AP - 053

STAGE 1 REPORT

08/10/2007

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

October 9, 2008

Mr. Charles B. Read
New Mexico Salt Water Disposal Company
P.O. Box 1518
Roswell, NM 88201

RE: STAGE 1 ABTEMENT PLAN WORKPLAN (AP053)
REPORT ON INFRASTRUCTURE AND OPERATING GUIDELINES

Dear Mr. Read:

The Oil Conservation Division (OCD) has reviewed the Stage 1 Abatement Plan Report entitled *"State (sic) 1 Abatement Plan / Monitor Well Installation Report"*, submitted on August 10, 2007, by CMB Environmental and Geological Services Inc. on behalf of the New Mexico Salt Water Disposal Company (NMSWDCo) and the *Report On Infrastructure and Operating Guidelines* submitted on December 16, 2006 in accordance with the stipulations specified in the Agreed Compliance Order 96, executed on January 12, 2006. OCD hereby conditionally approves the Stage 1 Report and the Infrastructure Report. OCD is conditionally approving both reports because of several deficiencies noted below. The deficiencies do not impact the overall quality of the reports. OCD is providing NMSWDCo with a list of deficiencies for future reference.

STAGE 1 ABATEMENT PLAN REPORT DEFICIENCIES

1. NMSWDCo installed 20 feet of screen in its three new monitoring wells (see p. 5). However, Section 3.3 (p. 9) of the approved Stage 1 Abatement Plan Proposal specified 15 foot screens.

2. NMSWDCo advanced MW-1 from 63.5 feet BGS to 135 feet BGS using a mud rotary. This contingency was never discussed in the approved Stage 1 Abatement Plan Proposal and is usually not acceptable to OCD. However, because NMSWDCo advanced two other monitor wells, OCD is willing to accept the analytical results from MW-1. NMSWDCo is cautioned against using mud rotary methods in the future without first justifying to OCD first.

3. NMSWDCo committed to a more comprehensive monitoring list that it actually analyzed for. In its approved Stage 1 Abatement Plan Proposal, NMSWDCo committed to analyzing for

"general chemistry, including chlorides and total dissolved solids (TDS)..." General chemistry parameters include all constituents specified at 40 CFR 136, not just chlorides and TDS.

4. NMSWDCo refers to *"perched water"* several places in its report and appears to be under the assumption that *"perched water"* is not afforded the same protection as a regional aquifer. Perched water is ground water and is protected to the same degree as a more extensive regional aquifer.

5. NMSWDCo refers to *"perched produced water"* (see p. 6) encountered in MW-1 at a depth of 60.0-63.5 feet BGS. The chlorides concentration in this *"perched produced water"* was 21,000 mg/l. Previously, NMSWDCo had reported that the chlorides concentration in SB-4A at a depth of 29-31 feet BGS was 45,000 mg/l. The chlorides concentration in the produced water taken from its tank battery was 83,000 mg/l.

Water wells in the same township encountered ground water from 7 to 55 feet BGS. OCD concludes that the "perched water" at both 29-31 feet BGS and 60.0-63.5 feet BGS was fresh, high quality Ogallala water and that at Station 11, two shallow perched zones have been contaminated by produced water, resulting in chlorides concentrations in the two perched zones that is intermediate between fresh water and produced water.

6. NMSWDCo encountered saturated conditions at approximately 60 to 63.5 feet BGS in MW-1; however, the well bore was only left open for only 30 minutes. This is not an adequate amount of time to allow for fluid entry into a well bore. This same inappropriate procedure was followed at MW-2, MW-3, and RW-1 although the well bore was left open for 60 minutes at RW-1.

7. On page 11, NMSWDCo indicates that while bailing RW-1, the recovery rate was slow and attribute the water level to well completion procedures. OCD is skeptical of this interpretation. OCD notes that no water samples were collected or analyzed; therefore, there is no analytical data to support NMSWDCo's assertion. As discussed below, OCD will require NMSWDCo to analyze the water from the 29-31 feet BGS perched zone.

8. Beginning on page 13, NMSWDCo discusses the chloride concentrations in the soil samples and uses "mg/l" or PPM rather than "mg/kg". In all future reports, NMSWDCo should be careful to use the correct unit to avoid confusion.

9. In Summary Comment 1 (p. 15), NMSWDCo that it has *"defined the vertical and horizontal extent of alleged chloride contamination."* OCD disagrees; NMSWDCo has not depicted the vertical extent of the soil or ground water contamination on its cross section nor has it provided a map depicting the horizontal extent of soil and ground contamination on a map.

10. In Summary Comment 1 (p. 15), NMSWDCo indicates that the hydraulic gradient is 0.66 ft/ft, which is obviously incorrect.

11. In Summary Comment 3 (p. 15), NMSWDCo again refers to "perched produced formation water" in MW-1. As noted above, OCD has determined that the perched ground water in MW-1 is fresh water which has been contaminated by produced water released from the produced water tank batteries. NMSWDCo chose to not adequately test the perched zone. As discussed below, OCD will require NMSWDCo to offset MW-1 and complete a monitor well in the perched zone.

12. OCD accepts NMSWDCo's conclusion that the deeper, regional aquifer encountered at 100-105 feet BGS has not been contaminated by a release from Station 11.

REPORT ON INFRASTRUCTURE AND OPERATING GUIDELINES DEFICIENCIES

13. NMSWDCo must revise its proposed *Operational and Emergency Policy* be deleting items 4 and 5 of its *Operation Policy*. NMSWDCo is not a regulatory agency and has no authority over "adversarial tenants" or to "uphold the rights of the State of New Mexico". The State Land Office has authority over tenants on state land. NMSWDCo must submit a revised *Operational and Emergency Policy* within 10 days of its receipt of this Notice of Deficiency.

REQUIREMENT TO SUBMIT PHASE TWO OF STAGE 1 ABATEMENT PLAN

OCD has determined that NMSWDCo failed to adequately test the ground water encountered at 29-31 feet BGS in RW-1 and at 60.0-63.5 feet BGS in MW-1 and has determined the horizontal and vertical extent of soil and ground water contamination. NMSWDCo must submit a phase two workplan which documents the tasks that it will perform to determine the ground water quality in the perched zones in RW-1. The phase two workplan must also specify that NMSWDCo will offset MW-1 and install a monitor well screened above 60.0-63.5 feet BGS. NMSWDCo's phase two workplan must also specify that it will install a new monitor well on the north side of the bermed area to determine the extent of and water quality of the perched zone encountered in MW-1.

REBUILDING OF PUMP STATION 11

NMSWDCo's Stage 1 investigation did not address the soil contamination beneath the bermed tank battery area. NMSWDCo has committed to rebuild Pump Station 11 in its letter of December 15, 2005. OCD has determined that it is extremely likely that the soil beneath the tank battery area is grossly contaminated by chlorides and that this contamination poses a very real threat to ground water as long as the source of the contamination remains. Therefore, OCD is also requiring NMSWDCo to move its tank batteries from the present location to another location to be determined by NMSWDCo and the State Land Office. The new location should be constructed with a berm that will contain at least 150% of the combined volume of the tank batteries and be lined with 40 mil plastic.

NMSWDCo has at least two options for source removal. First, it can conduct a soil boring investigation to determine the horizontal and vertical extent of the chlorides contamination and then propose how much of the contamination source should be removed. Second, it can presumptively remove all soil to a depth of 30 feet BGS and backfill, avoiding the cost of the soil investigation.

NMSWDCo should consider its options and include a source removal proposal to OCD when it submits its phase two Stage 1 workplan.

REQUIREMENT TO CLOSE PERMANENT PIT

NMSWDCo's report documents the presence of a permanent pit located on the south side of the tank batteries. NMSWDCo's must submit a separate workplan to close this permanent pit pursuant to 19.15.17.13 NMAC, with a contingency plan to investigate the extent of any soil or ground water contamination detected during closure.

NMSWDCo should submit one paper copy with and an electronic copy on CD of all future workplans and/or reports. Please include **"AP053"** on all future correspondence. If you have any questions, please contact Glenn von Gonten of my staff at (505) 476-3488.

Sincerely,

Wayne Price
Environmental Bureau Chief

WP/gvg

xc: OCD District I Office, Hobbs
Thaddeus Kostrubala, State Land Office
Rory McMinn, Sage Service Group

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AP053

AUG 20 2007

Oil Conservation Division
Environmental Bureau

August 10, 2007

New Mexico Salt Water Disposal Company, Inc.
Attn: Mr. Charles B. Read
Attn: Mr. John Maxey, PE
PO Box 1518
Roswell, New Mexico 88202-1518

Re: Submittal of State 1 Abatement Plan / Monitor Well Installation Report
New Mexico Salt Water Disposal Company, Inc.
Disposal Station # 11
Section 21, T. 10 S., R.34 E., NMPM
Lea County, New Mexico
(AP053).

Gentlemen:

Clayton M. Barnhill, CMB Environmental and Geological Services Inc., on behalf of the owner/operator, New Mexico Salt Water Disposal Company, Inc., submit the attached report for the above-mentioned site.

If you have any questions about the contents of the report, please do not hesitate to call me. Thank you.

Sincerely,

Clayton M. Barnhill, PG
CMB Environmental & Geological Services, Inc.
PO Box 2304
Roswell, NM 88202-2304
(505) 622-2012 Phone, Fax: (505) 625-0538
Cellular: (505) 626-1615
cmbenviro@dfn.com

cc: Glenn Von Gotten, NMOCD Environment Dept. Santa Fe, NM
Larry Johnson, NMOCD Environment Dept. Hobbs, NM
Gary W. Larson, Esq.

COVER PAGE
STAGE 1 ABTEMENT PLAN / SITE INVESTIGATION REPORT

Please include the following information:

1. Site Name: **New Mexico Salt Water Disposal Company Station # 11**

2. Responsible party: **New Mexico Salt Water Disposal Company, Inc.**

3. Responsible party mailing address (list contact person if different):

   New Mexico Salt Water Disposal Company, Inc.
   Attn: Charles B. Read
   Attn: John Maxey, PE
   PO Box 1518
   Roswell, NM 88202-1518

4. Address/legal description: **Section 21, Unit Letter D,**
   T. 10 S. R. 34 E., NMPM, Lea County, NM

5. Author/consulting company: **Clayton M. Barnhill PG**
   CMB Environmental & Geological Services, Inc.

6. Date of report: **August 10, 2007**

STATEMENT OF FAMILIARITY

I, the undersigned, am personally familiar with the information submitted in this report and the attached documents and attest that it is true and complete.

Signature: _____

Name: Clayton M. Barnhill, PG

Affiliation: CMB Environmental and Geological Services, Inc.

Title: Sr. /Principal Geologist

Certified Scientist #: 0246, State of Texas Professional Geologist 6121, exp. 12/31/07

Date: 08/10/2007

- **INTRODUCTION**

CMB Environmental and Geological Services Inc., on behalf of New Mexico Salt Water Disposal Company Inc., the owner/operator of the NMSWD Disposal Station #11 located in Lea County, New Mexico, has prepared this report in accordance with conditions set forth in Stage 1 Abatement Plan Proposal Plan (CMB Environmental & Geological Services Inc., Revised February 20 2006) and approved by the New Mexico Oil Conservation Division (NMOCD) on March 27, 2007 **(APO53).**

The NMSWD Station # 11 is located in unit letter D of Section 21 of Township 10 South, Range 34 East, NMPM, Lea County, New Mexico. To arrive at NMSWD Station # 11, drive from Caprock, New Mexico go east on NM 380 3.15 miles to black top county road (Carroll Road) turn north, go 10 miles and turn east continuing on Carroll road (black top), go 11 miles and turn south on caliche road at cattle guard near windmill, go 4.3 miles to a tee in the road, turn west, go 1 mile, turn south, follow road ¾ mile to NMSWD Station # 11.

Scope of Performed Work:

NMSWD Inc., under the direction of their environmental consultant – CMB Environmental & Geological Services, Inc., conducted a new site investigation that defined the site geology and hydrogeology, the vertical extent, horizontal extent, and magnitude of the vadose-zone and groundwater, subsurface hydraulic conductivity, transmissivity, storativity, rate, and direction of groundwater migration. Domestic stock water wells, within a 1 mile radius from the perimeter of NMSWD Inc.'s Station # 11, that were potentially affected by the previously documented chloride releases, along with the vertical and horizontal impacts to any surface water and stream sediments were addressed.

CMB Environmental and Geological Services, Inc. has completed the continued Site Investigation on the above described property as requested by the Owner, NMSWD and the NMOCD pursuant to and in accordance with the "***Notice of Violation***" issued to NMSWD on September 16, 2005 by the NMOCD. Our work conformed to NMOCD Regulations; NMOCD approved Soil and Groundwater Sampling and Disposal Guidelines, with OSHA Regulations, and other rules and regulations governing the environmental work. The work was supervised by experienced professional geologists and was completed in an efficient, cost-effective manner.
The approved scope of work for the Stage 1 Abatement Plan / Site Investigation consisted of installing in accordance with NMED / NMOCD guidelines and standards, one four inch schedule 40 PVC recovery well in the area where the previously drilled boring SB-4A encountered perched produced formation water.

Three additional soil borings / 2 inch schedule 40 PVC monitor wells were drilled and installed outside the perimeter of the NMSWD's Station 11 Tank Battery. The purpose of these borings / monitor wells was to determine the vertical and horizontal extent of the alleged groundwater chloride contamination, and to determine and delineate the principal aquifer in the area's gradient and flow direction. These borings included split spoon derived measurements of total aromatic hydrocarbons (TPH) at least every 10 feet, or at every significant change in lithology, on top of the clay zones and at the capillary fringe above the principal aquifer in the area using an appropriate field instrument (PID). During hollow-stem auger drilling, a split-spoon sampler was driven ahead of the augers to collect a minimally disturbed soil sample. Soil samples were collected at the intervals described above. After retrieval of the sampler from the boring, the sampler was opened and the sample was split longitudinally. That half of the sample that was set

aside for analytical work was dealt with immediately. Following this, the other half of the sample was then placed in a Mason-type jar, and heated, in order to screen it with a, field calibrated to 100 PPM Isobutylene, photoionization detector (PID) using the "jar headspace method". A Mini-Rae PID with a lamp voltage of 10.6 eV was used to perform this screening. All samples from which sufficient soil was recovered were screened in this manner. All results from this field-testing are recorded. (See Appendix 4)

One split spoon sample from each off site boring, at the clay layers encountered below ground surface, were sent to Daniel B Stephens and Associates Soil Testing Laboratory Located in Albuquerque, NM for analysis of hydraulic conductivity, effective porosity, and porosity. The samples were collected using a 2 inch by 6 inch brass sleeve placed inside the split spoon sampler. One sample near the capillary fringe of the principal groundwater aquifer from one of the borings was sent to Daniel B. Stephens and Associates laboratory for analysis of Hydraulic Conductivity, storativity, and porosity. Boring logs were prepared for all soil borings describing soils according to the Unified Soil Classification System. Characteristics, such as soil structure, voids, layering, lenses, odor, staining and mottling, were noted on the logs. (See Appendix 1 & 4) Each soil boring was drilled until the groundwater aquifer was encountered and then an additional 20 feet drilled and twenty feet of monitor well screen installed, 15 feet below water table level, and five feet of screen above the water table. The three soil borings / installed monitor wells were drilled to a total depth of 135-139 feet below ground surface. These wells were finished with schedule 40, 2 inch PVC well materials with threaded joints, including a 20 foot long, 0.010 inch slotted screen from the total depth and a solid riser pipe to above the ground surface. (See Appendix 4)

The annular space was occupied by a 16/30 sand filter pack over the screened interval and filled to a minimum of two feet or more above it, a minimum two foot or more hydrated bentonite seal, and cement / bentonite grout to the surface. Completed monitoring wells received an appropriate surface finish, 3 foot by 3 foot by 4 inch concrete pads surrounding the 3 foot stick up well riser, and protective metal pipe bollards surrounding the wells. Locks were installed on the inside and outside of the well vaults to prevent tampering by other outside parties.

Soil cuttings and other investigative wastes (i.e. well development water) were managed in accordance with NMOCD guidelines. All monitor well purge water / development water was placed in the on-site 55 gallon drums for future on-site disposal. Soil boring / mud rotary produced cuttings, in accordance to NMOCD Guidelines, were drummed and shipped to Gandy-Marley Land Disposal Farm. The drilling contractor and the consultant ensured the surface property was fully restored to the NMSWD's satisfaction, and that the site was free of debris and other matter introduced or encountered during the drilling activities.

The new monitoring well(s) were professionally surveyed, by a State of New Mexico licensed professional surveyor, John West Surveying Company of Hobbs, NM, in accordance with current professional standards for conducting ground water investigations, which included standards set forth by the NMED / NMOCD. The following information was obtained to the nearest 0.01 feet for each monitoring well:

1) Elevation of ground. (USGS Topographic Elevation)
2) Elevation of top of PVC casing. (USGS Topographic Elevation)
3) Horizontal location of well to the nearest 0.1 feet. (USGS Topographic Elevation)

This information was tied into a known surveyed location and elevation, and will be referenced to mean sea level. (USGS Topographic Elevation) (See Figure!)

All soil samples were sent to Hall Environmental Laboratory located in Albuquerque, NM for laboratory analysis for TPH using SW-846 Method 8015B-Modified, BTEX using SW-846 Method 8021B, and chlorides. (See Appendix 6)

Following the installation of the new monitoring wells, each well was developed by alternately surging and purging for a minimum of 30 minutes. The permeability of the area groundwater aquifer was too low to permit pumping development using a two inch RediFlo2 submersible pump; therefore the wells were bailed dry and permitted to recover at least three times.

A groundwater sample from each installed two inch monitor well was taken and analyzed at Hall Environmental Laboratory for BTEX using SW-846 Method 8021B, and for general chemistry, including chlorides and total dissolved solids (TDS), pH, and conductivity using appropriate US EPA Methods' and quality assurance / quality control (QA/QC) procedures. All samples will were taken in accordance with NMOCD Sampling Protocols, Approved Methods, and Guidelines. (See Appendix 5)

- **SUMMARY OF SOIL BORING DRILLING / MONITOR WELL INSTALLATION PERFORMED DURING THIS STAGE 1 ABATEMENT PLAN / SITE INVESTGATION**

Soil Borings / Monitor Wells:
Monitor Well # 1: was drilled using hollow stem auger and mud rotary methods from 06/12/07 through 06/28/07. Monitor well # 1 was drilled to a total depth of 135' below ground surface. The monitor well was drilled using 4 ¼ inch hollow stem auger method from surface to 63.5 feet below ground surface. From 63.5 feet to total depth, a mud rotary drilling method was used. The Capillary fringe of the regional area groundwater aquifer was encountered at 114 feet below ground surface. At 117 feet below ground surface the soils became saturated during drilling. Perched produced formation water was encountered from 60-63.5 feet below ground surface. A field decision was made not to penetrate the clay aquitard located at 60 feet below ground surface without casing it off. Six inch surface casing was set and cement / bentonite grouted in place. The six inch casing was from ground surface to 65 feet below ground surface to keep the perched produced water from entering the well bore and potentially contaminating the top of the area regional aquifer located at 117 feet below ground surface. The monitor well was completed as follows: 0.010 slot screen with flush threaded end cap from 135 feet to 114 feet, 16/30 sand from 135 feet to 109.8 feet, hydrated bentonite seal from 109.8 feet to 100.5 feet, cement bentonite grout from 100.5 feet to ground surface. A Stick up well vault, 3 foot x 3 foot x 4 inch concrete pad, inner and outer well locks, and four steel bollards surrounding the well were installed. Drill cuttings and drummed drilling mud were hauled off site for disposal at GMI Landfarm. Purged development water /groundwater were drummed on site for later on-site disposal. The well was professionally surveyed for x, y, and z coordinates.

During drilling at any significant lithology change, or clay zones encountered, drilling operations were stopped one auger removed from the present total depth of the boring, and a 30 minute time period was observed to allow any potential fluid entry to occur. Potential fluid entry was measured with a Solonist water level meter. With the exception of 60 feet to 63.5 feet below ground surface, no fluid entry occurred. After the well was completed, regional area groundwater was measured at 117.23 feet from top of casing. No hydrocarbons were encountered or measured

by the PID during drilling. No detectable TPH GRO / DRO, or BTEX concentrations were confirmed by 16 soil samples by laboratory soil analysis. (See Table 1, Appendices 1, 2, 4, 6) Clay zones were encountered at 19 feet to 46 feet and 63.5 to 104.4 feet below ground surface.

Soil Testing Laboratory Analysis of the clay zones:

Calculated Porosit

MW-1 34.8 feet to 35.3 feet (BGS) Calculated Porosity = 30.4 %
MW-1 40.2 feet to 40.7 feet (BGS) Calculated Porosity = 38.4 %
MW-1 65.6 feet to 66.1 feet (BGS) Calculated Porosity = 36.6 %

Saturated Hydraulic Conductivity

MW-1 34.8 feet to 35.3 feet (BGS) Ksat (cm/sec) = 8.8E-08
MW-1 40.2 feet to 40.7 feet (BGS) Ksat (cm/sec) = 3.6E-05
MW-1 65.6 feet to 66.1 feet (BGS) Ksat (cm/sec) = 5.2E-08

Effective Porosity

MW-1 34.8 feet to 35.3 feet (BGS) Effective Porosity = -16..4 %
MW-1 40.2 feet to 40.7 feet (BGS) Calculated Porosity = 13.6 %
MW-1 65.6 feet to 66.1 feet (BGS) Calculated Porosity = 9.3 %

Monitor Well # 2: was drilled from 06/06/07 through 06/13/07. Monitor well # 2 was drilled to a total depth of 139' below ground surface. The monitor well was drilled using 4 ¼ inch hollow stem auger method from surface to total depth below ground surface. The Capillary fringe of the regional area groundwater aquifer was encountered at 114 feet below ground surface. At 117 feet below ground surface the soils became saturated during drilling. The monitor well was completed as follows: 0.010 slot screen with flush threaded end cap from 135 feet to 114.5 feet, 16/30 sand from 135 feet to 111 feet, hydrated bentonite seal from 106.3 feet to 111 feet, cement bentonite grout from 106.3 feet to ground surface. A Stick up well vault, 3 foot x 3 foot x 4 inch concrete pad, inner and outer well locks, and four steel bollards surrounding the well were installed. Drill cuttings were hauled off site for disposal at GMI Landfarm. Purged development water /groundwater were drummed on site for later on-site disposal. The well was professionally surveyed for x, y, and z coordinates.

During drilling at any significant lithology change or clay zones encountered, drilling operations were stopped, one auger removed from the present total depth of the boring, and a 30 minute time period was observed to allow any potential fluid entry to occur. Potential fluid entry was measured with a Solonist water level meter. No fluid entry occurred. After the well was completed, regional area groundwater was measured at 116.91 feet from top of casing. No hydrocarbons were encountered or measured by the PID during drilling. No detectable TPH GRO / DRO, or BTEX concentrations were confirmed by 16 soil samples by laboratory soil analysis. (See Table 1, Appendices 1, 2, 4, 6)

Clay zones were encountered at 19 feet to 42 feet, 57 feet to 77 feet, and 82 to 99 feet below ground surface (with fat clay zones from 31-42 feet, 57 feet to 77 feet, and 82 to 99 feet). Soil Testing Laboratory Analysis of the clay zones:

Calculated Porosity

MW-2 31.5 feet to 32.0 feet (BGS) Calculated Porosity = 34.4 %

Saturated Hydraulic Conductivity

MW-2 31.5 feet to 32.0 feet (BGS) Ksat (cm/sec) = 2.4E-07

Effective Porosity

MW-2 31.5 feet to 32.0 feet (BGS) Effective Porosity = -23.7 %

Monitor Well # 3: was drilled from 06/22/07 through 06/26/07. Monitor well # 3 was drilled to a total depth of 139' below ground surface. The monitor well was drilled using 4 ¼ inch hollow stem auger method from surface to total depth. The Capillary fringe of the regional area groundwater aquifer was encountered at 113 feet below ground surface. At 117 feet below ground surface the soils became saturated during drilling. The monitor well was completed as follows: 0.010 slot screen with flush threaded end cap from 135 feet to 114.5 feet, 16/30 sand from 135 feet to 109.5 feet, borehole slough cave-in material from 96 feet to 109.5 feet, hydrated bentonite seal from 90 feet to 96 feet, cement bentonite grout from 90 feet to ground surface. A Stick up well vault, 3 foot x 3 foot x 4 inch concrete pad, inner and outer well locks, and four steel bollards surrounding the well were installed. Drill cuttings were hauled off site for disposal at GMI Landfarm. Purged development water /groundwater were drummed on site for later on-site disposal. The well was professionally surveyed for x, y, and z coordinates.

During drilling at any significant lithology change or clay zones encountered, drilling operations were stopped, one auger removed from the present total depth of the boring, and a 30 minute time period was observed to allow any potential fluid entry to occur. Potential fluid entry was measured with a Solonist water level meter. No fluid entry occurred. After the well was completed, regional area groundwater was measured at 116.85 feet from top of casing. No hydrocarbons were encountered or measured by the PID during drilling. No detectable TPH GRO / DRO, or BTEX concentrations were confirmed by laboratory analysis of 23 soil samples. (See Table 1, Appendices 1, 2, 4, 6)

Clay zones were encountered at 19 feet to 48 feet, 63 feet to 99 feet below ground surface (with fat clay zones from 35-49 feet, 63 feet to 99 feet). Soil Testing Laboratory Analysis of the clay zones:

Calculated Porosity

MW-3 35.7 feet to 36.7 feet (BGS) Calculated Porosity = 40.3 % MW-3 109 feet to 110 feet Capillary Fringe (BGS) Calculated Porosity = 28.7 %

Saturated Hydraulic Conductivity

MW-3 35.7 feet to 36.7 feet (BGS) Ksat (cm/sec) = 5.1E-07 MW-3 109 feet to 110.feet Capillary Fringe (BGS) Ksat (cm/sec) =1.6E-03

Effective Porosity

MW-3 35.7 feet to 36.7 feet (BGS) Calculated Porosity = 17.3 % MW-3 109 feet to 110 feet Capillary Fringe (BGS) Calculated Porosity = 25.1 %

Recovery Well # 1: Recovery well # 1 was drilled in an area previously drilled and logged by SB-4A (11/20/03). RW-1 was drilled on 06/12/07 using 6 5/8 I.D. hollow stem auger drilling method, to a depth of 33 feet BGS, and completed as a 4 inch schedule 40 PVC monitor /

recovery well on 06/21/07. RW-1 was completed as follows: 0-22.4 feet BGS 4 inch schedule 40 PVC blank casing, 0-17 feet cement bentonite grout, 17-20 feet BGS hydrated bentonite chips, 20 – 33 feet 16/30 silica sand filter pack, 22.4 -32.4 4 inch schedule 40 0.010 slotted screen, 32.4 - 32.8 feet 4 inch schedule 40 PVC flush threaded end cap. No new soil or water samples were taken. During drilling when RW-1 reached total depth, operations were stopped, one auger removed from the total depth of the boring, and a 60 minute time period was observed to allow any potential fluid entry to occur. Potential fluid entry was measured with a Solonist water level meter. No fluid entry occurred. During the drilling of RW-1 no perched produced formation water was encountered. During development of recovery well RW-1, to determine if the recovery well was in a sustainable groundwater aquifer as previously indicated by the NMOCD, the well was bailed with a 3.5 " stainless steel bailer. The recovery well quickly bailed down and had slow recovery rate indicating that the water level observed in the well bore was probably from the completion of the well (hydration of bentonite chips) not perched produced formation water. (See Appendix 4, 5)

- **SUMMARY OF BORING SOIL SAMPLES, FACILITY PRODUCED WATER, REGIONAL BACKGROUND WINDMILL GROUNDWATER, & MONITOR WELL GROUNDWATER SAMPLE LABORATORY ANALYSES, & REGIONAL GROUNDWATER PARAMETERS & FLOW.**

New Mexico Tank Battery Produced Water: A grab water sample of produced formation water stored in the tank battery at NMSWD Station # 11 and being discharged down line into a disposal well was analyzed for TPH Mod. 8015 GRO/DRO, BTEX, anions & cations, conductivity, pH, and TDS by Hall Environmental Analysis Laboratory (HEAL) located in Albuquerque, NM. This laboratory analyzed water sample from the NMSWD Station # 11 Tank Battery produced formation water contained 35.1 PPM TPH DRO, 55 PPM TPH GRO , 20100 PPM BTEX, 83000 PPM chloride, conductivity of 280000, pH 7.2, and TDS 170000. All these concentrations exceed New Mexico Water Quality Control Commission Groundwater Standards. These concentrations, particularly the TPH, BTEX, Na, and Chloride, would certainly affect near surface topsoil, and be present in greater concentrations in the unsaturated vadose zone soils and groundwater near the facility if a documented release of similar produced formation water had greatly impacted the vadose zone soils near the facility. (See Table 1, Appendix 1, 2, 3, 4, 5, 6)

The Regional Groundwater Aquifer: The regional groundwater aquifer flow direction is north to northwest. Groundwater flow is expressed by Q = KIA, where Q = quantity of flow in gpd, A = cross-sectional area through which the flow occurs in ft^2 (207.48 ft x18ft), K = hydraulic conductivity in gpd/ft^2, and I = hydraulic gradient in ft / ft (0.66). The measured hydraulic conductivity of the regional groundwater aquifer sandstone (DBS&A Soil Lab Analysis = 1.6E-03 = 2.45 X 10^1 gallons per day per square foot) K = hydraulic conductivity, in gpd/ft^2, is 24.5 gpd/ft^2, Groundwater flow is = 24.5 x 0.0032 x 3734.64 = 292.795 gallons per day. Transmissivity (the aquifer's capacity to transmit water) of the area regional groundwater aquifer is expressed by T = Km, where K = hydraulic conductivity in gpd/ft, and m = aquifer thickness. T = 24.5 X 18 feet = 441 gallons per day / ft. Storativity is defined (confined aquifer) as the water that is released from storage when the hydraulic head declines and is expressed by multiplying aquifer thickness by 0.000001 The aquifer thickness is 117 feet to 135 feet in monitor wells 1, 2 & 3. (18 feet) X 0.000001 = 0.000018. Interstitial Velocity is expressed by the equation v = KI / 7.48n, where v = average velocity in ft per day, K = hydraulic conductivity in gpd/ft^2, I = hydraulic gradient in ft/ft, and n = effective porosity.

Interstitial velocity = 24.5 x 0.0032 / 7.48 x 25.1= 0.263 ft / day. If there were no clay aquitard layers lying beneath the area of NMSWD Station # 11, and a spill consisting of a conservative substance such as chloride occurred, the liquid produced formation water from the tank battery would infiltrate through the unsaturated vadose zone soils and quickly reach the water table aquifer. The groundwater aquifer underlying NMSWD Station # 11 consists of sandstone layer with a laboratory measured hydraulic conductivity of 24.5 gpd / ft^2 and a laboratory measured effective porosity of 25.1%. If the down gradient stock windmill water well known as the "Sand Windmill" on the topographic sheet, is ≤1.25 miles down gradient, then 6600 ft / 0.263 ft/day = 25095 days or 68.75 years before any salt contamination would occur in the well.

During monitor well development and sampling, all monitor wells and recovery well RW-1, bailed down rapidly and had slow recharge rates. A pumping rate of 1 gallon per minute could not be sustained in any of the wells without the well rapidly pumping dry. The interstitial water which occurred in these wells was not capable of entering the wells in sufficient amounts to be utilized as a domestic water supply capable of sustaining a household.

