	0.000765
IDW-SOILS	8081	1031-07-8	Endosulfan sulfate	<	0.001824	mg/Kg		U	Total	0.001824
IDW-SOILS	8081	72-20-8	Endrin	<	0.000612	mg/Kg		U	Total	0.000612
IDW-SOILS	8081	7421-93-4	Endrin aldehyde	<	0.000906	mg/Kg		U	Total	0.000906
IDW-SOILS	8081	58-89-9	gamma-BHC (Lindane)	<	0.00105	mg/Kg		U	Total	0.00105
IDW-SOILS	8081	76-44-8	Heptachlor	<	0.000732	mg/Kg		U	Total	0.000732
IDW-SOILS	8081	1024-57-3	Heptachlor epoxide	<	0.000393	mg/Kg		U	Total	0.000393
IDW-SOILS	8081	72-43-5	Methoxychlor	<	0.003735	mg/Kg		U	Total	0.003735
IDW-SOILS	8081	8001-35-2	Toxaphene	<	0.025262	mg/Kg		U	Total	0.025262
IDW-SOILS	8082	12674-11-2	Aroclor 1016	<	0.0135	mg/Kg		U	Total	0.0135
IDW-SOILS	8082	11104-28-2	Aroclor 1221	<	0.0152	mg/Kg		U	Total	0.0152
IDW-SOILS	8082	11141-16-5	Aroclor 1232	<	0.011	mg/Kg		U	Total	0.011
IDW-SOILS	8082	53469-21-9	Aroclor 1242	<	0.0126	mg/Kg		U	Total	0.0126
IDW-SOILS	8082	12672-29-6	Aroclor 1248	<	0.0164	mg/Kg		U	Total	0.0164
IDW-SOILS	8082	11097-69-1	Aroclor 1254	<	0.0079	mg/Kg		U	Total	0.0079
IDW-SOILS	8082	11096-82-5	Aroclor 1260	<	0.0119	mg/Kg		U	Total	0.0119
IDW-SOILS	8151	93-76-5	2 4 5-T	<	0.00123	mg/Kg		U	Total	0.00123

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
IDW-SOILS	8151	93-72-1	2 4 5-TP (Silvex)	<	0.00139	mg/Kg		U	Total	0.00139
IDW-SOILS	8151	94-75-7	2 4-D	<	0.0011	mg/Kg		U	Total	0.0011
IDW-SOILS	8151	88-85-7	Dinoseb (DNBP)	<	0.00034	mg/Kg		U	Total	0.00034
IDW-SOILS	8260	630-20-6	1 1 1 2-Tetrachloroethane	<	0.00256	mg/Kg		U	Total	0.00256
IDW-SOILS	8260	71-55-6	1 1 1-Trichloroethane	<	0.00256	mg/Kg		U	Total	0.00256
IDW-SOILS	8260	79-34-5	1 1 2 2-Tetrachloroethane	<	0.00169	mg/Kg		U	Total	0.00169
IDW-SOILS	8260	79-00-5	1 1 2-Trichloroethane	<	0.00305	mg/Kg		U	Total	0.00305
IDW-SOILS	8260	75-34-3	1 1-Dichloroethane	<	0.00269	mg/Kg		U	Total	0.00269
IDW-SOILS	8260	75-35-4	1 1-Dichloroethene	<	0.00314	mg/Kg		U	Total	0.00314
IDW-SOILS	8260	96-18-4	1 2 3-Trichloropropane	<	0.00247	mg/Kg		U	Total	0.00247
IDW-SOILS	8260	96-12-8	1 2-Dibromo-3-chloropropane	<	0.00292	mg/Kg		U	Total	0.00292
IDW-SOILS	8260	106-93-4	1 2-Dibromoethane (EDB)	<	0.00265	mg/Kg		U	Total	0.00265
IDW-SOILS	8260	107-06-2	1 2-Dichloroethane	<	0.00334	mg/Kg		U	Total	0.00334
IDW-SOILS	8260	78-87-5	1 2-Dichloropropane	<	0.00276	mg/Kg		U	Total	0.00276
IDW-SOILS	8260	123-91-1	1 4-Dioxane	<	0.17599	mg/Kg		U	Total	0.17599
IDW-SOILS	8260	126-99-8	2-Chloro-1 3-butadiene (chloroprene)	<	0.00530	mg/Kg		U	Total	0.00530
IDW-SOILS	8260	591-78-6	2-Hexanone	<	0.00227	mg/Kg		U	Total	0.00227
IDW-SOILS	8260	108-10-1	4-Methyl-2-pentanone (MIBK)	<	0.00255	mg/Kg		U	Total	0.00255
IDW-SOILS	8260	67-64-1	Acetone	<	0.00337	mg/Kg		J	Total	0.00308
IDW-SOILS	8260	75-05-8	Acetonitrile	<	0.00882	mg/Kg		U	Total	0.00882
IDW-SOILS	8260	107-02-8	Acrolein	<	0.01318	mg/Kg		U	Total	0.01318
IDW-SOILS	8260	107-13-1	Acrylonitrile	<	0.01826	mg/Kg		U	Total	0.01826
IDW-SOILS	8260	107-05-1	Allyl chloride	<	0.00392	mg/Kg		U	Total	0.00392
IDW-SOILS	8260	71-43-2	Benzene	<	0.00248	mg/Kg		U	Total	0.00248
IDW-SOILS	8260	75-27-4	Bromodichloromethane	<	0.00309	mg/Kg		U	Total	0.00309
IDW-SOILS	8260	75-25-2	Bromoform	<	0.00280	mg/Kg		U	Total	0.00280
IDW-SOILS	8260	74-83-9	Bromomethane	<	0.00124	mg/Kg		U	Total	0.00124
IDW-SOILS	8260	75-15-0	Carbon Disulfide	<	0.00279	mg/Kg		U	Total	0.00279
IDW-SOILS	8260	56-23-5	Carbon Tetrachloride	<	0.00272	mg/Kg		U	Total	0.00272
IDW-SOILS	8260	108-90-7	Chlorobenzene	<	0.00281	mg/Kg		U	Total	0.00281
IDW-SOILS	8260	75-00-3	Chloroethane	<	0.00287	mg/Kg		U	Total	0.00287
IDW-SOILS	8260	67-66-3	Chloroform	<	0.00288	mg/Kg		U	Total	0.00288
IDW-SOILS	8260	74-87-3	Chloromethane	<	0.00168	mg/Kg		U	Total	0.00168
IDW-SOILS	8260	156-59-2	cis-1 2-Dichloroethene	<	0.00256	mg/Kg		U	Total	0.00256
IDW-SOILS	8260	10061-01-5	cis-1 3-Dichloropropene	<	0.00274	mg/Kg		U	Total	0.00274
IDW-SOILS	8260	124-48-1	Dibromochloromethane	<	0.00315	mg/Kg		U	Total	0.00315
IDW-SOILS	8260	74-95-3	Dibromomethane	<	0.00404	mg/Kg		U	Total	0.00404
IDW-SOILS	8260	75-71-8	Dichlorodifluoromethane	<	0.00255	mg/Kg		U	Total	0.00255
IDW-SOILS	8260	97-63-2	Ethyl Methacrylate	<	0.00412	mg/Kg		U	Total	0.00412
IDW-SOILS	8260	100-41-4	Ethylbenzene	<	0.00207	mg/Kg		U	Total	0.00207
IDW-SOILS	8260	74-88-4	Iodomethane	<	0.00132	mg/Kg		U	Total	0.00132
IDW-SOILS	8260	78-83-1	Isobutyl Alcohol	<	0.02500	mg/Kg		U	Total	0.02500
IDW-SOILS	8260	126-98-7	Methacrylonitrile	<	0.00577	mg/Kg		U	Total	0.00577
IDW-SOILS	8260	78-93-3	Methyl Ethyl Ketone (2-Butanone)	<	0.00308	mg/Kg		U	Total	0.00308
IDW-SOILS	8260	80-62-6	Methyl Methacrylate	<	0.00522	mg/Kg		U	Total	0.00522
IDW-SOILS	8260	1634-04-4	Methyl tert-Butyl ether	<	0.00240	mg/Kg		U	Total	0.00240
IDW-SOILS	8260	75-09-2	Methylene Chloride	<	0.00250	mg/Kg		U	Total	0.00250
IDW-SOILS	8260	107-12-0	Propionitrile	<	0.00508	mg/Kg		U	Total	0.00508
IDW-SOILS	8260	100-42-5	Styrene	<	0.00211	mg/Kg		U	Total	0.00211
IDW-SOILS	8260	127-18-4	Tetrachloroethene	<	0.00277	mg/Kg		U	Total	0.00277
IDW-SOILS	8260	108-88-3	Toluene	<	0.00232	mg/Kg		U	Total	0.00232
IDW-SOILS	8260	156-60-5	trans-1 2-Dichloroethene	<	0.00299	mg/Kg		U	Total	0.00299
IDW-SOILS	8260	10061-02-6	trans-1 3-Dichloropropene	<	0.00316	mg/Kg		U	Total	0.00316
IDW-SOILS	8260	110-57-6	trans-1 4-Dichloro-2-butene	<	0.00360	mg/Kg		U	Total	0.00360
IDW-SOILS	8260	79-01-6	Trichloroethene	<	0.00280	mg/Kg		U	Total	0.00280
IDW-SOILS	8260	75-69-4	Trichlorofluoromethane	<	0.00319	mg/Kg		U	Total	0.00319
IDW-SOILS	8260	108-05-4	Vinyl Acetate	<	0.00195	mg/Kg		U	Total	0.00195
IDW-SOILS	8260	75-01-4	Vinyl Chloride	<	0.00260	mg/Kg		U	Total	0.00260
IDW-SOILS	8260	1330-20-7	Xylenes (total)	<	0.00571	mg/Kg		U	Total	0.00571
IDW-SOILS	8270	95-94-3	1 2 4 5-Tetrachlorobenzene	<	0.09238	mg/Kg		U	Total	0.09238
IDW-SOILS	8270	120-82-1	1 2 4-Trichlorobenzene	<	0.07158	mg/Kg		U	Total	0.07158

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
IDW-SOILS	8270	95-50-1	1 2-Dichlorobenzene	<	0.07109	mg/Kg		U	Total	0.07109
IDW-SOILS	8270	541-73-1	1 3-Dichlorobenzene	<	0.06725	mg/Kg		U	Total	0.06725
IDW-SOILS	8270	106-46-7	1 4-Dichlorobenzene	<	0.07250	mg/Kg		U	Total	0.07250
IDW-SOILS	8270	130-15-4	1 4-Naphthoquinone	<	0.05744	mg/Kg		U	Total	0.05744
IDW-SOILS	8270	134-32-7	1-Naphthylamine	<	0.01526	mg/Kg		U	Total	0.01526
IDW-SOILS	8270	58-90-2	2 3 4 6-Tetrachlorophenol	<	0.06803	mg/Kg		U	Total	0.06803
IDW-SOILS	8270	95-95-4	2 4 5-Trichlorophenol	<	0.06501	mg/Kg		U	Total	0.06501
IDW-SOILS	8270	88-06-2	2 4 6-Trichlorophenol	<	0.05103	mg/Kg		U	Total	0.05103
IDW-SOILS	8270	120-83-2	2 4-Dichlorophenol	<	0.06351	mg/Kg		U	Total	0.06351
IDW-SOILS	8270	105-67-9	2 4-Dimethylphenol	<	0.06182	mg/Kg		U	Total	0.06182
IDW-SOILS	8270	51-28-5	2 4-Dinitrophenol	<	0.03507	mg/Kg		U	Total	0.03507
IDW-SOILS	8270	121-14-2	2 4-Dinitrotoluene	<	0.05199	mg/Kg		U	Total	0.05199
IDW-SOILS	8270	87-65-0	2 6-Dichlorophenol	<	0.09957	mg/Kg		U	Total	0.09957
IDW-SOILS	8270	606-20-2	2 6-Dinitrotoluene	<	0.04168	mg/Kg		U	Total	0.04168
IDW-SOILS	8270	53-96-3	2-Acetylaminofluorene	<	0.05819	mg/Kg		U	Total	0.05819
IDW-SOILS	8270	91-58-7	2-Chloronaphthalene	<	0.08362	mg/Kg		U	Total	0.08362
IDW-SOILS	8270	95-57-8	2-Chlorophenol	<	0.06690	mg/Kg		U	Total	0.06690
IDW-SOILS	8270	534-52-1	2-Methyl-4 6-dinitrophenol	<	0.04118	mg/Kg		U	Total	0.04118
IDW-SOILS	8270	91-57-6	2-Methylnaphthalene	<	0.06513	mg/Kg		U	Total	0.06513
IDW-SOILS	8270	95-48-7	2-Methylphenol (o-Cresol)	<	0.06528	mg/Kg		U	Total	0.06528
IDW-SOILS	8270	91-59-8	2-Naphthylamine	<	0.04220	mg/Kg		U	Total	0.04220
IDW-SOILS	8270	88-74-4	2-Nitroaniline	<	0.04354	mg/Kg		U	Total	0.04354
IDW-SOILS	8270	88-75-5	2-Nitrophenol	<	0.05888	mg/Kg		U	Total	0.05888
IDW-SOILS	8270	109-06-8	2-Picoline	<	0.07467	mg/Kg		U	Total	0.07467
IDW-SOILS	8270	91-94-1	3 3'-Dichlorobenzidine	<	0.08702	mg/Kg		U	Total	0.08702
IDW-SOILS	8270	119-93-7	3 3-Dimethylbenzidine	<	0.15089	mg/Kg		U	Total	0.15089
IDW-SOILS	8270	56-49-5	3-Methylcholanthrene	<	0.04888	mg/Kg		U	Total	0.04888
IDW-SOILS	8270	108-39-4	3-Methylphenol (m-Cresol)	<	0.07562	mg/Kg		U	Total	0.07562
IDW-SOILS	8270	99-09-2	3-Nitroaniline	<	0.04856	mg/Kg		U	Total	0.04856
IDW-SOILS	8270	92-67-1	4-Aminobiphenyl	<	0.04750	mg/Kg		U	Total	0.04750
IDW-SOILS	8270	101-55-3	4-Bromophenyl Phenyl Ether	<	0.06350	mg/Kg		U	Total	0.06350
IDW-SOILS	8270	59-50-7	4-Chloro-3-methylphenol	<	0.04814	mg/Kg		U	Total	0.04814
IDW-SOILS	8270	106-47-8	4-Chloroaniline	<	0.04883	mg/Kg		U	Total	0.04883
IDW-SOILS	8270	7005-72-3	4-Chlorophenyl Phenyl Ether	<	0.05954	mg/Kg		U	Total	0.05954
IDW-SOILS	8270	106-44-5	4-Methylphenol (p-Cresol)	<	0.07562	mg/Kg		U	Total	0.07562
IDW-SOILS	8270	100-01-6	4-Nitroaniline	<	0.07378	mg/Kg		U	Total	0.07378
IDW-SOILS	8270	100-02-7	4-Nitrophenol	<	0.26462	mg/Kg		U	Total	0.26462
IDW-SOILS	8270	56-57-5	4-Nitroquinoline-1-oxide	<	0.01684	mg/Kg		U	Total	0.01684
IDW-SOILS	8270	99-55-8	5-Nitro-o-toluidine	<	0.04126	mg/Kg		U	Total	0.04126
IDW-SOILS	8270	57-97-6	7 12-Dimethylbenz(a)anthracene	<	0.04366	mg/Kg		U	Total	0.04366
IDW-SOILS	8270	83-32-9	Acenaphthene	<	0.06118	mg/Kg		U	Total	0.06118
IDW-SOILS	8270	208-96-8	Acenaphthylene	<	0.06554	mg/Kg		U	Total	0.06554
IDW-SOILS	8270	98-86-2	Acetophenone	<	0.09797	mg/Kg		U	Total	0.09797
IDW-SOILS	8270	122-09-8	alpha alpha-Dimethylphenethylamine	<	0.0109	mg/Kg		U	Total	0.0109
IDW-SOILS	8270	62-53-3	Aniline	<	0.04517	mg/Kg		U	Total	0.04517
IDW-SOILS	8270	120-12-7	Anthracene	<	0.05594	mg/Kg		U	Total	0.05594
IDW-SOILS	8270	140-57-8	Aramite	<	0.11849	mg/Kg		U	Total	0.11849
IDW-SOILS	8270	56-55-3	Benzo(a)anthracene	<	0.07269	mg/Kg		U	Total	0.07269
IDW-SOILS	8270	50-32-8	Benzo(a)pyrene	<	0.06796	mg/Kg		U	Total	0.06796
IDW-SOILS	8270	205-99-2	Benzo(b)fluoranthene	<	0.06448	mg/Kg		U	Total	0.06448
IDW-SOILS	8270	191-24-2	Benzo(ghi)perylene	<	0.07899	mg/Kg		U	Total	0.07899
IDW-SOILS	8270	207-08-9	Benzo(k)fluoranthene	<	0.07699	mg/Kg		U	Total	0.07699
IDW-SOILS	8270	100-51-6	Benzyl Alcohol	<	0.06522	mg/Kg		U	Total	0.06522
IDW-SOILS	8270	111-91-1	bis(2-chloroethoxy)methane	<	0.08845	mg/Kg		U	Total	0.08845
IDW-SOILS	8270	111-44-4	bis(2-Chloroethyl)ether	<	0.08746	mg/Kg		U	Total	0.08746
IDW-SOILS	8270	108-60-1	bis(2-chloroisopropyl)ether	<	0.09575	mg/Kg		U	Total	0.09575
IDW-SOILS	8270	117-81-7	bis(2-ethylhexyl)phthalate	<	0.129	mg/Kg		J	Total	0.1058
IDW-SOILS	8270	85-68-7	Butyl Benzyl Phthalate	<	0.11133	mg/Kg		U	Total	0.11133
IDW-SOILS	8270	510-15-6	Chlorobenzilate	<	0.07756	mg/Kg		U	Total	0.07756
IDW-SOILS	8270	218-01-9	Chrysene	<	0.07184	mg/Kg		U	Total	0.07184
IDW-SOILS	8270	2303-16-4	Diallate	<	0.06856	mg/Kg		U	Total	0.06856