A groundwater potentiometric surface map was generated from the NMSWD Monitor wells 1, 2, & 3. Cross-section A – A' shows the lithologies beneath NMSWD Station # 11 site. (See Appendix 2, 3)

Monitor Well # 1: Monitor well # 1 had sixteen soil samples that were analyzed at Hall Environmental Analysis Laboratory for TPH Mod 8015 GRO/DRO, BTEX, 8021, and chloride. Analytical chloride concentrations were above 250 mg/l in soil samples from 19.0 to 54.3 feet BGS. One aqueous sample of perched produced formation water at a depth of 60-63.5 feet BGS had a chloride concentration of 21,000 PPM, TDS of 51,000 and non-detect TPH and BTEX. Surprisingly, no TPH concentrations (including field screen with the PID) or BTEX concentrations were detected in any of the soil samples. The perched produced formation water from 60 feet to 63.5 feet did not penetrate past 65 feet below ground surface as an underlying impermeable clay layer exists from 65 feet to 104 feet BGS. From 65 feet to 106.8 feet BGS all HEAL analyzed confirmation soil samples had chloride concentrations that are essentially non-detect or background (≤ 20 PPM chloride). A HEAL analyzed water sample from Monitor Well # 1 taken from the regional groundwater aquifer had a chloride concentration of 550 PPM, TDS of 1500 PPM, Conductivity of 2500, and pH of 7.31. The conductivity and pH are similar to field measurements taken by CMB during monitor well development and groundwater sampling. (See Table 1, Appendix 1, 2, 3, 4, 5, 6)

Monitor Well # 2: Monitor well # 2 had sixteen soil samples that were analyzed at Hall Environmental Analysis Laboratory for TPH Mod 8015 GRO/DRO, BTEX, 8021, and chloride. Analytical Chloride concentrations were above 250 mg/l in samples from 9.0 to 36 feet BGS. One soil sample from 59 feet to 60.5 feet, in a yellow silty sand zone above the fat clay at 62 feet BGS, had a chloride concentration of 820 PPM. No TPH concentrations (including field screen with the PID) or BTEX concentrations were detected in any of the samples. No perched produced formation water was encountered. An underlying impermeable clay layer exists from 62 feet to 99 feet BGS. From depths of 99 feet to 119.3 feet BGS all HEAL analyzed confirmation soil samples had chloride concentrations that are essentially non-detect or background (≤16 PPM chloride). A HEAL analyzed water sample from Monitor Well # 2 taken from the area regional groundwater aquifer had a chloride concentration of 560 PPM, TDS of 2600 PPM, conductivity of 2800, and pH of 7.5. The conductivity and pH are similar to field measurements taken by CMB during monitor well development and groundwater sampling. Monitor Well # 2 is down gradient from Monitor Wells 1 & 3, and if the regional groundwater aquifer had been impacted by any previous release of produced formation water containing TPH, BTEX, & chloride from NMSWD Station # 11, elevated chloride, TPH, BTEX, & Na concentrations in the groundwater sample would have occurred. The analytical chloride concentrations of soil samples above the regional groundwater aquifer (particularly in or near the capillary fringe or saturated zone at 119.0-119.3 feet) and below the impermeable clay zones would have also had elevated chloride concentrations if a previous produced formation water release had affected the vadose zone soils. The soil sample chloride concentrations above the regional groundwater aquifer and below the impermeable clay zones were ≤ 16 PPM chloride. (See Table 1, Appendix 1, 2, 3, 4, 5, 6)

Monitor Well #3: Monitor well # 3 had twenty three soil samples that were analyzed at Hall Environmental Analysis Laboratory for TPH Mod 8015 GRO/DRO, BTEX, 8021, and chloride. Analytical chloride concentrations were above 250 mg/l in samples from 14.0 to 35 feet BGS. No TPH concentrations (including field screen with the PID) or BTEX concentrations were detected in any of the samples. No perched produced formation water was encountered. An underlying impermeable clay layer exists from 63 feet to 100 feet BGS. From depths of 65 feet to 120 feet BGS, HEAL analyzed confirmation soil samples with chloride concentrations that are essentially non-detect or background (≤92 PPM chloride). A HEAL analyzed water sample from Monitor Well # 3 taken from the area regional groundwater aquifer had a chloride concentration of 620 PPM, TDS of 1800 PPM, conductivity of 3100, and pH of 7.46. The conductivity and pH are similar to field measurements taken by CMB during monitor well development and groundwater sampling. (See Table 1, Appendix 1, 2, 3, 4, 5, 6)

NW Down-Gradient "Sand Windmill:" A grab water sample of produced windmill well water & stored in the stock tank was analyzed for anions & cations, conductivity, pH, and TDS by Hall Environmental Analysis Laboratory. The water discharge going directly into the stock tank from a solar submersible pump was directly grab sampled. GPS Coordinates for the "Sand" Windmill are 33°27.265 N, 103°28.646 W. A HEAL analyzed water sample from Sand Windmill taken from the area regional groundwater aquifer had a chloride concentration of 390 PPM, TDS of 2000 PPM, Conductivity of 2900, and pH of 7.5. The conductivity and pH are similar to field measurements taken and recorded by CMB during monitor well development and groundwater sampling, and previously recorded measurements of conductivity by the New Mexico State Engineers Office. Based on the laboratory water analyses it appears that this down gradient windmill stock water well has not been impacted by any spills or releases of produced formation water from NMSWD Station # 11. (See Table 1, Appendix 5)

SW UP-Gradient "Lucky Windmill:" A grab water sample of produced windmill well water & stored in the stock tank was analyzed for anions & cations, conductivity, pH, and TDS by Hall Environmental Analysis Laboratory. The water discharge going directly into the stock tank from the windmill pump was directly grab sampled. GPS Coordinates for the "Lucky" Windmill are 33°25.600 N, 103°29.156 W.A HEAL analyzed water sample from Lucky Windmill Well taken from the area regional groundwater aquifer had a chloride concentration of 460 PPM, TDS of 1500 PPM, Conductivity of 2300, and pH of 7.8. The conductivity and pH are similar to field measurements taken and recorded by CMB during monitor well development and groundwater sampling. Based on the laboratory water analyses it appears that this up-gradient windmill stock water well has not been impacted by any spills or releases of produced formation water from NMSWD Station # 11, nor has NMSWD Station # 11 been impacted from down gradient flow or migration of Nitrate contamination from the Lucky Windmill (**26 PPM**) (See Table 1, Appendix 5)

- **SUMMARY AND CONCLUSIONS**

Assessment of Stage 1 Abatement Plan / Monitor Well Installation, Soil and Groundwater Sampling and Analysis:

1. New Mexico Salt Water Disposal Company Inc. has conducted a thorough site investigation and has defined the vertical and horizontal extent of alleged chloride contamination from previously documented spills of produced formation water from the tank battery of the Station # 11 facility. Depth to groundwater in the regional aquifer is 117 feet below ground surface. Groundwater flow direction is to the North. The hydraulic gradient is 0.66 ft/ft. Groundwater Flow is 292.795 gallons per day. Tranmissivity of the area regional aquifer is 441 gallons per day. The interstitial velocity of groundwater flow is 0.263 ft/day. The aquifer is a confined aquifer and is contained in a silty, clayey, sandstone formation of low permeability. Following the installation of the new monitoring wells, each well was developed by alternately surging and purging for a minimum of 30 minutes. The permeability of the area groundwater aquifer was too low to permit pumping development using a two inch RediFlo2 submersible pump. A pumping rate of 1 gallon per minute could not be sustained in any of the wells with out the well rapidly pumping dry. The interstitial formation aquifer water which occurred in these monitor wells was not capable of entering the wells in sufficient amounts to be utilized as a domestic water supply capable of sustaining a household.

2. Soil Chloride concentrations of $\geq$ 250 mg/l in are not present in any soil boring / monitor well soil samples below 65 feet of ground surface. Chloride concentrations from previously documented spills are not capable of penetrating a thick fat clay aquitard that exists beneath the facility and area. The saturated hydraulic conductivity (cm/sec) of this fat clay aquitard zone is 5.2E-08, and the effective porosity is 9.3 (% cm^3/cm^3). There are other clay and silt zones present from 19 feet to 65 feet below ground surface in the area unsaturated vadose zone that also impede a conservative substance such as chloride to quickly infiltrate the unsaturated vadose zone and quickly reach the water-table aquifer. If a previously documented release of produced formation water impacted the unsaturated soils and groundwater in the area, the high concentrations of TPH, BTEX, anions, cations, and TDS observed in a laboratory analyzed water sample of produced formation water from the NMSWD Station # 11 tank battery should be present in the unsaturated vadose zone soils and groundwater.

3. Perched produced formation water was present in Monitor Well # 1 from 60 - 63.5 feet below ground surface. The laboratory water sample analysis confirmed large concentrations of chloride and high TDS concentration. The source of this produced formation water is unknown, however the NMSWD Station # 11 tank battery was previously located in the area where Monitor Well # 1 was drilled and installed. Realizing that this perched produced formation water was not an aquifer, a field decision was made by CMB to run surface casing to 65 feet below ground surface and continue drilling the soil boring and complete a monitor well in the regional groundwater aquifer. All soil boring samples taken below 65 feet

in Monitor Well # 1 had chloride concentrations of ≤20 PPM. All soil boring samples taken below 65 feet in Monitor Well # 2 had chloride concentrations of ≤16 PPM. All soil boring samples taken below 65 feet in Monitor Well # 3 had chloride concentrations of ≤35 PPM. Since all the soil samples taken below 65 feet of ground surface, soil samples taken above and in the capillary fringe, and soil samples taken near and in the saturated zone of all the monitor wells drilled contain chloride concentrations of ≤250 PPM.

4. The laboratory analyses data support the regional groundwater aquifer has not been impacted by any previous release of produced formation water from the tank battery of NMSWD Station # 11. There are no surface waters that can have impacted by any previous release of produced formation water within a one mile radius of NMSWD Station 11. The groundwater analyses of Monitor Wells, 1, 2, & 3, and the up gradient and down gradient windmill stock water wells in the area have similar concentrations of anions & cations indicating that the regional aquifer has not been impacted by any previous release of produced formation water, and that the groundwater underlying NMSWD Station # 11 is chemically similar to the nearby up gradient and down gradient windmill stock water wells in the region. The regional background groundwater chloride concentrations are naturally slightly elevated ≥250 PPM.

LIST OF FIGURES

Figure		Included	N/A
1	Site Map	X	
2	Topographic Map, Satellite Image / Topographic Map	X	

LIST OF TABLES

Table		Included
1	Lab Analysis Summary Report of Soil Samples Analyses And Groundwater analyses	X

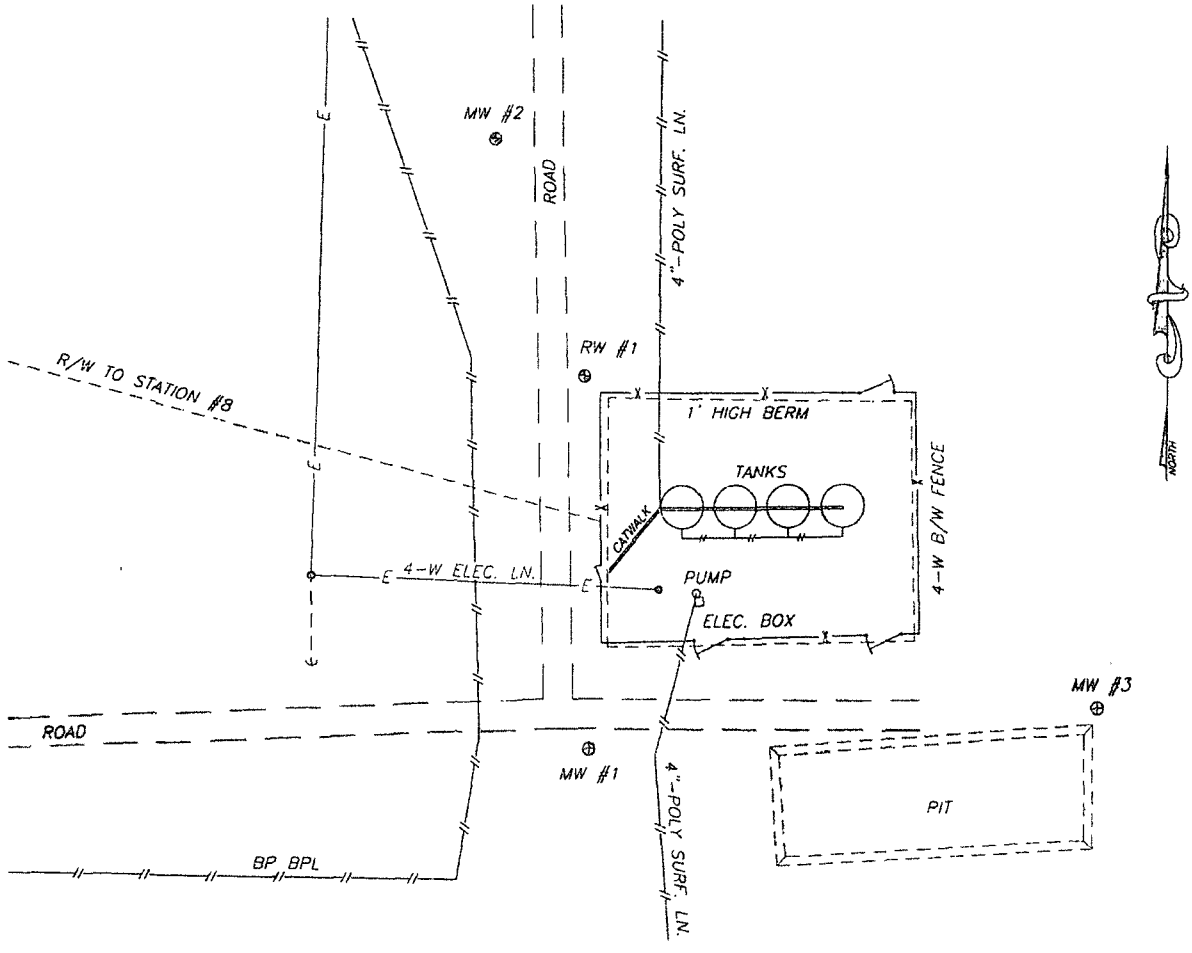
LIST OF APPENDICES

		Included
Appendix 1	DBS&A Soil Testing Lab Soil Analysis Report	X
Appendix 2	Cross-Section Location Map & Cross Section A-A'	X
Appendix 3	Potenitometric Surface Map	X
Appendix 4	Soil Boring Logs	X
Appendix 5	Field Notes from Groundwater Sampling	X
Appendix 6	Laboratory Analysis Reports	X

FIGURES:

SECTION 21, TOWNSHIP 10 SOUTH, RANGE 34 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO



LEGEND

- DENOTES FENCE GATE
- DENOTES FENCE LINE
- DENOTES GUY DOWN

NOTE: COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983.

60 0 60 120 Feet

Scale: 1"=60'

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

RONALD J. EIDSON 3239 REGISTERED PROFESSIONAL SURVEYOR

7/17/07

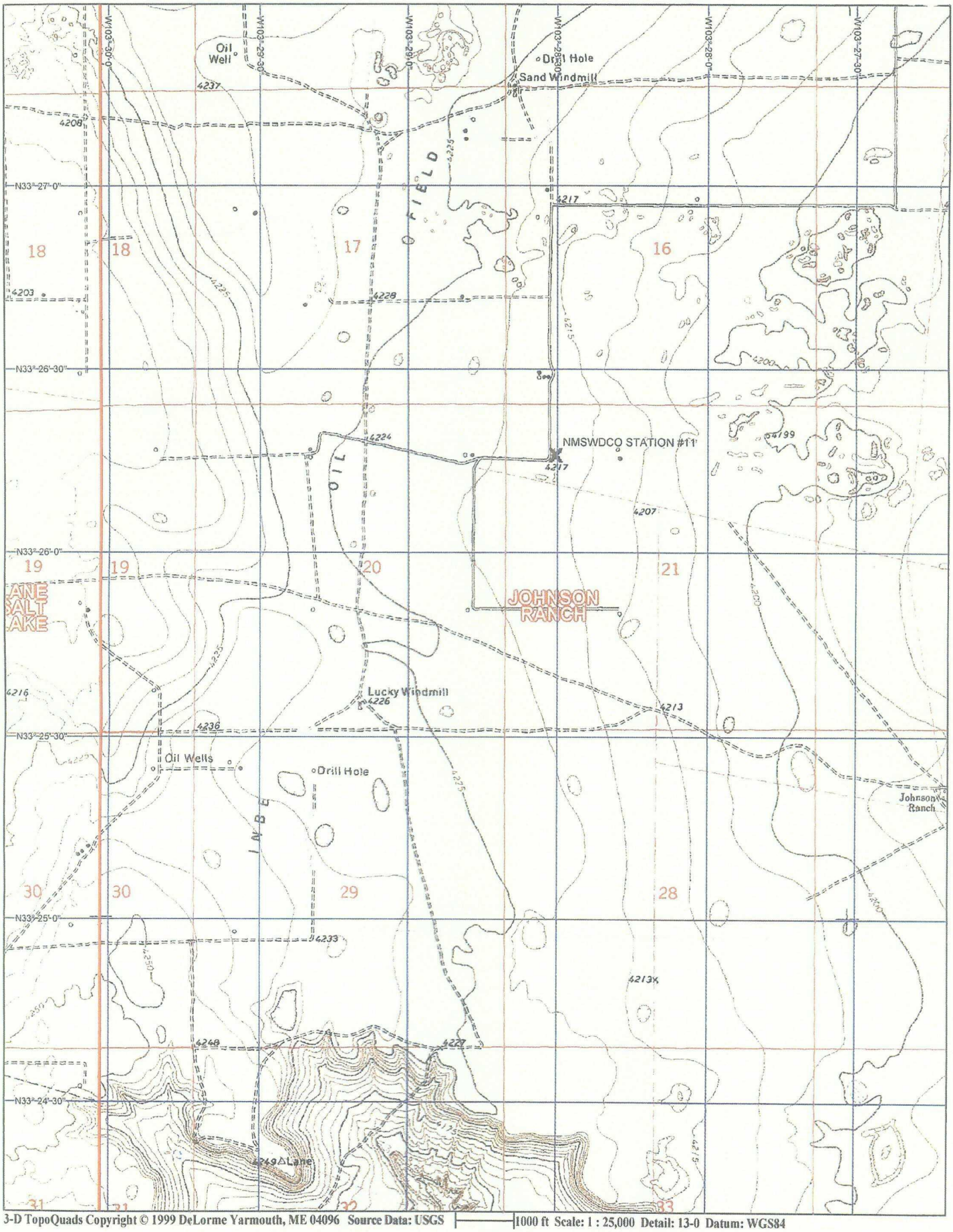
GARY G. EIDSON N.M. P.S. No. 12641
RONALD J EIDSON N.M. P.S. No. 3239

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

NEW MEXICO SALT WATER DISPOSAL CO.

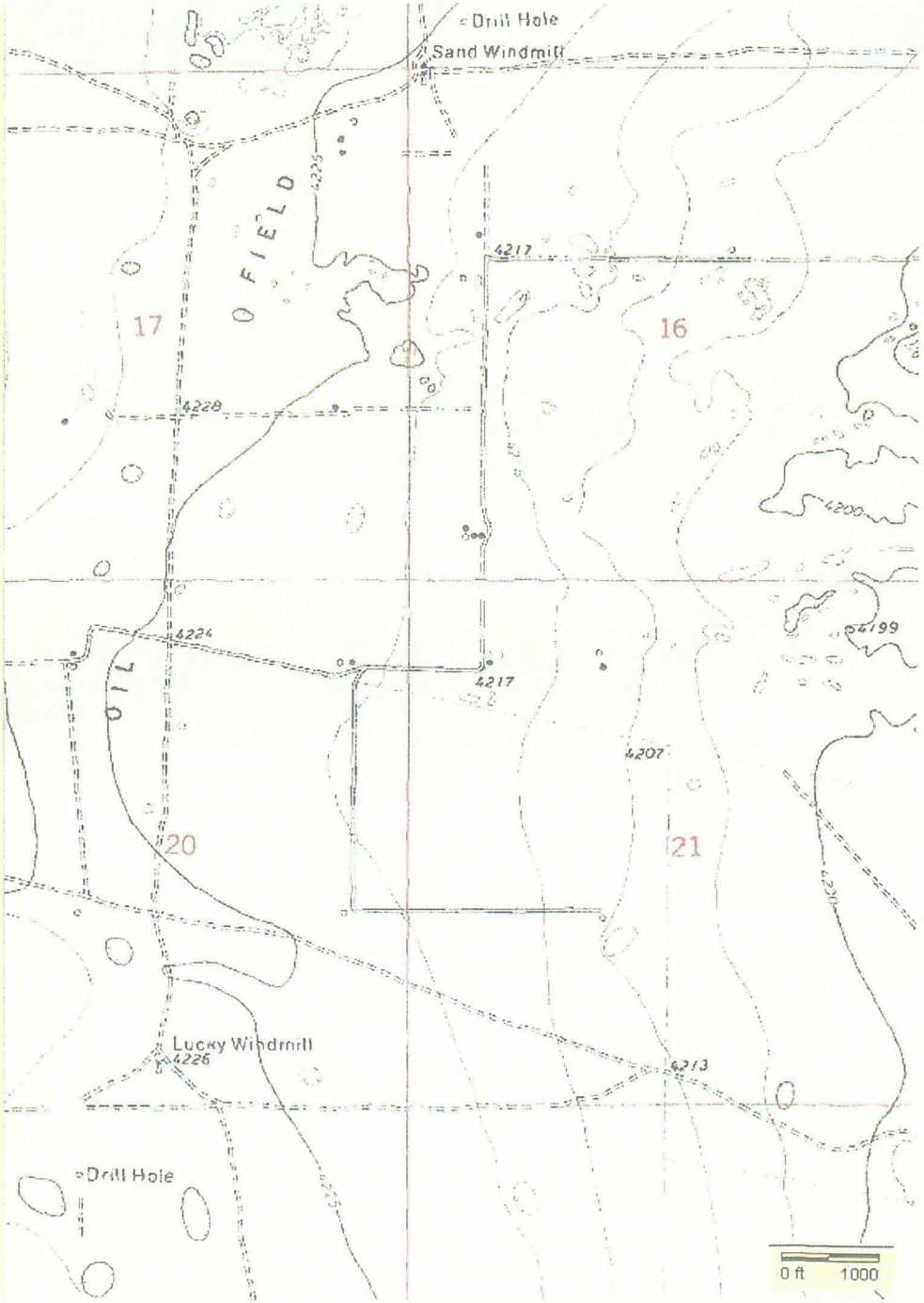
SURVEY OF DISPOSAL STATION #11 IN SECTION 21, TOWNSHIP 10 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

Survey Date: 07/02/07	Sheet 1 of 1 Sheets		
W.O. Number: 07.11.0830	Dr By: J.R.	Rev 1:	
Date: 07/16/07	Disk: CD#7	07110830	Scale: 1"=100'



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 1000 ft Scale: 1 : 25,000 Detail: 13-0 Datum: WGS84

2-D
13-0


Drill Hole
Sand Windmill
OIL FIELD
17
16
20
21
4235
4217
4228
4200
4224
4199
4217
4207
4213
Lucky Windmill
4226
Drill Hole
0 ft
1000

TABLES:

CMB Environmental

NMSWDCO
Monitor Well # 1
Soil Sample Analyltical Results

Hall Environmental Analysis Lab

Monitor Well # 1	**TPH GRO**	**TPH DRO**	**BTEX**	**Chloride**	**TDS**
Soil Sample Depth					
0'-2.0'	**ND**	**ND**	**ND**	**ND**	
4.0'-5.0'	**ND**	**ND**	**ND**	**150**	
9.0'-9.3'	**ND**	**ND**	**ND**	**130**	
14.0'-14.5'	**ND**	**ND**	**ND**	**210**	
19.0'-20.0'	**ND**	**ND**	**ND**	**620**	
24.0'-25.0'	**ND**	**ND**	**ND**	**1000**	
29.0'-30.0'	**ND**	**ND**	**ND**	**3300**	
34.0'-35.5'	**ND**	**ND**	**ND**	**2700**	
39.0'-40.0'	**ND**	**ND**	**ND**	**2300**	
40.7-41.2'	**ND**	**ND**	**ND**	**1500**	
44.0'-45.3'	**ND**	**ND**	**ND**	**3500**	
49.0'-49.5'	**ND**	**ND**	**ND**	**1800**	
54.0'-54.3'	**ND**	**ND**	**ND**	**720**	
61.0'-63.5' (Aqueous)	**ND**	**ND**	**ND**	**21000**	**51000**
63.5'-64.0'	**ND**	**ND**	**ND**	**460**	
89.0'-90.8'	**ND**	**ND**	**ND**	**ND**	
104.4'-106.8'	**ND**	**ND**	**ND**	**20**	

All values are in PPM. Red Values indicate concentrations above WQCC standards.

Monitor Well # 2
Soil Sample Analyltical Results

Monitor Well # 2	TPH GRO	TPH DRO	BTEX	Chloride	TDS
Soil Sample Depth					
0'-2.0'	ND	ND	ND	ND	
4.0'-6.0'	ND	ND	ND	230	
9.0'-11.0'	ND	ND	ND	1400	
14.0'-16.0'	ND	ND	ND	300	
19.0'-21.0'	ND	ND	ND	1000	
24.0'-26.0'	ND	ND	ND	2100	
29.0'-30.5'	ND	ND	ND	2800	
34.5'-36.0'	ND	ND	ND	650	
38.0'-40.0'	ND	ND	ND	230	
44.0'-45.8'	ND	ND	ND	110	
49.0'-50.5'	ND	ND	ND	140	
59.0'-60.5'	ND	ND	ND	820	
69.0'-70.5'	ND	ND	ND	16	
79.0'-79.2'	ND	ND	ND	3.6	
89.0'-90.5'	ND	ND	ND	2.4	
119.0'-119.3	ND	ND	ND	12	

All values are in PPM. Red Values indicate concentrations above WQCC standards.

NMSWDCO
Monitor Well # 3
Soil Sample Analyltical Results

Monitor Well # 3	**TPH GRO**	**TPH DRO**	**BTEX**	**Chloride**	**TDS**
Soil Sample Depth					
0'-2.0'	ND	ND	ND	52	
4.0'-5.0'	ND	ND	ND	180	
9.0'-9.5'	ND	ND	ND	230	
14.0'-15.5'	ND	ND	ND	670	
19.0'-20.5'	ND	ND	ND	450	
24.0'-25.0'	ND	ND	ND	720	
29.0'-30.0'	ND	ND	ND	1800	
34.0'-35.0'	ND	ND	ND	1600	
38.0'-40.0'	ND	ND	ND	230	
44.0'-45.0'	ND	ND	ND	91	
49.0'-50.0'	ND	ND	ND	130	
54.0'-55.0'	ND	ND	ND	160	
64.0'-65.0'	ND	ND	ND	92	
69.0'-70.0'	ND	ND	ND	21	
74.0'-75.0'	ND	ND	ND	12	
84.0'-84.5'	ND	ND	ND	4	
89.0'-90.0'	ND	ND	ND	2.4	
94.0'-94.5'	ND	ND	ND	4.2	
99.0'-100.0'	ND	ND	ND	3.2	
104.0'-104.5'	ND	ND	ND	25	
109.0'-109.2'	ND	ND	ND	13	
114.0'-114.3'	ND	ND	ND	35	
119.0'-120.0'	ND	ND	ND	9.4	

All values are in PPM. Red Values indicate concentrations above WQCC standards.

New Mexico Salt Water Disposal Company
Groundwater Sampling July 09, 2007
By: CMB Environmental Geological Services Inc.

Well:	TPH DRO	TPH GRO	BTEX	Fluoride	Chloride	Bromide	Nitrate	Phosphorus	Sulfate	Calcium	Magnesium	Potassium	Sodium	S.C.	pH	TDS
MW-2	ND	ND	ND	1.6	560	2.6	ND	ND	260	120	22	8.8	350	2800	7.5	2600
MW-1	ND	ND	ND	1.6	550	1.3	1.3	ND	290	120	33	6.2	370	2500	7.31	1500
MW-3	ND	0.057	ND	1.6	620	2.7	ND	ND	360	210	42	11	350	3100	7.46	1800
NW Windmill				1.8	390	2.8	ND	ND	670	190	52	7.5	330	2900	7.5	2000
SW Windmill				0.66	460	1.8	26	ND	160	260	32	4.2	120	2300	7.8	1500
Tank Battery Fluid	35.1	55	20100	ND	83000	140	ND	ND	1600	3200	630	540	45000	280000	7.2	170000

Appendix 1:
DBS&A Soil Testing Lab Soil Analysis Report

Laboratory Report for CMB Environmental & Goelogical Services, Inc.

(New Mexico Salt Water Company)

July 31, 2007

Daniel B. Stephens & Associates, Inc.

6020 Academy NE, Suite 100 • Albuquerque, New Mexico 87109

July 31, 2007

Clayton M. Barnhill
CMB Environmental & Geological Services, Inc.
PO Box 2304
Roswell, NM 88202-2304
(505) 622-2012

Re: DBS&A Laboratory Report for CMB Environmental & Geological Services, Inc.

Dear Mr. Barnhill:

Enclosed is the final report for the CMB Environmental & Geological Services, Inc. samples. Please review this report and provide any comments as samples will be held for a maximum of 30 days. After 30 days samples will be returned or disposed of in an appropriate manner.

All testing results were evaluated subjectively for consistency and reasonableness, and the results appear to be reasonably representative of the material tested. However, DBS&A does not assume any responsibility for interpretations or analyses based on the data enclosed, nor can we guarantee that these data are fully representative of the undisturbed materials at the field site. We recommend that careful evaluation of these laboratory results be made for your particular application.

The testing utilized to generate the enclosed final report employs methods that are standard for the industry. The results do not constitute a professional opinion by DBS&A, nor can the results affect any professional or expert opinions rendered with respect thereto by DBS&A. You have acknowledged that all the testing undertaken by us, and the final report provided, constitutes mere test results using standardized methods, and cannot be used to disqualify DBS&A from rendering any professional or expert opinion, having waived any claim of conflict of interest by DBS&A.

We are pleased to provide this service to CMB Environmental & Geological Services, Inc. and look forward to future laboratory testing on other projects. If you have any questions about the enclosed data, please do not hesitate to call.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.
LABORATORY / TESTING FACILITY

Joleen Hines
Laboratory Supervising Manager

Enclosure

Daniel B. Stephens & Associates, Inc.
6020 Academy NE, Suite 100 505-822-9400
Albuquerque, NM 87109 FAX 505-822-8877

Summaries

Daniel B. Stephens & Associates, Inc.

Summary of Tests Performed

Laboratory Sample Number	Initial Soil Properties[1] (θ, ρ_d, ϕ)	Saturated Hydraulic Conductivity[2]		Moisture Characteristics[3]					Unsaturated Hydraulic Conductivity	Particle Size[4]			Effective Porosity	Particle Density	Air Permeability	1/3, 15 Bar Points and Water Holding Capacity	Atterberg Limits	Proctor Compaction
		CH	FH	HC	PP	TH	WP	RH		DS	WS	H						
MW-1 (34.8-35.3)	X		X										X					
MW-1 (40.2-40.7)	X	X											X					
MW-1 (65.6-66.1)	X		X										X					
MW-2 (31.5- 32.0)	X		X										X					
MW-3 (35.7-36.7)	X		X										X					
MW-3 (109-110)	X	X											X					

[1] θ = Initial moisture content, ρ_d = Dry bulk density, ϕ = Calculated porosity
[2] CH = Constant head, FH = falling head
[3] HC = Hanging column, PP = Pressure plate, TH = Thermocouple psychrometer, WP = Water activity meter, RH = Relative humidity box
[4] DS = Dry sieve, WS = Wet sieve, H = Hydrometer

Summary of Initial Moisture Content, Dry Bulk Density Wet Bulk Density and Calculated Porosity

Sample Number	Moisture Content: As Received, Gravimetric (%, g/g)	Moisture Content: As Received, Volumetric (%, cm^3/cm^3)	Moisture Content: Remolded, Gravimetric (%, g/g)	Moisture Content: Remolded, Volumetric (%, cm^3/cm^3)	Dry Bulk Density (g/cm^3)	Wet Bulk Density (g/cm^3)	Calculated Porosity (%)
MW-1 (34.8-35.3)	12.4	22.9	---	---	1.84	2.07	30.4
MW-1 (40.2-40.7)	13.3	21.6	---	---	1.63	1.85	38.4
MW-1 (65.6-66.1)	18.3	30.7	---	---	1.68	1.99	36.6
MW-2 (31.5- 32.0)	19.7	34.3	---	---	1.74	2.08	34.4
MW-3 (35.7-36.7)	21.0	33.2	---	---	1.58	1.91	40.3
MW-3 (109-110)	8.1	15.4	---	---	1.89	2.04	28.7

NA = Not analyzed

--- = This sample was not remolded

Summary of Saturated Hydraulic Conductivity Tests

Sample Number	K_{sat} (cm/sec)	Oversize Corrected K_{sat} (cm/sec)	Method of Analysis	
			Constant Head	Falling Head
MW-1 (34.8-35.3)	8.8E-08	NA		X
MW-1 (40.2-40.7)	3.6E-05	NA	X	
MW-1 (65.6-66.1)	5.2E-08	NA		X
MW-2 (31.5- 32.0)	2.4E-07	NA		X
MW-3 (35.7-36.7)	5.1E-07	NA		X
MW-3 (109-110)	1.6E-03	NA	X	

Summary of Effective Porosity Tests

Sample Number	Effective Porosity (% cm^3/cm^3)
*MW-1 (34.8-35.3)	-16.4
MW-1 (40.2-40.7)	13.6
MW-1 (65.6-66.1)	9.3
*MW-2 (31.5- 32.0)	-23.7
MW-3 (35.7-36.7)	17.3
MW-3 (109-110)	25.1

*Sample was supersaturated at 15 bar which may indicate the presence of a salt.

Laboratory Data and Graphical Plots

Initial Properties

Summary of Initial Moisture Content, Dry Bulk Density Wet Bulk Density and Calculated Porosity

Sample Number	Moisture Content				Dry Bulk Density (g/cm^3)	Wet Bulk Density (g/cm^3)	Calculated Porosity (%)
	As Received		Remolded				
	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)			
MW-1 (34.8-35.3)	12.4	22.9	---	---	1.84	2.07	30.4
MW-1 (40.2-40.7)	13.3	21.6	---	---	1.63	1.85	38.4
MW-1 (65.6-66.1)	18.3	30.7	---	---	1.68	1.99	36.6
MW-2 (31.5- 32.0)	19.7	34.3	---	---	1.74	2.08	34.4
MW-3 (35.7-36.7)	21.0	33.2	---	---	1.58	1.91	40.3
MW-3 (109-110)	8.1	15.4	---	---	1.89	2.04	28.7

NA = Not analyzed

--- = This sample was not remolded

Daniel B. Stephens & Associates, Inc.

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: CMB Environmental & Geological Services, Inc.
Job Number: LB07.0140.00
Sample Number: MW-1 (34.8-35.3)
Ring Number: NA
Depth (ft): 34.8-35.3

	As Received	Remolded
Test Date:	11-Jul-07	---
Field weight of sample* (g):	248.21	
Tare weight, ring (g):	41.56	
Tare weight, pan/plate (g):	0.00	
Tare weight, other (g):	0.00	
Dry weight of sample (g):	183.81	
Sample volume (cm^3):	99.73	
Assumed particle density (g/cm^3):	2.65	
Gravimetric Moisture Content (% g/g):	12.4	
Volumetric Moisture Content (% vol):	22.9	
Dry bulk density (g/cm^3):	1.84	
Wet bulk density (g/cm^3):	2.07	
Calculated Porosity (% vol):	30.4	
Percent Saturation:	75.2	

Laboratory analysis by: C. Krous
Data entered by: D. O'Dowd
Checked by: J. Hines

Comments:

* Weight including tares
NA = Not analyzed
--- = This sample was not remolded

Daniel B. Stephens & Associates, Inc.

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: CMB Environmental & Geological Services, Inc.
Job Number: LB07.0140.00
Sample Number: MW-1 (40.2-40.7)
Ring Number: NA
Depth (ft): 40.2-40.7

	As Received	Remolded
Test Date:	11-Jul-07	---
Field weight of sample* (g):	198.63	
Tare weight, ring (g):	37.05	
Tare weight, pan/plate (g):	0.00	
Tare weight, other (g):	0.00	
Dry weight of sample (g):	142.66	
Sample volume (cm^3):	87.43	
Assumed particle density (g/cm^3):	2.65	
Gravimetric Moisture Content (% g/g):	13.3	
Volumetric Moisture Content (% vol):	21.6	
Dry bulk density (g/cm^3):	1.63	
Wet bulk density (g/cm^3):	1.85	
Calculated Porosity (% vol):	38.4	
Percent Saturation:	56.3	

Laboratory analysis by: C. Krous
Data entered by: D. O'Dowd
Checked by: J. Hines

Comments:

* Weight including tares
NA = Not analyzed
--- = This sample was not remolded

Daniel B. Stephens & Associates, Inc.

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: CMB Environmental & Geological Services, Inc.
Job Number: LB07.0140.00
Sample Number: MW-1 (65.6-66.1)
Ring Number: NA
Depth (ft): 65.6-66.1

	As Received	Remolded
Test Date:	11-Jul-07	---
Field weight of sample* (g):	132.52	
Tare weight, ring (g):	23.56	
Tare weight, pan/plate (g):	0.00	
Tare weight, other (g):	0.00	
Dry weight of sample (g):	92.12	
Sample volume (cm^3):	54.83	
Assumed particle density (g/cm^3):	2.65	
Gravimetric Moisture Content (% g/g):	18.3	
Volumetric Moisture Content (% vol):	30.7	
Dry bulk density (g/cm^3):	1.68	
Wet bulk density (g/cm^3):	1.99	
Calculated Porosity (% vol):	36.6	
Percent Saturation:	83.9	

Laboratory analysis by: C. Krous
Data entered by: D. O'Dowd
Checked by: J. Hines

Comments:

* Weight including tares
NA = Not analyzed
--- = This sample was not remolded

Daniel B. Stephens & Associates, Inc.

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: CMB Environmental & Geological Services, Inc.
Job Number: LB07.0140.00
Sample Number: MW-2 (31.5- 32.0)
Ring Number: NA
Depth (ft): 31.5-32.0

	As Received	Remolded
Test Date:	11-Jul-07	---
Field weight of sample* (g):	137.10	
Tare weight, ring (g):	28.86	
Tare weight, pan/plate (g):	0.00	
Tare weight, other (g):	0.00	
Dry weight of sample (g):	90.43	
Sample volume (cm^3):	51.99	
Assumed particle density (g/cm^3):	2.65	
Gravimetric Moisture Content (% g/g):	19.7	
Volumetric Moisture Content (% vol):	34.3	
Dry bulk density (g/cm^3):	1.74	
Wet bulk density (g/cm^3):	2.08	
Calculated Porosity (% vol):	34.4	
Percent Saturation:	99.7	

Laboratory analysis by: C. Krous
Data entered by: D. O'Dowd
Checked by: J. Hines

Comments:

* Weight including tares
NA = Not analyzed
--- = This sample was not remolded

Daniel B. Stephens & Associates, Inc.

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: CMB Environmental & Geological Services, Inc.
Job Number: LB07.0140.00
Sample Number: MW-3 (35.7-36.7)
Ring Number: NA
Depth (ft): 36.7-35.7

	As Received	Remolded
Test Date:	11-Jul-07	---
Field weight of sample* (g):	166.45	
Tare weight, ring (g):	30.42	
Tare weight, pan/plate (g):	0.00	
Tare weight, other (g):	0.00	
Dry weight of sample (g):	112.45	
Sample volume (cm^3):	71.07	
Assumed particle density (g/cm^3):	2.65	
Gravimetric Moisture Content (% g/g):	21.0	
Volumetric Moisture Content (% vol):	33.2	
Dry bulk density (g/cm^3):	1.58	
Wet bulk density (g/cm^3):	1.91	
Calculated Porosity (% vol):	40.3	
Percent Saturation:	82.3	

Laboratory analysis by: C. Krous
Data entered by: D. O'Dowd
Checked by: J. Hines

Comments:

* Weight including tares
NA = Not analyzed
--- = This sample was not remolded

Daniel B. Stephens & Associates, Inc.

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: CMB Environmental & Geological Services, Inc.
Job Number: LB07.0140.00
Sample Number: MW-3 (109-110)
Ring Number: NA
Depth (ft): 109-110

	As Received	Remolded
Test Date:	11-Jul-07	---
Field weight of sample* (g):	246.06	
Tare weight, ring (g):	45.08	
Tare weight, pan/plate (g):	0.00	
Tare weight, other (g):	0.00	
Dry weight of sample (g):	185.87	
Sample volume (cm^3):	98.43	
Assumed particle density (g/cm^3):	2.65	
Gravimetric Moisture Content (% g/g):	8.1	
Volumetric Moisture Content (% vol):	15.4	
Dry bulk density (g/cm^3):	1.89	
Wet bulk density (g/cm^3):	2.04	
Calculated Porosity (% vol):	28.7	
Percent Saturation:	53.4	

Laboratory analysis by: C. Krous
Data entered by: D. O'Dowd
Checked by: J. Hines

Comments:

* Weight including tares
NA = Not analyzed
--- = This sample was not remolded

Saturated Hydraulic Conductivity

Summary of Saturated Hydraulic Conductivity Tests

Sample Number	K_{sat} (cm/sec)	Oversize Corrected K_{sat} (cm/sec)	Method of Analysis	
			Constant Head	Falling Head
MW-1 (34.8-35.3)	8.8E-08	NA		X
MW-1 (40.2-40.7)	3.6E-05	NA	X	
MW-1 (65.6-66.1)	5.2E-08	NA		X
MW-2 (31.5- 32.0)	2.4E-07	NA		X
MW-3 (35.7-36.7)	5.1E-07	NA		X
MW-3 (109-110)	1.6E-03	NA	X	

Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity
Falling Head Method

Job name: CMB Environmental & Geological Services
Job number: LB07.0140.00
Sample number: MW-1 (34.8-35.3)
Ring Number: NA
Depth (ft): 34.8-35.3

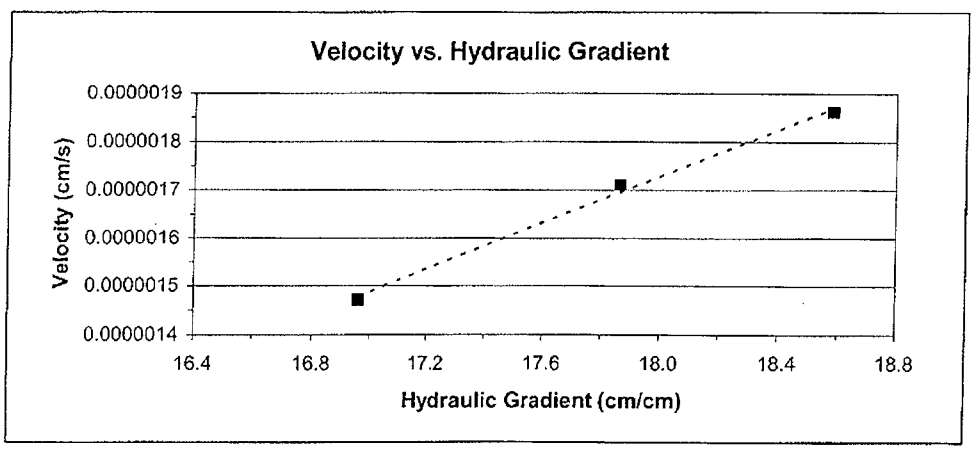
Type of water used: TAP
Backpressure (psi): 0.0
Offset (cm): 0.8
Sample length (cm): 3.16
Sample x-sectional area (cm^2): 31.53
Reservoir x-sectional area (cm^2): 0.70

Date	Time	Temp (°C)	Reservoir head (cm)	Corrected head (cm)	Elapsed time (sec)	Ksat (cm/sec)	Ksat @ 20°C (cm/sec)
Test # 1:							
16-Jul-07	15:28:53	21.5	59.8	59.0	4289	9.7E-08	9.4E-08
16-Jul-07	16:40:22	21.5	59.4	58.6			
Test # 2:							
16-Jul-07	16:40:22	21.5	59.4	58.6	56137	9.3E-08	9.0E-08
17-Jul-07	08:15:59	21.5	55.2	54.4			
Test # 3:							
17-Jul-07	09:56:00	21.5	54.8	54.0	9375	8.4E-08	8.1E-08
17-Jul-07	12:32:15	21.5	54.2	53.4			

***Average Ksat* (cm/sec):** **8.8E-08**
***Oversize Corrected Ksat* (cm/sec):** **NA**

Comments:

--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass
NA = Not analyzed



Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: J. Hines

Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity
Constant Head Method

Job name: CMB Environmental & Geological Services, Inc.
Job number: LB07.0140.00
Sample number: MW-1 (40.2-40.7)
Ring Number: NA
Depth (ft): 40.2-40.7

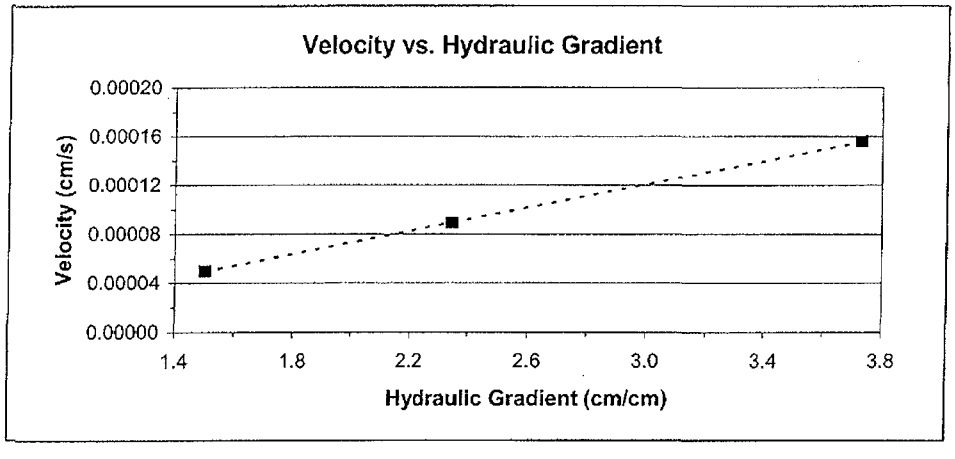
Type of water used: TAP
Collection vessel tare (g): 11.92
Sample length (cm): 2.95
Sample diameter (cm): 6.14
Sample x-sectional area (cm^2): 29.65

Date	Time	Temp (°C)	Head (cm)	Q + Tare (g)	Q (cm^3)	Elapsed time (sec)	Ksat (cm/sec)	Ksat @ 20°C (cm/sec)
Test # 1:								
16-Jul-07	16:37:02	21.5	11.0	12.3	0.4	79	4.2E-05	4.0E-05
16-Jul-07	16:38:21							
Test # 2:								
17-Jul-07	08:04:22	21.5	6.9	12.3	0.4	153	3.8E-05	3.7E-05
17-Jul-07	08:06:55							
Test # 3:								
17-Jul-07	08:19:06	21.5	4.4	12.3	0.4	262	3.3E-05	3.2E-05
17-Jul-07	08:23:28							

***Average Ksat* (cm/sec):** **3.6E-05**
***Oversize Corrected Ksat* (cm/sec):** **NA**

Comments:

--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass
NA = Not analyzed



Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: J. Hines

Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity
Falling Head Method

Job name: CMB Environmental & Geological Services
Job number: LB07.0140.00
Sample number: MW-1 (65.6-66.1)
Ring Number: NA
Depth (ft): 65.6-66.1

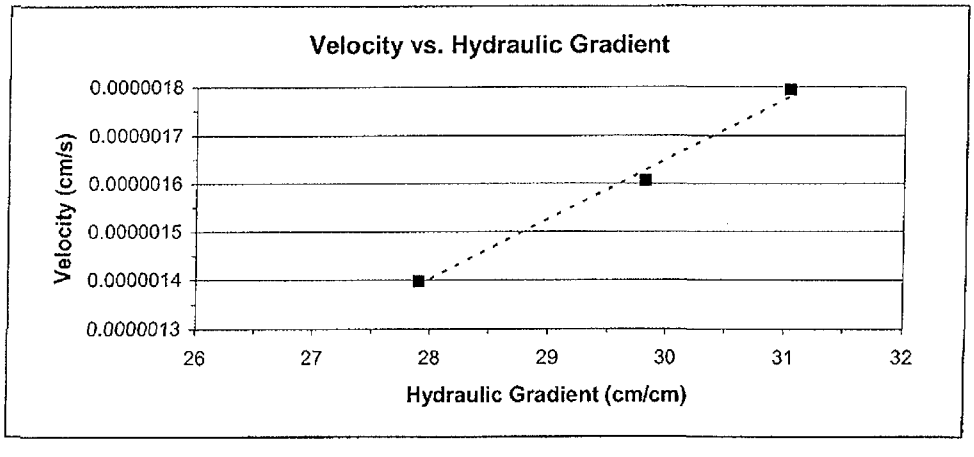
Type of water used: TAP
Backpressure (psi): 0.0
Offset (cm): 0.8
Sample length (cm): 1.88
Sample x-sectional area (cm^2): 29.17
Reservoir x-sectional area (cm^2): 0.70

Date	Time	Temp (°C)	Reservoir head (cm)	Corrected head (cm)	Elapsed time (sec)	Ksat (cm/sec)	Ksat @ 20°C (cm/sec)
Test # 1:							
16-Jul-07	16:40:55	21.5	61.3	60.5	56150	5.8E-08	5.6E-08
17-Jul-07	08:16:45	21.5	57.1	56.3			
Test # 2:							
17-Jul-07	08:16:45	21.5	57.1	56.3	5975	5.4E-08	5.2E-08
17-Jul-07	09:56:20	21.5	56.7	55.9			
Test # 3:							
17-Jul-07	12:32:30	21.5	56.0	55.2	94419	5.0E-08	4.9E-08
18-Jul-07	14:46:09	21.0	50.5	49.7			

***Average Ksat* (cm/sec):** **5.2E-08**
***Oversize Corrected Ksat* (cm/sec):** **NA**

Comments:

--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass
NA = Not analyzed



Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: J. Hines

Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity
Falling Head Method

Job name: CMB Environmental & Geological Services
Job number: LB07.0140.00
Sample number: MW-2 (31.5- 32.0)
Ring Number: NA
Depth (ft): 31.5-32.0

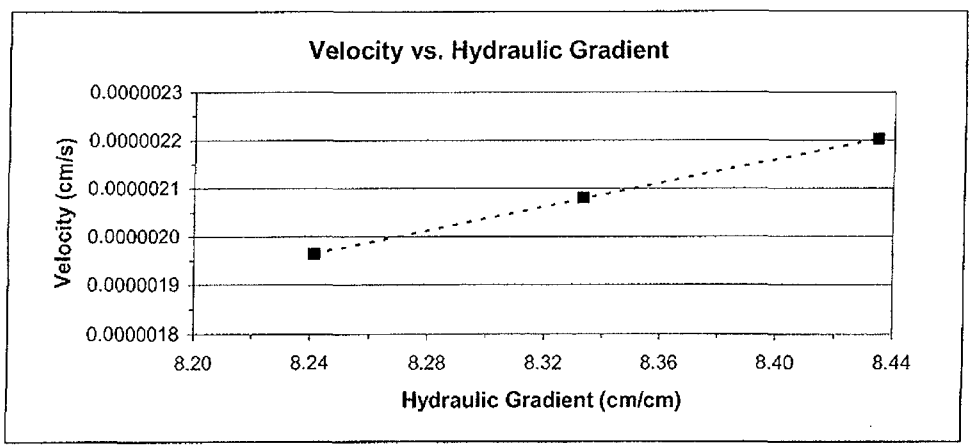
Type of water used: TAP
Backpressure (psi): 0.0
Offset (cm): 2.1
Sample length (cm): 2.72
Sample x-sectional area (cm^2): 18.57
Reservoir x-sectional area (cm^2): 0.70

Date	Time	Temp (°C)	Reservoir head (cm)	Corrected head (cm)	Elapsed time (sec)	Ksat (cm/sec)	Ksat @ 20°C (cm/sec)
Test # 1:							
17-Jul-07	08:16:50	21.5	25.2	23.1	5989	2.6E-07	2.5E-07
17-Jul-07	09:56:39	21.5	24.9	22.8			
Test # 2:							
17-Jul-07	09:56:39	21.5	24.9	22.8	3623	2.5E-07	2.4E-07
17-Jul-07	10:57:02	21.5	24.7	22.6			
Test # 3:							
17-Jul-07	10:57:02	21.5	24.7	22.6	5758	2.4E-07	2.3E-07
17-Jul-07	12:33:00	21.5	24.4	22.3			

***Average Ksat* (cm/sec):** **2.4E-07**
***Oversize Corrected Ksat* (cm/sec):** **NA**

Comments:

--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass
NA = Not analyzed



Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: J. Hines

Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity
Falling Head Method

Job name: CMB Environmental & Geological Services
Job number: LB07.0140.00
Sample number: MW-3 (35.7-36.7)
Ring Number: NA
Depth (ft): 36.7-35.7

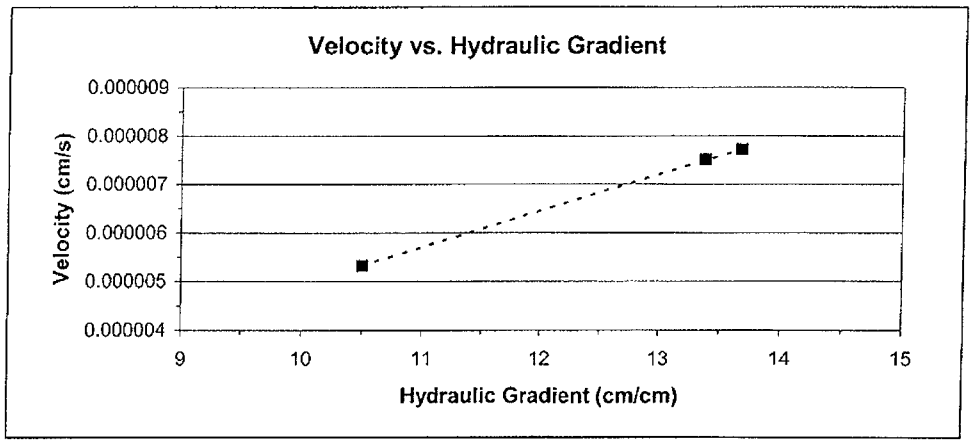
Type of water used: TAP
Backpressure (psi): 0.0
Offset (cm): 0.5
Sample length (cm): 2.26
Sample x-sectional area (cm^2): 31.49
Reservoir x-sectional area (cm^2): 0.70

Date	Time	Temp (°C)	Reservoir head (cm)	Corrected head (cm)	Elapsed time (sec)	Ksat (cm/sec)	Ksat @ 20°C (cm/sec)
Test # 1:							
16-Jul-07	15:30:20	21.5	30.6	30.1	2155	5.5E-07	5.3E-07
16-Jul-07	16:06:15	21.5	29.9	29.4			
Test # 2:							
16-Jul-07	16:06:15	21.5	29.9	29.4	2063	5.4E-07	5.3E-07
16-Jul-07	16:40:38	21.5	29.3	28.8			
Test # 3:							
16-Jul-07	16:50:30	21.5	29.1	28.6	55552	4.9E-07	4.8E-07
17-Jul-07	08:16:22	21.5	17.1	16.6			

***Average Ksat* (cm/sec):** **5.1E-07**
***Oversize Corrected Ksat* (cm/sec):** **NA**

Comments:

--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass
NA = Not analyzed



Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: J. Hines

Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity
Constant Head Method

Job name: CMB Environmental & Geological Services, Inc.
Job number: LB07.0140.00
Sample number: MW-3 (109-110)
Ring Number: NA
Depth (ft): 109-110

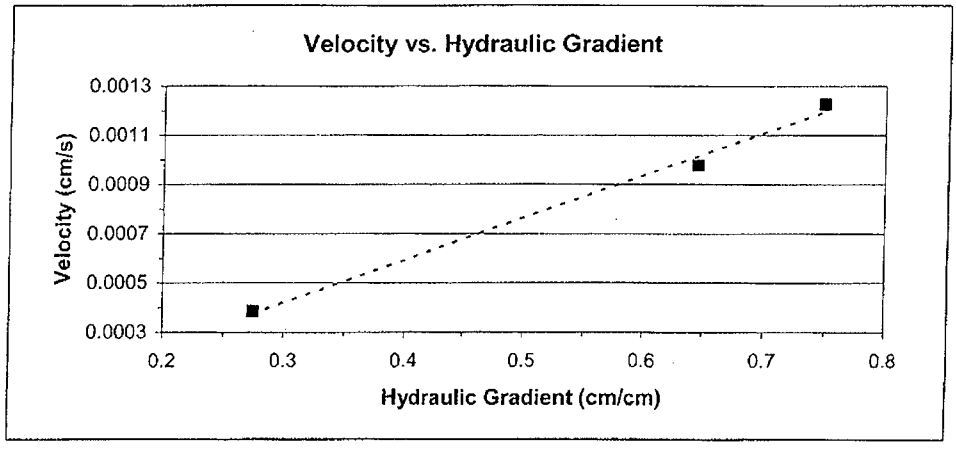
Type of water used: TAP
Collection vessel tare (g): 10.69
Sample length (cm): 3.29
Sample diameter (cm): 6.17
Sample x-sectional area (cm^2): 29.92

Date	Time	Temp (°C)	Head (cm)	Q + Tare (g)	Q (cm^3)	Elapsed time (sec)	Ksat (cm/sec)	Ksat @ 20°C (cm/sec)
Test # 1:								
16-Jul-07	16:36:35	21.5	2.3	13.4	2.8	75	1.8E-03	1.7E-03
16-Jul-07	16:37:50							
Test # 2:								
17-Jul-07	07:55:55	21.5	2.0	17.7	7.0	240	1.6E-03	1.6E-03
17-Jul-07	07:59:55							
Test # 3:								
17-Jul-07	08:09:22	21.5	0.7	12.9	2.2	191	1.7E-03	1.6E-03
17-Jul-07	08:12:33							

***Average Ksat* (cm/sec):** **1.6E-03**
***Oversize Corrected Ksat* (cm/sec):** **NA**

Comments:

--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass
NA = Not analyzed



Laboratory analysis by: D. O'Dowd
Data entered by: D. O'Dowd
Checked by: J. Hines

Effective Porosity

Summary of Effective Porosity Tests

Sample Number	Effective Porosity (% cm^3/cm^3)
*MW-1 (34.8-35.3)	-16.4
MW-1 (40.2-40.7)	13.6
MW-1 (65.6-66.1)	9.3
*MW-2 (31.5- 32.0)	-23.7
MW-3 (35.7-36.7)	17.3
MW-3 (109-110)	25.1

*Sample was supersaturated at 15 bar which may indicate the presence of a salt.

Daniel B. Stephens & Associates, Inc.

Effective Porosity Data

Job Name: CMB Environmental & Geological Services, Inc.
Job Number: LB07.0140.00
Sample Number: MW-1 (34.8-35.3)
Ring Number: NA
Depth (ft): 34.8-35.3

Test Date: 25-Jul-07

Sample Dry Weight (g):* 148.54
Tare Weight (g): 116.29
Bulk Density (g/cm^3): 1.84
Calculated Porosity (% cm^3/cm^3): 30.4

Pressure plate potential (-bars): 15.0
Sample weight at -15.0 bars (g):* 156.7

Moisture content (% g/g): 25.4
Moisture content (% cm^3/cm^3): 46.9
Matric potential (-cm): 15,297

Moisture content at -15 bars **(% cm^3/cm^3): 46.9**
Effective porosity **(% cm^3/cm^3): -16.4**

Comments: Sample was supersaturated at 15 bar which may indicate the presence of salt.

* Weight including tares

Laboratory analysis by: C. Krous
Data entered by: C. Krous
Checked by: J. Hines

Daniel B. Stephens & Associates, Inc.

Effective Porosity Data

Job Name: CMB Environmental & Geological Services, Inc.
Job Number: LB07.0140.00
Sample Number: MW-1 (40.2-40.7)
Ring Number: NA
Depth (ft): 40.2-40.7

Test Date: 24-Jul-07

*Sample Dry Weight** (g): 130.32
Tare Weight (g): 112.61
Bulk Density (g/cm^3): 1.63
Calculated Porosity (% cm^3/cm^3): 38.4

Pressure plate potential (-bars): 15.0
Sample weight at -15.0 bars (g):* 133.0

Moisture content (% g/g): 15.2
Moisture content (% cm^3/cm^3): 24.9
Matric potential (-cm): 15,297

***Moisture content at -15 bars* (% cm^3/cm^3): 24.9**
***Effective porosity* (% cm^3/cm^3): 13.6**

Comments:

* Weight including tares

Laboratory analysis by: C. Krous
Data entered by: C. Krous
Checked by: J. Hines

Daniel B. Stephens & Associates, Inc.

Effective Porosity Data

Job Name: CMB Environmental & Geological Services, Inc.
Job Number: LB07.0140.00
Sample Number: MW-1 (65.6-66.1)
Ring Number: NA
Depth (ft): 65.6-66.1

Test Date: 24-Jul-07

*Sample Dry Weight** (g): 132.41
Tare Weight (g): 116.15
Bulk Density (g/cm^3): 1.68
Calculated Porosity (% cm^3/cm^3): 36.6

Pressure plate potential (-bars): 15.0
Sample weight at -15.0 bars (g):* 135.1

Moisture content (% g/g): 16.2
Moisture content (% cm^3/cm^3): 27.3
Matric potential (-cm): 15,297

***Moisture content at -15 bars* (% cm^3/cm^3): 27.3**
***Effective porosity* (% cm^3/cm^3): 9.3**

Comments:

* Weight including tares

Laboratory analysis by: C. Krous
Data entered by: C. Krous
Checked by: J. Hines

Daniel B. Stephens & Associates, Inc.

Effective Porosity Data

Job Name: CMB Environmental & Geological Services, Inc.
Job Number: LB07.0140.00
Sample Number: MW-2 (31.5- 32.0)
Ring Number: NA
Depth (ft): 31.5-32.0

Test Date: 25-Jul-07

*Sample Dry Weight** (g): 125.43
Tare Weight (g): 112.64
Bulk Density (g/cm^3): 1.74
Calculated Porosity (% cm^3/cm^3): 34.4

Pressure plate potential (-bars): 15.0
Sample weight at -15.0 bars (g):* 129.7

Moisture content (% g/g): 33.4
Moisture content (% cm^3/cm^3): 58.1
Matric potential (-cm): 15,297

***Moisture content at -15 bars* (% cm^3/cm^3): 58.1**
***Effective porosity* (% cm^3/cm^3): -23.7**

Comments: Sample was supersaturated at 15 bar which may indicate the presence of salt.

* Weight including tares

Laboratory analysis by: C. Krous
Data entered by: C. Krous
Checked by: J. Hines

Daniel B. Stephens & Associates, Inc.

Effective Porosity Data

Job Name: CMB Environmental & Geological Services, Inc.
Job Number: LB07.0140.00
Sample Number: MW-3 (35.7-36.7)
Ring Number: NA
Depth (ft): 36.7-35.7

Test Date: 24-Jul-07

*Sample Dry Weight** (g): 134.21
Tare Weight (g): 111.48
Bulk Density (g/cm^3): 1.58
Calculated Porosity (% cm^3/cm^3): 40.3

Pressure plate potential (-bars): 15.0
Sample weight at -15.0 bars (g):* 137.5

Moisture content (% g/g): 14.5
Moisture content (% cm^3/cm^3): 23.0
Matric potential (-cm): 15,297

***Moisture content at -15 bars* (% cm^3/cm^3): 23.0**
***Effective porosity* (% cm^3/cm^3): 17.3**

Comments:

* Weight including tares

Laboratory analysis by: C. Krous
Data entered by: C. Krous
Checked by: J. Hines

Daniel B. Stephens & Associates, Inc.