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
IDW-SOILS	8270	53-70-3	Dibenzo(a,h)anthracene	<	0.07977	mg/Kg		U	Total	0.07977
IDW-SOILS	8270	132-64-9	Dibenzofuran	<	0.05576	mg/Kg		U	Total	0.05576
IDW-SOILS	8270	84-66-2	Diethyl Phthalate	<	0.05801	mg/Kg		U	Total	0.05801
IDW-SOILS	8270	60-51-5	Dimethoate	<	0.07127	mg/Kg		U	Total	0.07127
IDW-SOILS	8270	131-11-3	Dimethyl Phthalate	<	0.04946	mg/Kg		U	Total	0.04946
IDW-SOILS	8270	84-74-2	Di-n-butyl Phthalate	<	0.12012	mg/Kg		U	Total	0.12012
IDW-SOILS	8270	117-84-0	Di-n-octyl Phthalate	<	0.08723	mg/Kg		U	Total	0.08723
IDW-SOILS	8270	88-85-7	Dinoseb (DNBP)	<	0.04159	mg/Kg		U	Total	0.04159
IDW-SOILS	8270	122-39-4	Diphenylamine	<	0.08811	mg/Kg		U	Total	0.08811
IDW-SOILS	8270	62-50-0	Ethyl Methane Sulfonate	<	0.08994	mg/Kg		U	Total	0.08994
IDW-SOILS	8270	206-44-0	Fluoranthene	<	0.08934	mg/Kg		U	Total	0.08934
IDW-SOILS	8270	86-73-7	Fluorene	<	0.04973	mg/Kg		U	Total	0.04973
IDW-SOILS	8270	118-74-1	Hexachlorobenzene	<	0.05405	mg/Kg		U	Total	0.05405
IDW-SOILS	8270	87-68-3	Hexachlorobutadiene	<	0.08128	mg/Kg		U	Total	0.08128
IDW-SOILS	8270	77-47-4	Hexachlorocyclopentadiene	<	0.04801	mg/Kg		U	Total	0.04801
IDW-SOILS	8270	67-72-1	Hexachloroethane	<	0.07442	mg/Kg		U	Total	0.07442
IDW-SOILS	8270	70-30-4	Hexachlorophene	<	0.44827	mg/Kg		U	Total	0.44827
IDW-SOILS	8270	1888-71-7	Hexachloropropene	<	0.09117	mg/Kg		U	Total	0.09117
IDW-SOILS	8270	193-39-5	Indeno(1,2,3-cd)pyrene	<	0.09350	mg/Kg		U	Total	0.09350
IDW-SOILS	8270	465-73-6	Isodrin	<	0.05735	mg/Kg		U	Total	0.05735
IDW-SOILS	8270	78-59-1	Isophorone	<	0.06985	mg/Kg		U	Total	0.06985
IDW-SOILS	8270	120-58-1	Isosafrole	<	0.08414	mg/Kg		U	Total	0.08414
IDW-SOILS	8270	143-50-0	Kepon	<	0.34759	mg/Kg		U	Total	0.34759
IDW-SOILS	8270	99-65-0	m-Dinitrobenzene	<	0.00120	mg/Kg		U	Total	0.00120
IDW-SOILS	8270	91-80-5	Methapyrene	<	0.00478	mg/Kg		U	Total	0.00478
IDW-SOILS	8270	66-27-3	Methyl Methane Sulfonate	<	0.08725	mg/Kg		U	Total	0.08725
IDW-SOILS	8270	91-20-3	Naphthalene	<	0.07242	mg/Kg		U	Total	0.07242
IDW-SOILS	8270	98-95-3	Nitrobenzene	<	0.08454	mg/Kg		U	Total	0.08454
IDW-SOILS	8270	55-18-5	n-Nitrosodiethylamine	<	0.08183	mg/Kg		U	Total	0.08183
IDW-SOILS	8270	62-75-9	n-Nitrosodimethylamine	<	0.08224	mg/Kg		U	Total	0.08224
IDW-SOILS	8270	924-16-3	n-Nitrosodi-n-butylamine	<	0.08127	mg/Kg		U	Total	0.08127
IDW-SOILS	8270	621-64-7	n-Nitrosodi-n-propylamine	<	0.08811	mg/Kg		U	Total	0.08811
IDW-SOILS	8270	86-30-6	n-Nitrosodiphenylamine	<	0.07184	mg/Kg		U	Total	0.07184
IDW-SOILS	8270	10595-95-6	n-Nitrosomethylethylamine	<	0.08759	mg/Kg		U	Total	0.08759
IDW-SOILS	8270	59-89-2	n-Nitrosomorpholine	<	0.08766	mg/Kg		U	Total	0.08766
IDW-SOILS	8270	100-75-4	n-Nitrosopiperidine	<	0.07963	mg/Kg		U	Total	0.07963
IDW-SOILS	8270	930-55-2	n-Nitrosopyrrolidine	<	0.08313	mg/Kg		U	Total	0.08313
IDW-SOILS	8270	126-68-1	O O O Triethyl phosphorothioate	<	0.12806	mg/Kg		U	Total	0.12806
IDW-SOILS	8270	95-53-4	o-Toluidine	<	0.04401	mg/Kg		U	Total	0.04401
IDW-SOILS	8270	60-11-7	p-Dimethylaminoazobenzene	<	0.05952	mg/Kg		U	Total	0.05952
IDW-SOILS	8270	608-93-5	Pentachlorobenzene	<	0.07882	mg/Kg		U	Total	0.07882
IDW-SOILS	8270	76-01-7	Pentachloroethane	<	0.08138	mg/Kg		U	Total	0.08138
IDW-SOILS	8270	82-68-8	Pentachloronitrobenzene	<	0.05960	mg/Kg		U	Total	0.05960
IDW-SOILS	8270	87-86-5	Pentachlorophenol	<	0.18192	mg/Kg		U	Total	0.18192
IDW-SOILS	8270	62-44-2	Phenacetin	<	0.06707	mg/Kg		U	Total	0.06707
IDW-SOILS	8270	85-01-8	Phenanthrene	<	0.05185	mg/Kg		U	Total	0.05185
IDW-SOILS	8270	108-95-2	Phenol	<	0.07098	mg/Kg		U	Total	0.07098
IDW-SOILS	8270	106-50-3	p-Phenylenediamine	<	0.0109	mg/Kg		U	Total	0.0109
IDW-SOILS	8270	23950-58-5	Pronamide	<	0.06097	mg/Kg		U	Total	0.06097
IDW-SOILS	8270	129-00-0	Pyrene	<	0.08308	mg/Kg		U	Total	0.08308
IDW-SOILS	8270	110-86-1	Pyridine	<	0.0109	mg/Kg		U	Total	0.0109
IDW-SOILS	8270	94-59-7	Safrole	<	0.09628	mg/Kg		U	Total	0.09628
IDW-SOILS	8270	99-35-4	Sym-Trinitrobenzene	<	0.04698	mg/Kg		U	Total	0.04698
IDW-SOILS	8270	3689-24-5	Tetraethyldithiopyrophosphate	<	0.09633	mg/Kg		U	Total	0.09633
IDW-SOILS	8270	297-97-2	Thionazin	<	0.04650	mg/Kg		U	Total	0.04650
IDW-SOILS	2540G	MOIST	Moisture		8.35	%			Total	
IDW-SOILS	6010TR	7429-90-5	Aluminum (Al)		18200	mg/Kg			Total	0.7692
IDW-SOILS	6010TR	7440-36-0	Antimony (Sb)		0.440	mg/Kg	J	B	Total	0.202
IDW-SOILS	6010TR	7440-38-2	Arsenic (As)		0.621	mg/Kg		B	Total	0.164
IDW-SOILS	6010TR	7440-39-3	Barium (Ba)		359	mg/Kg	J		Total	0.011
IDW-SOILS	6010TR	7440-41-7	Beryllium (Be)		0.692	mg/Kg			Total	0.011