Effective Porosity Data

Job Name: CMB Environmental & Geological Services, Inc.
Job Number: LB07.0140.00
Sample Number: MW-3 (109-110)
Ring Number: NA
Depth (ft): 109-110

Test Date: 24-Jul-07

*Sample Dry Weight** (g): 156.86
Tare Weight (g): 111.83
Bulk Density (g/cm^3): 1.89
Calculated Porosity (% cm^3/cm^3): 28.7

Pressure plate potential (-bars): 15.0
Sample weight at -15.0 bars (g):* 157.7

Moisture content (% g/g): 1.9
Moisture content (% cm^3/cm^3): 3.6
Matric potential (-cm): 15,297

***Moisture content at -15 bars* (% cm^3/cm^3): 3.6**
***Effective porosity* (% cm^3/cm^3): 25.1**

Comments:

* Weight including tares

Laboratory analysis by: C. Krous
Data entered by: C. Krous
Checked by: J. Hines

Laboratory Tests and Methods

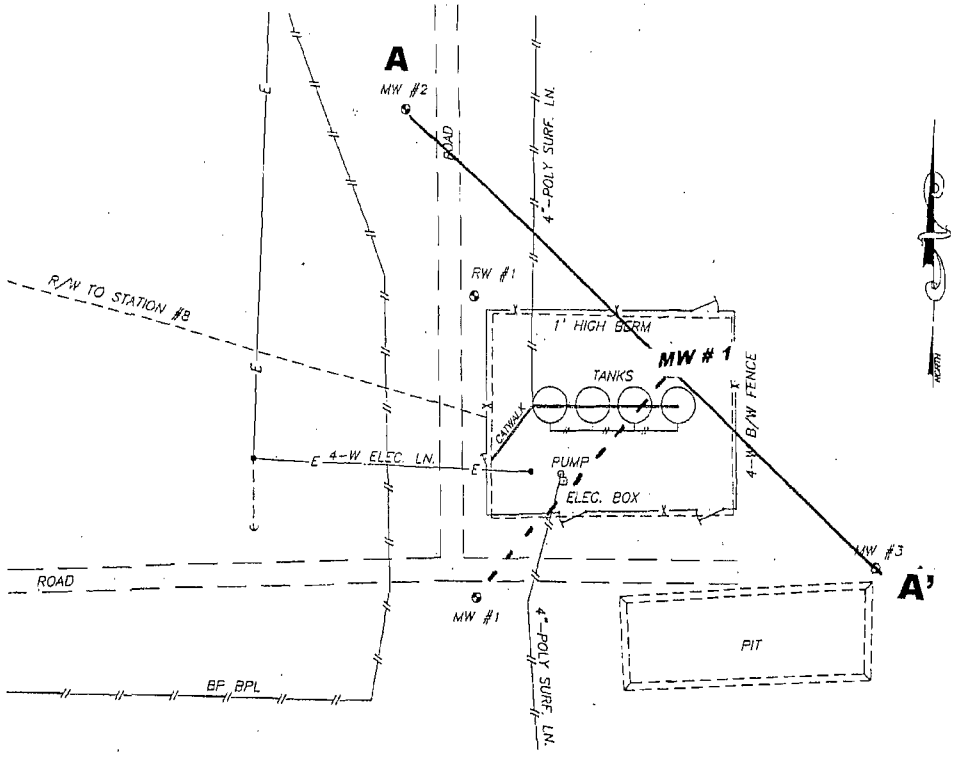
Tests and Methods

Dry Bulk Density:	ASTM D4531; ASTM D6836
Moisture Content:	ASTM D2216; ASTM D6836
Calculated Porosity:	ASTM D2435; Klute, A. 1986. Porosity. Chp.18-2.1, pp. 444-445, in A. Klute (ed.), Methods of Soil Analysis, American Society of Agronomy, Madison, WI
Saturated Hydraulic Conductivity:	
Constant Head: (Rigid Wall)	ASTM D 2434 (modified apparatus)
Falling Head: (Rigid Wall)	Klute, A. and C. Dirkson. 1986. Hydraulic Conductivity and Diffusivity: Laboratory Methods.Chp. 28, pp. 200-203, in A. Klute (ed.), Methods of Soil Analysis, American Society of Agronomy, Madison, WI
Water Potential (Dewpoint Potentiometer) Method:	ASTM D6836; Rawlins, S.L. and G.S. Campbell, 1986. Water Potential: Thermocouple Psychrometry. Chp. 24, pp. 597-619, in A. Klute (ed.), Methods of Soil Analysis, Part 1. American Society of Agronomy, Madison, WI.
Effective Porosity:	Corey, A. T. 1994, Reprinted 2003, Chp. 2.3.3, pp. 41-42, in A. T. Corey, Mechanics of Immiscible Fluids in Porous Media, Water Resources Publications, LLC., Highlands Ranch, Colorado, U.S.A.; Stephens, D.B.,1997, Hydrology Journal (1998) 6:6156-165, A Comparison of Estimated and Calculated Effective Porosity.

Appendix 2:
Cross Section Location Map & Cross Section A-A’

New Mexico Salt Water Disposal Company
Station # 11
Section 21, Township 10 South, Range 34 East, N.M. P. M.
Lea County, New Mexico
Location of Cross Section A – A'

SECTION 21, TOWNSHIP 10 SOUTH, RANGE 34 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO



WELL NO.	STATE PLANE COORDINATES	NORTH SIDE ELEVATIONS
MW #1	Y=887815.1 N X=803033.6 E	4218.10' GROUND 4218.51' TOP OF CONCRETE 4221.12' TOP OF 2" PVC PIPE
RW #1	Y=887941.7 N X=803032.8 E	4217.53' GROUND 4217.94' TOP OF CONCRETE 4220.13' TOP OF 4" PVC PIPE
MW #2	Y=888022.4 N X=803002.7 E	4217.09' GROUND 4217.39' TOP OF CONCRETE 4220.14' TOP OF 2" PVC PIPE
MW #3	Y=887828.2 N X=803210.2 E	4217.60' GROUND 4217.99' TOP OF CONCRETE 4220.54' TOP OF 2" PVC PIPE

LEGEND

- DENOTES FENCE GATE
- DENOTES FENCE LINE
- DENOTES GUY DOWN

NOTE: COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983.

SCALE: 1" Inch = 75' Feet

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

RONALD J. EIDSON 3239 REGISTERED PROFESSIONAL SURVEYOR

7/17/07

GARY G. EIDSON N.M. P.S. No. 12641
RONALD J. EIDSON N.M. P.S. No. 3239

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

NEW MEXICO SALT WATER DISPOSAL CO.

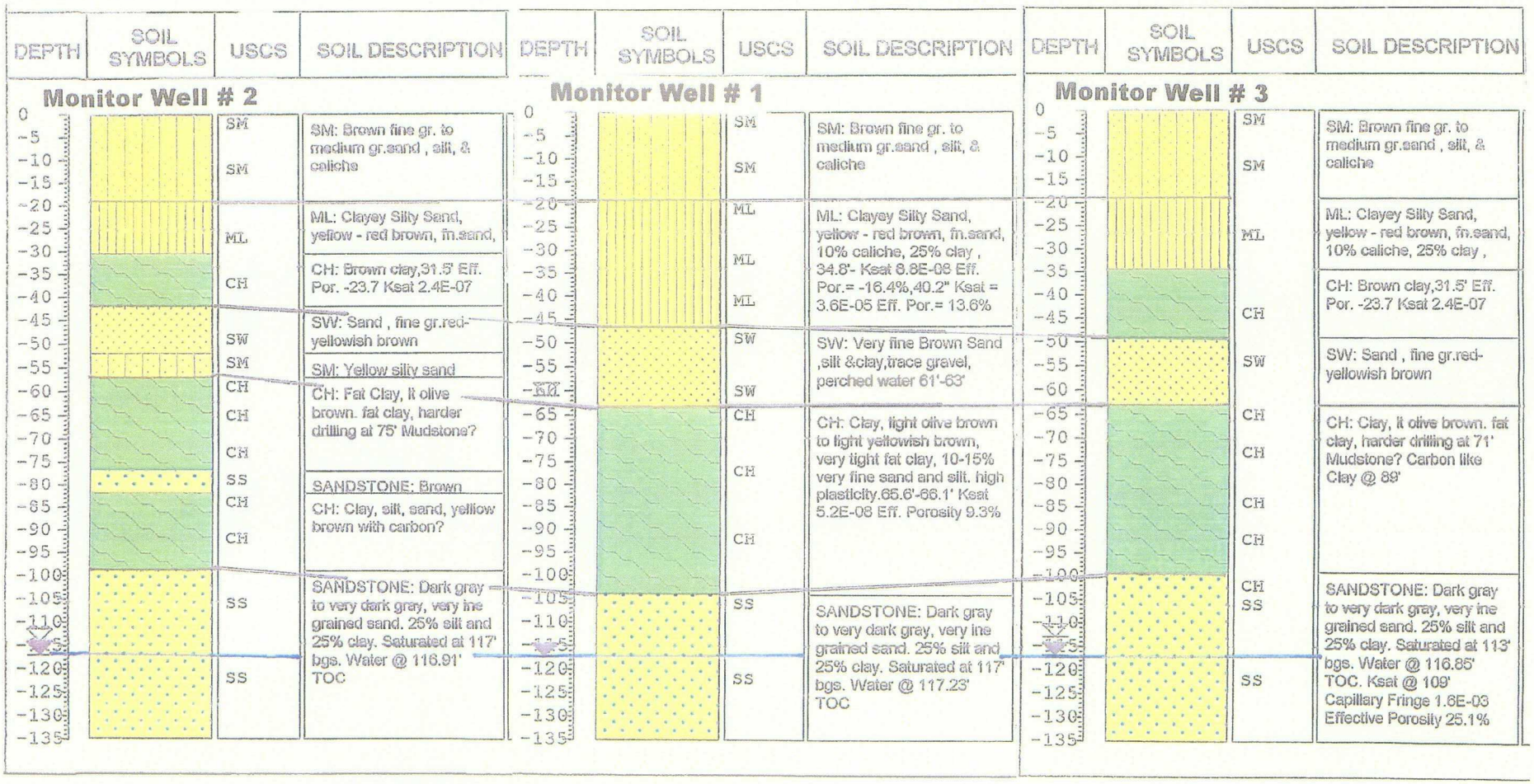
SURVEY OF DISPOSAL STATION #11 IN SECTION 21, TOWNSHIP 10 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

Survey Date: 07/02/07	Sheet 1 of 1 Sheets		
W.O. Number: 07.11.0830	Dr By: J.R.	Rev 1:	
Date: 07/16/07	Disk: CD#7	07110830	1" = 75'

New Mexico Salt Water Disposal Company
Station # 11
Section 21, Township 10 South, Range 34 East, N.M. P. M.
Lea County, New Mexico

Cross Section Of Soil Borings / Monitor Wells 1, 2,& 3

A **A'**



Scale: 1" inch = 30' feet (Vertical and Horizontal)

Clayton M. Barnhill, PG
CMB Environmental & Geological Services Inc.

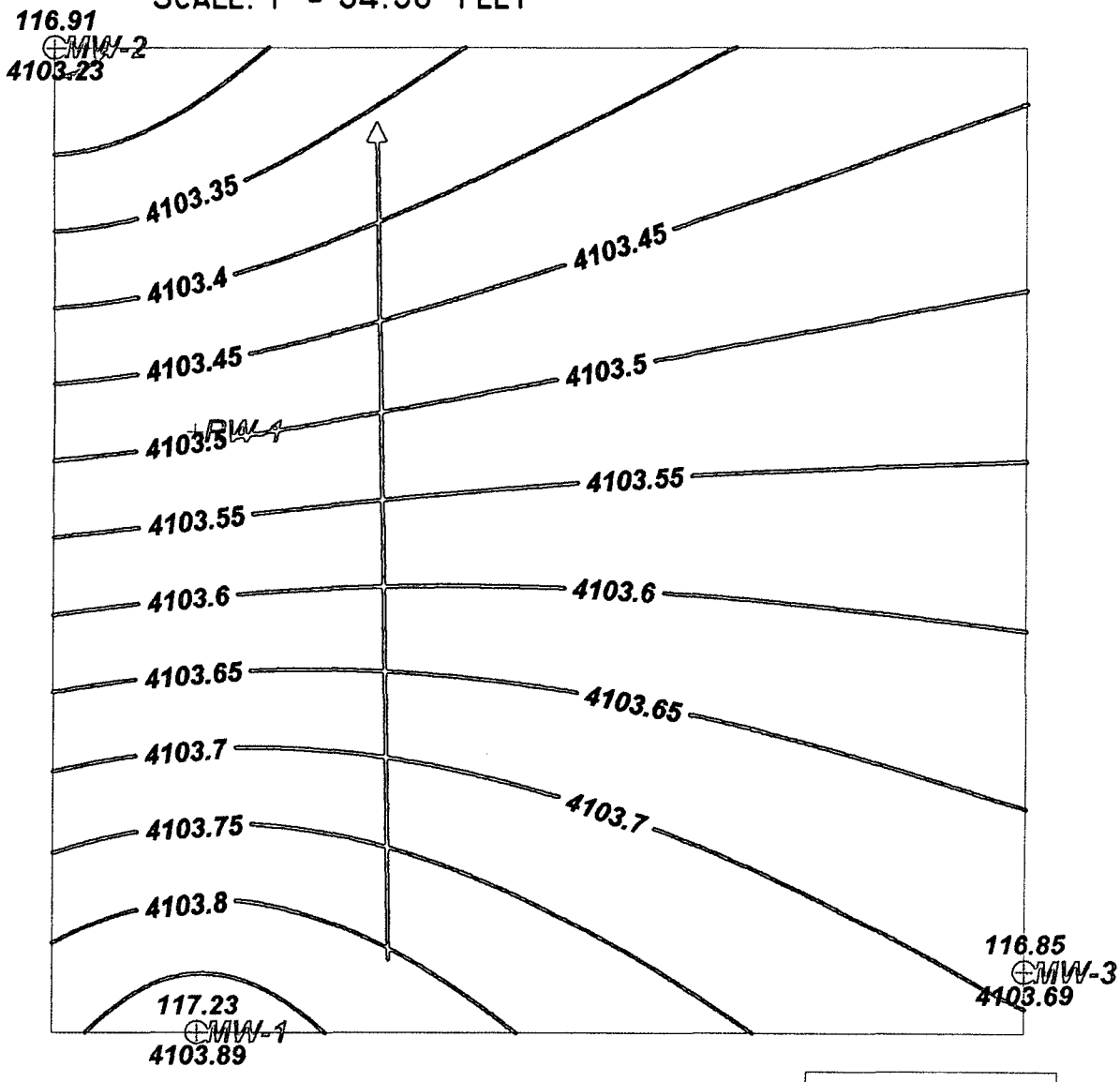
July 2007

Appendix 3:
Potentiometric Surface Map

New Mexico Salt Water Disposal Company
Disposal Station # 11
Section 21, T.10S. R.34E.N.M.P.M.
Lea County, New Mexico

N

GROUNDWATER POTENTIOMETRIC SURFACE MAP
SCALE: 1" = 34.58' FEET



GROUNDWATER FLOW DIRECTION INDICATED BY BLUE FLOW LINES
CONTOUR INTERVAL IS 0.05' FOOT.

○ 4103.23 to 4104

DEPTH TO WATER MEASURED FROM TOP OF MONITOR WELL CASING AND IS INDICATED BY BLACK NUMBERS ABOVE MONITOR WELL LOCATIONS.
GROUNDWATER CONTOURS ARE DEVELOPED BY SUBTRACTING DEPTH TO GROUNDWATER FROM THE SURVEYED TOP OF MONITOR WELL CASING (ASL).
GROUNDWATER ELEVATIONS (ASL) ARE POSTED BENEATH MONITOR WELL LOCATIONS.

PREPARED BY CLAYTON M. BARNHILL, PG, 08/01/07
FOR: NM SALT WATER DIISPOAL COMPANY
STAGE I ABATEMENT PLAN / MSA - MONITOR WELL INSTALLATION JUNE / JULY 2007.

Appendix 4:
Soil Boring Logs

CMB Environmental & Geological Services, Inc.

PO Box 2304 Roswell, NM 88202-2304

cmbenviro@dfn.com

(505) 622-2012 Fax (505) 625-0538

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-1**

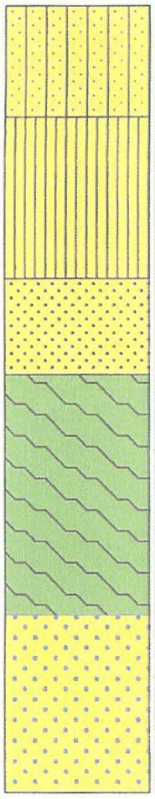
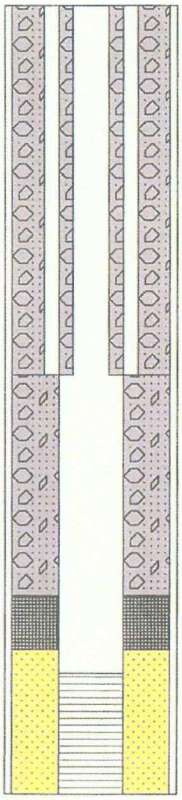
TOTAL DEPTH: **135'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	NMSWDCO ESA 06/07	DRILLING CO.:	GeoProjects International
SITE LOCATION:	Lea County, NM	DRILLER:	Jose Landeros
JOB NO.:		RIG TYPE:	CME-75
LOGGED BY:	Luana Rought, PhD	METHOD OF DRILLING:	Hollow Stem Auger 4 1/4"
PROJECT MANAGER:	CM Barnhill, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	06/12/07 - 06/29/07	HAMMER WT./DROP	140 lb., 30 in.

NOTES:

▽ Water level during drilling

▼ Water level in completed well

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. / inches	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0		SM	SM: Brown fine gr. to medium gr.sand , silt, & caliche	Split Spoon Soil Samples analyzed for TPH Mod 8015 GRO /DRO, BTEX, Chloride	24"	0.3		Cement / Grout
-5					12"	0.3		
-10		SM			3"	NS		
-15					5"	0.2		
-20		ML	ML: Clayey Silty Sand, yellow - red brown, fn.sand, 10% caliche, 25% clay , 34.8'- Ksat 8.8E-08 Eff. Por.= -16.4%,40.2" Ksat = 3.6E-05 Eff. Por.= 13.6%		12"	0.1		
-25					12"	0.1		
-30		ML			12"	0.4		
-35					12"	0.2		
-40		ML			12"	0.2		
-45					13"	0.2		Cement Grout Set 6" Sch 40 PVC surface casing surface to 65'
-50		SW	SW: Very fine Brown Sand ,silt &clay,trace gravel, perched water 61'-63'		6"	NS		
-55					2"	0 PPM		
-60		SW		Every 5' unless there was no sample recovery	6"	0 PPM		
-65		CH	CH: Clay, light olive brown to light yellowish brown, very tight fat clay, 10-15% very fine sand and silt. high plasticity.65.6'-66.1' Ksat 5.2E-08 Eff. Porosity 9.3%		17"	0 PPM		
-70					NS	0 PPM		
-75		CH			12"	0 PPM		
-80					NS	0 PPM		
-85					NS	0 PPM		
-90		CH			20"	0 PPM		
-95					NS	0 PPM		
-100					NS	0 PPM		
-105		SS	SANDSTONE: Dark gray to very dark gray, very ine grained sand. 25% silt and 25% clay. Saturated at 117' bgs. Water @ 117.23' TOC		4"	0 PPM		TD 135' Cement Grout 0'-100.5',Betonite 100.5'-109.8'. 16/30 Sand 109.8'-135',0.010 Slot Screen 114'-135'
-110					NS			
-115					NS			
-120		SS						
-125								
-130								
-135								

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PO Box 2304 Roswell, NM 88202-2304

cmbenviro@dfn.com

(505) 622-2012 Fax (505) 625-0538

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-2**

TOTAL DEPTH: **135'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	NMSWDCO ESA 06/07	DRILLING CO.:	GeoProjects International
SITE LOCATION:	Lea County, NM	DRILLER:	Jose Landeros
JOB NO.:		RIG TYPE:	CME-75
LOGGED BY:	Luana Rought, PhD	METHOD OF DRILLING:	Hollow Stem Auger 4 1/4"
PROJECT MANAGER:	CM Barnhill, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	06/06/07 - 06/13/07	HAMMER WT./DROP	140 lb., 30 in.

NOTES:

▽ Water level during drilling

▼ Water level in completed well

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. / inches	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0		SM	SM: Brown fine gr. to medium gr.sand , silt, & caliche	Split Spoon Soil Samples analyzed for TPH Mod 8015 GRO /DRO, BTEX, Chloride	24"	4.8		Cement / Grout
-5					24"	0.1		
-10		SM			24"	0.4		
-15					24"	0.3		
-20			ML: Clayey Silty Sand, yellow - red brown, fn.sand,		23"	0		
-25		ML			24"	0.3		
-30			CH: Brown clay,31.5' Eff. Por. -23.7 Ksat 2.4E-07		18"	0.3		
-35		CH			24"	0		
-40					24"	0		
-45			SW: Sand , fine gr.red-yellowish brown		8/10'	0.3		Cement Grout
-50		SW			18"	0.4		
-55		SM	SM: Yellow silty sand		12"	0.3		
-60		CH	CH: Fat Clay, lt olive brown. fat clay, harder drilling at 75' Mudstone?	Every 5' unless there was no sample recovery	18"	0.3		
-65		CH			18"	0		
-70					18"	0.5		
-75		CH			4/10'	0		
-80		SS	SANDSTONE: Brown		2/10'	NS		TD 135' Cement Grout 0'-106.3',Betonite 106.3'-111'. 16/30 Sand 111'-135',0.010 Slot Screen 114.5'-135'
-85		CH	CH: Clay, silt, sand, yelllow brown with carbon?		18"	0		
-90					19"	3.0		
-95		CH			9/10'	NS		
-100					NS	NS		
-105		SS	SANDSTONE: Dark gray to very dark gray, very ine grained sand. 25% silt and 25% clay. Saturated at 117' bgs. Water @ 116.91' TOC		2/10'	NS		
-110					NS			
-115					3/10'	NS		
-120		SS			3/10'			
-125					1/10'			
-130					1/10'			
-135								

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PO Box 2304 Roswell, NM 88202-2304

cmbenviro@dfn.com

(505) 622-2012 Fax (505) 625-0538

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-3**

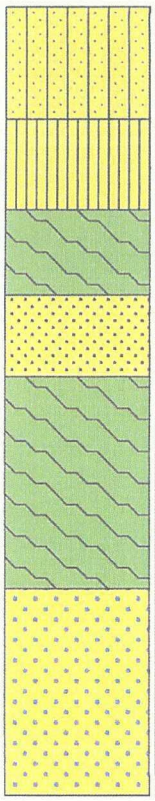
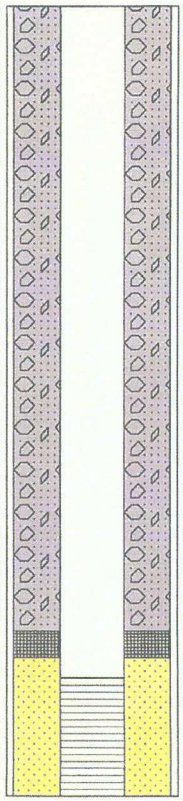
TOTAL DEPTH: **135'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	NMSWDCO ESA 06/07	DRILLING CO.:	GeoProjects International
SITE LOCATION:	Lea County, NM	DRILLER:	Jose Landeros
JOB NO.:		RIG TYPE:	CME-75
LOGGED BY:	Luana Rought, PhD	METHOD OF DRILLING:	Hollow Stem Auger 4 1/4"
PROJECT MANAGER:	CM Barnhill, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	06/22/07 - 06/26/07	HAMMER WT./DROP	140 lb., 30 in.

NOTES:

▽ Water level during drilling

▼ Water level in completed well

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. / inches	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0		SM	SM: Brown fine gr. to medium gr.sand , silt, & caliche	Split Spoon Soil Samples analyzed for TPH Mod 8015 GRO /DRO, BTEX, Chloride	24"	0.4		Cement / Grout
-5					12'	0.5		
-10		SM			6"	NS		
-15					18"	0.4		
-20			ML: Clayey Silty Sand, yellow - red brown, fn.sand, 10% caliche, 25% clay ,		18"	0.3		
-25		ML			12"	0.1		
-30					12"	0.2		
-35			CH: Brown clay,31.5' Eff. Por. -23.7 Ksat 2.4E-07		12"	NS		
-40					NS	NS		
-45		CH			12"	NS		
-50					12"	0.1		Cement Grout
-55		SW	SW: Sand , fine gr.red-yellowish brown		12"	NS		
-60					1/10'	NS		
-65		CH	CH: Clay, lt olive brown. fat clay, harder drilling at 71' Mudstone? Carbon like Clay @ 89'	Every 5' unless there was no sample recovery	12"	0.2		
-70					12"	0.2		
-75		CH			12"	0.3		
-80					1/10'	NS		
-85		CH			6"	0.3		TD 135' Cement Grout 0'-106.3',Betonite 90-96'. 96,109.5' Slough Sand, 16/30 Sand 109.5'-135',0.010 Slot Screen 114.5'-135'
-90					12"	0.2		
-95		CH			6"	NS		
-100					12"	0.3		
-105		CH SS	SANDSTONE: Dark gray to very dark gray, very fine grained sand. 25% silt and 25% clay. Saturated at 113' bgs. Water @ 116.85' TOC. Ksat @ 109' Capillary Fringe 1.6E-03 Effective Porosity 25.1%		6"	0.2		
-110					1.5"	NS		
-115					0.3"	NS		
-120		SS			12"			
-125								
-130								
-135								

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PO Box 2304 Roswell, NM 88202-2304

cmbenviro@dfn.com

(505) 622-2012 Fax (505) 625-0538

FIELD BOREHOLE LOG

BOREHOLE NO.: **RW-1**

TOTAL DEPTH: **33'**

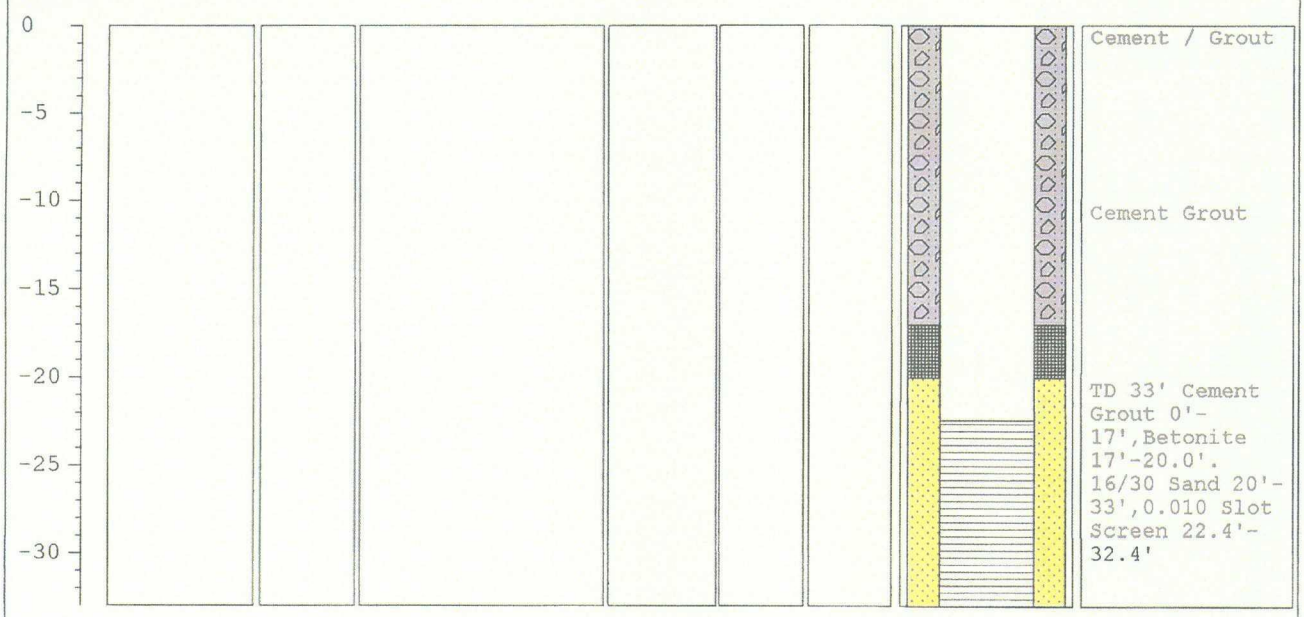
PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	NMSWDCO ESA 06/07	DRILLING CO.:	GeoProjects International
SITE LOCATION:	Lea County, NM	DRILLER:	Jose Landeros
JOB NO.:		RIG TYPE:	CME-75
LOGGED BY:	Luana Rought, PhD	METHOD OF DRILLING:	Hollow Stem Auger 6 5/8
PROJECT MANAGER:	CM Barnhill, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	06/12/07	HAMMER WT./DROP	140 lb., 30 in.

NOTES:

▽ Water level during drilling

▼ Water level in completed well

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. / inches	PID ppm	BORING COMPLETION	WELL DESCRIPTION



CMB Environmental & Geological Services, Inc.
PO Box 2304
1208 Highland Road
Roswell, NM 88202-2304

FIELD BOREHOLE LOG

BOREHOLE NO.: **SB-4A**
TOTAL DEPTH: **31'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	NM SW Disposal Co.	DRILLING CO.:	Atkins Engineering
SITE LOCATION:	Sec. 21 T10S R34E	DRILLER:	Mort Bates
JOB NO.:	NMSWDCO2003-02	RIG TYPE:	Mobile Drill B-58
LOGGED BY:	CM Barnhill, PG	METHOD OF DRILLING:	Hollow Stem Auger
PROJECT MANAGER:	John Maxey, Jr.	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	11/20/03	HAMMER WT./DROP	140 lb., 30" inch

NOTES:

Water level during drilling
Water level in completed well

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Blows / ft.	CL ppm	BORING COMPLETION	WELL DESCRIPTION
		SW	SW: Tan Brown Sand, No Hydrocarbon Odor or Staining', Medium grained, well sorted sand, caliche nodules @ 4'-19', Non Detect TPH @ 0'-2', Non Detect BTEX, Non Detect TPH @ 4'-11' & Non Detect BTEX	0'-2'	50/24"	160 PPM		Drill Cuttings / backfill from surface to 10' BGS
5		SW		4'-6'	50/12"	800 PPM		
10				9'-11'	52/6"	2100 PPM		
15		SW		14'-16'	50/12"	3400 PPM		Bentonite @ TD to 10' BGS
20		SC	SC: Tan Brown Clayey Sand , No Hydrocarbon Odor or staining. Water Sample from 30.82' BGS Cl = 45000 PPM, 26 PPM Acetone, all other VOC's Non-Detect, PAH's = ND, Mecury = ND RCRA8=ND	19'-21'	44/24"	4500 PPM		
25		SC		24'-26'	62/24"	5300 PPM		
30		CH	CH: Brown Tight Fat Clay, silty 29'-31', Perched Water @ 30.82' BGS Sampled for PAH's, VOC's, RCRA 8 Metals, TDS, Chloride	29'-31'	63/12"	3900 PPM		T.D. 31'
35		CH		34'-36'				

CMB Environmental & Geological Services, Inc. Boring ID: MW-1

Project: Station 11 - Site Assessment
Location: NMSWDCO - Station 11
Client: NMSWDCO
Driller: Geoprojects International; José Landeros
Drilling method: HSA (Holloco Stem Auger) (mud rotary > 65')
Boring date: 6/12/07
Water level:

Sheet: ~~MW~~ 1 of 5
Job number: NMSWDSA-1
Total depth:
Boring diameter: 3¼" ID
Logged by: L. Rought
Date measured:

split spoon = spsp | lab sample = lab s.

TIME	depth (ft)	SAMPLE interval	SAMPLE number	SAMPLE recovery (inches)	~~standard penetration test results~~	SOIL DESCRIPTION (Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content)	graphic log	COMMENTS (Monitoring well installation, geotechnical properties, analytical tests, instrumentation)
								Calibrated PID; ambient: 0.2 ppm
14:00	0–3	0–2		24"	split spoon lab s.	0'-2': sand; brown (7.5YR5/3); very fine to ~~coarse~~ medium sand; trace silt; mostly subrounded quartz; trace biotite; poorly sorted; soft consistency; moist; no odor; roots	SW	PID = 0.3 ppm
								caliche @ 3'
1420	4–5	4–5		12"	sp/sp lab s.	4'-5': sand/caliche; pink (7.5YR7/3); very fine to medium sand; cemented with $CaCO_3$ / caliche; poorly sorted; hard consistency; dry to moist.	SW/caliche	PID = 0.3 ppm
1435	9–10	9–9.3		3/10'	sp sp lab s.	9.0'-9.3': sand/caliche;	SW/caliche	PID = insufficient sample
						as above		
1450	14–15	14–14.5		5/10'	sp sp lab s.	14.0'-14.5': sand/caliche;	SW/caliche	PID = 0.2 ppm
						as above		
1510	19–20	19–20		12"	sp sp lab s.	19.0'-20.0': silt with sand and clay;	ML	PID = 0.1 ppm
1525	24–25	24–25		12"	sp sp lab s.	light reddish brown to yellowish red (5YR6/4 to 5YR4/6) and white; silt with 20% very fine to fine sand; 10-15% caliche in nodules; 25-30% clay; mottled / caliche in small voids; hard consistency; moist; no odor	ML	
						24'-25': as above; black staining Mn-oxide + ?; no odor	ML	PID = 0.1 ppm black ??
1545	29–30	29–30		12"		29-30.0 : next page		

CMB Environmental & Geological Services, Inc. Boring ID: mw-1

Project:	Station 11 - Site Assessment 1	Sheet:	~~mw-1~~ 2 of 5
Location:	NMSWDCO - Station 11		
Client:	NMSWDCO	Job number:	NMSWD SA-1
Driller:	Geoprojects Intern.	Total depth:	
Drilling method:	HSA (mud rotary > 65')	Boring diameter:	3 1/4" ID
Boring date:	6/12/07	Logged by:	L Rought
Water level:		Date measured:	

split spoon = spsp / lab sample = labs. / sand stone = sstone

TIME	depth (ft)	SAMPLE interval	SAMPLE number	SAMPLE recovery (inches)	~~standard~~ penetration ~~test results~~	SOIL DESCRIPTION (Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content)	graphic log	COMMENTS (Monitoring well installation, geotechnical properties, analytical tests, instrumentation)
1545	30	29-30		12"	spsp labs.	29'-30' = silt with sand and clay; light reddish brown to yellowish red (5YR 6/4 to 5YR 4/6) and white; silt with 25-30% clay and 20% very fine to fine sand; 10-15% white caliche in nodules & stringers or mottled appearance; hard consistency; moist; no odor	ML ML	PID = 0.4 ppm
1605	35	34-35.5		18"	spsp labs.	34'-35.5' = silt with sand and clay; colors as above — as above —	ML	PID = 0.2 ppm GEOTECH - sample mw-1 (34.8'-35.3') 37'-38' change
1640	40	39-40		12"	spsp labs.	39'-40' = clay with sand and silt; strong brown (7.5YR 5/6); fat clay with 20-25% silt and very fine sand; less than 5% white caliche; sand in mm- to cm-size lenses/pockets/stringers; hard consistency; moist	CH	PID = 0.2 ppm
6/13/07 0915	41	40-41.5		18"	spsp labs.: (40.7-41.2)	40'-~~41.5~~ 40.2': clay; as above	ML	40.2' change At 40'-41' soft / H_2O - saturated sand's on center bit, spsp sample only moist! At 41.5' very hard 45.3': WAIT FOR H_2O IN BOREHOLE: NEGATIVE mw-1 (40.2-40.7) GEOTECH SAMPLE: ~~40-40.5~~
~~1015~~ 1015	43 44 45	44-45.3		~~18"~~ 15"	spsp labs.	40.2-41.5: silt with sand and clay; yellowish red to strong brown; silt, 20% very fine sand and +/- 5% clay; hard consistency; moist. 44.0'-45.3': silt with sand and clay; strong brown (7.5YR 5/6); silt with 20-25% very fine to fine sand and 5% clay; hard consistency; moist to dry; less than 5% caliche (white); hard consistency; moist.	ML ML	PID = 0.2 ppm
	46 47						ML 3'? SW	change?
1055	48 49 50	49-49.5		~~8~~ 6"	spsp labs.	49'-49.5: sand; strong brown (7.5YR 5/6); very fine to medium sand with 5-10% silt and less than 5% clay; trace rounded gravel 2-5 mm diameter; poorly sorted; subrounded; hard consistency; moist	SW SW	PID = insufficient sample

CMB Environmental & Geological Services, Inc. Boring ID: mw-1

Project: Station 11 SA-1
Location: NMSWDCO - Station 11
Client: NMSWDCO
Driller: GPI
Drilling method: HSA (Mud Rotary > 65')
Boring date: 6/12/07
Water level:

Sheet: 3 of 5
Job number: NMSWD SA-1
Total depth:
Boring diameter: 3 1/4" ID
Logged by: L Roughl
Date measured:

Abbrev.: split spoon = spsp / labsample = labs. / sandstone = sstone

Time	depth (ft)	SAMPLE interval	number	recovery (inches)	~~standard penetration test results~~	SOIL DESCRIPTION (Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content)	graphic log	COMMENTS (Monitoring well installation, geotechnical properties, analytical tests, instrumentation)
	50							
1120	55	54-54.3		2/10'	spsp/labs.	54.0-54.3: sand; brownish yellow (10YR 6/6) to yellow (10YR 7/6); very fine to medium sand; 5% silt; 1% very small (2-4 mm diameter) rounded gravel; sand rounded; poorly sorted; hard consistency; moist.	SW	PID = insufficient sample
							SW	
								At 59': hard drilling 6-12" sstone/mudstone?
	60							
	61							
	62						SW	
1155	63	63.5-64.0		6"	spsp/labs.	63.5-64.0: clay, light olive brown (2.5Y 5/4) to light yellowish brown (2.5Y 6/4); very tight fat clay with	CH	63': Driller observes clay when auger was tripped out, there was 2' of water in borehole
	64							64.0-64.5 = sstone/mudstone (hard drilling)
	65					gray stringers and mm-thin layers; 10-15% very fine sand and silt; high plasticity, trace caliche ($CaCO_3$); dry to moist. At 64.1-64.12" of sstone/mudstone	CH	1208: DTW = 58.8' BGS 1305 = DTW = 61.0' / 1315: DTW = 61.0' BGS 1345: Collect MW-1 (61-63.5) 4@40 ml VOA's w/ $HgCl_2$; 1@500 ml; unpreserved
		Drillers on leave until 6/20/07						
0740		Drillers return				on 6/21/07 MW-1: DTW = 61.80' BGS Borehole open to 63.20' BGS		
0750		In the morning				complete Recovery Well	RW-1	
1330		Continue to drill MW-1; see next page						

CMB Environmental & Geological Services, Inc. Boring ID: mw-1

Project: Station 11 SA-1
Sheet: 4 of 5
Location: NMSWDCO Station 11
Client: NMSWDCO
Job number: NMSWD SA-1
Driller: GPI
Total depth:
Drilling method: HSA / Mud Rotary > 65'
Boring diameter: 3 1/4"
Boring date: 6/12/07
Logged by: J Rought
Water level:
Date measured:

Abbrev. split spoon = sp sp / Lab sample = labs. / sandstone : sstone

TIME	depth (ft)	SAMPLE interval	SAMPLE number	SAMPLE recovery (inches)	~~Standard penetration test results~~	SOIL DESCRIPTION: Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	graphic log	COMMENTS: Monitoring well installation, geotechnical properties, analytical tests, instrumentation
1420	65	65-66.4		17"	sp sp / GeoTech	65.0-66.4: fat clay; light olive brown (2.5Y 5/4) to light yellowish brown (2.5Y 6/4); 15-20% very fine sand and silt; gray stringers and mm-size layers of sand (irregular distribution); trace caliche; dry to moist; very tight clay; high plasticity; hard consistency	CH	Drilled to 65'; DTW = 60.3' @ 14:15 HRS. GeoTech: MW-1 (65.6-66.1) To contain water in perched zone @ 60' drill out borehole with 6 5/8" augers and set 6" SCH 40 PVC surface casing to 65' BGS.
6/26/07 12:25	66							6/26/07 12:25 Mud Rotary first sample at 67.6-68.5 confirms fat clay; as above
	67							
	68						CH	
	69							
	70							
	71						CH	
1330	72				No sample	72': fat clay; as above	~~CH~~	At 72' still in fat clay, as above (drill bit sample)
	73							
	74						CH	
	75							
	76							
	77						CH	
1435	78	77.6-78.6		12"	sp sp / labs.	77.6-78.6: clayey, silty sand; very dark grayish brown (2.5Y 3/2) to light olive brown (2.5Y 5/3); strong brown <1 mm irregular bands	SC/SM	change @ +/- 77.5' sample is saturated with drill fluid/mud
	79							78.6 very hard +/- 1' of sstone/mudstone
	80					very fine to medium sand with 15-20% clay and 15-20% silt; laminated		
	81							
1530	82	82'			No sample	82' = fat clay; dark gray (2.5Y 4/1); fat clay; 15-20% silt and very fine sand; high plasticity	CH	82'; sample from drill bit
	83							
	84							84-85' = hard drilling sstone/mudstone
	85							
	86							
	87	87.5						
1615	88	~~88~~			No sample	87': fat clay; black (2.5Y 2.5/1) fat clay; 10-15% silt; less than 10% fine sand; high plasticity; possibly carbon-containing	CH	hydraulic pump defective
	89	89-90.8		20"	sp sp / labs			Re-started drilling @ 1600 hr. 06/28/07
1000 06/28/07	90					Same as above. 89-90.8'		
	91							
	92							
	93							
17:00	94					Hard Drilling: Sandstone layer	20 :58	94.0'-94.6. SS
	95							

CMB Environmental & Geological Services, Inc. Boring ID: MW-1

Project: Station 11 - SA-1
Location: NMSWDCO Station 11
Client: NMSWDCO.
Driller: GPI.
Drilling method: MUD Rotary @ 65' HSA to 65'
Boring date: 06/28/07
Water level:

Sheet: 5 of 5
Job number: NMSWD - SA-1
Total depth:
Boring diameter:
Logged by: CMB/LRWright.
Date measured:

Abbrev. split spoon = spsp / LAB sample = lab. Sandstone = SS

Time	depth (ft)	SAMPLE interval	SAMPLE number	SAMPLE recovery (inches)	standard penetration test results	SOIL DESCRIPTION: Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	graphic log	COMMENTS: Monitoring well installation, geotechnical properties, analytical tests, instrumentation
95								
96		96.4 -			~~Spsp/Hole~~ No Sample.	Dark Gray to Black - Fat Clay 10-15% Silt 5% Fine Sand, Possibly organic carbon containing?	CH	
97								
98								
99								
100'								
101						Hard Drilling 102 - ~~106.4~~ 104.4		
102								
103								
19:00 104		104.4 - ~~106.4~~	106.8. 4"		SPSP/LAB	Sandstone: Dark gray to Very dark Gray: Very fine to fine Sand. 25% Silt. 20-25% Clay. Semi-consolidated.		
105								
106								
107								
108								
109								
110								
111								Started drilling 06/29/07 @ 0900
112								
113								
10:00 114		114.0 - 114.8			SPSP/LAB	No Recovery - Very hard - Capillary fringe.		Sampled 114.0 — @ 10:00
115								
						T.D. 135' @ Top Screen @ 114.0' Top Sand @ 109.8' 16/30		Trimmed Sand — with Trimmy Pipe
120								
						Top Bentonite 109.8 - 100.5 Grout 100.5' - Surface. Surface Casing to 65' 6" SCH 40 PVC.		
139'								

CMB Environmental & Geological Services, Inc. Boring ID: mw-2

Project: Station 11 site Assessment (SA-1) Sheet: 1 of 6
Location: NMSWDCO - Station 11
Client: NMSWDCO Job number: NMSWD SA-1
Driller: Geo Projects International (GPI) Total depth: 134' BGS Boring / 135.0 well
Drilling method: Hollow Stem Augers (HSA) Boring diameter: 3 1/4" ID / drill out with 4 1/4" ID
Boring date: 6/6/2007 (completed 6/13/07) Logged by: Luana Roughd
Water level: 114.05' BGS / 117.05' TOC Date measured: 6/23/07
Abbreviations: split spoon = spsp / lab sample = labs. / sandstone = sstone

TIME	depth (ft)	SAMPLE interval	SAMPLE number	SAMPLE recovery (inches)	~~standard penetration test results~~	SOIL DESCRIPTION (Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content)	graphic log	COMMENTS (Monitoring well installation, geotechnical properties, analytical tests, instrumentation)
1034	1–4	0-2		24"	spsp/labs.	0'-2': silty sand; brown (7.5YR 5/4), very fine to fine sand; 30% silt; trace clay; poorly sorted; subrounded; soft consistency; moist; no odor; roots. At 0.8' pink to very pale brown caliche impregnating very fine sand; very hard. At contact sand brown (7.5YR 4/3)	SM/caliche	PID = 4.8 ppm (ambient air: 0-0.2 ppm)
1050	5–9	4-6		24"	spsp/labs.	4'-6': silty sand w/ caliche; pink to very pale brown (7.5YR 8/3) to (10YR 7/3); silty sand with $CaCO_3$ cementation laminated: irregular mm-thick layers of cemented sand and slightly caliche impregnated layers (friable); minor mottling; small plant roots; moist.	SM/caliche	PID = 0.1 ppm
1110	10–14	9-11		24"	spsp/labs.	9'-11': silty sand w/ caliche; as above; brown clay makes up +/- 5%; caliche also in small nodules	SM/caliche	PID = 0.4 ppm
1133	15–19	14-16		24"	spsp/labs	14'-16': silty sand w/ caliche — as above —	SM/caliche; ML	PID = 0.3 ppm; ? change ?
1150	20–24	19-21		23"	spsp/labs.	19'-21' silt with sand and clay; light reddish brown to yellowish red (5YR 6/4 to 5YR 4/6); silt with 15-20% very fine sand; 15-20% clay; 10-15% caliche; mottled; hard consistency; moist. 24.0'-24.3': as above	ML; ML	PID = 0 ppm
1205	25–30	24-26			spsp/labs.	24.3'-26.0': clay and silt with sand; light reddish brown (5YR 6/4) to yellowish red (5YR 4/6); equal amounts of clay and silt with 20-25% very fine sand; +/- 15% caliche / mottled appearance; hard consistency; low plasticity; moist	CL/ML; CL/ML	PID = 0.3 ppm; At 26' wait 30 min: borehole dry!

CMB Environmental & Geological Services, Inc. Boring ID: mw-2

Project: Station 11 SA-1
Location: NMSWDCO - station 11
Client: NMSWDCO
Driller: GPI
Drilling method: HSA
Boring date: 6/6/07 (completed 6/13/07)
Water level: 114.05 ~~112.3'~~ BGS / 117.05 TOC

Sheet: 2 of 6
Job number: NMSWD SA-1
Total depth: 135 139' Boring (~~126'~~ 135.9' well)
Boring diameter: 3 1/4" ID (4 1/4" ID)
Logged by: L Roughl
Date measured: 6/23/07

split spoon = spsp / lab sample = labs. / sandstone = sstone

TIME	depth (ft)	SAMPLE interval	SAMPLE number	SAMPLE recovery (inches)	~~standard penetration test results~~	SOIL DESCRIPTION: Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	graphic log	COMMENTS: Monitoring well installation, geotechnical properties, analytical tests, instrumentation
1300	30	29-30.5		18"	spsp, labs.	29.0-30.5 = as above	CH / ML	PID = 0.3 ppm
1320	31	30.5-32.5		24"	spsp, Geo Tech	30.5-32.5: clay with sand and silt; strong brown (7.5YR 5/6); fat clay with 25% very fine sand and silt; less than 5% caliche; trace Mn-Oxide; sand in mm-size lenses and cm-size pockets throughout the sample; moist	CH	sample for Geo Tech properties: mw-2 (31.5-32.0) infat clay
1352	32	32.5-34.5		24"	spsp	32.5-34.5: as above	CH	
1408	33	34.5-36.0		18"	spsp, labs.	34.5-36.0: as above; sand color is reddish / yellowish; sand distribution is not uniform.	CH	push - no hammer (soft)
1423	34	36-38		24"	spsp	36.0-38.0: as above		
1440	35	38-40		24"	spsp / labs.	38.0-40.0': as above	CH	push - no hammer (soft)
	36							drill to 44' for next spsp sample
	37							
	38							
	39							
	40							
	41							
	42						? / ?	change @ +/- 42' to 43'
	43							
1520	44	44.0-44.8		8/10"	spsp, labs.	44.0-44.8: silt with sand; reddish yellow (7.5YR 6/6); silt with 15-20% very fine to fine sand; trace clay; poorly sorted; hard consistency; dry to moist	ML	hammer again (harder than above); after 8/10" check spsp for rock fragment.
	45							
	46						ML	PID = 0.3 ppm
	47						? / ?	change ? +/- 47' to 48'
	48							
	49						SW	
1545	50	49.0-50.5			spsp, labs.	49.0-50.0: sand; reddish yellow (5YR 6/8); very fine to medium sand; 5% silt; trace clay; 1% rounded and flat gravel to 10mm diameter; poorly sorted; subrounded; firm to hard consistency; moist.	SW	PID = 0.4 ppm
	51							
	52						? / ?	change +/- 52' to 53'
	53							
1610 End of day	54					At 50' very fine to fine sand with caliche cementation; white; hard	SM	END OF DAY
6/7/07 0730	55	54-55		12"	spsp	54-55: silty sand; very pale brown to yellow (10YR 7/4 to 7/6); very fine to medium sand; 20% silt; in pockets sand with $CaCO_3$ (caliche) matrix but not cemented; firm; moist	SM	Borehole dry to 53.50' BGS on 6/7/07 at 0714 HRS
	56							change @ +/- 57'
	57						CH	PID = 0.3 ppm
	58							
	59							
	60							

CMB Environmental & Geological Services, Inc. Boring ID: mw-2

Project: Station 11 SA-1
Location: NMSWDCO - Station 11
Client: NMSWDCO
Driller: Geoprojects Intern.
Drilling method: HSA
Boring date: 6/6/07 — (completed 6/13/07)
Water level: 114.05' ~~112.3' BGS~~ BGS 117.05TOC

Sheet: 3 of 6
Job number: NMSWD SA-1
Total depth: BGS 139' Boring (135.0' well)
Boring diameter: 3 1/4" ID (4 1/4" ID)
Logged by: CRoughT
Date measured: 6/13/07

'split spoon = sp sp sandstone = sstone

Time	depth (ft)	SAMPLE interval	number	recovery (inches)	~~standard penetration test results~~	SOIL DESCRIPTION (Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content)	graphic log	COMMENTS (Monitoring well installation, geotechnical properties, analytical tests, instrumentation)
60								
0802	61	59-60.5		18"	lab sample sp sp	clay; brownish yellow (10YR 6/6) and light olive gray (5Y 6/2); yellow fat clay with gray stringers & layers; less than 15% silt and very fine sand. ~~in small~~ sand and $CaCO_3$ in ~~po~~ isolated very small pockets; firm to hard; moist; trace Mn-Oxide ~~[illegible]~~	CH	PID = 0.3 ppm
	62							
	63							
	64						CH	
65								
0827	~~[illegible]~~ 66	64-65.5		18"	sp sp	clay; light olive brown (2.5Y 5/6) to light yellowish brown (2.5Y 6/4), very ~~tight~~ fat clay; as above At 66.5'; hard drilling on gray mudstone; approximately 4-6" thick	CH	65.5' mudstone 66.0'
	67						CH	
70								
0920	~~68~~ ~~70~~	69-70.5		18"	Lab sample sp sp	clay; color as above ~~fat~~ fat, dense clay; as above trace orange/brown Fe-oxide At 71': hard drilling; refusal;	CH	PID = 0.5 ppm mudstone @ 71' - 74.5'
	74			0	sp sp	At 74': no sample from sp. sp.; small mudstone piece At 74.5 ~~[illegible]~~ out of hard layer		
75								
1026		75-75.7		7/10'	sp sp	fat clay; as above	CH	
							CH	~ 77' change to sandstone (77' - +/- 82')
							sstone	
		79.0-79.2		2/10'	Lab sample sp sp	sand/ ~~sand~~ sandstone: sand cemented ~~with~~ brownish yellow (10YR 6/6) to olive yellow; fine sand and silt w/ $CaCO_3$ cementation - dry - ~~clay with 30% fine sand and silt to orange/yellowish brown~~	SW/ sstone	
1110 80								PID = insufficient sample
~~1130~~								+/- 82' change to clay
							CL	
1150								
85	84-85.5			18"	sp sp	Clay with silt and sand; black (5Y 2.5/1) clay w/ 30% fine sand and silt; abundant yellowish brown Fe-oxide; ~~organic material?~~ possibly carbon-containing; moist	CL	12:22: Borehole dry to 85'
90								

CMB Environmental & Geological Services, Inc. Boring ID: mw-2

Project: Station 11 SA-1
Location: NM SWDCO - Station 11
Client: NM SWDCO
Driller: GPI
Drilling method: HSA
Boring date: 6/6/07 Completed 6/13/07
Water level: 114.05 BGS / 117.05 TOC

Sheet: 4 of 6
Job number: NMSWD SA-1
Total depth: 139' Boring (135.0 well)
Boring diameter: 3 1/4" ID / 4 1/4" ID
Logged by: L Rought
Date measured: 6/23/07

split spoon = spsp / labsample = labs. / sandstone = sstone

TIME	depth (ft)	SAMPLE interval	number	recovery (inches)	~~standard penetration test results~~	SOIL DESCRIPTION (Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content)	graphic log	COMMENTS (Monitoring well installation, geotechnical properties, analytical tests, instrumentation)
1310	90	89-90.5		18"	spsp/labs.	89-90.5: clay; black (5Y 2.5/1); clay with 20-25% silt and fine sand; bottom 8" dark gray clay (bentonite?), swells with H_2O; at 90.3' small pyrite crystals → reducing environment; hard consistency; medium to low plasticity; dry to moist.	CL	PID = 3.0 ppm
	91							
	92							@92' sstone; silica-cemented (bit chatter: very hard layer)
	93							@92.8' auger refusal; small pieces of silicacemented sstone in cuttings; color is medium gray
	94						CL	
1425	95	94-94.9		9/10'	spsp/—	94.0-94.9: clay/shale/sandstone; black to medium gray; laminated; mm-size layers of clay, shale, sstone with varying thicknesses. sandstone is light gray to yellowish gray	shale / sstone	1335 trip out centerbit; 1350: borehole dry continue w/ auger bit only At 93.3' softer material
								@99' very hard layer / sstone?
1605	99'			0'	spsp/—			drill without centerbit and inject H_2O
6/8/07 08:00	100							Borehole dry @100' on 6/8/07 @ 0800 HRS
								sstone?
0945	105	104-104.2		2/10'	spsp/—	sandstone; medium to light gray; cemented; very fine to fine grain size; very hard		sstone confirmed @104'
								sstone?
1030	110				—	No sample (continue drilling w/ H_2O injection		stone?
								@112' softer material
1110	115	114-114.3		3/10'	spsp/—	114.0-114.3': silty sand; yellowish gray; very fine to medium sand; 20% silt; trace clay; hard consistency; wet to saturated; very tight formation	SM	No lab sample taken @114' as H_2O was injected into borehole. 12:40 Borehole dry to 114' BGS OFF SITE: Drillers need 4 1/4" augers
6/9/07								11:40 Drillers back on site w/ 4 1/4" augers
1315 1325	120	119-119.3		3/10'	spsp/labs.	soil description see next page	? SP	At 119' depth the centerbit is dry

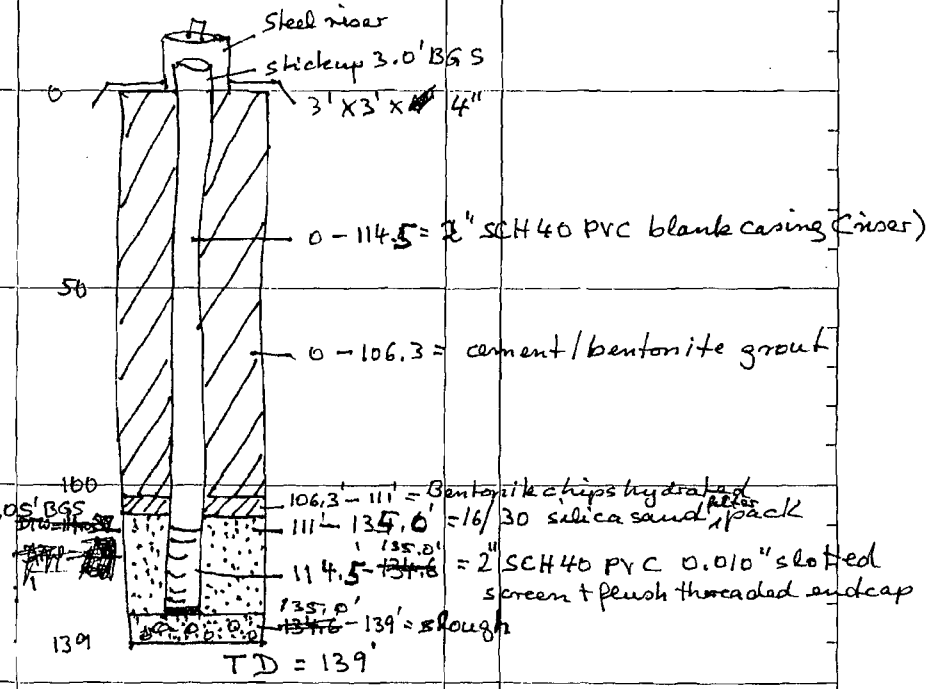
CMB Environmental & Geological Services, Inc. Boring ID: mw-2

Project:	Station 11 - SA-1	Sheet:	5 of 6
Location:	NMSWDCO - Station 11		
Client:	NMSWDCO	Job number:	NMSWDSA-1
Driller:	Geoprojects Inter.	Total depth: BGS	139' Boring (135.0' well)
Drilling method:	HSA	Boring diameter:	ID 3 1/4" / 4 1/4" ID
Boring date:	6/6/07 (completed 6/13/07)	Logged by:	C. Rough
Water level:	114.05 BGS / 117.05 TOC	Date measured:	6/23/07

TIME	depth (ft)	SAMPLE interval	SAMPLE number	SAMPLE recovery (inches)	standard penetration test results	SOIL DESCRIPTION (Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content)	graphic log	COMMENTS (Monitoring well installation, geotechnical properties, analytical tests, instrumentation)
120' 1325		119-119.3		3/10'	cabsample split-spoon	sand; pale yellow (2.5Y 7/4) medium sand, rounded with 1% very small rounded gravel (less than 3mm); very tight ~~drilling~~ (but soft in split-spoon) wet.	SP	PID: insufficient sample 1350: borehole ~~dry~~ wet at bottom, but no H_2O coming in. 1440: Drilled to 124' / lightning! stop drilling 15:30 DTW = 123.40' BGS
1440 124					split-spoon			
125' 6/10/07 0800	0900	124.0-124.1		1/10'		sand; pale yellow (2.5Y 7/3); mostly medium sand, rounded and 2-3% very small rounded gravel (2-4 mm diameter); well sorted; saturated	SP	0800: DTW = ~~116.7'~~ 115.7' BGS
130'		129.0-129.1		1/16'	spsp	@125' change in color to an orange yellow; sand is heaving inside the augers (+/- 4').	SP	DTW = 114.8' BGS heaving sand
	133			cuttings picked off augers		133-135: clay (chart 2: greenish gray 10G 5/1) fat clay with 10% silt and < 5% very small rounded gravel (3-5mm), plastic; dry to moist.	CH	Drill to 135' ~~TD~~
135'				cuttings picked off lead auger		~~135-140: very hard, according to driller (no sample)~~ 135-139: fat clay; reddish brown (5YR 4/3); clay with 15% silt and fine sand; plastic; very moist to wet	CH	Drill to 139' because of heaving sediments
1229 139 140'				cuttings picked off lead auger				Because of the heaving sands, drill rathole Drilled to 139' BGS = TD
						139' = TD of Borehole		6/11/07 Set well to 135' BGS / see diagram p.6 6/12/07: mw-2 DTW = 123.40' BGS in partially set well → injected H_2O

CMB Environmental & Geological Services, Inc. Boring ID: mw-2

Project:	Station 11 - SA-1	Sheet:	6 of 6
Location:	NMSWDCO - Station 11		
Client:	NMSWDCO	Job number:	NMSWD-SA-1
Driller:	Geoprojects INTERN. / Jose Landeros	Total depth: BGS	139' (135.0' well)
Drilling method:	HSA	Boring diameter:	2" ID 3 1/4" / 4 1/4" ID
Boring date:	6/6/07 Completed 6/13/07	Logged by:	L. Rought
Water level:	114.05' BGS (117.05' TOC)	Date measured:	6/23/07

depth (ft)	SAMPLE interval	SAMPLE number	SAMPLE recovery (inches)	standard penetration test results	SOIL DESCRIPTION Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	graphic log	COMMENTS Monitoring well installation, geotechnical properties, analytical tests, instrumentation
					WELL SCHEMATIC MW-2		
							
					- All Data BGS - Not to scale!		
					Bailed approximately 35 gal from well MW-2 (very turbid but no sand in bailer)		

CMB Environmental & Geological Services, Inc. Boring ID: mw-3

Project: Station 11 SA-1
Sheet: 1 of 6
Location: NMSWDCO Station 11
Client: NMSWDCO
Job number: NMSWD SA-1
Driller: Geoprojects International (GPI) Jose Landaros
Total depth: 134' BGS (well)
Drilling method: Hollow Stem Auger (HSA)
Boring diameter: 3¼" ID / 4¼"
Boring date: 6/22/07 (completed 6/26/07)
Logged by: L Bought
Water level:
Date measured:

Split Spoon = spsp / lab sample = Labs. / sandstone = sstone

TIME	depth (ft)	SAMPLE interval	SAMPLE number	SAMPLE recovery (inches)	~~standard penetration test results~~	SOIL DESCRIPTION: Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	graphic log	COMMENTS: Monitoring well installation, geotechnical properties, analytical tests, instrumentation
1500	0	0-2		24"	spsp/labs	0'-0.4': sand with caliche; light brown (7.5YR 6/4) and white; very fine to fine sand w/ abundant caliche in cm-sized pockets; well sorted; firm to hard consistency; moist to dry.	SP/caliche	PID = 0.4 ppm
	1							
	2							
	3					0.4'-2.0': sand (brown (7.5YR 5/4); fine sand; soft consistency; well sorted; moist.	SP	
	4							
1515	5	4-5		12"	spsp/labs.	4-5': sand/caliche; pink (7.5YR 7/3 to 7/4); very fine to fine sand; 5-10% silt; caliche abundant; hard and soft layers irregular; plant roots abundant; some mottling occurs; "earthy" odor; firm to hard at bottom where caliche nodules are larger in size; Mn-Oxide	SW/caliche	
	6						SW	PID = 0.5 ppm
	7							
	8							
	9							
1530	10	9-9.5		6"	spsp/labs.	9.0'-9.5': silty sand; pink (7.5YR 7/4); very fine to fine sand with 15% silt and trace clay; caliche on grain boundaries as well as in hard nodules which make up +/- half of the sample; poorly sorted; firm to hard consistency; barely moist.	SM/caliche	PID = insufficient sample
	11							
	12							
	13							
	14							
1550	15	14-15.5		18"	spsp/labs.	14'-15.5': silty sand/caliche; sample as above but smaller caliche nodules make up less than 25% of the sample	SM/caliche	PID = 0.4 ppm
	16							
	17							
	18							
	19						3/2	change?
1615	20	19-20.5		18"	spsp/labs.	19.0'-20.5': silt with sand and clay	ML	PID = 0.3 ppm
						~~silt with 15% very fine sand~~ light reddish brown to yellowish red 5YR (5/4 to 5/6) trace white; silt with 15% very fine sand and 10-15% clay; 10% caliche; hard consistency; mottled; dry to moist; trace Mn-Oxide	ML	
1635	25	24-25		12"	spsp/labs.	24'-25' = silt with sand and clay	ML	PID = 0.1
						light reddish brown (5YR 6/4) to yellowish red (5YR 4/6); silt with 20% very fine sand and 20 to 25% clay; appears mottled with lenses and stringers of white sand/caliche; hard consistency; low plasticity, moist trace Mn-Oxide		Borehole dry @ 25'
	30							

CMB Environmental & Geological Services, Inc. Boring ID: MW-3

Project: Station 11 SA-1
Location: NMSWDCO Station 11
Client: NMSWDCO
Driller: GPI
Drilling method: HSA
Boring date: 6/22/07 (completed 6/26/07)
Water level:

Sheet: 2 of 6
Job number: NMSWD/SA1
Total depth: 139' BGS (well)
Boring diameter: 3¼" ID / 4¼"
Logged by: L Roughly
Date measured:

split spoon = spsp / lab sample = labs. / sandstone = sstone

Time	depth (ft)	SAMPLE interval	number	recovery (inches)	~~standard penetration test results~~	SOIL DESCRIPTION (Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content)	graphic log	COMMENTS (Monitoring well installation, geotechnical properties, analytical tests, instrumentation)
1700	30	29-30		12"	spsp/labs.	29.0'-30.0' silt with ~~sand~~ sand and clay; yellowish red (5YR 4/6) and white;	ML	PID = 0.2
						as above, but 30% clay; less than 5% caliche, trace Mn oxide; sand in mm-size pockets; moist	ML	
						34.0'-34.5' = as above	ML	CHANGE
1725	35	34-35		12"	spsp/labs	34.5-35.0 = fat clay; reddish	CH	change @ 34.5'/gradual
1745		35-37		24"	2 GeoTech samples	brown (5YR 4/6 to 5/6); fat clay with 20-25% very fine sand and silt; trace Mn-Oxide; high plasticity; hard consistency; moist	CH	1745: GeoTech samples; MW-3 (36.7-36.2) fat clay
						35.0-37.0 = fat clay; as above	CH	MW-3 (36.2-35.7) fat clay
~~1845~~	40	~~39~~			~~spsp/labs~~	No sample taken @ 39'	CH	(sampled 35-37 instead)
							?	change in MW-2 was @ 42-43'
1815	45	44-45		12"	spsp/labs.	44.0-45.0' silt with sand; ~~silty sand~~	ML	PID = 0.2 ppm
						yellowish red (5YR 5/6); silt with 30% very fine to fine sand; 5-10% clay; poorly sorted; hard consistency; dry	?	change 2
1840	50	49-50		12"	spsp/labs	49.0'-50.0'; sand; strong brown	SW	PID = 0.1 ppm
						(7.5YR 5/6) to reddish yellow; very fine to medium sand; 10% silt, 5-10% clay; sample breaks in mm-size layers (indicating bedding) with silt-rich layers in between; ~~mm~~ 5% mm-size rounded flat gravel; hard consistency; dry to moist; Mn-Oxide	SW	
1905	55	54-55		12"	spsp/labs.	54.0-54.5: sand + caliche; white to ~~gray~~ light gray (2.5Y 7/2) very fine to fine sand, caliche matrix, irregular "mottled" boundary to;	SW	
					mixed for labs.	54.5-55.0: sand; strong brown (7.5YR 5/8 to 5/6); trace silt and clay; sand subrounded to subangular;	SW	PID = Insufficient sample
1925	60	~~59-60~~		~~<50~~	~~spsp~~	firm; moist		
						59-60: ~~[illegible]~~ No sample; large rock (5cm) in spsp (+1 teaspoon of sand) (see next page)		

CMB Environmental & Geological Services, Inc. Boring ID: mw-3

Project: Station 11 SA-1
Location: NMSWDCO Station 11
Client: NMSWDCO
Driller: GPI
Drilling method: HSA
Boring date: 6/22/07 (completed 6/26/07
Water level:

Sheet: 3 of 6
Job number: NMSWD SA-1
Total depth: 139' BGS (well)
Boring diameter: 3 1/4" / 4 1/4"
Logged by: L Rought
Date measured:

Abbreo.: split spoon (spsp / Lab sample = Labs. / sandstone = sstone

TIME	depth (ft)	SAMPLE interval	number	recovery (inches)	~~Standard penetration test results~~	SOIL DESCRIPTION (Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content)	graphic log	COMMENTS (Monitoring well installation, geotechnical properties, analytical tests, instrumentation)
1925	60	59.0-59.1		1/10"		At 59': sand; yellowish brown (10YR 5/6), fine to coarse sand; trace very small rounded gravel; sand subangular to subrounded; moist	SW	PID = insufficient sample
	61							
	62						SW	
6/27/07	63							63' driller observes change
	64					64.0'-65.0': clay with silt and sand; light olive brown (2.5Y 5/4 to 5/6);		6/23/07 0745: Borehole dry
0910	65	64-65		12"	spsp/labs.		CH	PID = 0.2 ppm
	66					fat clay with stringers and mm-thick layers of white/gray sand + caliche; 20-25% silt and sand; high plasticity; hard consistency; moist; fossils: small mussel shells; Fe-oxide nodules. At 65.0-65.5 gray/pale yellow mudstone	CH	65-65.5 = mudstone
	67							
	68							
	69					69.0'-70.0': fat clay, as above @ 64', but only 15% very fine sand and silt.		
0940	70	69-70		12"	spsp/labs.		CH	PID = 0.2 ppm
~~0940~~	~~70~~	~~69-70~~		~~12"~~	~~spsp/labs.~~			
	71							71'-73' = hard drilling mudstone? (mw-2 had mudstone at this depth!)
	72							
	73							
	74							
1020	75	74-75		12"	spsp/labs.	74.0-75.0 (fat clay; black (2.5Y 2.5/1)	CH	PID = 0.3 ppm
	76					fat clay with less than 1 mm thick layers of strong brown very fine sand/silt as well as some mm-size aggregates; high plasticity; possibly carbon-containing; moist.	CH	
	77							
	78							
	79						CH	
1120	80	79-79.2		1/10'	spsp/—	79.0'-79.2': mudstone/sandstone;		PID/labs. = insufficient sample / rock fragment
	81					grayish brown (2.5Y 5/2); very hard consistency.		At 80' softer material ?
	82						SC/CL/SW	
	83							
	84							
1155	85	84-84.5		6"	spsp/labs.	84.0-84.5: sandy clay and/or clayey sand; dark gray to very dark grayish		PID = 0.3 ppm
						brown (2.5Y 4/1 to 3/2); clay, silt, and very fine to medium sand in equal amounts; laminated (1 mm to 1 cm thickness, irregular change), layers of varying composition; trace Fe Oxide; clear $CaCO_3$; very small Pyrite crystals (reducing environment!); possibly C-containing; hard consistency; dry to moist.		