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
IDW-SOILS	6010TR	7440-43-9	Cadmium (Cd)		0.295	mg/Kg			Total	0.027
IDW-SOILS	6010TR	7440-47-3	Chromium (Cr)		10.8	mg/Kg			Total	0.0600
IDW-SOILS	6010TR	7440-48-4	Cobalt (Co)		5.59	mg/Kg			Total	0.038
IDW-SOILS	6010TR	7440-50-8	Copper (Cu)		6.04	mg/Kg			Total	0.027
IDW-SOILS	6010TR	7439-89-6	Iron (Fe)		8760	mg/Kg	J		Total	1.942
IDW-SOILS	6010TR	7439-92-1	Lead (Pb)		8.78	mg/Kg			Total	0.0873
IDW-SOILS	6010TR	7439-96-5	Manganese (Mn)		256	mg/Kg			Total	0.300
IDW-SOILS	6010TR	7440-02-0	Nickel (Ni)		11.7	mg/Kg			Total	0.0818
IDW-SOILS	6010TR	7782-49-2	Selenium (Se)	<	0.229	mg/Kg	UJ	U	Total	0.229
IDW-SOILS	6010TR	7440-22-4	Silver (Ag)	<	0.0709	mg/Kg		U	Total	0.0709
IDW-SOILS	6010TR	7440-28-0	Thallium (Tl)	<	0.349	mg/Kg		U	Total	0.349
IDW-SOILS	6010TR	7440-31-5	Tin (Sn)		0.884	mg/Kg	J	B	Total	0.142
IDW-SOILS	6010TR	7440-62-2	Vanadium (V)		23.4	mg/Kg			Total	0.251
IDW-SOILS	6010TR	7440-66-6	Zinc (Zn)		25.6	mg/Kg			Total	0.104
IDW-SOILS	739CNS	RCN	Reactivity Cyanide	<	10.9	mg/Kg		U	Total	
IDW-SOILS	739CNS	RS	Reactivity Sulfide	<	54.6	mg/Kg		U	Total	
IDW-SOILS	9045B	PH	Soil pH		9.94	pH Units			Total	
IDW-SOILS	D92	IGNITABILI	Ignitability (Flashpoint)		>212	degrees F			Total	
IDW-WATER	1010	IGNITABILI	Ignitability (Flashpoint)		>186	degrees F			Total	
IDW-WATER	7470	7439-97-6	Mercury (Hg)	<	0.000031	mg/L		U	Total	0.000031
IDW-WATER	8081	72-54-8	4 4'-DDD	<	0.000029	mg/L		U	Total	0.000029
IDW-WATER	8081	72-55-9	4 4'-DDE	<	0.000019	mg/L		U	Total	0.000019
IDW-WATER	8081	50-29-3	4 4'-DDT	<	0.000038	mg/L		U	Total	0.000038
IDW-WATER	8081	309-00-2	Aldrin	<	0.000019	mg/L		U	Total	0.000019
IDW-WATER	8081	319-84-6	alpha-BHC	<	0.000029	mg/L		U	Total	0.000029
IDW-WATER	8081	319-85-7	beta-BHC	<	0.000019	mg/L		U	Total	0.000019
IDW-WATER	8081	12789-03-6	Chlordane	<	0.001285	mg/L		U	Total	0.001285
IDW-WATER	8081	319-86-8	delta-BHC	<	0.000019	mg/L		U	Total	0.000019
IDW-WATER	8081	60-57-1	Dieldrin	<	0.000029	mg/L		U	Total	0.000029
IDW-WATER	8081	959-98-8	Endosulfan I	<	0.000086	mg/L		U	Total	0.000086
IDW-WATER	8081	33213-65-9	Endosulfan II	<	0.000057	mg/L		U	Total	0.000057
IDW-WATER	8081	1031-07-8	Endosulfan sulfate	<	0.000076	mg/L		U	Total	0.000076
IDW-WATER	8081	72-20-8	Endrin	<	0.000076	mg/L		U	Total	0.000076
IDW-WATER	8081	7421-93-4	Endrin aldehyde	<	0.000019	mg/L		U	Total	0.000019
IDW-WATER	8081	58-89-9	gamma-BHC (Lindane)	<	0.000019	mg/L		U	Total	0.000019
IDW-WATER	8081	76-44-8	Heptachlor	<	0.000114	mg/L		U	Total	0.000114
IDW-WATER	8081	1024-57-3	Heptachlor epoxide	<	0.000019	mg/L		U	Total	0.000019
IDW-WATER	8081	72-43-5	Methoxychlor	<	0.000086	mg/L		U	Total	0.000086
IDW-WATER	8081	8001-35-2	Toxaphene	<	0.001742	mg/L		U	Total	0.001742
IDW-WATER	8082	12674-11-2	Aroclor 1016	<	0.00018	mg/L		U	Total	0.00018
IDW-WATER	8082	11104-28-2	Aroclor 1221	<	0.00043	mg/L		U	Total	0.00043
IDW-WATER	8082	11141-16-5	Aroclor 1232	<	0.00024	mg/L		U	Total	0.00024
IDW-WATER	8082	53469-21-9	Aroclor 1242	<	0.00028	mg/L		U	Total	0.00028
IDW-WATER	8082	12672-29-6	Aroclor 1248	<	0.00014	mg/L		U	Total	0.00014
IDW-WATER	8082	11097-69-1	Aroclor 1254	<	0.00013	mg/L		U	Total	0.00013
IDW-WATER	8082	11096-82-5	Aroclor 1260	<	0.00014	mg/L		U	Total	0.00014
IDW-WATER	8151	93-76-5	2 4 5-T	<	0.00026	mg/L		U	Total	0.00026
IDW-WATER	8151	93-72-1	2 4 5-TP (Silvex)	<	0.00026	mg/L		U	Total	0.00026
IDW-WATER	8151	94-75-7	2 4-D	<	0.00024	mg/L		U	Total	0.00024
IDW-WATER	8151	88-85-7	Dinoseb (DNBP)	<	0.00030	mg/L		U	Total	0.00030
IDW-WATER	8270	95-94-3	1 2 4 5-Tetrachlorobenzene	<	0.00139	mg/L		U	Total	0.00139
IDW-WATER	8270	120-82-1	1 2 4-Trichlorobenzene	<	0.00076	mg/L		U	Total	0.00076
IDW-WATER	8270	95-50-1	1 2-Dichlorobenzene	<	0.00060	mg/L		U	Total	0.00060
IDW-WATER	8270	541-73-1	1 3-Dichlorobenzene	<	0.00073	mg/L		U	Total	0.00073
IDW-WATER	8270	106-46-7	1 4-Dichlorobenzene	<	0.00093	mg/L		U	Total	0.00093
IDW-WATER	8270	130-15-4	1 4-Naphthoquinone	<	0.00128	mg/L		U	Total	0.00128
IDW-WATER	8270	134-32-7	1-Naphthylamine	<	0.00204	mg/L		U	Total	0.00204
IDW-WATER	8270	58-90-2	2 3 4 6-Tetrachlorophenol	<	0.00136	mg/L		U	Total	0.00136
IDW-WATER	8270	95-95-4	2 4 5-Trichlorophenol	<	0.00104	mg/L		U	Total	0.00104
IDW-WATER	8270	88-06-2	2 4 6-Trichlorophenol	<	0.00133	mg/L		U	Total	0.00133
IDW-WATER	8270	120-83-2	2 4-Dichlorophenol	<	0.00070	mg/L		U	Total	0.00070

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
IDW-WATER	8270	105-67-9	2 4-Dimethylphenol	<	0.00087	mg/L		U	Total	0.00087
IDW-WATER	8270	51-28-5	2 4-Dinitrophenol	<	0.00204	mg/L		U	Total	0.00204
IDW-WATER	8270	121-14-2	2 4-Dinitrotoluene	<	0.00072	mg/L		U	Total	0.00072
IDW-WATER	8270	87-65-0	2 6-Dichlorophenol	<	0.00140	mg/L		U	Total	0.00140
IDW-WATER	8270	606-20-2	2 6-Dinitrotoluene	<	0.00072	mg/L		U	Total	0.00072
IDW-WATER	8270	53-96-3	2-Acetylamino fluorene	<	0.00146	mg/L		U	Total	0.00146
IDW-WATER	8270	91-58-7	2-Chloronaphthalene	<	0.00093	mg/L		U	Total	0.00093
IDW-WATER	8270	95-57-8	2-Chlorophenol	<	0.00068	mg/L		U	Total	0.00068
IDW-WATER	8270	534-52-1	2-Methyl-4 6-dinitrophenol	<	0.00055	mg/L		U	Total	0.00055
IDW-WATER	8270	91-57-6	2-Methylnaphthalene	<	0.00085	mg/L		U	Total	0.00085
IDW-WATER	8270	95-48-7	2-Methylphenol (o-Cresol)	<	0.00108	mg/L		U	Total	0.00108
IDW-WATER	8270	91-59-8	2-Naphthylamine	<	0.00236	mg/L		U	Total	0.00236
IDW-WATER	8270	88-74-4	2-Nitroaniline	<	0.00066	mg/L		U	Total	0.00066
IDW-WATER	8270	88-75-5	2-Nitrophenol	<	0.00121	mg/L		U	Total	0.00121
IDW-WATER	8270	109-06-8	2-Picoline	<	0.00155	mg/L		U	Total	0.00155
IDW-WATER	8270	91-94-1	3 3'-Dichlorobenzidine	<	0.00103	mg/L		U	Total	0.00103
IDW-WATER	8270	119-93-7	3 3'-Dimethylbenzidine	<	0.0100	mg/L		U	Total	0.0100
IDW-WATER	8270	56-49-5	3-Methylcholanthrene	<	0.00206	mg/L		U	Total	0.00206
IDW-WATER	8270	108-39-4	3-Methylphenol (m-Cresol)	<	0.00040	mg/L		U	Total	0.00040
IDW-WATER	8270	99-09-2	3-Nitroaniline	<	0.00110	mg/L		U	Total	0.00110
IDW-WATER	8270	92-67-1	4-Aminobiphenyl	<	0.00287	mg/L		U	Total	0.00287
IDW-WATER	8270	101-55-3	4-Bromophenyl Phenyl Ether	<	0.00079	mg/L		U	Total	0.00079
IDW-WATER	8270	59-50-7	4-Chloro-3-methylphenol	<	0.00080	mg/L		U	Total	0.00080
IDW-WATER	8270	106-47-8	4-Chloroaniline	<	0.00127	mg/L		U	Total	0.00127
IDW-WATER	8270	7005-72-3	4-Chlorophenyl Phenyl Ether	<	0.00071	mg/L		U	Total	0.00071
IDW-WATER	8270	106-44-5	4-Methylphenol (p-Cresol)	<	0.00040	mg/L		U	Total	0.00040
IDW-WATER	8270	100-01-6	4-Nitroaniline	<	0.00156	mg/L		U	Total	0.00156
IDW-WATER	8270	100-02-7	4-Nitrophenol	<	0.00191	mg/L		U	Total	0.00191
IDW-WATER	8270	56-57-5	4-Nitroquinoline-1-oxide	<	0.00092	mg/L		U	Total	0.00092
IDW-WATER	8270	99-55-8	5-Nitro-o-toluidine	<	0.00124	mg/L		U	Total	0.00124
IDW-WATER	8270	57-97-6	7 12-Dimethylbenz(a)anthracene	<	0.00126	mg/L		U	Total	0.00126
IDW-WATER	8270	83-32-9	Acenaphthene	<	0.00090	mg/L		U	Total	0.00090
IDW-WATER	8270	208-96-8	Acenaphthylene	<	0.00092	mg/L		U	Total	0.00092
IDW-WATER	8270	98-86-2	Acetophenone	<	0.00148	mg/L		U	Total	0.00148
IDW-WATER	8270	122-09-8	alpha alpha-Dimethylphenethylamine	<	0.0100	mg/L		U	Total	0.0100
IDW-WATER	8270	62-53-3	Aniline	<	0.00303	mg/L		U	Total	0.00303
IDW-WATER	8270	120-12-7	Anthracene	<	0.00065	mg/L		U	Total	0.00065
IDW-WATER	8270	140-57-8	Aramite	<	0.00413	mg/L		U	Total	0.00413
IDW-WATER	8270	56-55-3	Benzo(a)anthracene	<	0.00034	mg/L		U	Total	0.00034
IDW-WATER	8270	50-32-8	Benzo(a)pyrene	<	0.00058	mg/L		U	Total	0.00058
IDW-WATER	8270	205-99-2	Benzo(b)fluoranthene	<	0.00054	mg/L		U	Total	0.00054
IDW-WATER	8270	191-24-2	Benzo(ghi)perylene	<	0.00071	mg/L		U	Total	0.00071
IDW-WATER	8270	207-08-9	Benzo(k)fluoranthene	<	0.00076	mg/L		U	Total	0.00076
IDW-WATER	8270	100-51-6	Benzyl Alcohol	<	0.00058	mg/L		U	Total	0.00058
IDW-WATER	8270	111-91-1	bis(2-chloroethoxy)methane	<	0.00087	mg/L		U	Total	0.00087
IDW-WATER	8270	111-44-4	bis(2-Chloroethyl)ether	<	0.00068	mg/L		U	Total	0.00068
IDW-WATER	8270	108-60-1	bis(2-chloroisopropyl)ether	<	0.00104	mg/L		U	Total	0.00104
IDW-WATER	8270	117-81-7	bis(2-ethylhexyl)phthalate	<	0.0102	mg/L			Total	0.00046
IDW-WATER	8270	85-68-7	Butyl Benzyl Phthalate	<	0.00054	mg/L		U	Total	0.00054
IDW-WATER	8270	510-15-6	Chlorobenzilate	<	0.00148	mg/L		U	Total	0.00148
IDW-WATER	8270	218-01-9	Chrysene	<	0.00098	mg/L		U	Total	0.00098
IDW-WATER	8270	2303-16-4	Diallate	<	0.00123	mg/L		U	Total	0.00123
IDW-WATER	8270	53-70-3	Dibenzo(a h)anthracene	<	0.00087	mg/L		U	Total	0.00087
IDW-WATER	8270	132-64-9	Dibenzofuran	<	0.00049	mg/L		U	Total	0.00049
IDW-WATER	8270	84-66-2	Diethyl Phthalate	<	0.00056	mg/L		U	Total	0.00056
IDW-WATER	8270	60-51-5	Dimethoate	<	0.00164	mg/L		U	Total	0.00164
IDW-WATER	8270	131-11-3	Dimethyl Phthalate	<	0.00054	mg/L		U	Total	0.00054
IDW-WATER	8270	84-74-2	Di-n-butyl Phthalate	<	0.00056	mg/L		U	Total	0.00056
IDW-WATER	8270	117-84-0	Di-n-octyl Phthalate	<	0.00039	mg/L		U	Total	0.00039
IDW-WATER	8270	88-85-7	Dinoseb (DNBP)	<	0.00082	mg/L		U	Total	0.00082
IDW-WATER	8270	122-39-4	Diphenylamine	<	0.00080	mg/L		U	Total	0.00080