CMB Environmental & Geological Services, Inc. Boring ID: MW-3

Project: Station 11 - SA-1
Location: NMSWDCO - Station 11
Client: NMSWDCO
Driller: GPI
Drilling method: HSA
Boring date: 6/22/07 (completed 6/26/07
Water level:

Sheet: 4 of 6
Job number: NMSWD SA-1
Total depth: 139' BGS (well)
Boring diameter: 3 1/4" (ID) / 4 1/4"
Logged by: L Rough
Date measured:

TIME

split spoon = spsp / Lab sample = labs / sandstone = sstone

depth (ft)	SAMPLE interval	SAMPLE number	SAMPLE recovery (inches)	~~standard penetration test results~~	SOIL DESCRIPTION: Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	graphic log	COMMENTS: Monitoring well installation, geotechnical properties, analytical tests, instrumentation
~~85~~							85-86': hard; ingot H_2O sandstone/siltstone/mudstone?
86							
87						CH	
88							
89							
1325 90	89-90		12"	spsp/labs.	89.0-90.0: fat clay; black (2.5Y 2.5/1); fat clay with	CH	PID = 0.2 ppm
91					10% silt; less than 1% very fine sand (med. gray to white) in mm-size lenses; hard consistency; high plasticity; possibly C-containing; dry to moist		
92						CH	
93							
94						CH	
1355 95	94-94.5		6"	spsp/labs.	94.0-94.5: fat clay, black (2.5Y 2.5/1); as above.		PID = insufficient sample hard layer? sstone?
96					94.5': 2 cm of thin layers of mudstone and sstone, very hard		
97							
98							
99							
1440 100	99-100		12"	spsp/labs.	99'-100': clay; black (2.5Y 2.5/1)	CL	PID = 0.3 ppm
					lean clay; 25% silt and very fine sand; hard consistency; dry to slightly moist		
							102.5 - 103.8 = hard drilling sstone?
1550 105	104-104.5		6"	spsp/labs.	104.0-104.5: silty sand; SM/SC		PID = 0.2 ppm 104.5 hard drilling for 0.5'
					dark gray to very dark gray (2.5Y 4/1 to 3/1); very fine to fine sand with 25% silt and 20-25% clay; hard consistency; breaks into mm-thick layers ("flaky"); slightly moist; semi-consolidated	SM	
1650 110	109-109.2		1.5"	spsp/labs	109.0-109.2: silty sand; gray	SM	PID = insufficient sample
					(2.5Y 5/1); as above	SM	
					114.0-114.3: sand pale yellow (5Y 7/3) 10% silt very fine to medium sand; subrounded; partially cemented to sandstone; hard consistency; very moist to wet		PID = insufficient sample change?
1735 115	114-114.3		3"	spsp/labs		SW	

CMB Environmental & Geological Services, Inc. Boring ID: mw-3

Project: Station 11 SA-1
Location: NMSWDCO station 11
Client: NMSW DCO
Driller: GPI
Drilling method: HSA
Boring date: 6/22/07 (completed 6/26/07)
Water level:

Sheet: 5 of 6
Job number: NMSWD SA-1
Total depth: 139' BGS (well)
Boring diameter: 3 1/4" ID / 4 1/4"
Logged by: LRoughd
Date measured:

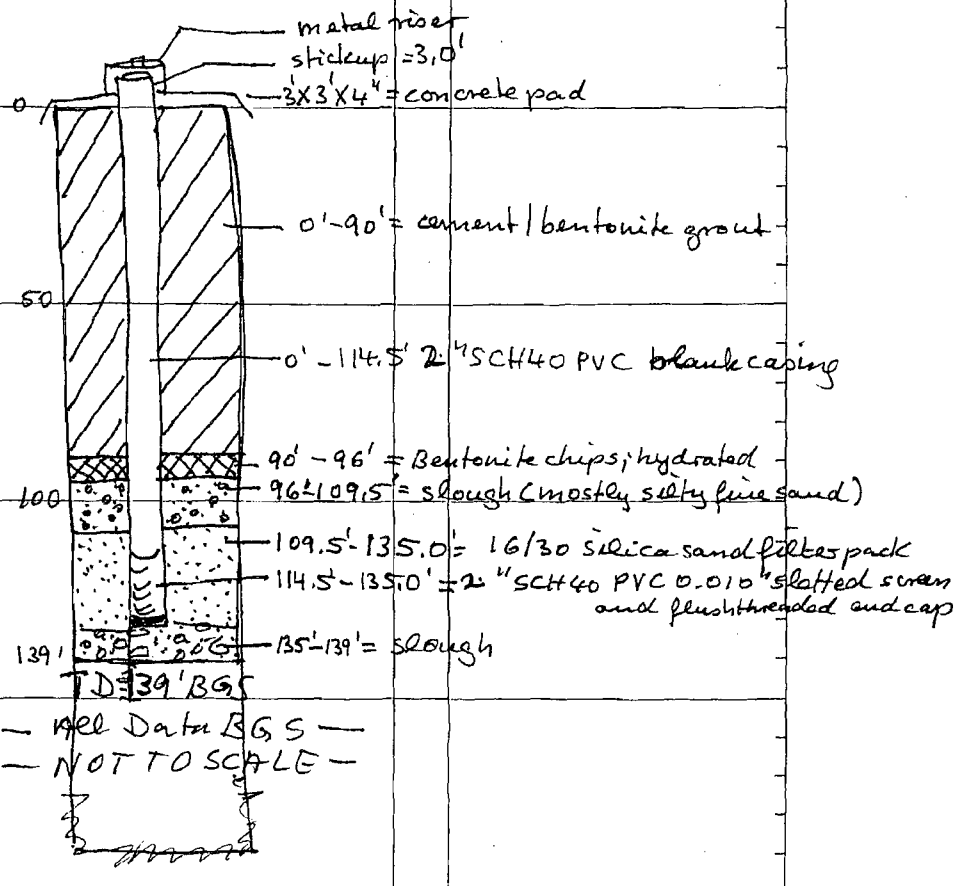
split spoon = spsp / Labsample = labs / sandstone = sstone

6/24/07 TIME	depth (ft)	SAMPLE interval	number	recovery (inches)	~~standard penetration test results~~	SOIL DESCRIPTION (Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content)	graphic log	COMMENTS (Monitoring well installation, geotechnical properties, analytical tests, instrumentation)
0730	115						SW	6/24/07 0730 Hrs Borehole dry to 113.7' BGS
0840	120	119-120		12"	spsp/labs	119-120: sand; light gray (5Y7/2) mostly medium rounded sand; 2% very small rounded gravel (2-3 mm diameter); very tight; soft in spsp; wet	SP	run 2nd spsp to get enough material for a permeability test
							SP	?
							SP	0945 Borehole dry @ 119'
							SP	TRIP OUT 3 1/4" augers and continue drilling w/ 4 1/4" augers w/ anker plug !!
							SP	⇒ No samples > 119'
	125						SP	120' to 125': a few < 1/10' thick hard layers
								125 to 135: "soft" material
	130							
1525								1525 Drilled to 134'
6/25/07 0730	135							6/25/07: DTW = 113' BGS Drill to 139' and tip out augers while setting the 2" PVC monitor well
						139' = TD of Borehole		
	140							

CMB Environmental & Geological Services, Inc. Boring ID: mw-3

Project:	Station 11 · SA-1	Sheet:	6 of 6
Location:	NMSWDCO station 11		
Client:	NMSWDCO	Job number:	NMSWD SA-1
Driller:	GPI	Total depth:	BGS 139' / (well)
Drilling method:	HSA	Boring diameter:	3 1/4" / 4 1/4"
Boring date:	6/6/07 (completed 6/26/07)	Logged by:	L. Rough
Water level:		Date measured:	

depth (ft)	SAMPLE interval	SAMPLE number	SAMPLE recovery (inches)	standard penetration test results	SOIL DESCRIPTION Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	graphic log	COMMENTS Monitoring well installation, geotechnical properties, analytical tests, instrumentation
					WELL SCHEMATIC mw-3		

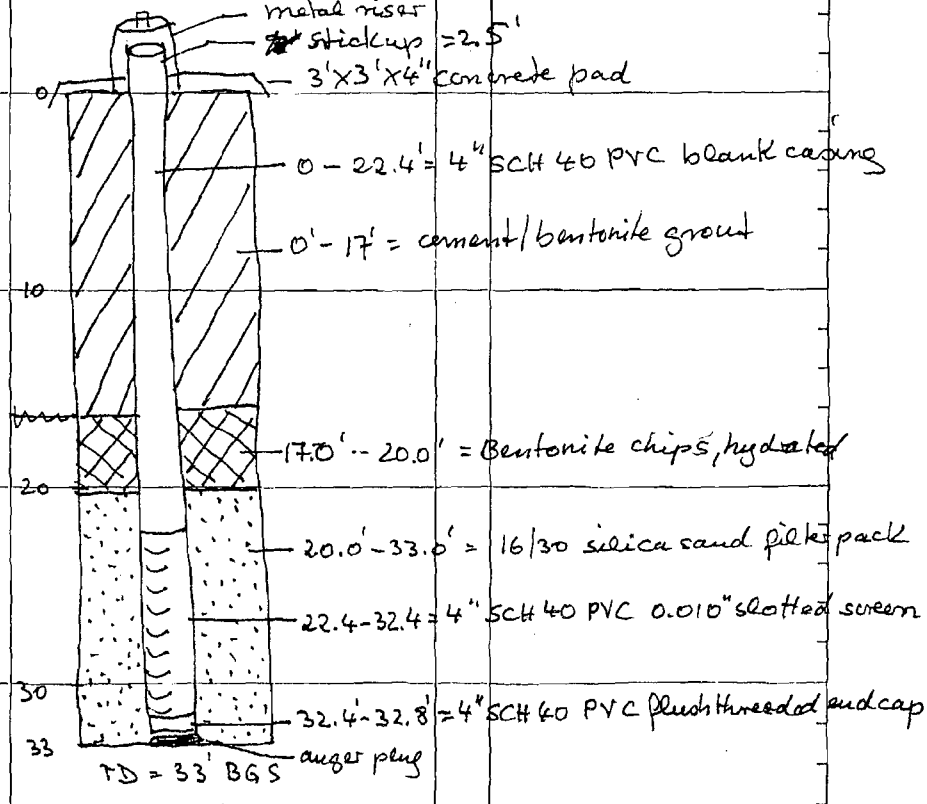


- Bailed approximately 15 gal from well mw-3
- There is still +/- 3' of silt in well
- slow recovery!

6/26/07 0730
DTW = 113.10 BGS
TD = 131.30 BGS

CMB Environmental & Geological Services, Inc. Boring ID: RW-1

Project:	Station 11/ SA-1	Sheet:	1 of 1
Location:	NMSWDCO - Station 11		
Client:	NMSWDCO	Job number:	NMSWD SA 1
Driller:	GeoProjects International (GPI) Jose Landeros	Total depth:	33' BGS
Drilling method:	Hollow Stem Auger (HSA)	Boring diameter:	6 5/8" ID
Boring date:	6/13/07 ; completed 6/21/07	Logged by:	Luana Rought
Water level:	Dry to 32.8' BGS	Date measured:	6/21/07 10:20 HRS

TIME	depth (ft)	SAMPLE interval	SAMPLE number	SAMPLE recovery (inches)	standard penetration test results	SOIL DESCRIPTION (Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content)	graphic log	COMMENTS (Monitoring well installation, geotechnical properties, analytical tests, instrumentation)
6/13/07						No Boring Log Recorded		GPI drilled to 24' BGS before going on their days off.
6/21/07 0830						Drilled to 33' BGS and knock out the bottom plug. Set well casing RW-1 so the ~~the~~ well casing is at +/- 32' BGS. Tag casing string length inside the casing @ 32.8'. with 0.4' of end cap, the screen is @ 32.4' (intake @ ~~[illegible]~~ 32.2' BGS)		
						WELL SCHEMATIC		RW-1
								
						- All Data BGS - Not to scale!		

Appendix 5:
Field Notes from Groundwater Sampling

Location NMSWDCo Station #11 07/09/07
Project/Client New Mexico Salt Water Disposal Co. Stage 1 Abatement Plan/ Monitor Well GW Sampling
By: CMB Environmental & Geological Services Inc.
Page 1 of 5 By CMB

MW-2: 2" SCH 40 PVC MW @ 10:36
DTW = 116.91' T.D. = 137.95'
3CV = 10 gallons Water column = 21.04'
3.3 gal / well Volume.
Well Bailed by drillers 20 gal EV

Time	Q gal	D.O	pH	T°C	Cond	Remarks
11:02	initial	1.26	7.84	23.26°	2495/2791	Turbid fine
11:04	@ 6 gal:	DRY.	— Redi flo 2 submersible			Silt

Set @ T.D. pumping rate 2.5 GPM.
Let Recharge 10 minutes.
11:16 Started pumping @ 1 GPM.
11:20 pumped Dry
11:20 10 236 7.74 23.47° -37.7/2427 Turbid fine Silt
Let recharge 10 minutes

11:43 15 260 7.42 22.09° -37.7/2427 Turbid fine Silt
11:50 DTW = 117.95' TD = 138.0
Sample @ 11:35 TPH 6010/DRO Cation Anions
4 x 40 ml VOAs / HCL 1 x 250 ml P / None
2 x 125 ml P / HNO3 / H2SO4 - BTEX -

Location NMSWDCo. 07/09/07
Project No. NMSWDCo / GW Sampling
Page 2 of 5 By: CMB.

MW-1: 2" SCH 40 PVC. MW @ 12:15
DTW = 117.23 T.D. = 135.46'
WC = 18.23' 2.91 Gallon / well Vol.
3CV = 8.75 Gallons.

Time	Q	D.O.	pH.	T°C	Cond.	EV	Remarks
12:21	initial	4.63	7.78	27.55	2160	-42.2	Turbid

12:25 Dry — pumped Dry Redi flo 2 @ 4 Gal. @ 1 GPM — 4 gallons purged
let recharge 10 minutes
12:39 Re-started pumping — 1 GPM.
pumped Dry @ 2.5 gallons
purged. — will let recharge 10 minutes.
13:30 Started Bailing well.
13:38 8 5.8° 7.79 23.70° 2510 -28.3 Turbid Clear
07/10/07 — 10:00 hour.
Started Surging & Bailing MW-1
Surged & Bailed 10 Gallons.
10:15 5 5.09 8.43 19.01° 2794 -36.2 Turbid
10:30 8-10 — well Bailed Dry.
DTW = 136.65 — TD. 138.25'
will let well recharge.
10:20 8-5.27 7.92 19.52° 2718 -25.6 Turbid

Location NMSWDO Co. Station 11 Date 07/10/07
Project/Client Stage 1 Abatement Plan
GW-Sampling By: CMB-
Page 3 of 5

11:00 Sampled By CMB.
MW-1 @ 11:00 hour.
4x 40ml VOA's w/ HgCl2 For TPH GRO/DRO mod 8015 BTEX 8021, Anions/Cations 300. TDS, pH, EC, Dissolved Metals- 6010
H2O - Clear @ Sample.

MW-3 : 2" SCH 40 PVC MW
@ 11:20 hour. DTW = 116.85'
T.D. = 134.98' Water Column = 18.13'
2.9 Gal/Casing Volume = 3CV = 8.70 gal.
11:25 Surge & Bailed MW-3
10 Gallons - Removed.

Time	Q	D.O	pH	T°C	Cond/EV	Remarks
11:50	5	4.29	8.44	19.73	3986/-57.8	Turbid
12:02	10	2.35	8.43	18.86	3545/-63.5	Turbid

@ 10 Gallons purged well Bailed Down-
W.L = 131.30' Let well
Recharge 30 minutes

12:40	15	2.84	8.50	19.33°	3471/-73.7	Turbid
12:56	20	4.92	8.16	19.11°	3172/-61.6	Turbid

Well Bailing Down - Will let recharge 30 minutes

Location NMSWDO Station 11 Date 07/10/07
Project/Client Stage 1 Abatement plan / GW
Sampling By: CMB Page 4 of 5

Sampled Tank Battery Produced Fluid @ 13:00 hour.
4x 40ml VOA's For TPH/GRO/DRO mod 8015, BTEX 8021, Anions & Cations EPA method 300.0
2x 250 P/HNO3 / H2SO4
pH, EC, TDS.

Sampled MW-3 @ 13:30 hour H2O @ 119.80' TOC
4x 40ml VOA's/HgCl2 For TPH mod 8015 GRO/DRO, BTEX 8021 Anions/Cations 1x 250 ml P/Non 1x 125 ml P/HNO3, 1x 125 ml P/H2SO4., pH, EC, TDS.

RW-1 : 4" SCH 40 PVC RW
DTW = 29.82' TD = 35.30'
5.48' x 0.67 = 3.67 Gallons in well Bore - probably from Completion - grouting of well.
Bailed Dry @ 8 gallons purged -
@ 14:15 hr. @ 15:00 hour.
DTW = 34.90' - Well not recharging.

Location: NMSWP Co. Station 11 Date: 7/10/07
Project / Client: Stage 1 Abatement plan
GW/Sampling By: CMB Page 5 of 5

Sampled Windmill: @ 14:30 hour.
on Topo Map labeled as "Lucky"
Windmill GPS Coordinates:
N 33° 25. 600
W 103° 29. 156

Time	Q	D.O	pH	T°C	Cond	Eh	Remarks
1430	Initial	5.88	7.65	31.28°	2206	-62.4	Clear

Sampled —
2 x 250 mL P/W/ H_2SO_4 & None
For Anions & Cations - 300.0
TDS, pH / EC,

Sampled NW Windmill
Labeled on Topo Map as "Sand"
Windmill @ 14:45 hour.
GPS Coordinates
33° 27.265 N
103° 28. 646 W
Windmill has solar submersible pump installed.

Time	Q	DO	pH	T°C	Cond	Eh	Remarks
1445	initial	4.25	7.63	27.65°	2764	-68.7	Clear

2 x 250 mL / plastic 1 x W/ H_2SO_4
1 x None, TDS, Anions / Cations
pH, EC

Location: Date:
Project / Client:

Appendix 6:
Laboratory Analysis Reports

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, July 09, 2007

Clayton M. Barnhill
New Mexico Salt Water Disposal Co.
P.O. Box 1518
Roswell, New Mexico 88202-1518

TEL: (505) 622-3770
FAX (505) 622-8643

RE: NMSWDCO - Station 11

Order No.: 0706235

Dear Clayton M. Barnhill:

Hall Environmental Analysis Laboratory, Inc. received 16 sample(s) on 6/15/2007 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-1 (0-2.0)
Lab Order:	0706235	**Collection Date:**	6/12/2007 2:00:00 PM
Project:	NMSWDCO - Station 11	**Date Received:**	6/15/2007
Lab ID:	0706235-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 11:31:26 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 11:31:26 AM
Surr: DNOP	101	61.7-135		%REC	1	6/20/2007 11:31:26 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 1:49:47 PM
Surr: BFB	108	84-138		%REC	1	6/21/2007 1:49:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	6/21/2007 1:49:47 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 1:49:47 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 1:49:47 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 1:49:47 PM
Surr: 4-Bromofluorobenzene	85.1	68.2-109		%REC	1	6/21/2007 1:49:47 PM
EPA METHOD 9056A: ANIONS						Analyst: **CMS**
Chloride	ND	3.0		mg/Kg	10	7/4/2007 1:17:42 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-1 (4.0-5.0)
Lab Order:	0706235	**Collection Date:**	6/12/2007 2:20:00 PM
Project:	NMSWDCO - Station 11	**Date Received:**	6/15/2007
Lab ID:	0706235-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 12:06:24 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 12:06:24 PM
Surr: DNOP	99.2	61.7-135		%REC	1	6/20/2007 12:06:24 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 3:21:55 PM
Surr: BFB	111	84-138		%REC	1	6/21/2007 3:21:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/21/2007 3:21:55 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 3:21:55 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 3:21:55 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 3:21:55 PM
Surr: 4-Bromofluorobenzene	86.6	68.2-109		%REC	1	6/21/2007 3:21:55 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	150	3.0		mg/Kg	10	6/23/2007 6:42:04 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-1 (9.0-9.3)
Lab Order:	0706235	Collection Date:	6/12/2007 2:35:00 PM
Project:	NMSWDCO - Station 11	Date Received:	6/15/2007
Lab ID:	0706235-03	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 1:16:51 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 1:16:51 PM
Surr: DNOP	98.7	61.7-135		%REC	1	6/20/2007 1:16:51 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 3:52:41 PM
Surr: BFB	111	84-138		%REC	1	6/21/2007 3:52:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/21/2007 3:52:41 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 3:52:41 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 3:52:41 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 3:52:41 PM
Surr: 4-Bromofluorobenzene	86.3	68.2-109		%REC	1	6/21/2007 3:52:41 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	130	1.5		mg/Kg	5	7/1/2007 6:44:44 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-1 (14.0-14.5)
Lab Order:	0706235	Collection Date:	6/12/2007 2:50:00 PM
Project:	NMSWDCO - Station 11	Date Received:	6/15/2007
Lab ID:	0706235-04	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 1:52:09 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 1:52:09 PM
Surr: DNOP	94.4	61.7-135		%REC	1	6/20/2007 1:52:09 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 4:23:42 PM
Surr: BFB	109	84-138		%REC	1	6/21/2007 4:23:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	6/21/2007 4:23:42 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 4:23:42 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 4:23:42 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 4:23:42 PM
Surr: 4-Bromofluorobenzene	84.1	68.2-109		%REC	1	6/21/2007 4:23:42 PM
EPA METHOD 9056A: ANIONS						Analyst: **KS**
Chloride	210	1.5		mg/Kg	5	7/1/2007 7:02:08 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-1 (19.0-20.0)
Lab Order:	0706235	Collection Date:	6/12/2007 3:10:00 PM
Project:	NMSWDCO - Station 11	Date Received:	6/15/2007
Lab ID:	0706235-05	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 2:27:23 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 2:27:23 PM
Surr: DNOP	93.3	61.7-135		%REC	1	6/20/2007 2:27:23 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 4:54:43 PM
Surr: BFB	110	84-138		%REC	1	6/21/2007 4:54:43 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/21/2007 4:54:43 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 4:54:43 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 4:54:43 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 4:54:43 PM
Surr: 4-Bromofluorobenzene	84.7	68.2-109		%REC	1	6/21/2007 4:54:43 PM
EPA METHOD 9056A: ANIONS						Analyst: CMS
Chloride	620	6.0		mg/Kg	20	7/4/2007 1:35:06 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-1 (24.0-25.0)
Lab Order:	0706235	**Collection Date:**	6/12/2007 3:25:00 PM
Project:	NMSWDCO - Station 11	**Date Received:**	6/15/2007
Lab ID:	0706235-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 3:02:41 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 3:02:41 PM
Surr: DNOP	103	61.7-135		%REC	1	6/20/2007 3:02:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 5:25:32 PM
Surr: BFB	112	84-138		%REC	1	6/21/2007 5:25:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	6/21/2007 5:25:32 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 5:25:32 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 5:25:32 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 5:25:32 PM
Surr: 4-Bromofluorobenzene	87.5	68.2-109		%REC	1	6/21/2007 5:25:32 PM
EPA METHOD 9056A: ANIONS						Analyst: **KS**
Chloride	1000	6.0		mg/Kg	20	7/1/2007 8:11:47 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-1 (29.0-30.0)
Lab Order:	0706235	**Collection Date:**	6/12/2007 3:45:00 PM
Project:	NMSWDCO - Station 11	**Date Received:**	6/15/2007
Lab ID:	0706235-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 3:38:48 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 3:38:48 PM
Surr: DNOP	88.2	61.7-135		%REC	1	6/20/2007 3:38:48 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 5:56:14 PM
Surr: BFB	105	84-138		%REC	1	6/21/2007 5:56:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/21/2007 5:56:14 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 5:56:14 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 5:56:14 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 5:56:14 PM
Surr: 4-Bromofluorobenzene	79.1	68.2-109		%REC	1	6/21/2007 5:56:14 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	3300	15		mg/Kg	50	7/1/2007 8:29:12 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-1 (34.0-35.5)
Lab Order:	0706235	**Collection Date:**	6/12/2007 4:05:00 PM
Project:	NMSWDCO - Station 11	**Date Received:**	6/15/2007
Lab ID:	0706235-08	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 4:14:07 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 4:14:07 PM
Surr: DNOP	96.3	61.7-135		%REC	1	6/20/2007 4:14:07 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 7:27:53 PM
Surr: BFB	109	84-138		%REC	1	6/21/2007 7:27:53 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/21/2007 7:27:53 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 7:27:53 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 7:27:53 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 7:27:53 PM
Surr: 4-Bromofluorobenzene	83.5	68.2-109		%REC	1	6/21/2007 7:27:53 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	2700	15		mg/Kg	50	7/1/2007 8:46:36 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-1 (39.0-40.0)
Lab Order:	0706235	**Collection Date:**	6/12/2007 4:40:00 PM
Project:	NMSWDCO - Station 11	**Date Received:**	6/15/2007
Lab ID:	0706235-09	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 4:49:40 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 4:49:40 PM
Surr: DNOP	98.6	61.7-135		%REC	1	6/20/2007 4:49:40 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 7:58:32 PM
Surr: BFB	110	84-138		%REC	1	6/21/2007 7:58:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/21/2007 7:58:32 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 7:58:32 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 7:58:32 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 7:58:32 PM
Surr: 4-Bromofluorobenzene	84.8	68.2-109		%REC	1	6/21/2007 7:58:32 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	2300	15		mg/Kg	50	7/1/2007 9:04:01 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-1 (40.7-41.2)
Lab Order:	0706235	Collection Date:	6/13/2007 9:15:00 AM
Project:	NMSWDCO - Station 11	Date Received:	6/15/2007
Lab ID:	0706235-10	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 5:25:07 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 5:25:07 PM
Surr: DNOP	99.1	61.7-135		%REC	1	6/20/2007 5:25:07 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 8:28:53 PM
Surr: BFB	108	84-138		%REC	1	6/21/2007 8:28:53 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/21/2007 8:28:53 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 8:28:53 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 8:28:53 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 8:28:53 PM
Surr: 4-Bromofluorobenzene	81.2	68.2-109		%REC	1	6/21/2007 8:28:53 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	1500	6.0		mg/Kg	20	7/1/2007 9:21:26 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-1 (44.0-45.3)
Lab Order:	0706235	Collection Date:	6/13/2007 10:15:00 AM
Project:	NMSWDCO - Station 11	Date Received:	6/15/2007
Lab ID:	0706235-11	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 7:46:03 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 7:46:03 PM
Surr: DNOP	96.5	61.7-135		%REC	1	6/20/2007 7:46:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 8:59:28 PM
Surr: BFB	130	84-138		%REC	1	6/21/2007 8:59:28 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/21/2007 8:59:28 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 8:59:28 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 8:59:28 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 8:59:28 PM
Surr: 4-Bromofluorobenzene	87.1	68.2-109		%REC	1	6/21/2007 8:59:28 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	3500	15		mg/Kg	50	7/1/2007 9:38:51 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-1 (49.0-49.5)
Lab Order:	0706235	**Collection Date:**	6/13/2007 10:55:00 AM
Project:	NMSWDCO - Station 11	**Date Received:**	6/15/2007
Lab ID:	0706235-12	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 8:20:57 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 8:20:57 PM
Surr: DNOP	98.8	61.7-135		%REC	1	6/20/2007 8:20:57 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 9:29:49 PM
Surr: BFB	108	84-138		%REC	1	6/21/2007 9:29:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/21/2007 9:29:49 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 9:29:49 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 9:29:49 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 9:29:49 PM
Surr: 4-Bromofluorobenzene	81.0	68.2-109		%REC	1	6/21/2007 9:29:49 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	1800	6.0		mg/Kg	20	7/1/2007 9:56:16 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-1 (54.0-54.3)
Lab Order:	0706235	Collection Date:	6/13/2007 11:20:00 AM
Project:	NMSWDCO - Station 11	Date Received:	6/15/2007
Lab ID:	0706235-13	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 8:55:57 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 8:55:57 PM
Surr: DNOP	99.2	61.7-135		%REC	1	6/20/2007 8:55:57 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 10:00:21 PM
Surr: BFB	110	84-138		%REC	1	6/21/2007 10:00:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/21/2007 10:00:21 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 10:00:21 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 10:00:21 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 10:00:21 PM
Surr: 4-Bromofluorobenzene	82.4	68.2-109		%REC	1	6/21/2007 10:00:21 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	720	6.0		mg/Kg	20	7/1/2007 10:13:40 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-1 (63.5-64.0)
Lab Order:	0706235	Collection Date:	6/13/2007 12:25:00 PM
Project:	NMSWDCO - Station 11	Date Received:	6/15/2007
Lab ID:	0706235-14	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/20/2007 9:31:02 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/20/2007 9:31:02 PM
Surr: DNOP	101	61.7-135		%REC	1	6/20/2007 9:31:02 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/21/2007 10:31:01 PM
Surr: BFB	111	84-138		%REC	1	6/21/2007 10:31:01 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/21/2007 10:31:01 PM
Toluene	ND	0.050		mg/Kg	1	6/21/2007 10:31:01 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/21/2007 10:31:01 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/21/2007 10:31:01 PM
Surr: 4-Bromofluorobenzene	85.2	68.2-109		%REC	1	6/21/2007 10:31:01 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	460	1.5		mg/Kg	5	7/3/2007 12:30:35 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-1 (61.0-63.5)
Lab Order:	0706235	Collection Date:	6/13/2007 1:45:00 PM
Project:	NMSWDCO - Station 11	Date Received:	6/15/2007
Lab ID:	0706235-15	Matrix:	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/18/2007 3:57:21 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/18/2007 3:57:21 PM
Surr: DNOP	119	58-140		%REC	1	6/18/2007 3:57:21 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/22/2007 11:45:20 AM
Surr: BFB	114	79.2-121		%REC	1	6/22/2007 11:45:20 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	6/22/2007 11:45:20 AM
Toluene	ND	1.0		µg/L	1	6/22/2007 11:45:20 AM
Ethylbenzene	ND	1.0		µg/L	1	6/22/2007 11:45:20 AM
Xylenes, Total	ND	2.0		µg/L	1	6/22/2007 11:45:20 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/22/2007 11:45:20 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/22/2007 11:45:20 AM
Surr: 4-Bromofluorobenzene	79.1	70.2-105		%REC	1	6/22/2007 11:45:20 AM
EPA METHOD 300.0: ANIONS						Analyst: KS
Chloride	23000	100		mg/L	1000	6/21/2007 6:46:33 AM
EPA METHOD 160.1: TDS						Analyst: TAF
Total Dissolved Solids	51000	400		mg/L	1	6/19/2007