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
IDW-WATER	8270	62-50-0	Ethyl Methane Sulfonate	<	0.00169	mg/L		U	Total	0.00169
IDW-WATER	8270	206-44-0	Fluoranthene	<	0.00078	mg/L		U	Total	0.00078
IDW-WATER	8270	86-73-7	Fluorene	<	0.00050	mg/L		U	Total	0.00050
IDW-WATER	8270	118-74-1	Hexachlorobenzene	<	0.00132	mg/L		U	Total	0.00132
IDW-WATER	8270	87-68-3	Hexachlorobutadiene	<	0.00072	mg/L		U	Total	0.00072
IDW-WATER	8270	77-47-4	Hexachlorocyclopentadiene	<	0.00066	mg/L		U	Total	0.00066
IDW-WATER	8270	67-72-1	Hexachloroethane	<	0.00104	mg/L		U	Total	0.00104
IDW-WATER	8270	70-30-4	Hexachlorophene	<	0.03179	mg/L		U	Total	0.03179
IDW-WATER	8270	1888-71-7	Hexachloropropene	<	0.00096	mg/L		U	Total	0.00096
IDW-WATER	8270	193-39-5	Indeno(1 2 3-cd)pyrene	<	0.00112	mg/L		U	Total	0.00112
IDW-WATER	8270	465-73-6	Isodrin	<	0.00166	mg/L		U	Total	0.00166
IDW-WATER	8270	78-59-1	Isophorone	<	0.00097	mg/L		U	Total	0.00097
IDW-WATER	8270	120-58-1	Isosafrole	<	0.00113	mg/L		U	Total	0.00113
IDW-WATER	8270	143-50-0	Kepon	<	0.02567	mg/L		U	Total	0.02567
IDW-WATER	8270	99-65-0	m-Dinitrobenzene	<	0.00110	mg/L		U	Total	0.00110
IDW-WATER	8270	91-80-5	Methapyrilene	<	0.00110	mg/L		U	Total	0.00110
IDW-WATER	8270	66-27-3	Methyl Methane Sulfonate	<	0.00161	mg/L		U	Total	0.00161
IDW-WATER	8270	91-20-3	Naphthalene	<	0.00072	mg/L		U	Total	0.00072
IDW-WATER	8270	98-95-3	Nitrobenzene	<	0.00089	mg/L		U	Total	0.00089
IDW-WATER	8270	55-18-5	n-Nitrosodiethylamine	<	0.00119	mg/L		U	Total	0.00119
IDW-WATER	8270	62-75-9	n-Nitrosodimethylamine	<	0.00048	mg/L		U	Total	0.00048
IDW-WATER	8270	924-16-3	n-Nitrosodi-n-butylamine	<	0.00155	mg/L		U	Total	0.00155
IDW-WATER	8270	621-64-7	n-Nitrosodi-n-propylamine	<	0.00080	mg/L		U	Total	0.00080
IDW-WATER	8270	86-30-6	n-Nitrosodiphenylamine	<	0.00071	mg/L		U	Total	0.00071
IDW-WATER	8270	10595-95-6	n-Nitrosomethylethylamine	<	0.00106	mg/L		U	Total	0.00106
IDW-WATER	8270	59-89-2	n-Nitrosomorpholine	<	0.00221	mg/L		U	Total	0.00221
IDW-WATER	8270	100-75-4	n-Nitrosopiperidine	<	0.00249	mg/L		U	Total	0.00249
IDW-WATER	8270	930-55-2	n-Nitrosopyrrolidine	<	0.00197	mg/L		U	Total	0.00197
IDW-WATER	8270	126-68-1	O O O-Triethyl phosphorothioate	<	0.00170	mg/L		U	Total	0.00170
IDW-WATER	8270	95-53-4	o-Toluidine	<	0.00320	mg/L		U	Total	0.00320
IDW-WATER	8270	60-11-7	p-Dimethylaminoazobenzene	<	0.00209	mg/L		U	Total	0.00209
IDW-WATER	8270	608-93-5	Pentachlorobenzene	<	0.00283	mg/L		U	Total	0.00283
IDW-WATER	8270	76-01-7	Pentachloroethane	<	0.00256	mg/L		U	Total	0.00256
IDW-WATER	8270	82-68-8	Pentachloronitrobenzene	<	0.00482	mg/L		U	Total	0.00482
IDW-WATER	8270	87-86-5	Pentachlorophenol	<	0.00399	mg/L		U	Total	0.00399
IDW-WATER	8270	62-44-2	Phenacetin	<	0.00136	mg/L		U	Total	0.00136
IDW-WATER	8270	85-01-8	Phenanthrene	<	0.00049	mg/L		U	Total	0.00049
IDW-WATER	8270	108-95-2	Phenol	<	0.0181	mg/L		U	Total	0.00080
IDW-WATER	8270	106-50-3	p-Phenylenediamine	<	0.0100	mg/L		U	Total	0.0100
IDW-WATER	8270	23950-58-5	Pronamide	<	0.00125	mg/L		U	Total	0.00125
IDW-WATER	8270	129-00-0	Pyrene	<	0.00083	mg/L		U	Total	0.00083
IDW-WATER	8270	110-86-1	Pyridine	<	0.0100	mg/L		U	Total	0.0100
IDW-WATER	8270	94-59-7	Safrole	<	0.00133	mg/L		U	Total	0.00133
IDW-WATER	8270	99-35-4	Sym-Trinitrobenzene	<	0.00182	mg/L		U	Total	0.00182
IDW-WATER	8270	3689-24-5	Tetraethylthiopyrophosphate	<	0.00138	mg/L		U	Total	0.00138
IDW-WATER	8270	297-97-2	Thionazin	<	0.00105	mg/L		U	Total	0.00105
IDW-WATER	9040	CORROSIVIT	Corrosivity (pH-Liquids)		11	pH Units			Total	
IDW-WATER	6010TR	7429-90-5	Aluminum (Al)		3.49	mg/L	J		Total	0.01800
IDW-WATER	6010TR	7440-36-0	Antimony (Sb)		0.00385	mg/L		B	Total	0.00350
IDW-WATER	6010TR	7440-38-2	Arsenic (As)	<	0.00340	mg/L		U	Total	0.00340
IDW-WATER	6010TR	7440-39-3	Barium (Ba)		0.0628	mg/L			Total	0.00060
IDW-WATER	6010TR	7440-41-7	Beryllium (Be)		0.00043	mg/L		B	Total	0.00040
IDW-WATER	6010TR	7440-43-9	Cadmium (Cd)	<	0.00050	mg/L		U	Total	0.00050
IDW-WATER	6010TR	7440-47-3	Chromium (Cr)		0.0236	mg/L			Total	0.00130
IDW-WATER	6010TR	7440-48-4	Cobalt (Co)		0.00388	mg/L		B	Total	0.00070
IDW-WATER	6010TR	7440-50-8	Copper (Cu)		0.00816	mg/L		B	Total	0.00180
IDW-WATER	6010TR	7439-89-6	Iron (Fe)		1.41	mg/L			Total	0.04590
IDW-WATER	6010TR	7439-92-1	Lead (Pb)		0.00270	mg/L		B	Total	0.00210
IDW-WATER	6010TR	7439-96-5	Manganese (Mn)		0.0772	mg/L			Total	0.00100
IDW-WATER	6010TR	7440-02-0	Nickel (Ni)		0.00381	mg/L		B	Total	0.00180
IDW-WATER	6010TR	7782-49-2	Selenium (Se)	<	0.00370	mg/L		U	Total	0.00370

APPENDIX F

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Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
IDW-WATER	6010TR	7440-22-4	Silver (Ag)		0.00149	mg/L		B	Total	0.00120
IDW-WATER	6010TR	7440-28-0	Thallium (Tl)	<	0.00470	mg/L		U	Total	0.00470
IDW-WATER	6010TR	7440-31-5	Tin (Sn)		0.00639	mg/L		B	Total	0.00280
IDW-WATER	6010TR	7440-62-2	Vanadium (V)		0.00800	mg/L		B	Total	0.00280
IDW-WATER	6010TR	7440-66-6	Zinc (Zn)		0.0658	mg/L			Total	0.00260
IDW-WATER	739CNS	RCN	Reactivity Cyanide	<	10.0	mg/L		U	Total	
IDW-WATER	739CNS	RS	Reactivity Sulfide	<	50.0	mg/L		U	Total	
IDW-WATER	8260M	630-20-6	1 1 1 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
IDW-WATER	8260M	71-55-6	1 1 1-Trichloroethane	<	0.00019	mg/L		U	Total	0.00019
IDW-WATER	8260M	79-34-5	1 1 2 2-Tetrachloroethane	<	0.00017	mg/L		U	Total	0.00017
IDW-WATER	8260M	79-00-5	1 1 2-Trichloroethane	<	0.00015	mg/L		U	Total	0.00015
IDW-WATER	8260M	75-34-3	1 1-Dichloroethane	<	0.00015	mg/L		U	Total	0.00015
IDW-WATER	8260M	75-35-4	1 1-Dichloroethene	<	0.00033	mg/L		U	Total	0.00033
IDW-WATER	8260M	96-18-4	1 2 3-Trichloropropane	<	0.00016	mg/L		U	Total	0.00016
IDW-WATER	8260M	96-12-8	1 2-Dibromo-3-chloropropane	<	0.00044	mg/L		U	Total	0.00044
IDW-WATER	8260M	106-93-4	1 2-Dibromoethane (EDB)	<	0.00017	mg/L		U	Total	0.00017
IDW-WATER	8260M	107-06-2	1 2-Dichloroethane	<	0.00016	mg/L		U	Total	0.00016
IDW-WATER	8260M	78-87-5	1 2-Dichloropropane	<	0.00017	mg/L		U	Total	0.00017
IDW-WATER	8260M	123-91-1	1 4-Dioxane	<	0.01328	mg/L		U	Total	0.01328
IDW-WATER	8260M	126-99-8	2-Chloro-1 3-butadiene (chloroprene)	<	0.00039	mg/L		U	Total	0.00039
IDW-WATER	8260M	591-78-6	2-Hexanone	<	0.00029	mg/L		U	Total	0.00029
IDW-WATER	8260M	108-10-1	4-Methyl-2-pentanone (MIBK)	<	0.00014	mg/L		U	Total	0.00014
IDW-WATER	8260M	67-64-1	Acetone	<	0.0100	mg/L	U		Total	0.00094
IDW-WATER	8260M	75-05-8	Acetonitrile	<	0.00132	mg/L		U	Total	0.00132
IDW-WATER	8260M	107-02-8	Acrolein	<	0.00215	mg/L		U	Total	0.00215
IDW-WATER	8260M	107-13-1	Acrylonitrile	<	0.00102	mg/L		U	Total	0.00102
IDW-WATER	8260M	107-05-1	Allyl chloride	<	0.00060	mg/L		U	Total	0.00060
IDW-WATER	8260M	71-43-2	Benzene	<	0.00008	mg/L		U	Total	0.00008
IDW-WATER	8260M	75-27-4	Bromodichloromethane	<	0.00016	mg/L		U	Total	0.00016
IDW-WATER	8260M	75-25-2	Bromoform	<	0.00018	mg/L		U	Total	0.00018
IDW-WATER	8260M	74-83-9	Bromomethane	<	0.00045	mg/L		U	Total	0.00045
IDW-WATER	8260M	75-15-0	Carbon Disulfide	<	0.00030	mg/L		U	Total	0.00030
IDW-WATER	8260M	56-23-5	Carbon Tetrachloride	<	0.00022	mg/L		U	Total	0.00022
IDW-WATER	8260M	108-90-7	Chlorobenzene	<	0.00013	mg/L		U	Total	0.00013
IDW-WATER	8260M	75-00-3	Chloroethane	<	0.00021	mg/L		U	Total	0.00021
IDW-WATER	8260M	67-66-3	Chloroform	<	0.00024	mg/L		U	Total	0.00024
IDW-WATER	8260M	74-87-3	Chloromethane	<	0.00013	mg/L		U	Total	0.00013
IDW-WATER	8260M	156-59-2	cis-1 2-Dichloroethene	<	0.00023	mg/L		U	Total	0.00023
IDW-WATER	8260M	10061-01-5	cis-1 3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
IDW-WATER	8260M	124-48-1	Dibromochloromethane	<	0.00017	mg/L		U	Total	0.00017
IDW-WATER	8260M	74-95-3	Dibromomethane	<	0.00020	mg/L		U	Total	0.00020
IDW-WATER	8260M	75-71-8	Dichlorodifluoromethane	<	0.00031	mg/L		U	Total	0.00031
IDW-WATER	8260M	97-63-2	Ethyl Methacrylate	<	0.00038	mg/L		U	Total	0.00038
IDW-WATER	8260M	100-41-4	Ethylbenzene	<	0.00015	mg/L		U	Total	0.00015
IDW-WATER	8260M	74-88-4	Iodomethane	<	0.00021	mg/L		U	Total	0.00021
IDW-WATER	8260M	78-83-1	Isobutyl Alcohol	<	0.00313	mg/L		U	Total	0.00313
IDW-WATER	8260M	126-98-7	Methacrylonitrile	<	0.00059	mg/L		U	Total	0.00059
IDW-WATER	8260M	78-93-3	Methyl Ethyl Ketone (2-Butanone)	<	0.00034	mg/L		U	Total	0.00034
IDW-WATER	8260M	80-62-6	Methyl Methacrylate	<	0.00050	mg/L		U	Total	0.00050
IDW-WATER	8260M	1634-04-4	Methyl tert-Butyl ether	<	0.00056	mg/L		U	Total	0.00056
IDW-WATER	8260M	75-09-2	Methylene Chloride	<	0.00074	mg/L		U	Total	0.00074
IDW-WATER	8260M	107-12-0	Propionitrile	<	0.00068	mg/L		U	Total	0.00068
IDW-WATER	8260M	100-42-5	Styrene	<	0.00087	mg/L		U	Total	0.00087
IDW-WATER	8260M	127-18-4	Tetrachloroethene	<	0.00017	mg/L		U	Total	0.00017
IDW-WATER	8260M	108-88-3	Toluene	<	0.00015	mg/L		U	Total	0.00015
IDW-WATER	8260M	156-60-5	trans-1 2-Dichloroethene	<	0.00025	mg/L		U	Total	0.00025
IDW-WATER	8260M	10061-02-6	trans-1 3-Dichloropropene	<	0.00014	mg/L		U	Total	0.00014
IDW-WATER	8260M	110-57-6	trans-1 4-Dichloro-2-butene	<	0.00029	mg/L		U	Total	0.00029
IDW-WATER	8260M	79-01-6	Trichloroethene	<	0.00026	mg/L		U	Total	0.00026
IDW-WATER	8260M	75-69-4	Trichlorofluoromethane	<	0.00030	mg/L		U	Total	0.00030
IDW-WATER	8260M	108-05-4	Vinyl Acetate	<	0.00045	mg/L		U	Total	0.00045

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
IDW-WATER	8260M	75-01-4	Vinyl Chloride	<	0.00018	mg/L		U	Total	0.00018
IDW-WATER	8260M	1330-20-7	Xylenes (total)	<	0.00046	mg/L		U	Total	0.00046
FWEMW03FTRP	CQCS		2,2',3,4,5-Pentachlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		2,2',3,5'-Tetrachlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		2,2',4,5,5'-Pentachlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		2,2',5,5'-Tetrachlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		2,2',5-Trichlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		2,3',4,4'-Tetrachlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		2,3-Dichlorobiphenyl	<	5.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		2,4',5-Trichlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		2-Chlorobiphenyl	<	5.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		22'33'44'5-Heptachlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		22'33'44'55'6-Nonachlorobiphen	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		22'34'55'6-Heptachlorobipheny	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		22'344'5'-Hexachlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		22'344'5'6-Heptachlorobipheny	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		22'344'55'-Heptachlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		22'3455'-Hexachlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		22'355'6'-Hexachlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		22'44'55'-Hexachlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		233'4'6'-Pentachlorobiphenyl	<	1.0	NG/L		U	Total	
FWEMW03FTRP	CQCS		Total PCBs	<	1.0	NG/L		U	Total	
FWEMW03FTRP	8141A	60-51-5	Dimethoate	<	0.50	UG/L		U	Total	
FWEMW03FTRP	8141A	298-04-4	Disulfoton	<	1.0	UG/L		U	Total	
FWEMW03FTRP	8141A	298-02-2	Phorate	<	0.50	UG/L		U	Total	
FWEMW03FTRP	8141A		Sulfotep	<	0.20	UG/L		U	Total	
FWEMW03FTRP	8141A	126-73-8	Tributyl Phosphate	<	84	%			Total	
FWEMW03FTRP	8290	39001-02-0	1,2,3,4,6,7,8,9-OCDF	<	50	PG/L	U	U	Total	5.524
FWEMW03FTRP	8290	3268-87-9	1,2,3,4,6,7,8,9-ocdd	<	50	PG/L	U	U	Total	4.485
FWEMW03FTRP	8290	35822-46-9	1,2,3,4,6,7,8-HpCDD	<	25	PG/L	U	U	Total	3.060
FWEMW03FTRP	8290	67562-39-4	1,2,3,4,6,7,8-HpCDF	<	25	PG/L	U	U	Total	2.346
FWEMW03FTRP	8290	55673-89-7	1,2,3,4,7,8,9-HpCDF	<	25	PG/L	U	U	Total	3.170
FWEMW03FTRP	8290	39227-28-6	1,2,3,4,7,8-HxCDD	<	25	PG/L	U	U	Total	2.293
FWEMW03FTRP	8290	70648-26-9	1,2,3,4,7,8-HxCDF	<	25	PG/L	U	U	Total	1.428
FWEMW03FTRP	8290	57653-85-7	1,2,3,6,7,8-HxCDD	<	25	PG/L	U	U	Total	1.965
FWEMW03FTRP	8290	57117-44-9	1,2,3,6,7,8-HxCDF	<	25	PG/L	U	U	Total	1.440
FWEMW03FTRP	8290	19408-74-3	1,2,3,7,8,9-HxCDD	<	25	PG/L	U	U	Total	2.103
FWEMW03FTRP	8290	72918-21-9	1,2,3,7,8,9-HxCDF	<	25	PG/L	U	U	Total	1.739
FWEMW03FTRP	8290	40321-76-4	1,2,3,7,8-PeCDD	<	25	PG/L	U	U	Total	2.304
FWEMW03FTRP	8290	57117-41-6	1,2,3,7,8-PeCDF	<	25	PG/L	U	U	Total	1.522
FWEMW03FTRP	8290	60851-34-5	2,3,4,6,7,8-HxCDF	<	25	PG/L	U	U	Total	1.499
FWEMW03FTRP	8290	57117-31-4	2,3,4,7,8-PeCDF	<	25	PG/L	U	U	Total	1.455
FWEMW03FTRP	8290	1746-01-6	2,3,7,8-TCDD	<	10	PG/L	U	U	Total	1.709
FWEMW03FTRP	8290	51207-31-9	2,3,7,8-TCDF	<	10	PG/L	U	U	Total	1.692
FWEMW03FTRP	8290		Total Hepta-Dioxins	<	25	PG/L	U	U	Total	2.985
FWEMW03FTRP	8290		Total Hepta-Furans	<	25	PG/L	U	U	Total	2.379
FWEMW03FTRP	8290		Total Hexa-Dioxins	<	25	PG/L	U	U	Total	2.281
FWEMW03FTRP	8290		Total Hexa-Furans	<	25	PG/L	U	U	Total	1.448
FWEMW03FTRP	8290		Total Penta-Dioxins	<	25	PG/L	U	U	Total	2.199
FWEMW03FTRP	8290		Total Penta-Furans	<	25	PG/L	U	U	Total	1.440
FWEMW03FTRP	8290		Total Tetra-Dioxins	<	10	PG/L	U	U	Total	1.771
FWEMW03FTRP	8290		Total Tetra-Furans	<	10	PG/L	U	U	Total	1.700
FWEMW03FTRP	300.0	16887-00-6	Chloride	<	213	MG/L			Total	0.675
FWEMW03FTRP	300.0	16984-48-8	Fluoride	<	3.76	MG/L			Total	0.0323
FWEMW03FTRP	300.0	7727-37-9	Nitrate-N	<	0.274	MG/L			Total	0.00490
FWEMW03FTRP	300.0	14808-79-8	Sulfate	<	2190	MG/L			Total	16.9
FWEMW03FTRP	8270C	95-94-3	1,2,4,5-Tetrachlorobenzene	<	5	UG/L	U	U	Total	0.70
FWEMW03FTRP	8270C	120-82-1	1,2,4-Trichlorobenzene	<	5	UG/L	U	U	Total	0.16
FWEMW03FTRP	8270C	95-50-1	1,2-Dichlorobenzene	<	5	UG/L	U	U	Total	0.16
FWEMW03FTRP	8270C	541-73-1	1,3-Dichlorobenzene	<	5	UG/L	U	U	Total	0.13
FWEMW03FTRP	8270C	99-65-0	1,3-Dinitrobenzene	<	5	UG/L	U	U	Total	0.32

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FWEMW03FTRP	8270C	106-46-7	1,4-Dichlorobenzene	<	5	UG/L		U	Total	0.12
FWEMW03FTRP	8270C	130-15-4	1,4-Naphthoquinone	<	5	UG/L		U	Total	0.32
FWEMW03FTRP	8270C	134-32-7	1-Naphthylamine	<	5	UG/L		U	Total	0.79
FWEMW03FTRP	8270C	58-90-2	2,3,4,6-Tetrachlorophenol	<	5	UG/L		U	Total	0.27
FWEMW03FTRP	8270C	95-95-4	2,4,5-Trichlorophenol	<	5	UG/L		U	Total	0.079
FWEMW03FTRP	8270C	88-06-2	2,4,6-Trichlorophenol	<	5	UG/L		U	Total	0.17
FWEMW03FTRP	8270C	120-83-2	2,4-Dichlorophenol	<	5	UG/L		U	Total	0.14
FWEMW03FTRP	8270C	105-67-9	2,4-Dimethylphenol	<	5	UG/L		U	Total	2.1
FWEMW03FTRP	8270C	51-28-5	2,4-Dinitrophenol	<	20	UG/L		U	Total	6.0
FWEMW03FTRP	8270C	121-14-2	2,4-Dinitrotoluene	<	5	UG/L		U	Total	0.21
FWEMW03FTRP	8270C	87-65-0	2,6-Dichlorophenol	<	5	UG/L		U	Total	0.78
FWEMW03FTRP	8270C	606-20-2	2,6-Dinitrotoluene	<	5	UG/L		U	Total	0.26
FWEMW03FTRP	8270C	53-96-3	2-Acetylaminofluorene	<	5	UG/L		U	Total	0.45
FWEMW03FTRP	8270C	91-58-7	2-Chloronaphthalene	<	5	UG/L		U	Total	0.18
FWEMW03FTRP	8270C	95-57-8	2-Chlorophenol	<	5	UG/L		U	Total	0.23
FWEMW03FTRP	8270C	91-57-6	2-Methylnaphthalene	<	0.19	UG/L		J	Total	0.16
FWEMW03FTRP	8270C	95-48-7	2-Methylphenol	<	5	UG/L		U	Total	0.15
FWEMW03FTRP	8270C	91-59-8	2-Naphthylamine	<	5	UG/L		U	Total	0.74
FWEMW03FTRP	8270C	88-74-4	2-Nitroaniline	<	5	UG/L		U	Total	0.15
FWEMW03FTRP	8270C	88-75-5	2-Nitrophenol	<	5	UG/L		U	Total	0.59
FWEMW03FTRP	8270C	109-06-8	2-Picoline	<	5	UG/L		U	Total	1.1
FWEMW03FTRP	8270C	91-94-1	3,3'-Dichlorobenzidine	<	5	UG/L		U	Total	1.2
FWEMW03FTRP	8270C	119-93-7	3,3'-Dimethylbenzidine	<	5	UG/L		U	Total	1.3
FWEMW03FTRP	8270C	56-49-5	3-Methylcholanthrene	<	5	UG/L		U	Total	0.40
FWEMW03FTRP	8270C	99-09-2	3-Nitroaniline	<	5	UG/L		U	Total	1.0
FWEMW03FTRP	8270C	534-52-1	4,6-Dinitro-2-methylphenol	<	20	UG/L		U	Total	1.8
FWEMW03FTRP	8270C	92-67-1	4-Aminobiphenyl	<	20	UG/L		U	Total	2.1
FWEMW03FTRP	8270C	101-55-3	4-Bromophenylphenylether	<	5	UG/L		U	Total	0.105
FWEMW03FTRP	8270C	59-50-7	4-Chloro-3-methylphenol	<	5	UG/L		U	Total	0.24
FWEMW03FTRP	8270C	106-47-8	4-Chloroaniline	<	5	UG/L		U	Total	0.12
FWEMW03FTRP	8270C	7005-72-3	4-Chlorophenyl phenyl ether	<	5	UG/L		U	Total	0.24
FWEMW03FTRP	8270C	106-44-5	4-Methylphenol	<	5	UG/L		U	Total	0.093
FWEMW03FTRP	8270C	100-01-6	4-Nitroaniline	<	5	UG/L		U	Total	0.29
FWEMW03FTRP	8270C	100-02-7	4-Nitrophenol	<	20	UG/L		U	Total	3.3
FWEMW03FTRP	8270C	56-57-5	4-Nitroquinoline-1-oxide	<	20	UG/L		U	Total	3.5
FWEMW03FTRP	8270C	99-55-8	5-Nitro-o-toluidine	<	5	UG/L		U	Total	0.57
FWEMW03FTRP	8270C	57-97-6	7,12-Dimethylbenz(a)anthracene	<	20	UG/L		U	Total	2.2
FWEMW03FTRP	8270C	83-32-9	Acenaphthene	<	5	UG/L		U	Total	0.14
FWEMW03FTRP	8270C	208-96-8	Acenaphthylene	<	5	UG/L		U	Total	0.39
FWEMW03FTRP	8270C	98-86-2	Acetophenone	<	1.6	UG/L		J	Total	0.21
FWEMW03FTRP	8270C	62-53-3	Aniline	<	5	UG/L		U	Total	0.48
FWEMW03FTRP	8270C	120-12-7	Anthracene	<	5	UG/L		U	Total	0.19
FWEMW03FTRP	8270C	140-57-8	Aramite	<	5	UG/L		U	Total	0.30
FWEMW03FTRP	8270C	56-55-3	Benzo(a)anthracene	<	5	UG/L		U	Total	0.21
FWEMW03FTRP	8270C	50-32-8	Benzo(a)pyrene	<	5	UG/L		U	Total	0.16
FWEMW03FTRP	8270C	205-99-2	Benzo(b)fluoranthene	<	5	UG/L		U	Total	0.20
FWEMW03FTRP	8270C	191-24-2	Benzo(g,h,i)perylene	<	5	UG/L		U	Total	0.20
FWEMW03FTRP	8270C	207-08-9	Benzo(k)fluoranthene	<	5	UG/L		U	Total	0.15
FWEMW03FTRP	8270C	100-51-6	Benzyl Alcohol	<	5	UG/L		U	Total	0.28
FWEMW03FTRP	8270C	111-91-1	bis(2-Chloroethoxy)methane	<	5	UG/L		U	Total	0.36
FWEMW03FTRP	8270C	111-44-4	Bis(2-chloroethyl)ether	<	5	UG/L		U	Total	0.26
FWEMW03FTRP	8270C	108-60-1	Bis(2-chloroisopropyl)ether	<	5	UG/L		U	Total	0.16
FWEMW03FTRP	8270C	117-81-7	Bis(2-ethylhexyl)phthalate	<	5	UG/L		U	Total	4.8
FWEMW03FTRP	8270C	85-68-7	Butylbenzylphthalate	<	0.41	UG/L		J	Total	0.40
FWEMW03FTRP	8270C	510-15-6	Chlorobenzilate	<	20	UG/L		U	Total	0.68
FWEMW03FTRP	8270C	218-01-9	Chrysene	<	5	UG/L		U	Total	0.19
FWEMW03FTRP	8270C	84-74-2	Di-n-butylphthalate	<	1.4	UG/L	U	JB	Total	0.40
FWEMW03FTRP	8270C	117-84-0	Di-n-octylphthalate	<	5	UG/L		U	Total	0.32
FWEMW03FTRP	8270C	2303-16-4	Diallate	<	5	UG/L		U	Total	0.22
FWEMW03FTRP	8270C	53-70-3	Dibenz(a,h)Anthracene	<	5	UG/L		U	Total	0.16
FWEMW03FTRP	8270C	132-64-9	Dibenzofuran	<	5	UG/L		U	Total	0.16

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FWEMW03FTRP	8270C	84-66-2	Diethylphthalate	<	5	UG/L		U	Total	0.23
FWEMW03FTRP	8270C	131-11-3	Dimethylphthalate	<	5	UG/L		U	Total	0.18
FWEMW03FTRP	8270C	88-85-7	Dinoseb	<	20	UG/L		U	Total	1.4
FWEMW03FTRP	8270C	122-39-4	Diphenylamine	<	5	UG/L		U	Total	0.24
FWEMW03FTRP	8270C	62-50-0	Ethyl methanesulfonate	<	5	UG/L		U	Total	0.86
FWEMW03FTRP	8270C	206-44-0	Fluoranthene	<	5	UG/L		U	Total	0.22
FWEMW03FTRP	8270C	86-73-7	Fluorene	<	5	UG/L		U	Total	0.13
FWEMW03FTRP	8270C	118-74-1	Hexachlorobenzene	<	5	UG/L		U	Total	0.12
FWEMW03FTRP	8270C	87-68-3	Hexachlorobutadiene	<	5	UG/L		U	Total	0.16
FWEMW03FTRP	8270C	77-47-4	Hexachlorocyclopentadiene	<	5	UG/L		U	Total	1.8
FWEMW03FTRP	8270C	67-72-1	Hexachloroethane	<	5	UG/L		U	Total	0.27
FWEMW03FTRP	8270C	70-30-4	Hexachlorophene	<	**	UG/L			Total	
FWEMW03FTRP	8270C	1888-71-7	Hexachloropropene	<	5	UG/L		U	Total	0.90
FWEMW03FTRP	8270C	193-39-5	Indeno(1,2,3-c,d)pyrene	<	5	UG/L		U	Total	0.17
FWEMW03FTRP	8270C	78-59-1	Isophorone	<	5	UG/L		U	Total	0.22
FWEMW03FTRP	8270C	120-58-1	Isosafrole	<	5	UG/L		U	Total	0.61
FWEMW03FTRP	8270C	143-50-0	Kepone	<	20	UG/L		U	Total	5.4
FWEMW03FTRP	8270C	91-80-5	Methapyriline	<	20	UG/L		U	Total	3.6
FWEMW03FTRP	8270C	66-27-3	Methyl methanesulfonate	<	5	UG/L		U	Total	0.74
FWEMW03FTRP	8270C	621-64-7	N-Nitrosodi-n-propyl amine	<	5	UG/L		U	Total	0.22
FWEMW03FTRP	8270C	924-16-3	N-nitrosodi-n-butylamine	<	5	UG/L		U	Total	0.90
FWEMW03FTRP	8270C	55-18-5	N-nitrosodiethylamine	<	5	UG/L		U	Total	0.82
FWEMW03FTRP	8270C	62-75-9	N-nitrosodimethylamine	<	5	UG/L		U	Total	0.064
FWEMW03FTRP	8270C	86-30-6	N-nitrosodiphenylamine	<	5	UG/L		U	Total	0.15
FWEMW03FTRP	8270C	10595-95-6	N-nitrosomethylethylamine	<	5	UG/L		U	Total	1.0
FWEMW03FTRP	8270C	59-89-2	N-nitrosomorpholine	<	5	UG/L		U	Total	0.61
FWEMW03FTRP	8270C	100-75-4	N-nitrosopiperidine	<	5	UG/L		U	Total	0.49
FWEMW03FTRP	8270C	930-55-2	N-nitrosopyrrolidine	<	5	UG/L		U	Total	0.79
FWEMW03FTRP	8270C	91-20-3	Naphthalene	<	0.24	UG/L		J	Total	0.18
FWEMW03FTRP	8270C	98-95-3	Nitrobenzene	<	5	UG/L		U	Total	0.25
FWEMW03FTRP	8270C	126-68-1	O,O,O-Triethylphosphorothioate	<	5	UG/L		U	Total	0.28
FWEMW03FTRP	8270C	56-38-2	Parathion	<	5	UG/L		U	Total	0.29
FWEMW03FTRP	8270C	608-93-5	Pentachlorobenzene	<	5	UG/L		U	Total	0.75
FWEMW03FTRP	8270C	76-01-7	Pentachloroethane	<	5	UG/L		U	Total	1.1
FWEMW03FTRP	8270C	82-68-8	Pentachloronitrobenzene	<	5	UG/L		U	Total	0.46
FWEMW03FTRP	8270C	87-86-5	Pentachlorophenol	<	20	UG/L		U	Total	2.2
FWEMW03FTRP	8270C	62-44-2	Phenacetin	<	20	UG/L		U	Total	2.9
FWEMW03FTRP	8270C	85-01-8	Phenanthrene	<	5	UG/L		U	Total	0.23
FWEMW03FTRP	8270C	108-95-2	Phenol	<	3.2	UG/L		J	Total	0.17
FWEMW03FTRP	8270C	23950-58-5	Pronamide	<	5	UG/L		U	Total	0.20
FWEMW03FTRP	8270C	129-00-0	Pyrene	<	5	UG/L		U	Total	0.17
FWEMW03FTRP	8270C	110-86-1	Pyridine	<	5	UG/L		U	Total	1.1
FWEMW03FTRP	8270C	94-59-7	Safrole	<	5	UG/L		U	Total	0.74
FWEMW03FTRP	8270C	297-97-2	Thionazin	<	5	UG/L		U	Total	0.48
FWEMW03FTRP	8270C	122-09-8	a,a-Dimethylphenethylamine	<	20	UG/L		U	Total	2.2
FWEMW03FTRP	8270C	95-53-4	o-Toluidine	<	5	UG/L		U	Total	1.1
FWEMW03FTRP	8270C	60-11-7	p-(Dimethylamino)azobenzene	<	5	UG/L		U	Total	0.58
FWEMW03FTRP	8270C	106-50-3	p-Phenylenediamine	<	20	UG/L		U	Total	1.0
FWEMW03FTRP	8270C	99-35-4	sym-Tinitrobenzene	<	5	UG/L		U	Total	0.38
FWEMW03FTRP	8082	12674-11-2	PCB-1016	<	0.100	UG/L		U	Total	0.0540
FWEMW03FTRP	8082	11104-28-2	PCB-1221	<	0.200	UG/L		U	Total	0.174
FWEMW03FTRP	8082	11141-16-5	PCB-1232	<	0.1	UG/L		U	Total	0.0480
FWEMW03FTRP	8082	53469-21-9	PCB-1242	<	0.100	UG/L		U	Total	0.0861
FWEMW03FTRP	8082	12672-29-6	PCB-1248	<	0.100	UG/L		U	Total	0.0484
FWEMW03FTRP	8082	11097-69-1	PCB-1254	<	0.100	UG/L		U	Total	0.0513
FWEMW03FTRP	8082	11096-82-5	PCB-1260	<	0.1	UG/L		U	Total	0.0139
FWEMW03FTRP	8081A	72-54-8	4,4'-DDD	<	0.0145	UG/L	U	JB	Total	0.00188
FWEMW03FTRP	8081A	72-55-9	4,4'-DDE	<	0.0200	UG/L		U	Total	0.00226
FWEMW03FTRP	8081A	50-29-3	4,4'-DDT	<	0.0200	UG/L		U	Total	0.00237
FWEMW03FTRP	8081A	309-00-2	Aldrin	<	0.0200	UG/L		U	Total	0.00205
FWEMW03FTRP	8081A	319-84-6	alpha-BHC	<	0.0200	UG/L		U	Total	0.00221