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	Trip Blank
Lab Order:	0706235	**Collection Date:**	
Project:	NMSWDCO - Station 11	**Date Received:**	6/15/2007
Lab ID:	0706235-16	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/22/2007 12:46:44 PM
Surr: BFB	109	79.2-121		%REC	1	6/22/2007 12:46:44 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	6/22/2007 12:46:44 PM
Toluene	ND	1.0		µg/L	1	6/22/2007 12:46:44 PM
Ethylbenzene	ND	1.0		µg/L	1	6/22/2007 12:46:44 PM
Xylenes, Total	ND	2.0		µg/L	1	6/22/2007 12:46:44 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/22/2007 12:46:44 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/22/2007 12:46:44 PM
Surr: 4-Bromofluorobenzene	75.6	70.2-105		%REC	1	6/22/2007 12:46:44 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWDCO - Station 11 **Work Order:** 0706235

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW9056A									
Sample ID: MB-13267		*MBLK*			Batch ID:	13267	Analysis Date:	7/1/2007 6:09:55 PM	
Chloride	ND	mg/Kg	0.30						
Sample ID: MB-13306		*MBLK*			Batch ID:	13306	Analysis Date:	7/2/2007 11:38:20 PM	
Chloride	ND	mg/Kg	0.30						
Sample ID: LCS-13267		*LCS*			Batch ID:	13267	Analysis Date:	7/1/2007 6:27:19 PM	
Chloride	14.36	mg/Kg	0.30	95.7	90	110			
Sample ID: LCS-13306		*LCS*			Batch ID:	13306	Analysis Date:	7/2/2007 11:55:45 PM	
Chloride	14.29	mg/Kg	0.30	95.3	90	110			
Method: E300									
Sample ID: MB		*MBLK*			Batch ID:	R24024	Analysis Date:	6/17/2007 12:07:07 PM	
Chloride	ND	mg/L	0.10						
Sample ID: MB		*MBLK*			Batch ID:	R24067	Analysis Date:	6/21/2007 5:19:31 AM	
Chloride	ND	mg/L	0.10						
Sample ID: LCS ST300-07014		*LCS*			Batch ID:	R24024	Analysis Date:	6/17/2007 12:24:31 PM	
Chloride	4.823	mg/L	0.10	96.5	90	110			
Sample ID: LCS ST300-07014		*LCS*			Batch ID:	R24067	Analysis Date:	6/21/2007 5:36:55 AM	
Chloride	4.705	mg/L	0.10	94.1	90	110			
Method: SW8015									
Sample ID: 0706235-10AMSD		*MSD*			Batch ID:	13198	Analysis Date:	6/20/2007 6:35:46 PM	
Diesel Range Organics (DRO)	44.97	mg/Kg	10	78.3	67.4	117	8.84	17.4	
Sample ID: MB-13195		*MBLK*			Batch ID:	13195	Analysis Date:	6/17/2007 10:08:46 PM	
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: MB-13198		*MBLK*			Batch ID:	13198	Analysis Date:	6/19/2007 4:36:23 PM	
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-13195		*LCS*			Batch ID:	13195	Analysis Date:	6/17/2007 10:43:59 PM	
Diesel Range Organics (DRO)	38.35	mg/Kg	10	76.7	64.6	116			
Sample ID: LCS-13198		*LCS*			Batch ID:	13198	Analysis Date:	6/19/2007 5:11:59 PM	
Diesel Range Organics (DRO)	45.73	mg/Kg	10	91.5	64.6	116			
Sample ID: LCSD-13195		*LCSD*			Batch ID:	13195	Analysis Date:	6/17/2007 11:19:12 PM	
Diesel Range Organics (DRO)	41.50	mg/Kg	10	83.0	64.6	116	7.89	17.4	
Sample ID: LCSD-13198		*LCSD*			Batch ID:	13198	Analysis Date:	6/19/2007 5:47:16 PM	
Diesel Range Organics (DRO)	45.82	mg/Kg	10	91.6	64.6	116	0.186	17.4	
Sample ID: 0706235-10AMS		*MS*			Batch ID:	13198	Analysis Date:	6/20/2007 6:00:24 PM	
Diesel Range Organics (DRO)	49.13	mg/Kg	10	86.6	67.4	117			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWDCO - Station 11 **Work Order:** 0706235

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8015									
Sample ID: MB-13196		*MBLK*			Batch ID:	13196	Analysis Date:	6/18/2007 10:40:56 AM	
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-13196		*LCS*			Batch ID:	13196	Analysis Date:	6/18/2007 11:15:37 AM	
Diesel Range Organics (DRO)	5.165	mg/L	1.0	103	74	157			
Sample ID: LCSD-13196		*LCSD*			Batch ID:	13196	Analysis Date:	6/18/2007 11:50:38 AM	
Diesel Range Organics (DRO)	5.781	mg/L	1.0	116	74	157	11.3	23	
Method: SW8015									
Sample ID: 0706235-01A MSD		*MSD*			Batch ID:	13212	Analysis Date:	6/21/2007 2:50:56 PM	
Gasoline Range Organics (GRO)	20.10	mg/Kg	5.0	80.4	69.5	120	3.42	11.6	
Sample ID: MB-13212		*MBLK*			Batch ID:	13212	Analysis Date:	6/21/2007 11:17:21 AM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-13212		*LCS*			Batch ID:	13212	Analysis Date:	6/21/2007 11:47:48 AM	
Gasoline Range Organics (GRO)	20.40	mg/Kg	5.0	81.6	69.5	120			
Sample ID: 0706235-01A MS		*MS*			Batch ID:	13212	Analysis Date:	6/21/2007 2:20:21 PM	
Gasoline Range Organics (GRO)	20.80	mg/Kg	5.0	83.2	69.5	120			
Method: SW8015									
Sample ID: 5ML REAGENT BLA		*MBLK*			Batch ID:	R24083	Analysis Date:	6/22/2007 9:21:25 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID:	R24083	Analysis Date:	6/22/2007 3:21:10 PM	
Gasoline Range Organics (GRO)	0.4720	mg/L	0.050	90.0	80	115			
Sample ID: 2.5UG GRO LCSD		*LCSD*			Batch ID:	R24083	Analysis Date:	6/22/2007 3:51:48 PM	
Gasoline Range Organics (GRO)	0.4680	mg/L	0.050	89.2	80	115	0.851	8.39	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWDCO - Station 11 **Work Order:** 0706235

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 0706235-01A MSD		*MSD*			Batch ID:	13212	Analysis Date:	6/21/2007 2:50:56 PM	
Benzene	0.2593	mg/Kg	0.050	92.6	62.7	114	2.93	27	
Toluene	1.910	mg/Kg	0.050	95.5	68.2	121	3.52	19	
Ethylbenzene	0.3394	mg/Kg	0.050	84.8	71.4	115	2.32	10	
Xylenes, Total	2.063	mg/Kg	0.10	89.7	65	135	2.89	13	
Sample ID: MB-13212		*MBLK*			Batch ID:	13212	Analysis Date:	6/21/2007 11:17:21 AM	
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-13212		*LCS*			Batch ID:	13212	Analysis Date:	6/21/2007 11:47:48 AM	
Benzene	0.2669	mg/Kg	0.050	95.3	62.7	114			
Toluene	1.950	mg/Kg	0.050	97.5	68.2	121			
Ethylbenzene	0.3444	mg/Kg	0.050	86.1	71.4	115			
Xylenes, Total	2.123	mg/Kg	0.10	92.3	65	135			
Sample ID: 0706235-01A MS		*MS*			Batch ID:	13212	Analysis Date:	6/21/2007 2:20:21 PM	
Benzene	0.2518	mg/Kg	0.050	89.9	62.7	114			
Toluene	1.844	mg/Kg	0.050	92.2	68.2	121			
Ethylbenzene	0.3316	mg/Kg	0.050	82.9	71.4	115			
Xylenes, Total	2.004	mg/Kg	0.10	87.2	65	135			
Method: SW8021									
Sample ID: 5ML REAGENT BLA		*MBLK*			Batch ID:	R24083	Analysis Date:	6/22/2007 9:21:25 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	R24083	Analysis Date:	6/22/2007 1:48:43 PM	
Benzene	17.57	µg/L	1.0	87.8	85.9	113			
Toluene	17.41	µg/L	1.0	87.0	86.4	113			
Ethylbenzene	17.38	µg/L	1.0	86.9	83.5	118			
Xylenes, Total	51.71	µg/L	2.0	86.2	83.4	122			
1,2,4-Trimethylbenzene	18.36	µg/L	1.0	91.8	83.5	115			
1,3,5-Trimethylbenzene	17.88	µg/L	1.0	89.4	85.2	113			
Sample ID: 100NG BTEX LCSD		*LCSD*			Batch ID:	R24083	Analysis Date:	6/22/2007 2:19:38 PM	
Benzene	17.87	µg/L	1.0	89.4	85.9	113	1.74	27	
Toluene	17.57	µg/L	1.0	87.8	86.4	113	0.892	19	
Ethylbenzene	17.75	µg/L	1.0	88.7	83.5	118	2.10	10	
Xylenes, Total	51.83	µg/L	2.0	86.4	83.4	122	0.224	13	
1,2,4-Trimethylbenzene	17.91	µg/L	1.0	89.6	83.5	115	2.48	21	
1,3,5-Trimethylbenzene	17.64	µg/L	1.0	88.2	85.2	113	1.33	10	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name NMSWDC

Date and Time Received: 6/15/2007

Work Order Number 0706235

Received by TLS

Checklist completed by [signature] 6/15/07
Signature Date

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	3°	*4° C ± 2 Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

COC 1 of 2

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: New Mexico Salt Water Disposal Company

Address: ATTN: John Maxey
PO Box 1518
Roswell, NM 88202-1518

Phone #: (505) 622-3770 Ext. 224

Fax #:

Project Name: NM SWDCO - Station 11

Project #: NM SWDCO - SA-1

Project Manager: Clayton M. Barnhill, P.G.

Sampler: Luana Roughd, P.G.

Sample Temperature: 3°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HNO_3	Preservative: N/A	HEAL No. 07060235	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel) both	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	Chlorides				Air Bubbles or Headspace (Y or N)
6/12/07	1400	soil	MW-1 (0-2.0)	1 @ 4oz jar			✓	1	✓		✓										✓				N/A
6/12/07	1420	soil	MW-1 (4.0-5.0)				✓	2	✓		✓										✓				N/A
6/12/07	1435	soil	MW-1 (9.0-9.3)				✓	3	✓		✓										✓				N/A
6/12/07	1450	soil	MW-1 (14.0-14.5)				✓	4	✓		✓										✓				N/A
6/12/07	1510	soil	MW-1 (19.0-20.0)				✓	5	✓		✓										✓				N/A
6/12/07	1525	soil	MW-1 (24.0-25.0)				✓	6	✓		✓										✓				N/A
6/12/07	1545	soil	MW-1 (29.0-30.0)				✓	7	✓		✓										✓				N/A
6/12/07	1605	soil	MW-1 (34.0-35.5)				✓	8	✓		✓										✓				N/A
6/12/07	1640	soil	MW-1 (39.0-40.0)				✓	9	✓		✓										✓				N/A
6/13/07	0915	soil	MW-1 (40.7-41.2)				✓	10	✓		✓										✓				N/A
6/13/07	1015	soil	MW-1 (44.0-45.3)				✓	11	✓		✓										✓				N/A
6/13/07	1055	soil	MW-1 (49.0-49.5)	1 @ 4oz jar			✓	12	✓		✓										✓				N/A

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	
6/14/07	0710	Luana Roughd	Tom Ho	6/15/07 9:38
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	

Remarks: Analysis: TPH MOD 8015 GRO/DRO
Chlorides
BTEX 8021

COC 2 of 2

CHAIN-OF-CUSTODY RECORD

QA/QC Package:
Std ☐ Level 4 ☐
Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: New Mexico Salt Water Disposal Company

Address: ATTN: John Maxey
P.O. Box 1518
Roswell, NM 88202-1518

Phone #: (505) 622 3770 Ext. 224

Fax #:

Project Name: NMSWDCO — Station 11

Project #: NMSWDCO-SA1

Project Manager: Clayton M. Barnhill; P.G.

Sampler: Luana Rough; P.G.

Sample Temperature: 3°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative N/A	HEAL No. 0706235	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel) both	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	Chlorides				Air Bubbles or Headspace (Y or N)
6/13/07	1120	soil	MW-1 (54.0-54.3)	1 @ 4oz jar			✓	13	✓		✓										✓				N/A
6/13/07	1225	soil	MW-1 (63.5-64.0)	1 @ 4oz jar			✓	14	✓		✓										✓				N/A

Date	Time	Relinquished By: (Signature)	Received By: (Signature)
6/14/07	0710	Luana Rough	Tonya S. 6/15/07 938
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:
Analysis: TPH MOD 8015 GRO/DRO
Chlorides
BTEX 8021

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other:

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Client: New Mexico Salt Water Disposal Company
Address: ATTN: John Maxey
P.O. Box 1518
Roswell, NM 88202-1518
Phone #: (505) 622 3770 Ext. 224
Fax #:

Project Name: NMSWDCO - Station 11
Project #: NMSWDCO - SA 1
Project Manager: Clayton M. Barnhill, P.G.
Sampler: Luanne Roughst ; P.G.
Sample Temperature: 3°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HNO_3	Preservative: None	HEAL No.	BTEX + ~~MTBE + TMB's~~ (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel) both	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	TDS, Chlorides				Air Bubbles or Headspace (Y or N)
6/13/07	1345	H_2O	MW-1 (61.0-63.5)	4 40ml VOA 1 @ 500ml	✓		✓	15	✓		✓										✓				N/MA
		H_2O	TRIP Blank	2 40ml VOA	✓			16	✓																

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
6/14/07	0715	Luanne Roughst	Tony O. [illegible] 6/15/07 938
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks: Analysis: 8021 BTEX
TPH mod 8015 GRO/DRO
TDS, Chlorides

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, July 10, 2007

John Maxey, Jr.
New Mexico Salt Water Disposal Co.
P.O. Box 1518
Roswell, New Mexico 88202-1518

TEL: (505) 625-0266
FAX (505) 622-8643

RE: NMSWDCO-Station 11

Order No.: 0707009

Dear John Maxey, Jr.:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/2/2007 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-1 (77.6-78.6')
Lab Order:	0707009	Collection Date:	6/26/2007 2:35:00 PM
Project:	NMSWDCO-Station 11	Date Received:	7/2/2007
Lab ID:	0707009-01	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/9/2007 2:09:18 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/9/2007 2:09:18 PM
Surr: DNOP	86.8	61.7-135		%REC	1	7/9/2007 2:09:18 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: LMM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/9/2007 1:12:31 AM
Surr: BFB	110	84-138		%REC	1	7/9/2007 1:12:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Benzene	ND	0.050		mg/Kg	1	7/9/2007 1:12:31 AM
Toluene	ND	0.050		mg/Kg	1	7/9/2007 1:12:31 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/9/2007 1:12:31 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/9/2007 1:12:31 AM
Surr: 4-Bromofluorobenzene	100	68.2-109		%REC	1	7/9/2007 1:12:31 AM
EPA METHOD 9056A: ANIONS						Analyst: CMS
Chloride	110	3.0		mg/Kg	10	7/6/2007 4:52:07 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-1 (89.0-90.8')
Lab Order:	0707009	Collection Date:	6/28/2007 4:30:00 PM
Project:	NMSWDCO-Station 11	Date Received:	7/2/2007
Lab ID:	0707009-02	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/9/2007 2:40:55 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/9/2007 2:40:55 PM
Surr: DNOP	89.9	61.7-135		%REC	1	7/9/2007 2:40:55 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: LMM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/9/2007 1:42:26 AM
Surr: BFB	108	84-138		%REC	1	7/9/2007 1:42:26 AM
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Benzene	ND	0.050		mg/Kg	1	7/9/2007 1:42:26 AM
Toluene	ND	0.050		mg/Kg	1	7/9/2007 1:42:26 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/9/2007 1:42:26 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/9/2007 1:42:26 AM
Surr: 4-Bromofluorobenzene	99.0	68.2-109		%REC	1	7/9/2007 1:42:26 AM
EPA METHOD 9056A: ANIONS						Analyst: CMS
Chloride	ND	6.0		mg/Kg	20	7/6/2007 5:44:19 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-1 (104.4-106.8')
Lab Order:	0707009	Collection Date:	6/28/2007 7:00:00 PM
Project:	NMSWDCO-Station 11	Date Received:	7/2/2007
Lab ID:	0707009-03	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/9/2007 3:12:31 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/9/2007 3:12:31 PM
Surr: DNOP	90.0	61.7-135		%REC	1	7/9/2007 3:12:31 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: LMM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/9/2007 2:12:23 AM
Surr: BFB	106	84-138		%REC	1	7/9/2007 2:12:23 AM
EPA METHOD 8021B: VOLATILES						Analyst: LMM
Benzene	ND	0.050		mg/Kg	1	7/9/2007 2:12:23 AM
Toluene	ND	0.050		mg/Kg	1	7/9/2007 2:12:23 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/9/2007 2:12:23 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/9/2007 2:12:23 AM
Surr: 4-Bromofluorobenzene	95.2	68.2-109		%REC	1	7/9/2007 2:12:23 AM
EPA METHOD 9056A: ANIONS						Analyst: CMS
Chloride	20	6.0		mg/Kg	20	7/6/2007 6:01:44 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWDCO-Station 11 **Work Order:** 0707009

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW9056A									
Sample ID: MB-13334		*MBLK*			Batch ID:	13334	Analysis Date:	7/6/2007 11:03:00 AM	
Chloride	ND	mg/Kg	0.30						
Sample ID: MB-13334		*MBLK*			Batch ID:	13334	Analysis Date:	7/6/2007 11:03:58 AM	
Chloride	ND	mg/Kg	0.30						
Sample ID: LCS-13334		*LCS*			Batch ID:	13334	Analysis Date:	7/6/2007 11:21:00 AM	
Chloride	14.43	mg/Kg	0.30	96.2	90	110			
Sample ID: LCS-13334		*LCS*			Batch ID:	13334	Analysis Date:	7/6/2007 11:21:22 AM	
Chloride	14.43	mg/Kg	0.30	96.2	90	110			
Method: SW8015									
Sample ID: MB-13307		*MBLK*			Batch ID:	13307	Analysis Date:	7/2/2007 10:46:49 PM	
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-13307		*LCS*			Batch ID:	13307	Analysis Date:	7/2/2007 11:21:46 PM	
Diesel Range Organics (DRO)	45.10	mg/Kg	10	90.2	64.6	116			
Sample ID: LCSD-13307		*LCSD*			Batch ID:	13307	Analysis Date:	7/2/2007 11:56:42 PM	
Diesel Range Organics (DRO)	47.60	mg/Kg	10	95.2	64.6	116	5.39	17.4	
Method: SW8015									
Sample ID: MB-13330		*MBLK*			Batch ID:	13330	Analysis Date:	7/8/2007 7:42:22 PM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: MB-13330		*MBLK*			Batch ID:	13330	Analysis Date:	7/9/2007 12:47:34 PM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-13330		*LCS*			Batch ID:	13330	Analysis Date:	7/8/2007 8:12:29 PM	
Gasoline Range Organics (GRO)	22.86	mg/Kg	5.0	91.3	69.5	120			
Method: SW8021									
Sample ID: MB-13330		*MBLK*			Batch ID:	13330	Analysis Date:	7/9/2007 12:47:34 PM	
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-13330		*LCS*			Batch ID:	13330	Analysis Date:	7/8/2007 8:12:29 PM	
Benzene	0.3217	mg/Kg	0.050	107	62.7	114			
Toluene	1.969	mg/Kg	0.050	98.4	68.2	121			
Ethylbenzene	0.4475	mg/Kg	0.050	89.5	71.4	115			
Xylenes, Total	2.664	mg/Kg	0.10	84.1	65	135			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name NMSWQC | Date and Time Received: 7/2/2007

Work Order Number 0707009 | Received by TLS

Checklist completed by [signature] Signature | 7/2/07 Date

Matrix | Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	8°	*4° C ± 2 Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted | Date contacted: | Person contacted

Contacted by: | Regarding

Comments:

Corrective Action

CHAIN-OF-CUSTODY RECORD

QA/QC Package: Std ☒ Level 4 ☐ Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
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Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: New Mexico Salt Water Disposal Company

Address: ATTN: John Maxey
PO Box 1518
Roswell, NM 88202-1518

Phone #: (505) 622 3770 Ext. 224

Fax #:

Project Name: NMSWDCO - Station 11

Project #: NMSWDCO - SA1

Project Manager: Clayton M. Barnhill, PG

Sampler: Luana Rought P.G.

Sample Temperature: 8°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HNO_3	Preservative: NONE	HEAL No. 0707009	(BTEX) + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	Chlorides				Air Bubbles or Headspace (Y or N)
6/26/07	1435	soil	MW-1 (77.6-78.6)	2 40z jar			✓	1	✓		✓										✓				N/A
06/28/07	16:30	Soil	MW-1 89.0-90.8	" " "			✓	2	✓		✓										✓				N/A
06/28/07	1900	Soil	MW-1 104.4-~~106.8~~ 106.8'	" "			✓	3	✓		✓										✓				N/A

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	Date:	Time:
07/01/07	1400	[signature]	[signature] SO	7/2/07	926
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)		

Remarks: Send Copy Results ASAP: Clayton Barnhill
Analysis: TPH 8015 B MOD GRO/DRO
BTEX 8021
Chlorides

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, June 25, 2007

Clayton M. Barnhill
New Mexico Salt Water Disposal Co.
P.O. Box 1518
Roswell, New Mexico 88202-1518

TEL: (505) 622-3770
FAX (505) 622-8643

RE: NMSWDCO-Station 11

Order No.: 0706145

Dear Clayton M. Barnhill:

Hall Environmental Analysis Laboratory, Inc. received 16 sample(s) on 6/11/2007 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-2 (0-2.0)
Lab Order:	0706145	Collection Date:	6/6/2007 10:34:00 AM
Project:	NMSWDCO-Station 11	Date Received:	6/11/2007
Lab ID:	0706145-01	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/12/2007 11:04:19 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/12/2007 11:04:19 PM
Surr: DNOP	96.8	61.7-135		%REC	1	6/12/2007 11:04:19 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2007 5:01:00 PM
Surr: BFB	116	84-138		%REC	1	6/12/2007 5:01:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	6/12/2007 5:01:00 PM
Toluene	ND	0.050		mg/Kg	1	6/12/2007 5:01:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2007 5:01:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/12/2007 5:01:00 PM
Surr: 4-Bromofluorobenzene	91.8	68.2-109		%REC	1	6/12/2007 5:01:00 PM
EPA METHOD 9056A: ANIONS						Analyst: **KS**
Chloride	ND	3.0		mg/Kg	10	6/21/2007 9:51:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-2 (4.0-6.0)
Lab Order:	0706145	Collection Date:	6/6/2007 10:50:00 AM
Project:	NMSWDCO-Station 11	Date Received:	6/11/2007
Lab ID:	0706145-02	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/12/2007 11:38:43 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/12/2007 11:38:43 PM
Surr: DNOP	96.0	61.7-135		%REC	1	6/12/2007 11:38:43 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2007 5:31:08 PM
Surr: BFB	116	84-138		%REC	1	6/12/2007 5:31:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	6/12/2007 5:31:08 PM
Toluene	ND	0.050		mg/Kg	1	6/12/2007 5:31:08 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2007 5:31:08 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/12/2007 5:31:08 PM
Surr: 4-Bromofluorobenzene	91.6	68.2-109		%REC	1	6/12/2007 5:31:08 PM
EPA METHOD 9056A: ANIONS						Analyst: **CMS**
Chloride	230	3.0		mg/Kg	10	6/14/2007 5:57:32 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-2 (9.0-11.0)
Lab Order:	0706145	**Collection Date:**	6/6/2007 11:10:00 AM
Project:	NMSWDCO-Station 11	**Date Received:**	6/11/2007
Lab ID:	0706145-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 12:13:08 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 12:13:08 AM
Surr: DNOP	87.2	61.7-135		%REC	1	6/13/2007 12:13:08 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2007 6:31:30 PM
Surr: BFB	116	84-138		%REC	1	6/12/2007 6:31:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/12/2007 6:31:30 PM
Toluene	ND	0.050		mg/Kg	1	6/12/2007 6:31:30 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2007 6:31:30 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/12/2007 6:31:30 PM
Surr: 4-Bromofluorobenzene	92.2	68.2-109		%REC	1	6/12/2007 6:31:30 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	1400	6.0		mg/Kg	20	6/19/2007 10:00:45 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-2 (14.0-16.0)
Lab Order:	0706145	Collection Date:	6/6/2007 11:33:00 AM
Project:	NMSWDCO-Station 11	Date Received:	6/11/2007
Lab ID:	0706145-04	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 12:47:34 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 12:47:34 AM
Surr: DNOP	95.2	61.7-135		%REC	1	6/13/2007 12:47:34 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2007 7:01:37 PM
Surr: BFB	116	84-138		%REC	1	6/12/2007 7:01:37 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	6/12/2007 7:01:37 PM
Toluene	ND	0.050		mg/Kg	1	6/12/2007 7:01:37 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2007 7:01:37 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/12/2007 7:01:37 PM
Surr: 4-Bromofluorobenzene	92.0	68.2-109		%REC	1	6/12/2007 7:01:37 PM
EPA METHOD 9056A: ANIONS						Analyst: **CMS**
Chloride	300	1.5		mg/Kg	5	6/14/2007 6:32:21 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-2 (24.0-26.0)
Lab Order:	0706145	**Collection Date:**	6/6/2007 12:05:00 PM
Project:	NMSWDCO-Station 11	**Date Received:**	6/11/2007
Lab ID:	0706145-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 1:21:54 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 1:21:54 AM
Surr: DNOP	92.8	61.7-135		%REC	1	6/13/2007 1:21:54 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2007 7:31:46 PM
Surr: BFB	116	84-138		%REC	1	6/12/2007 7:31:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/12/2007 7:31:46 PM
Toluene	ND	0.050		mg/Kg	1	6/12/2007 7:31:46 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2007 7:31:46 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/12/2007 7:31:46 PM
Surr: 4-Bromofluorobenzene	91.9	68.2-109		%REC	1	6/12/2007 7:31:46 PM
EPA METHOD 9056A: ANIONS						Analyst: IC
Chloride	2100	6.0		mg/Kg	20	6/18/2007 3:47:13 AM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-2 (19.0-21.0)
Lab Order:	0706145	**Collection Date:**	6/6/2007 11:50:00 AM
Project:	NMSWDCO-Station 11	**Date Received:**	6/11/2007
Lab ID:	0706145-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 1:56:17 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 1:56:17 AM
Surr: DNOP	94.1	61.7-135		%REC	1	6/13/2007 1:56:17 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2007 8:01:45 PM
Surr: BFB	116	84-138		%REC	1	6/12/2007 8:01:45 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/12/2007 8:01:45 PM
Toluene	ND	0.050		mg/Kg	1	6/12/2007 8:01:45 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2007 8:01:45 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/12/2007 8:01:45 PM
Surr: 4-Bromofluorobenzene	91.9	68.2-109		%REC	1	6/12/2007 8:01:45 PM
EPA METHOD 9056A: ANIONS						Analyst: IC
Chloride	1000	6.0		mg/Kg	20	6/18/2007 4:04:37 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-2 (29.0-30.5)
Lab Order:	0706145	Collection Date:	6/6/2007 1:00:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/11/2007
Lab ID:	0706145-07	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 2:30:38 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 2:30:38 AM
Surr: DNOP	95.4	61.7-135		%REC	1	6/13/2007 2:30:38 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2007 8:31:56 PM
Surr: BFB	117	84-138		%REC	1	6/12/2007 8:31:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	6/12/2007 8:31:56 PM
Toluene	ND	0.050		mg/Kg	1	6/12/2007 8:31:56 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2007 8:31:56 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/12/2007 8:31:56 PM
Surr: 4-Bromofluorobenzene	92.3	68.2-109		%REC	1	6/12/2007 8:31:56 PM
EPA METHOD 9056A: ANIONS						Analyst: **KS**
Chloride	2800	30		mg/Kg	100	6/20/2007 9:35:47 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-2 (34.5-36.0)
Lab Order:	0706145	Collection Date:	6/6/2007 2:08:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/11/2007
Lab ID:	0706145-08	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 10:22:49 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 10:22:49 AM
Surr: DNOP	95.8	61.7-135		%REC	1	6/13/2007 10:22:49 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2007 9:01:53 PM
Surr: BFB	118	84-138		%REC	1	6/12/2007 9:01:53 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/12/2007 9:01:53 PM
Toluene	ND	0.050		mg/Kg	1	6/12/2007 9:01:53 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2007 9:01:53 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/12/2007 9:01:53 PM
Surr: 4-Bromofluorobenzene	93.0	68.2-109		%REC	1	6/12/2007 9:01:53 PM
EPA METHOD 9056A: ANIONS						Analyst: IC
Chloride	650	6.0		mg/Kg	20	6/18/2007 4:39:26 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-2 (38.0-40.0)
Lab Order:	0706145	Collection Date:	6/6/2007 2:40:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/11/2007
Lab ID:	0706145-09	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 3:04:44 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 3:04:44 AM
Surr: DNOP	97.2	61.7-135		%REC	1	6/13/2007 3:04:44 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2007 9:31:59 PM
Surr: BFB	117	84-138		%REC	1	6/12/2007 9:31:59 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/12/2007 9:31:59 PM
Toluene	ND	0.050		mg/Kg	1	6/12/2007 9:31:59 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2007 9:31:59 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/12/2007 9:31:59 PM
Surr: 4-Bromofluorobenzene	92.4	68.2-109		%REC	1	6/12/2007 9:31:59 PM
EPA METHOD 9056A: ANIONS						Analyst: CMS
Chloride	230	1.5		mg/Kg	5	6/14/2007 9:43:50 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-2 (44.0-44.8)
Lab Order:	0706145	Collection Date:	6/6/2007 3:20:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/11/2007
Lab ID:	0706145-10	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 3:38:52 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 3:38:52 AM
Surr: DNOP	97.5	61.7-135		%REC	1	6/13/2007 3:38:52 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2007 10:02:09 PM
Surr: BFB	117	84-138		%REC	1	6/12/2007 10:02:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/12/2007 10:02:09 PM
Toluene	ND	0.050		mg/Kg	1	6/12/2007 10:02:09 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2007 10:02:09 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/12/2007 10:02:09 PM
Surr: 4-Bromofluorobenzene	92.0	68.2-109		%REC	1	6/12/2007 10:02:09 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	110	1.5		mg/Kg	5	6/23/2007 12:36:31 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-2 (49.0-50.5)
Lab Order:	0706145	Collection Date:	6/6/2007 3:45:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/11/2007
Lab ID:	0706145-11	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 4:47:02 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 4:47:02 AM
Surr: DNOP	94.5	61.7-135		%REC	1	6/13/2007 4:47:02 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2007 11:02:26 PM
Surr: BFB	118	84-138		%REC	1	6/12/2007 11:02:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/12/2007 11:02:26 PM
Toluene	ND	0.050		mg/Kg	1	6/12/2007 11:02:26 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2007 11:02:26 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/12/2007 11:02:26 PM
Surr: 4-Bromofluorobenzene	93.1	68.2-109		%REC	1	6/12/2007 11:02:26 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	140	1.5		mg/Kg	5	6/23/2007 12:53:56 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-2 (59.0-60.5)
Lab Order:	0706145	Collection Date:	6/7/2007 8:02:00 AM
Project:	NMSWDCO-Station 11	Date Received:	6/11/2007
Lab ID:	0706145-12	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 5:21:09 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 5:21:09 AM
Surr: DNOP	90.9	61.7-135		%REC	1	6/13/2007 5:21:09 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/13/2007 12:32:27 AM
Surr: BFB	118	84-138		%REC	1	6/13/2007 12:32:27 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	6/13/2007 12:32:27 AM
Toluene	ND	0.050		mg/Kg	1	6/13/2007 12:32:27 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/13/2007 12:32:27 AM
Xylenes, Total	ND	0.10		mg/Kg	1	6/13/2007 12:32:27 AM
Surr: 4-Bromofluorobenzene	93.5	68.2-109		%REC	1	6/13/2007 12:32:27 AM
EPA METHOD 9056A: ANIONS						Analyst: **KS**
Chloride	820	6.0		mg/Kg	20	6/23/2007 1:11:20 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-2 (69.0-70.5)
Lab Order:	0706145	Collection Date:	6/7/2007 9:20:00 AM
Project:	NMSWDCO-Station 11	Date Received:	6/11/2007
Lab ID:	0706145-13	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 5:55:15 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 5:55:15 AM
Surr: DNOP	93.3	61.7-135		%REC	1	6/13/2007 5:55:15 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/14/2007 5:18:22 PM
Surr: BFB	122	84-138		%REC	1	6/14/2007 5:18:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/14/2007 5:18:22 PM
Toluene	ND	0.050		mg/Kg	1	6/14/2007 5:18:22 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/14/2007 5:18:22 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/14/2007 5:18:22 PM
Surr: 4-Bromofluorobenzene	95.9	68.2-109		%REC	1	6/14/2007 5:18:22 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	16	1.5		mg/Kg	5	6/23/2007 1:28:44 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-2 (79.0-79.2)
Lab Order:	0706145	Collection Date:	6/7/2007 11:10:00 AM
Project:	NMSWDCO-Station 11	Date Received:	6/11/2007
Lab ID:	0706145-14	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 6:29:24 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 6:29:24 AM
Surr: DNOP	97.1	61.7-135		%REC	1	6/13/2007 6:29:24 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/14/2007 5:48:26 PM
Surr: BFB	120	84-138		%REC	1	6/14/2007 5:48:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/14/2007 5:48:26 PM
Toluene	ND	0.050		mg/Kg	1	6/14/2007 5:48:26 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/14/2007 5:48:26 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/14/2007 5:48:26 PM
Surr: 4-Bromofluorobenzene	94.9	68.2-109		%REC	1	6/14/2007 5:48:26 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	3.6	1.5		mg/Kg	5	6/23/2007 1:46:09 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-2 (89.0-90.5)
Lab Order:	0706145	**Collection Date:**	6/7/2007 1:10:00 PM
Project:	NMSWDCO-Station 11	**Date Received:**	6/11/2007
Lab ID:	0706145-15	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 10:57:09 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 10:57:09 AM
Surr: DNOP	94.8	61.7-135		%REC	1	6/13/2007 10:57:09 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/14/2007 6:18:33 PM
Surr: BFB	119	84-138		%REC	1	6/14/2007 6:18:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/14/2007 6:18:33 PM
Toluene	ND	0.050		mg/Kg	1	6/14/2007 6:18:33 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/14/2007 6:18:33 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/14/2007 6:18:33 PM
Surr: 4-Bromofluorobenzene	94.5	68.2-109		%REC	1	6/14/2007 6:18:33 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	2.4	1.5		mg/Kg	5	6/23/2007 2:38:21 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *25-Jun-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-2 (119.0-119.3)
Lab Order:	0706145	Collection Date:	6/9/2007 1:25:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/11/2007
Lab ID:	0706145-16	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2007 11:31:28 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 11:31:28 AM
Surr: DNOP	96.8	61.7-135		%REC	1	6/13/2007 11:31:28 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/14/2007 6:48:37 PM
Surr: BFB	120	84-138		%REC	1	6/14/2007 6:48:37 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	6/14/2007 6:48:37 PM
Toluene	ND	0.050		mg/Kg	1	6/14/2007 6:48:37 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/14/2007 6:48:37 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/14/2007 6:48:37 PM
Surr: 4-Bromofluorobenzene	94.6	68.2-109		%REC	1	6/14/2007 6:48:37 PM
EPA METHOD 9056A: ANIONS						Analyst: **KS**
Chloride	12	3.0		mg/Kg	10	6/23/2007 2:55:46 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWDCO-Station 11 **Work Order:** 0706145