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FWEMW03FTRP	8081A	319-85-7	beta-BHC	<	0.0200	UG/L		U	Total	0.00251
FWEMW03FTRP	8081A	57-74-9	Chlordane	<	0.100	UG/L		U	Total	0.0236
FWEMW03FTRP	8081A	319-86-8	delta-BHC	<	0.0200	UG/L		U	Total	0.00191
FWEMW03FTRP	8081A	60-57-1	Dieldrin	<	0.0139	UG/L		J	Total	0.00186
FWEMW03FTRP	8081A	33213-65-9	Endosulfan II	<	0.0138	UG/L		J	Total	0.00245
FWEMW03FTRP	8081A	959-98-8	Endosulfan I	<	0.0200	UG/L		U	Total	0.00212
FWEMW03FTRP	8081A	1031-07-8	Endosulfan Sulfate	<	0.0200	UG/L		U	Total	0.00272
FWEMW03FTRP	8081A	7421-93-4	Endrin aldehyde	<	0.0813	UG/L			Total	0.00639
FWEMW03FTRP	8081A	72-20-8	Endrin	<	0.0200	UG/L		U	Total	0.00259
FWEMW03FTRP	8081A	1024-57-3	Heptachlor Epoxide	<	0.0587	UG/L			Total	0.00311
FWEMW03FTRP	8081A	76-44-8	Heptachlor	<	0.0200	UG/L		U	Total	0.00224
FWEMW03FTRP	8081A	465-73-6	Isodrin	<	0.0200	UG/L		U	Total	0.00808
FWEMW03FTRP	8081A	58-89-9	gamma-BHC	<	0.0112	UG/L		J	Total	0.00210
FWEMW03FTRP	8081A	72-43-5	Methoxychlor	<	0.0200	UG/L		U	Total	0.00292
FWEMW03FTRP	8081A	8001-35-2	Toxaphene	<	1.00	UG/L		U	Total	0.0953
FWEMW03FTRP	8330	99-35-4	1,3,5-Trinitrobenzene	<	0.65	UG/L		U	Total	0.118
FWEMW03FTRP	8330	99-65-0	1,3-Dinitrobenzene	<	0.65	UG/L		U	Total	0.0366
FWEMW03FTRP	8330	118-96-7	2,4,6-Trinitrotoluene	<	0.26	UG/L		U	Total	0.0789
FWEMW03FTRP	8330	121-14-2	2,4-Dinitrotoluene	<	0.65	UG/L		U	Total	0.0629
FWEMW03FTRP	8330	606-20-2	2,6-Dinitrotoluene	<	0.26	UG/L		U	Total	0.0750
FWEMW03FTRP	8330	35572-78-2	2-Amino-4,6-Dinitrotoluene	<	0.26	UG/L		U	Total	0.0677
FWEMW03FTRP	8330	88-72-2	2-Nitrotoluene	<	0.52	UG/L		U	Total	0.240
FWEMW03FTRP	8330	99-08-1	3-Nitrotoluene	<	0.52	UG/L		U	Total	0.173
FWEMW03FTRP	8330	19406-51-0	4-Amino-2,6-Dinitrotoluene	<	0.26	UG/L		U	Total	0.0374
FWEMW03FTRP	8330	99-99-0	4-Nitrotoluene	<	0.52	UG/L		U	Total	0.163
FWEMW03FTRP	8330	2691-41-0	HMX	<	0.26	UG/L		U	Total	0.0756
FWEMW03FTRP	8330	98-95-3	Nitrobenzene	<	0.26	UG/L		U	Total	0.221
FWEMW03FTRP	8330	121-82-4	RDX	<	0.26	UG/L		U	Total	0.190
FWEMW03FTRP	8330	479-45-8	Tetryl	<	0.26	UG/L		U	Total	0.0798
FWEMW03FTRP	160.1		Total Dissolved Solids		4110	MG/L			Total	12.9
FWEMW03FTRP	353.2	14797-55-8	Nitrate/Nitrite		360	UG/L			Total	6.29
FWEMW03FTRP	9012A	57-12-5	Cyanide	<	10	UG/L		U	Total	2.32
FWEMW03FTRP	7470A	7439-97-6	Mercury	<	0.100	UG/L		U	Total	0.0234
FWEMW03FTRP	7470A	7439-97-6	Mercury	<	0.100	UG/L		U	Dissolved	0.0234
FWEMW03FTRP	376.1	18496-25-8	Sulfide	<	1.0	MG/L		U	Total	0.236
FWEMW03FTRP	6020A	7440-36-0	Antimony		0.852	UG/L		B	Total	0.371
FWEMW03FTRP	6020A	7440-38-2	Arsenic		5.86	UG/L			Total	0.463
FWEMW03FTRP	6020A	7440-39-3	Barium		131.	UG/L			Total	0.204
FWEMW03FTRP	6020A	7440-41-7	Beryllium		0.182	UG/L		B	Total	0.129
FWEMW03FTRP	6020A	7440-43-9	Cadmium		0.168	UG/L		B	Total	0.139
FWEMW03FTRP	6020A	7440-47-3	Chromium		89.8	UG/L			Total	0.107
FWEMW03FTRP	6020A	7440-48-4	Cobalt		1.08	UG/L		B	Total	0.0516
FWEMW03FTRP	6020A	7440-50-8	Copper		12.3	UG/L			Total	0.341
FWEMW03FTRP	6020A	7439-92-1	Lead		0.690	UG/L		B	Total	0.0798
FWEMW03FTRP	6020A	7439-96-5	Manganese		5.56	UG/L			Total	0.385
FWEMW03FTRP	6020A	7440-02-0	Nickel		9.29	UG/L			Total	0.324
FWEMW03FTRP	6020A	7782-49-2	Selenium		8.82	UG/L			Total	0.898
FWEMW03FTRP	6020A	7440-22-4	Silver	<	5	UG/L		U	Total	0.221
FWEMW03FTRP	6020A	7440-28-0	Thallium		0.0973	UG/L		B	Total	0.0862
FWEMW03FTRP	6020A	7440-31-5	Tin		0.665	UG/L		B	Total	0.301
FWEMW03FTRP	6020A	7440-62-2	Vanadium		86.5	UG/L			Total	0.113
FWEMW03FTRP	6020A	7440-66-6	Zinc		5.37	UG/L			Total	0.580
FWEMW03FTRP	6020A	7440-36-0	Antimony		0.393	UG/L		B	Dissolved	0.371
FWEMW03FTRP	6020A	7440-38-2	Arsenic		7.25	UG/L			Dissolved	0.463
FWEMW03FTRP	6020A	7440-39-3	Barium		97.8	UG/L			Dissolved	0.204
FWEMW03FTRP	6020A	7440-41-7	Beryllium	<	5	UG/L		U	Dissolved	0.129
FWEMW03FTRP	6020A	7440-43-9	Cadmium	<	5	UG/L		U	Dissolved	0.139
FWEMW03FTRP	6020A	7440-47-3	Chromium		98.6	UG/L			Dissolved	0.107
FWEMW03FTRP	6020A	7440-48-4	Cobalt		0.663	UG/L		B	Dissolved	0.0516
FWEMW03FTRP	6020A	7440-50-8	Copper		13.5	UG/L			Dissolved	0.341
FWEMW03FTRP	6020A	7439-92-1	Lead		0.325	UG/L		B	Dissolved	0.0798

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FWEMW03FTRP	6020A	7439-96-5	Manganese	<	5	UG/L		U	Dissolved	0.385
FWEMW03FTRP	6020A	7440-02-0	Nickel		9.17	UG/L			Dissolved	0.324
FWEMW03FTRP	6020A	7782-49-2	Selenium		13.1	UG/L			Dissolved	0.898
FWEMW03FTRP	6020A	7440-22-4	Silver	<	5	UG/L		U	Dissolved	0.221
FWEMW03FTRP	6020A	7440-28-0	Thallium	<	5	UG/L		U	Dissolved	0.0862
FWEMW03FTRP	6020A	7440-31-5	Tin		0.753	UG/L		B	Dissolved	0.301
FWEMW03FTRP	6020A	7440-62-2	Vanadium		89.3	UG/L			Dissolved	0.113
FWEMW03FTRP	6020A	7440-66-6	Zinc		2.97	UG/L		B	Dissolved	0.580
FWEMW03FTRP	8260B	630-20-6	1,1,1,2-Tetrachloroethane	<	1	UG/L		U	Total	0.111
FWEMW03FTRP	8260B	71-55-6	1,1,1-Trichloroethane	<	1	UG/L		U	Total	0.144
FWEMW03FTRP	8260B	79-34-5	1,1,2,2-Tetrachloroethane	<	1	UG/L		U	Total	0.187
FWEMW03FTRP	8260B	79-00-5	1,1,2-Trichloroethane	<	1	UG/L		U	Total	0.187
FWEMW03FTRP	8260B	75-34-3	1,1-Dichloroethane	<	1	UG/L		U	Total	0.0793
FWEMW03FTRP	8260B	75-35-4	1,1-Dichloroethene	<	1	UG/L		U	Total	0.102
FWEMW03FTRP	8260B	96-18-4	1,2,3-Trichloropropane	<	1	UG/L		U	Total	0.691
FWEMW03FTRP	8260B	96-12-8	1,2-Dibromo-3-Chloropropane	<	5	UG/L		U	Total	0.625
FWEMW03FTRP	8260B	106-93-4	1,2-Dibromoethane	<	1	UG/L		U	Total	0.0960
FWEMW03FTRP	8260B	107-06-2	1,2-Dichloroethane	<	1	UG/L		U	Total	0.0960
FWEMW03FTRP	8260B	78-87-5	1,2-Dichloropropane	<	1	UG/L		U	Total	0.147
FWEMW03FTRP	8260B	106-46-7	1,4-Dichlorobenzene	<	1	UG/L		U	Total	0.142
FWEMW03FTRP	8260B	123-91-1	1,4-Dioxane	<	100	UG/L		U	Total	53.4
FWEMW03FTRP	8260B	78-93-3	2-Butanone	<	5	UG/L		U	Total	1.95
FWEMW03FTRP	8260B	126-99-8	2-Chloro-1,3-butadiene	<	5	UG/L		U	Total	0.132
FWEMW03FTRP	8260B	591-78-6	2-Hexanone	<	5	UG/L		U	Total	1.65
FWEMW03FTRP	8260B	108-10-1	4-Methyl-2-Pentanone	<	5	UG/L		U	Total	1.09
FWEMW03FTRP	8260B	67-64-1	Acetone	<	11.	UG/L			Total	4.49
FWEMW03FTRP	8260B	75-05-8	Acetonitrile	<	100	UG/L		U	Total	17.1
FWEMW03FTRP	8260B	107-02-8	Acrolein	<	5	UG/L		U	Total	4.27
FWEMW03FTRP	8260B	107-13-1	Acrylonitrile	<	5	UG/L		U	Total	1.06
FWEMW03FTRP	8260B	107-05-1	Allyl Chloride	<	1	UG/L		U	Total	0.306
FWEMW03FTRP	8260B	71-43-2	Benzene	<	1	UG/L		U	Total	0.127
FWEMW03FTRP	8260B	75-27-4	Bromodichloromethane	<	1	UG/L		U	Total	0.190
FWEMW03FTRP	8260B	75-25-2	Bromoform	<	1	UG/L		U	Total	0.105
FWEMW03FTRP	8260B	74-83-9	Bromomethane	<	1	UG/L		U	Total	0.336
FWEMW03FTRP	8260B	75-15-0	Carbon Disulfide	<	1	UG/L		U	Total	0.219
FWEMW03FTRP	8260B	56-23-5	Carbon Tetrachloride	<	1	UG/L		U	Total	0.102
FWEMW03FTRP	8260B	108-90-7	Chlorobenzene	<	1	UG/L		U	Total	0.106
FWEMW03FTRP	8260B	75-00-3	Chloroethane	<	1	UG/L		U	Total	0.0875
FWEMW03FTRP	8260B	67-66-3	Chloroform	<	1	UG/L		U	Total	0.151
FWEMW03FTRP	8260B	124-48-1	Dibromochloromethane	<	1	UG/L		U	Total	0.0551
FWEMW03FTRP	8260B	74-95-3	Dibromomethane	<	1	UG/L		U	Total	0.149
FWEMW03FTRP	8260B	75-71-8	Dichlorodifluoromethane	<	1	UG/L		U	Total	0.121
FWEMW03FTRP	8260B	100-41-4	Ethylbenzene	<	1	UG/L		U	Total	0.0526
FWEMW03FTRP	8260B	97-63-2	Ethyl Methacrylate	<	1	UG/L		U	Total	0.691
FWEMW03FTRP	8260B	74-88-4	Iodomethane	<	1	UG/L		U	Total	0.0665
FWEMW03FTRP	8260B	78-83-1	Isobutyl Alcohol	<	100	UG/L		U	Total	37.2
FWEMW03FTRP	8260B	126-98-7	Methacrylonitrile	<	5	UG/L		U	Total	0.591
FWEMW03FTRP	8260B	74-87-3	Methyl Chloride	<	1	UG/L		U	Total	0.123
FWEMW03FTRP	8260B	80-62-6	Methyl Methacrylate	<	5	UG/L		U	Total	0.370
FWEMW03FTRP	8260B		methyl-t-butyl-ether	<	1	UG/L		U	Total	0.157
FWEMW03FTRP	8260B	75-09-2	Methylene Chloride	<	1	UG/L		U	Total	0.123
FWEMW03FTRP	8260B	107-12-0	Propionitrile	<	10	UG/L		U	Total	6.72
FWEMW03FTRP	8260B	100-42-5	Styrene	<	1	UG/L		U	Total	0.124
FWEMW03FTRP	8260B	127-18-4	Tetrachloroethene	<	1	UG/L		U	Total	0.205
FWEMW03FTRP	8260B	108-88-3	Toluene		0.87	UG/L		J	Total	0.0574
FWEMW03FTRP	8260B	79-01-6	Trichloroethene	<	1	UG/L		U	Total	0.0854
FWEMW03FTRP	8260B	75-69-4	Trichlorofluoromethane	<	1	UG/L		U	Total	0.0848
FWEMW03FTRP	8260B	108-05-4	Vinyl Acetate	<	5	UG/L		U	Total	0.682
FWEMW03FTRP	8260B	75-01-4	Vinyl Chloride	<	1	UG/L		U	Total	0.0806
FWEMW03FTRP	8260B	1330-20-7	Total Xylene		0.65	UG/L		J	Total	0.181
FWEMW03FTRP	8260B	156-59-2	cis-1,2-Dichloroethene	<	1	UG/L		U	Total	0.106

APPENDIX F

SUMMARY OF ANALYTICAL RESULTS
Groundwater Investigation - Eastern Landfill
Fort Wingate Depot Activity, Fort Wingate, New Mexico

Sample ID	Method	CAS	Analyte	Less Than Flag	Result	Units	DV Flag	Lab Flag	Total or Dissolved	Method Detection Limit
FWEMW03FTRP	8260B	10061-01-5	cis-1,3-Dichloropropene	<	1	UG/L		U	Total	0.0649
FWEMW03FTRP	8260B	156-60-5	trans-1,2-Dichloroethene	<	1	UG/L		U	Total	0.138
FWEMW03FTRP	8260B	10061-02-6	trans-1,3-Dichloropropene	<	1	UG/L		U	Total	0.125
FWEMW03FTRP	8260B	110-57-6	trans-1,4-Dichloro-2-Butene	<	5	UG/L		U	Total	2.24
FWEMW03FTRP	9040B		pH		11.5	PH UNITS			Total	+/- 0.1
FWEMW03FTRP	6010B	7429-90-5	Aluminum		1750	UG/L			Total	20.7
FWEMW03FTRP	6010B	7439-89-6	Iron		225.	UG/L			Total	4.09
FWEMW03FTRP	6010B	7429-90-5	Aluminum		1500	UG/L			Dissolved	20.7
FWEMW03FTRP	6010B	7439-89-6	Iron		75.	UG/L			Dissolved	4.09

APPENDIX G

AQUIFER TEST DATA

Data Set: S:\COE\Wingate\Eastern Landfill - Site Investigation\Slug Test\ELF02 Out.aqt
 Title: ELF02 Slug Out Test
 Date: 11/15/04
 Time: 11:09:50

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
 Client: USACE Fort Worth District
 Project: N7551-794A
 Location: Eastern Landfill
 Test Date: 07/30/04
 Test Well: ELF02

AQUIFER DATA

Saturated Thickness: 5. ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : ELF02

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 1.017 ft
 Static Water Column Height: 38.2 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.25 ft
 Well Skin Radius: 0.25 ft
 Screen Length: 15. ft
 Total Well Penetration Depth: 5. ft

No. of Observations: 102

Observation Data			
Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.017	177.8	0.468
0.6	0.885	189.	0.46
1.3	0.887	200.9	0.453
1.9	0.895	213.5	0.453
2.6	0.882	226.8	0.443
3.4	0.874	240.9	0.441
4.2	0.87	255.8	0.437
5.	0.868	271.6	0.439
5.9	0.862	288.4	0.428
6.8	0.855	306.2	0.424
7.8	0.847	325.	0.426
8.9	0.839	344.9	0.416
10.	0.826	366.	0.409
11.2	0.82	388.4	0.405
12.4	0.82	412.1	0.401
13.8	0.807	437.2	0.399
15.2	0.799	463.8	0.393
16.7	0.788	492.	0.389
18.2	0.786	521.9	0.388
19.8	0.768	553.5	0.38
21.5	0.757	587.	0.374
23.3	0.751	622.5	0.367
25.2	0.74	660.1	0.361
27.3	0.738	699.9	0.357
29.5	0.722	742.1	0.349
31.8	0.713	786.8	0.346
34.3	0.702	834.2	0.338
36.9	0.69	884.4	0.33
39.7	0.679	937.5	0.323
42.6	0.669	993.8	0.317

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
45.7	0.659	1053.4	0.309
49.	0.648	1116.6	0.303
52.5	0.64	1183.5	0.292
56.2	0.627	1254.4	0.284
60.1	0.617	1329.5	0.272
64.3	0.606	1409.	0.263
68.7	0.598	1493.3	0.255
73.4	0.587	1582.6	0.24
78.4	0.577	1677.1	0.229
83.7	0.567	1777.2	0.215
89.3	0.556	1883.3	0.203
95.2	0.546	1995.7	0.194
101.5	0.535	2114.7	0.173
108.1	0.529	2240.8	0.156
115.1	0.518	2374.4	0.14
122.6	0.506	2515.9	0.127
130.5	0.497	2665.8	0.107
138.9	0.493	2824.6	0.085
147.8	0.487	2992.8	0.066
157.2	0.478	3170.9	0.043
167.2	0.472	3359.6	0.018

SOLUTION

Aquifer Model: Confined
 Solution Method: Bouwer-Rice
 Shape Factor: 2.398

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	5.925E-7	ft/sec
y0	0.7262	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	5.925E-7	4.569E-8	ft/sec
y0	0.7262	0.01493	ft

Parameter Correlations

	K	y0
K	1.00	0.51
y0	0.51	1.00

Residual Statistics

for weighted residuals

Sum of Squares 0.969 ft²
 Variance 0.00969 ft²
 Std. Deviation 0.09844 ft
 Mean 0.009213 ft
 No. of Residuals 102
 No. of Estimates 2

Data Set: S:\COE\Wingate\Eastern Landfill - Site Investigation\Slug Test\ELF02 Out.aqt
 Title: ELF02 Slug Out Test
 Date: 11/15/04
 Time: 11:10:23

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
 Client: USACE Fort Worth District
 Project: N7551-794A
 Location: Eastern Landfill
 Test Date: 07/30/04
 Test Well: ELF02

AQUIFER DATA

Saturated Thickness: 5. ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : ELF02

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 1.017 ft
 Static Water Column Height: 38.2 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.25 ft
 Well Skin Radius: 0.25 ft
 Screen Length: 15. ft
 Total Well Penetration Depth: 5. ft

No. of Observations: 102

Observation Data			
Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.017	177.8	0.468
0.6	0.885	189.	0.46
1.3	0.887	200.9	0.453
1.9	0.895	213.5	0.453
2.6	0.882	226.8	0.443
3.4	0.874	240.9	0.441
4.2	0.87	255.8	0.437
5.	0.868	271.6	0.439
5.9	0.862	288.4	0.428
6.8	0.855	306.2	0.424
7.8	0.847	325.	0.426
8.9	0.839	344.9	0.416
10.	0.826	366.	0.409
11.2	0.82	388.4	0.405
12.4	0.82	412.1	0.401
13.8	0.807	437.2	0.399
15.2	0.799	463.8	0.393
16.7	0.788	492.	0.389
18.2	0.786	521.9	0.388
19.8	0.768	553.5	0.38
21.5	0.757	587.	0.374
23.3	0.751	622.5	0.367
25.2	0.74	660.1	0.361
27.3	0.738	699.9	0.357
29.5	0.722	742.1	0.349
31.8	0.713	786.8	0.346
34.3	0.702	834.2	0.338
36.9	0.69	884.4	0.33
39.7	0.679	937.5	0.323
42.6	0.669	993.8	0.317

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
45.7	0.659	1053.4	0.309
49.	0.648	1116.6	0.303
52.5	0.64	1183.5	0.292
56.2	0.627	1254.4	0.284
60.1	0.617	1329.5	0.272
64.3	0.606	1409.	0.263
68.7	0.598	1493.3	0.255
73.4	0.587	1582.6	0.24
78.4	0.577	1677.1	0.229
83.7	0.567	1777.2	0.215
89.3	0.556	1883.3	0.203
95.2	0.546	1995.7	0.194
101.5	0.535	2114.7	0.173
108.1	0.529	2240.8	0.156
115.1	0.518	2374.4	0.14
122.6	0.506	2515.9	0.127
130.5	0.497	2665.8	0.107
138.9	0.493	2824.6	0.085
147.8	0.487	2992.8	0.066
157.2	0.478	3170.9	0.043
167.2	0.472	3359.6	0.018

SOLUTION

Aquifer Model: Confined
 Solution Method: Hvorslev
 Shape Factor: 4.788

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	5.925E-7	ft/sec
y0	0.7262	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	1.183E-6	9.122E-8	ft/sec
y0	0.7262	0.01493	ft

Parameter Correlations

	K	y0
K	1.00	0.51
y0	0.51	1.00

Residual Statistics

for weighted residuals

Sum of Squares 0.969 ft²
 Variance 0.00969 ft²
 Std. Deviation 0.09844 ft
 Mean 0.009211 ft
 No. of Residuals 102
 No. of Estimates 2

Data Set: S:\COEWingate\Eastern Landfill - Site Investigation\Slug Test\test\ELF02 In.aqt
 Title: ELF02 Slug In Test
 Date: 12/13/04
 Time: 10:02:18

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
 Client: USACE Fort Worth District
 Project: N7551-794A
 Location: Eastern Landfill
 Test Date: 07/30/04
 Test Well: ELF02

AQUIFER DATA

Saturated Thickness: 5. ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : ELF02

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 1.503 ft
 Static Water Column Height: 38.2 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.25 ft
 Well Skin Radius: 0.25 ft
 Screen Length: 15. ft
 Total Well Penetration Depth: 5. ft

No. of Observations: 56

Observation Data			
Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	1.503	38.	0.219
0.6	0.533	40.8	0.211
1.1	0.538	43.7	0.2
1.7	0.658	46.8	0.192
3.	0.781	50.1	0.179
3.7	0.313	53.6	0.169
4.5	0.327	57.3	0.154
5.3	0.38	61.2	0.148
6.1	0.653	65.4	0.138
7.	0.2	69.8	0.127
7.9	0.311	74.5	0.117
8.9	0.361	79.5	0.107
10.	0.365	84.8	0.096
11.1	0.355	90.4	0.088
12.3	0.346	96.3	0.077
13.5	0.338	102.6	0.069
14.9	0.33	109.2	0.063
16.3	0.321	116.2	0.05
17.8	0.315	123.7	0.046
19.3	0.305	131.6	0.038
20.9	0.298	140.	0.031
22.6	0.286	148.9	0.027
24.4	0.28	158.3	0.021
26.3	0.271	168.3	0.015
28.4	0.261	178.9	0.01
30.6	0.25	190.1	0.008
32.9	0.24	202.	0.002
35.4	0.232	214.6	0.

SOLUTION

Aquifer Model: Confined
 Solution Method: Hvorslev
 Shape Factor: 4.788

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	1.856E-5	ft/sec
y0	0.4057	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	3.618E-5	6.608E-6	ft/sec
y0	0.6254	0.05277	ft

Parameter Correlations

	K	y0
K	1.00	0.66
y0	0.66	1.00

Residual Statistics

for weighted residuals

Sum of Squares 1.196 ft²
 Variance 0.02214 ft²
 Std. Deviation 0.1488 ft
 Mean 0.01352 ft
 No. of Residuals 56
 No. of Estimates 2

Data Set: S:\COEWingate\Eastern Landfill - Site Investigation\Slug Test\test\ELF02 In.aqt
 Title: ELF02 Slug In Test
 Date: 12/13/04
 Time: 10:02:59

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
 Client: USACE Fort Worth District
 Project: N7551-794A
 Location: Eastern Landfill
 Test Date: 07/30/04
 Test Well: ELF02

AQUIFER DATA

Saturated Thickness: 5. ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : ELF02

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 1.503 ft
 Static Water Column Height: 38.2 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.25 ft
 Well Skin Radius: 0.25 ft
 Screen Length: 15. ft
 Total Well Penetration Depth: 5. ft

No. of Observations: 56

<u>Time (sec)</u>	<u>Observation Data</u>		<u>Displacement (ft)</u>
	<u>Displacement (ft)</u>	<u>Time (sec)</u>	
0.	1.503	38.	0.219
0.6	0.533	40.8	0.211
1.1	0.538	43.7	0.2
1.7	0.658	46.8	0.192
3.	0.781	50.1	0.179
3.7	0.313	53.6	0.169
4.5	0.327	57.3	0.154
5.3	0.38	61.2	0.148
6.1	0.653	65.4	0.138
7.	0.2	69.8	0.127
7.9	0.311	74.5	0.117
8.9	0.361	79.5	0.107
10.	0.365	84.8	0.096
11.1	0.355	90.4	0.088
12.3	0.346	96.3	0.077
13.5	0.338	102.6	0.069
14.9	0.33	109.2	0.063
16.3	0.321	116.2	0.05
17.8	0.315	123.7	0.046
19.3	0.305	131.6	0.038
20.9	0.298	140.	0.031
22.6	0.286	148.9	0.027
24.4	0.28	158.3	0.021
26.3	0.271	168.3	0.015
28.4	0.261	178.9	0.01
30.6	0.25	190.1	0.008
32.9	0.24	202.	0.002
35.4	0.232	214.6	0.

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice
Shape Factor: 2.398

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	9.219E-6	ft/sec
y0	0.395	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	1.818E-5	3.318E-6	ft/sec
y0	0.626	0.05283	ft

Parameter Correlations

	K	y0
K	1.00	0.66
y0	0.66	1.00

Residual Statistics

for weighted residuals

Sum of Squares 1.196 ft²
Variance 0.02214 ft²
Std. Deviation 0.1488 ft
Mean 0.01367 ft
No. of Residuals 56
No. of Estimates 2

Data Set: S:\COE\Wingate\Eastern Landfill - Site Investigation\Slug Test\ELF03 Out.aqt
 Title: ELF03 Slug Out Test
 Date: 11/15/04
 Time: 11:25:50

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
 Client: USACE Fort Worth District
 Project: N7551-794A
 Location: Eastern Landfill
 Test Date: 07/30/04
 Test Well: ELF03

AQUIFER DATA

Saturated Thickness: 13. ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : ELF03

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 2.567 ft
 Static Water Column Height: 18.55 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.25 ft
 Well Skin Radius: 0.25 ft
 Screen Length: 15. ft
 Total Well Penetration Depth: 13. ft

No. of Observations: 113

Time (sec)	Observation Data		Displacement (ft)
	Displacement (ft)	Time (sec)	
0.	2.567	383.4	2.261
0.9	2.492	407.1	2.257
1.8	2.48	432.2	2.251
2.8	2.488	458.8	2.24
3.9	2.467	487.	2.236
5.	2.457	516.9	2.226
6.2	2.453	548.5	2.211
7.4	2.448	582.	2.203
8.8	2.456	617.5	2.192
10.2	2.454	655.1	2.18
11.7	2.438	694.9	2.167
13.2	2.435	737.1	2.157
14.8	2.506	781.8	2.144
16.5	2.414	829.2	2.136
18.3	2.412	879.4	2.115
20.2	2.406	932.5	2.106
22.3	2.403	988.8	2.094
24.5	2.399	1048.4	2.075
26.8	2.401	1111.6	2.06
29.3	2.393	1178.5	2.044
31.9	2.395	1249.4	2.023
34.7	2.389	1324.5	2.
37.6	2.386	1404.	1.985
40.7	2.386	1488.3	1.968
44.	2.388	1577.6	1.941
47.5	2.386	1672.1	1.914
51.2	2.382	1772.2	1.901
55.1	2.382	1878.3	1.874
59.3	2.38	1990.7	1.834
63.7	2.375	2109.7	1.801

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
68.4	2.373	2235.8	1.774
73.4	2.371	2369.4	1.742
78.7	2.369	2510.9	1.702
84.3	2.365	2660.8	1.663
90.2	2.363	2819.6	1.627
96.5	2.36	2987.8	1.585
103.1	2.358	3165.9	1.55
110.1	2.356	3354.6	1.489
117.6	2.354	3554.5	1.445
125.5	2.35	3766.2	1.393
133.9	2.345	3990.5	1.344
142.8	2.345	4228.1	1.273
152.2	2.339	4479.7	1.227
162.2	2.337	4746.3	1.148
172.8	2.337	5028.7	1.085
184.	2.328	5327.8	1.008
195.9	2.32	5644.6	0.918
208.5	2.316	5980.2	0.847
221.8	2.312	6335.7	0.761
235.9	2.303	6712.2	0.684
250.8	2.299	7111.1	0.592
266.6	2.301	7533.6	0.485
283.4	2.295	7981.1	0.358
301.2	2.289	8455.1	0.28
320.	2.289	8957.2	0.136
339.9	2.278	9489.1	0.
361.	2.268		

SOLUTION

Aquifer Model: Confined
 Solution Method: Bouwer-Rice
 Shape Factor: 3.047

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	1.607E-7	ft/sec
y0	2.441	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	1.196E-7	2.688E-9	ft/sec
y0	2.441	0.01151	ft

Parameter Correlations

	K	y0
K	0.03	0.08
y0	0.08	1.00

Residual Statistics

for weighted residuals

Sum of Squares 0.9428 ft²
 Variance 0.008493 ft²
 Std. Deviation 0.09216 ft
 Mean -0.005355 ft
 No. of Residuals 113
 No. of Estimates 2

Data Set: S:\COE\Wingate\Eastern Landfill - Site Investigation\Slug Test\ELF03 Out.aqt
 Title: ELF03 Slug Out Test
 Date: 11/15/04
 Time: 11:26:20

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
 Client: USACE Fort Worth District
 Project: N7551-794A
 Location: Eastern Landfill
 Test Date: 07/30/04
 Test Well: ELF03

AQUIFER DATA

Saturated Thickness: 13. ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : ELF03

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 2.567 ft
 Static Water Column Height: 18.55 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.25 ft
 Well Skin Radius: 0.25 ft
 Screen Length: 15. ft
 Total Well Penetration Depth: 13. ft

No. of Observations: 113

Observation Data			
Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
0.	2.567	383.4	2.261
0.9	2.492	407.1	2.257
1.8	2.48	432.2	2.251
2.8	2.488	458.8	2.24
3.9	2.467	487.	2.236
5.	2.457	516.9	2.226
6.2	2.453	548.5	2.211
7.4	2.448	582.	2.203
8.8	2.456	617.5	2.192
10.2	2.454	655.1	2.18
11.7	2.438	694.9	2.167
13.2	2.435	737.1	2.157
14.8	2.506	781.8	2.144
16.5	2.414	829.2	2.136
18.3	2.412	879.4	2.115
20.2	2.406	932.5	2.106
22.3	2.403	988.8	2.094
24.5	2.399	1048.4	2.075
26.8	2.401	1111.6	2.06
29.3	2.393	1178.5	2.044
31.9	2.395	1249.4	2.023
34.7	2.389	1324.5	2.
37.6	2.386	1404.	1.985
40.7	2.386	1488.3	1.968
44.	2.388	1577.6	1.941
47.5	2.386	1672.1	1.914
51.2	2.382	1772.2	1.901
55.1	2.382	1878.3	1.874
59.3	2.38	1990.7	1.834
63.7	2.375	2109.7	1.801

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
68.4	2.373	2235.8	1.774
73.4	2.371	2369.4	1.742
78.7	2.369	2510.9	1.702
84.3	2.365	2660.8	1.663
90.2	2.363	2819.6	1.627
96.5	2.36	2987.8	1.585
103.1	2.358	3165.9	1.55
110.1	2.356	3354.6	1.489
117.6	2.354	3554.5	1.445
125.5	2.35	3766.2	1.393
133.9	2.345	3990.5	1.344
142.8	2.345	4228.1	1.273
152.2	2.339	4479.7	1.227
162.2	2.337	4746.3	1.148
172.8	2.337	5028.7	1.085
184.	2.328	5327.8	1.008
195.9	2.32	5644.6	0.918
208.5	2.316	5980.2	0.847
221.8	2.312	6335.7	0.761
235.9	2.303	6712.2	0.684
250.8	2.299	7111.1	0.592
266.6	2.301	7533.6	0.485
283.4	2.295	7981.1	0.358
301.2	2.289	8455.1	0.28
320.	2.289	8957.2	0.136
339.9	2.278	9489.1	0.
361.	2.268		

SOLUTION

Aquifer Model: Confined
 Solution Method: Hvorslev
 Shape Factor: 4.788

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	1.196E-7	ft/sec
y0	2.441	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	1.879E-7	4.224E-9	ft/sec
y0	2.441	0.01151	ft

Parameter Correlations

	K	y0
K	0.08	0.13
y0	0.13	1.00

Residual Statistics

for weighted residuals

Sum of Squares 0.9428 ft²
 Variance 0.008493 ft²
 Std. Deviation 0.09216 ft
 Mean -0.005357 ft
 No. of Residuals 113
 No. of Estimates 2

Data Set: S:\COEWingate\Eastern Landfill - Site Investigation\Slug Test\ELF03 In.aqt
 Title: ELF03 Slug In Test
 Date: 11/15/04
 Time: 11:21:50

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
 Client: USACE Fort Worth District
 Project: N7551-794A
 Location: Eastern Landfill
 Test Date: 07/30/04
 Test Well: ELF03

AQUIFER DATA

Saturated Thickness: 13. ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : ELF03

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 1.031 ft
 Static Water Column Height: 18.55 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.25 ft
 Well Skin Radius: 0.25 ft
 Screen Length: 15. ft
 Total Well Penetration Depth: 13. ft

No. of Observations: 89

Observation Data			
<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
0.	1.03	276.	0.74
1.4	0.93	293.8	0.74
2.8	0.85	312.6	0.73
4.3	0.81	332.5	0.73
5.8	0.79	353.6	0.73
7.4	0.78	376.	0.73
9.1	0.76	399.7	0.72
10.9	0.75	424.8	0.72
12.8	0.76	451.4	0.71
14.9	0.76	479.6	0.7
17.1	0.76	509.5	0.7
19.4	0.76	541.1	0.69
21.9	0.76	574.6	0.68
24.5	0.76	610.1	0.67
27.3	0.76	647.7	0.68
30.2	0.77	687.5	0.65
33.3	0.77	729.7	0.64
36.6	0.77	774.4	0.63
40.1	0.77	821.8	0.62
43.8	0.77	872.	0.61
47.7	0.77	925.1	0.6
51.9	0.77	981.4	0.59
56.3	0.77	1041.	0.58
61.	0.77	1104.2	0.56
66.	0.78	1171.1	0.55
71.3	0.77	1242.	0.54
76.9	0.77	1317.1	0.51
82.8	0.77	1396.6	0.5
89.1	0.77	1480.9	0.49
95.7	0.77	1570.2	0.46

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
102.7	0.77	1664.7	0.44
110.2	0.77	1764.8	0.41
118.1	0.77	1870.9	0.39
126.5	0.77	1983.3	0.36
135.4	0.76	2102.3	0.34
144.8	0.76	2228.4	0.3
154.8	0.76	2362.	0.28
165.4	0.76	2503.5	0.25
176.6	0.76	2653.4	0.2
188.5	0.76	2812.2	0.17
201.1	0.75	2980.4	0.13
214.4	0.75	3158.5	0.08
228.5	0.75	3347.2	0.05
243.4	0.74	3547.1	0.
259.2	0.74		

SOLUTION

Aquifer Model: Confined
 Solution Method: Bouwer-Rice
 Shape Factor: 3.047

VISUAL ESTIMATION RESULTS

Estimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	3.956E-7	ft/sec
y0	0.8178	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

<u>Parameter</u>	<u>Estimate</u>	<u>Std. Error</u>	
K	2.944E-7	1.224E-8	ft/sec
y0	0.8178	0.008074	ft

Parameter Correlations

	<u>K</u>	<u>y0</u>
K	0.68	0.44
y0	0.44	1.00

Residual Statistics

for weighted residuals

Sum of Squares 0.2464 ft²
 Variance 0.002833 ft²
 Std. Deviation 0.05322 ft
 Mean -0.002531 ft
 No. of Residuals 89
 No. of Estimates 2

Data Set: S:\COEWingate\Eastern Landfill - Site Investigation\Slug Test\ELF03 In.aqt
 Title: ELF03 Slug In Test
 Date: 11/15/04
 Time: 11:22:22

PROJECT INFORMATION

Company: Tetra Tech NUS, Inc.
 Client: USACE Fort Worth District
 Project: N7551-794A
 Location: Eastern Landfill
 Test Date: 07/30/04
 Test Well: ELF03

AQUIFER DATA

Saturated Thickness: 13. ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : ELF03

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 1.031 ft
 Static Water Column Height: 18.55 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.25 ft
 Well Skin Radius: 0.25 ft
 Screen Length: 15. ft
 Total Well Penetration Depth: 13. ft

No. of Observations: 89

Observation Data			
<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
0.	1.03	276.	0.74
1.4	0.93	293.8	0.74
2.8	0.85	312.6	0.73
4.3	0.81	332.5	0.73
5.8	0.79	353.6	0.73
7.4	0.78	376.	0.73
9.1	0.76	399.7	0.72
10.9	0.75	424.8	0.72
12.8	0.76	451.4	0.71
14.9	0.76	479.6	0.7
17.1	0.76	509.5	0.7
19.4	0.76	541.1	0.69
21.9	0.76	574.6	0.68
24.5	0.76	610.1	0.67
27.3	0.76	647.7	0.68
30.2	0.77	687.5	0.65
33.3	0.77	729.7	0.64
36.6	0.77	774.4	0.63
40.1	0.77	821.8	0.62
43.8	0.77	872.	0.61
47.7	0.77	925.1	0.6
51.9	0.77	981.4	0.59
56.3	0.77	1041.	0.58
61.	0.77	1104.2	0.56
66.	0.78	1171.1	0.55
71.3	0.77	1242.	0.54
76.9	0.77	1317.1	0.51
82.8	0.77	1396.6	0.5
89.1	0.77	1480.9	0.49
95.7	0.77	1570.2	0.46

Time (sec)	Displacement (ft)	Time (sec)	Displacement (ft)
102.7	0.77	1664.7	0.44
110.2	0.77	1764.8	0.41
118.1	0.77	1870.9	0.39
126.5	0.77	1983.3	0.36
135.4	0.76	2102.3	0.34
144.8	0.76	2228.4	0.3
154.8	0.76	2362.	0.28
165.4	0.76	2503.5	0.25
176.6	0.76	2653.4	0.2
188.5	0.76	2812.2	0.17
201.1	0.75	2980.4	0.13
214.4	0.75	3158.5	0.08
228.5	0.75	3347.2	0.05
243.4	0.74	3547.1	0.
259.2	0.74		

SOLUTION

Aquifer Model: Confined
 Solution Method: Hvorslev
 Shape Factor: 4.788

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	
K	2.944E-7	ft/sec
y0	0.8178	ft

AUTOMATIC ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate	Std. Error	
K	4.625E-7	1.924E-8	ft/sec
y0	0.8178	0.008074	ft

Parameter Correlations

	K	y0
K	1.00	0.53
y0	0.53	1.00

Residual Statistics

for weighted residuals

Sum of Squares 0.2464 ft²
 Variance 0.002833 ft²
 Std. Deviation 0.05322 ft
 Mean -0.002534 ft
 No. of Residuals 89
 No. of Estimates 2