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW9056A									
Sample ID: MB-13163		*MBLK*			Batch ID:	13163	Analysis Date:	6/14/2007 3:20:52 AM	
Chloride	ND	mg/Kg	0.30						
Sample ID: LCS-13163		*LCS*			Batch ID:	13163	Analysis Date:	6/14/2007 3:38:16 AM	
Chloride	14.43	mg/Kg	0.30	96.2	90	110			
Method: SW8015									
Sample ID: MB-13150		*MBLK*			Batch ID:	13150	Analysis Date:	6/12/2007 9:50:14 AM	
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: MB-13153		*MBLK*			Batch ID:	13153	Analysis Date:	6/12/2007 12:07:47 PM	
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-13150		*LCS*			Batch ID:	13150	Analysis Date:	6/12/2007 10:59:00 AM	
Diesel Range Organics (DRO)	40.50	mg/Kg	10	81.0	64.6	116			
Sample ID: LCS-13153		*LCS*			Batch ID:	13153	Analysis Date:	6/12/2007 12:42:16 PM	
Diesel Range Organics (DRO)	44.97	mg/Kg	10	89.9	64.6	116			
Sample ID: LCSD-13150		*LCSD*			Batch ID:	13150	Analysis Date:	6/12/2007 11:33:21 AM	
Diesel Range Organics (DRO)	40.62	mg/Kg	10	81.2	64.6	116	0.298	17.4	
Sample ID: LCSD-13153		*LCSD*			Batch ID:	13153	Analysis Date:	6/12/2007 1:16:55 PM	
Diesel Range Organics (DRO)	39.39	mg/Kg	10	78.8	64.6	116	13.2	17.4	
Method: SW8015									
Sample ID: 0706145-11A MSD		*MSD*			Batch ID:	13151	Analysis Date:	6/13/2007 12:02:30 AM	
Gasoline Range Organics (GRO)	25.72	mg/Kg	5.0	87.2	69.5	120	2.76	11.6	
Sample ID: MB-13151		*MBLK*			Batch ID:	13151	Analysis Date:	6/12/2007 4:00:56 PM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-13151		*LCS*			Batch ID:	13151	Analysis Date:	6/12/2007 4:30:54 PM	
Gasoline Range Organics (GRO)	25.35	mg/Kg	5.0	84.8	69.5	120			
Sample ID: 0706145-11A MS		*MS*			Batch ID:	13151	Analysis Date:	6/12/2007 11:32:29 PM	
Gasoline Range Organics (GRO)	25.02	mg/Kg	5.0	84.4	69.5	120			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWDCO-Station 11 **Work Order:** 0706145

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 0706145-11A MSD		*MSD*			Batch ID:	13151	Analysis Date:	6/13/2007 12:02:30 AM	
Benzene	0.2888	mg/Kg	0.050	103	62.7	114	1.38	27	
Toluene	1.906	mg/Kg	0.050	95.3	68.2	121	0.919	19	
Ethylbenzene	0.3876	mg/Kg	0.050	96.9	71.4	115	1.10	10	
Xylenes, Total	2.258	mg/Kg	0.10	98.2	65	135	0.393	13	
Sample ID: MB-13151		*MBLK*			Batch ID:	13151	Analysis Date:	6/12/2007 4:00:56 PM	
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-13151		*LCS*			Batch ID:	13151	Analysis Date:	6/12/2007 4:30:54 PM	
Benzene	0.2843	mg/Kg	0.050	102	62.7	114			
Toluene	1.890	mg/Kg	0.050	94.5	68.2	121			
Ethylbenzene	0.3857	mg/Kg	0.050	96.4	71.4	115			
Xylenes, Total	2.238	mg/Kg	0.10	97.3	65	135			
Sample ID: 0706145-11A MS		*MS*			Batch ID:	13151	Analysis Date:	6/12/2007 11:32:29 PM	
Benzene	0.2928	mg/Kg	0.050	105	62.7	114			
Toluene	1.923	mg/Kg	0.050	96.2	68.2	121			
Ethylbenzene	0.3919	mg/Kg	0.050	98.0	71.4	115			
Xylenes, Total	2.267	mg/Kg	0.10	98.6	65	135			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name NMSWDC

Date and Time Received: 6/11/2007

Work Order Number 0706145

Received by TLS

Checklist completed by Signature

6/11/07 Date

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	6°	*4° C ± 2 Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

COC 1 of 2

CHAIN-OF-CUSTODY RECORD

QA / QC Package: Std ☒ Level 4 ☐ Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: New Mexico Salt Water Disposal Company.
Address: ATTN: John Maxey
PO Box 1518
Roswell, NM 88202-1518
Phone #: 505-622-3770 Ext. 224
Fax #:

Project Name: NMSWDCO - Station 11
Project #: NMSWDCO - SA1
Project Manager: Clayton M. Bornhill, PG
Sampler: Luana Ronquist
Sample Temperature: 6°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HNO_3	Preservative: N/A	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel) both	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_2, NO_3, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	TDS, chlorides				Air Bubbles or Headspace (Y or N)
6/6/07	1034	soil	mw-2(0-2.0)	1@4oz jar			✓	0706145 1	✓		✓			✓							✓				N/A
6/6/07	1050	soil	mw-2(4.0-6.0)	↑			✓	2	✓		✓			✓							✓				↑
6/6/07	1110	soil	mw-2(9.0-11.0)				✓	3	✓		✓			✓							✓				
6/6/07	1133	soil	mw-2(14.0-16.0)				✓	4	✓		✓			✓							✓				
6/6/07	1205	soil	mw-2(24.0-26.0)				✓	5	✓		✓			✓							✓				
6/6/07	1150	soil	mw-2(19.0-21.0)				✓	6	✓		✓			✓							✓				
6/6/07	1300	soil	mw-2(29.0-30.5)				✓	7	✓		✓			✓							✓				
6/6/07	1408	soil	mw-2(34.5-36.0)				✓	8	✓		✓			✓							✓				
6/6/07	1440	soil	mw-2(38.0-40.0)				✓	9	✓		✓			✓							✓				
6/6/07	1520	soil	mw-2(44.0-44.8)				✓	10	✓		✓			✓							✓				
6/6/07	1545	soil	mw-2(49.0-50.5)				✓	11	✓		✓			✓							✓				
6/7/07	0802	soil	mw-2(59.0-60.5)	1@4oz jar			✓	12	✓		✓			✓							✓				↓

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
6/10/07	0555	Luana Ronquist	[signature] 6/11/07 914
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:

(4) Bill NMSWDCO. Directly - please send copy of Results ASAP to Cmbenvironmental.com

COC 2 of 2

CHAIN-OF-CUSTODY RECORD

QA/QC Package: Std ☒ Level 4 ☐ Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: New Mexico Salt Water Disposal Company
Address: ATTN: John Maxey
PO Box 1518
Roswell, NM 88202-1518
Phone #: 505-622-3770
Fax #: Ext. 224

Project Name: NMSWDCO – Station 11
Project #: NMSWDCO – SA 1
Project Manager: Clayton M. Barnhill, PG
Sampler: Luana Rought
Sample Temperature: 6°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative N/A	HEAL No. 0706145	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel) both	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	~~TDS~~, Chlorides				Air Bubbles or Headspace (Y or N)
6/7/07	0920	soil	MW-2 (69.0-70.5)	1@4oz jar			✓	13	✓		✓										✓				N/A
6/7/07	1110	soil	MW-2 (79.0-79.2)	1@4oz jar			✓	14	✓		✓										✓				N/A
6/7/07	1310	soil	MW-2 (89.0-90.5)	1@4oz jar			✓	15	✓		✓										✓				N/A
6/9/07	1325	soil	MW-2 (119.0-119.3)	1@4oz jar			✓	16	✓		✓					✓					✓				N/A
									✗					LB											

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
6/10/07	0555	Luana Rought	[signature] 6/11/07 0916
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks: ANALYSIS: TPH MOD 8015 GRO/DRO, ~~TDS~~, CHLORIDES, 1 sample RCRA 8 metals. BTEX 8021

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, July 09, 2007

Clayton M. Barnhill
New Mexico Salt Water Disposal Co.
P.O. Box 1518
Roswell, New Mexico 88202-1518

TEL: (505) 622-3770
FAX (505) 622-8643

RE: NMSWDCO-Station 11

Order No.: 0706389

Dear Clayton M. Barnhill:

Hall Environmental Analysis Laboratory, Inc. received 22 sample(s) on 6/27/2007 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (0-2.0)
Lab Order:	0706389	**Collection Date:**	6/22/2007 3:00:00 PM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2007 10:18:35 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2007 10:18:35 PM
Surr: DNOP	93.1	61.7-135		%REC	1	6/29/2007 10:18:35 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 12:44:09 PM
Surr: BFB	109	84-138		%REC	1	7/2/2007 12:44:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/2/2007 12:44:09 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 12:44:09 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 12:44:09 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 12:44:09 PM
Surr: 4-Bromofluorobenzene	96.4	68.2-109		%REC	1	7/2/2007 12:44:09 PM
EPA METHOD 9056A: ANIONS						Analyst: **KS**
Chloride	52	3.0		mg/Kg	10	7/3/2007 4:16:52 AM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-3 (4.0-5.0)
Lab Order:	0706389	Collection Date:	6/22/2007 3:15:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/27/2007
Lab ID:	0706389-02	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2007 10:49:34 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2007 10:49:34 PM
Surr: DNOP	92.5	61.7-135		%REC	1	6/29/2007 10:49:34 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 1:14:05 PM
Surr: BFB	107	84-138		%REC	1	7/2/2007 1:14:05 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/2/2007 1:14:05 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 1:14:05 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 1:14:05 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 1:14:05 PM
Surr: 4-Bromofluorobenzene	92.3	68.2-109		%REC	1	7/2/2007 1:14:05 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	180	1.5		mg/Kg	5	7/3/2007 4:34:17 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-3 (9.0-9.5)
Lab Order:	0706389	Collection Date:	6/22/2007 3:30:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/27/2007
Lab ID:	0706389-03	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2007 11:20:32 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2007 11:20:32 PM
Surr: DNOP	91.8	61.7-135		%REC	1	6/29/2007 11:20:32 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 1:44:02 PM
Surr: BFB	107	84-138		%REC	1	7/2/2007 1:44:02 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/2/2007 1:44:02 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 1:44:02 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 1:44:02 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 1:44:02 PM
Surr: 4-Bromofluorobenzene	92.5	68.2-109		%REC	1	7/2/2007 1:44:02 PM
EPA METHOD 9056A: ANIONS						Analyst: KS
Chloride	230	1.5		mg/Kg	5	7/3/2007 4:51:41 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (14.0-15.5)
Lab Order:	0706389	**Collection Date:**	6/22/2007 3:50:00 PM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2007 11:51:31 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2007 11:51:31 PM
Surr: DNOP	89.1	61.7-135		%REC	1	6/29/2007 11:51:31 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 2:14:06 PM
Surr: BFB	107	84-138		%REC	1	7/2/2007 2:14:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/2/2007 2:14:06 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 2:14:06 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 2:14:06 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 2:14:06 PM
Surr: 4-Bromofluorobenzene	93.2	68.2-109		%REC	1	7/2/2007 2:14:06 PM
EPA METHOD 9056A: ANIONS						Analyst: TES
Chloride	670	6.0		mg/Kg	20	7/3/2007 10:05:02 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (19.0-20.5)
Lab Order:	0706389	**Collection Date:**	6/22/2007 4:15:00 PM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2007 12:22:33 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2007 12:22:33 AM
Surr: DNOP	101	61.7-135		%REC	1	6/30/2007 12:22:33 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 2:44:14 PM
Surr: BFB	109	84-138		%REC	1	7/2/2007 2:44:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/2/2007 2:44:14 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 2:44:14 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 2:44:14 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 2:44:14 PM
Surr: 4-Bromofluorobenzene	94.7	68.2-109		%REC	1	7/2/2007 2:44:14 PM
EPA METHOD 9056A: ANIONS						Analyst: **KS**
Chloride	450	1.5		mg/Kg	5	7/3/2007 5:26:29 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-3 (24.0-25.0)
Lab Order:	0706389	Collection Date:	6/22/2007 4:35:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/27/2007
Lab ID:	0706389-06	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2007 12:53:31 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2007 12:53:31 AM
Surr: DNOP	95.5	61.7-135		%REC	1	6/30/2007 12:53:31 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 3:14:15 PM
Surr: BFB	108	84-138		%REC	1	7/2/2007 3:14:15 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/2/2007 3:14:15 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 3:14:15 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 3:14:15 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 3:14:15 PM
Surr: 4-Bromofluorobenzene	93.6	68.2-109		%REC	1	7/2/2007 3:14:15 PM
EPA METHOD 9056A: ANIONS						Analyst: TES
Chloride	720	6.0		mg/Kg	20	7/3/2007 10:22:26 AM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (29.0-30.0)
Lab Order:	0706389	**Collection Date:**	6/22/2007 5:00:00 PM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2007 1:55:28 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2007 1:55:28 AM
Surr: DNOP	94.0	61.7-135		%REC	1	6/30/2007 1:55:28 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 4:14:12 PM
Surr: BFB	112	84-138		%REC	1	7/2/2007 4:14:12 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/2/2007 4:14:12 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 4:14:12 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 4:14:12 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 4:14:12 PM
Surr: 4-Bromofluorobenzene	99.3	68.2-109		%REC	1	7/2/2007 4:14:12 PM
EPA METHOD 9056A: ANIONS						Analyst: TES
Chloride	1800	6.0		mg/Kg	20	7/3/2007 10:39:50 AM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-3 (34.0-35.0)
Lab Order:	0706389	Collection Date:	6/22/2007 5:25:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/27/2007
Lab ID:	0706389-08	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2007 2:26:28 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2007 2:26:28 AM
Surr: DNOP	91.7	61.7-135		%REC	1	6/30/2007 2:26:28 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 4:44:16 PM
Surr: BFB	109	84-138		%REC	1	7/2/2007 4:44:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/2/2007 4:44:16 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 4:44:16 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 4:44:16 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 4:44:16 PM
Surr: 4-Bromofluorobenzene	95.2	68.2-109		%REC	1	7/2/2007 4:44:16 PM
EPA METHOD 9056A: ANIONS						Analyst: TES
Chloride	1600	6.0		mg/Kg	20	7/3/2007 10:57:15 AM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-3 (44.0-45.0)
Lab Order:	0706389	Collection Date:	6/22/2007 6:15:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/27/2007
Lab ID:	0706389-09	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2007 2:57:27 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2007 2:57:27 AM
Surr: DNOP	87.2	61.7-135		%REC	1	6/30/2007 2:57:27 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 5:14:20 PM
Surr: BFB	107	84-138		%REC	1	7/2/2007 5:14:20 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/2/2007 5:14:20 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 5:14:20 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 5:14:20 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 5:14:20 PM
Surr: 4-Bromofluorobenzene	92.1	68.2-109		%REC	1	7/2/2007 5:14:20 PM
EPA METHOD 9056A: ANIONS						Analyst: **CMS**
Chloride	91	0.30		mg/Kg	1	7/6/2007 1:12:03 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (49.0-50.0)
Lab Order:	0706389	**Collection Date:**	6/22/2007 6:40:00 PM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-10	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2007 3:28:24 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2007 3:28:24 AM
Surr: DNOP	95.6	61.7-135		%REC	1	6/30/2007 3:28:24 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 5:44:18 PM
Surr: BFB	108	84-138		%REC	1	7/2/2007 5:44:18 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/2/2007 5:44:18 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 5:44:18 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 5:44:18 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 5:44:18 PM
Surr: 4-Bromofluorobenzene	92.2	68.2-109		%REC	1	7/2/2007 5:44:18 PM
EPA METHOD 9056A: ANIONS						Analyst: **CMS**
Chloride	130	1.5		mg/Kg	5	7/6/2007 6:19:09 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (54.0-55.0)
Lab Order:	0706389	**Collection Date:**	6/22/2007 7:05:00 PM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-11	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2007 3:59:06 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2007 3:59:06 AM
Surr: ONOP	94.0	61.7-135		%REC	1	6/30/2007 3:59:06 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 6:44:35 PM
Surr: BFB	109	84-138		%REC	1	7/2/2007 6:44:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/2/2007 6:44:35 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 6:44:35 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 6:44:35 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 6:44:35 PM
Surr: 4-Bromofluorobenzene	95.3	68.2-109		%REC	1	7/2/2007 6:44:35 PM
EPA METHOD 9056A: ANIONS						Analyst: CMS
Chloride	160	1.5		mg/Kg	5	7/6/2007 6:36:34 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (64.0-65.0)
Lab Order:	0706389	**Collection Date:**	6/23/2007 9:10:00 AM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-12	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2007 4:29:50 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2007 4:29:50 AM
Surr: DNOP	93.5	61.7-135		%REC	1	6/30/2007 4:29:50 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 7:14:35 PM
Surr: BFB	107	84-138		%REC	1	7/2/2007 7:14:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/2/2007 7:14:35 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 7:14:35 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 7:14:35 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 7:14:35 PM
Surr: 4-Bromofluorobenzene	93.5	68.2-109		%REC	1	7/2/2007 7:14:35 PM
EPA METHOD 9056A: ANIONS						Analyst: CMS
Chloride	92	0.30		mg/Kg	1	7/6/2007 2:04:16 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (69.0-70.0)
Lab Order:	0706389	**Collection Date:**	6/23/2007 9:40:00 AM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-13	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2007 5:00:33 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2007 5:00:33 AM
Surr: DNOP	96.3	61.7-135		%REC	1	6/30/2007 5:00:33 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 7:44:37 PM
Surr: BFB	108	84-138		%REC	1	7/2/2007 7:44:37 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/2/2007 7:44:37 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 7:44:37 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 7:44:37 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 7:44:37 PM
Surr: 4-Bromofluorobenzene	93.5	68.2-109		%REC	1	7/2/2007 7:44:37 PM
EPA METHOD 9056A: ANIONS						Analyst: CMS
Chloride	21	1.5		mg/Kg	5	7/6/2007 2:56:31 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-3 (74.0-75.0)
Lab Order:	0706389	Collection Date:	6/23/2007 10:20:00 AM
Project:	NMSWDCO-Station 11	Date Received:	6/27/2007
Lab ID:	0706389-14	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2007 5:31:16 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2007 5:31:16 AM
Surr: DNOP	96.4	61.7-135		%REC	1	6/30/2007 5:31:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 8:14:38 PM
Surr: BFB	108	84-138		%REC	1	7/2/2007 8:14:38 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/2/2007 8:14:38 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 8:14:38 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 8:14:38 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 8:14:38 PM
Surr: 4-Bromofluorobenzene	93.5	68.2-109		%REC	1	7/2/2007 8:14:38 PM
EPA METHOD 9056A: ANIONS						Analyst: CMS
Chloride	12	3.0		mg/Kg	10	7/6/2007 3:13:55 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (84.0-84.5)
Lab Order:	0706389	**Collection Date:**	6/23/2007 11:55:00 AM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-15	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2007 6:01:54 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2007 6:01:54 AM
Surr: DNOP	87.8	61.7-135		%REC	1	6/30/2007 6:01:54 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 9:44:32 PM
Surr: BFB	106	84-138		%REC	1	7/2/2007 9:44:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/2/2007 9:44:32 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 9:44:32 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 9:44:32 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 9:44:32 PM
Surr: 4-Bromofluorobenzene	91.8	68.2-109		%REC	1	7/2/2007 9:44:32 PM
EPA METHOD 9056A: ANIONS						Analyst: **CMS**
Chloride	4.0	1.5		mg/Kg	5	7/6/2007 3:31:20 AM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (89.0-90.0)
Lab Order:	0706389	**Collection Date:**	6/23/2007 1:25:00 PM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-16	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/2/2007 6:45:16 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/2/2007 6:45:16 AM
Surr: DNOP	78.0	61.7-135		%REC	1	7/2/2007 6:45:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 10:14:28 PM
Surr: BFB	109	84-138		%REC	1	7/2/2007 10:14:28 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/2/2007 10:14:28 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 10:14:28 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 10:14:28 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 10:14:28 PM
Surr: 4-Bromofluorobenzene	95.0	68.2-109		%REC	1	7/2/2007 10:14:28 PM
EPA METHOD 9056A: ANIONS						Analyst: CMS
Chloride	2.4	1.5		mg/Kg	5	7/6/2007 3:48:45 AM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-3 (94.0-94.5)
Lab Order:	0706389	Collection Date:	6/23/2007 1:55:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/27/2007
Lab ID:	0706389-17	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/2/2007 7:19:57 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/2/2007 7:19:57 AM
Surr: DNOP	75.6	61.7-135		%REC	1	7/2/2007 7:19:57 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 11:14:30 PM
Surr: BFB	111	84-138		%REC	1	7/2/2007 11:14:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/2/2007 11:14:30 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 11:14:30 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 11:14:30 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 11:14:30 PM
Surr: 4-Bromofluorobenzene	97.5	68.2-109		%REC	1	7/2/2007 11:14:30 PM
EPA METHOD 9056A: ANIONS						Analyst: **CMS**
Chloride	4.2	1.5		mg/Kg	5	7/6/2007 4:06:09 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (99.0-100.0)
Lab Order:	0706389	**Collection Date:**	6/23/2007 2:40:00 PM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-18	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2007 8:00:00 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2007 8:00:00 PM
Surr: DNOP	89.8	61.7-135		%REC	1	6/29/2007 8:00:00 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/2/2007 11:44:34 PM
Surr: BFB	109	84-138		%REC	1	7/2/2007 11:44:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/2/2007 11:44:34 PM
Toluene	ND	0.050		mg/Kg	1	7/2/2007 11:44:34 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/2/2007 11:44:34 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/2/2007 11:44:34 PM
Surr: 4-Bromofluorobenzene	94.7	68.2-109		%REC	1	7/2/2007 11:44:34 PM
EPA METHOD 9056A: ANIONS						Analyst: **CMS**
Chloride	3.2	1.5		mg/Kg	5	7/6/2007 4:23:34 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (104.0-104.5)
Lab Order:	0706389	**Collection Date:**	6/23/2007 3:50:00 PM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-19	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2007 10:21:02 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2007 10:21:02 PM
Surr: DNOP	83.6	61.7-135		%REC	1	6/29/2007 10:21:02 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/3/2007 12:14:31 AM
Surr: BFB	108	84-138		%REC	1	7/3/2007 12:14:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/3/2007 12:14:31 AM
Toluene	ND	0.050		mg/Kg	1	7/3/2007 12:14:31 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/3/2007 12:14:31 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/3/2007 12:14:31 AM
Surr: 4-Bromofluorobenzene	94.1	68.2-109		%REC	1	7/3/2007 12:14:31 AM
EPA METHOD 9056A: ANIONS						Analyst: **CMS**
Chloride	25	1.5		mg/Kg	5	7/6/2007 4:40:58 AM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-3 (109.0-109.2)
Lab Order:	0706389	Collection Date:	6/23/2007 4:50:00 PM
Project:	NMSWDCO-Station 11	Date Received:	6/27/2007
Lab ID:	0706389-20	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2007 10:56:18 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2007 10:56:18 PM
Surr: DNOP	75.0	61.7-135		%REC	1	6/29/2007 10:56:18 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/3/2007 12:44:29 AM
Surr: BFB	108	84-138		%REC	1	7/3/2007 12:44:29 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/3/2007 12:44:29 AM
Toluene	ND	0.050		mg/Kg	1	7/3/2007 12:44:29 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/3/2007 12:44:29 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/3/2007 12:44:29 AM
Surr: 4-Bromofluorobenzene	94.7	68.2-109		%REC	1	7/3/2007 12:44:29 AM
EPA METHOD 9056A: ANIONS						Analyst: CMS
Chloride	13	0.30		mg/Kg	1	7/6/2007 4:58:23 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	**Client Sample ID:**	MW-3 (114.0-114.3)
Lab Order:	0706389	**Collection Date:**	6/23/2007 5:35:00 PM
Project:	NMSWDCO-Station 11	**Date Received:**	6/27/2007
Lab ID:	0706389-21	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/29/2007 11:31:33 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2007 11:31:33 PM
Surr: DNOP	105	61.7-135		%REC	1	6/29/2007 11:31:33 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/3/2007 1:44:22 AM
Surr: BFB	109	84-138		%REC	1	7/3/2007 1:44:22 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/3/2007 1:44:22 AM
Toluene	ND	0.050		mg/Kg	1	7/3/2007 1:44:22 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/3/2007 1:44:22 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/3/2007 1:44:22 AM
Surr: 4-Bromofluorobenzene	96.1	68.2-109		%REC	1	7/3/2007 1:44:22 AM
EPA METHOD 9056A: ANIONS						Analyst: **CMS**
Chloride	35	0.30		mg/Kg	1	7/6/2007 5:15:47 AM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-07*

CLIENT:	New Mexico Salt Water Disposal Co.	Client Sample ID:	MW-3 (119.0-120.0)
Lab Order:	0706389	Collection Date:	6/24/2007 8:40:00 AM
Project:	NMSWDCO-Station 11	Date Received:	6/27/2007
Lab ID:	0706389-22	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/30/2007 12:06:34 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2007 12:06:34 AM
Surr: DNOP	96.2	61.7-135		%REC	1	6/30/2007 12:06:34 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/3/2007 3:14:19 AM
Surr: BFB	107	84-138		%REC	1	7/3/2007 3:14:19 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/3/2007 3:14:19 AM
Toluene	ND	0.050		mg/Kg	1	7/3/2007 3:14:19 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/3/2007 3:14:19 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/3/2007 3:14:19 AM
Surr: 4-Bromofluorobenzene	94.0	68.2-109		%REC	1	7/3/2007 3:14:19 AM
EPA METHOD 9056A: ANIONS						Analyst: **CMS**
Chloride	9.4	1.5		mg/Kg	5	7/6/2007 5:33:12 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWDCO-Station 11 **Work Order:** 0706389

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW9056A									
Sample ID: MB-13306		*MBLK*			Batch ID:	13306	Analysis Date:	7/2/2007 11:38:20 PM	
Chloride	ND	mg/Kg	0.30						
Sample ID: LCS-13306		*LCS*			Batch ID:	13306	Analysis Date:	7/2/2007 11:55:45 PM	
Chloride	14.29	mg/Kg	0.30	95.3	90	110			
Method: SW8015									
Sample ID: 0706389-18AMSD		*MSD*			Batch ID:	13275	Analysis Date:	6/29/2007 9:45:48 PM	
Diesel Range Organics (DRO)	46.78	mg/Kg	10	93.6	67.4	117	10.9	17.4	
Sample ID: MB-13275		*MBLK*			Batch ID:	13275	Analysis Date:	6/28/2007 6:46:35 AM	
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: MB-13275		*MBLK*			Batch ID:	13275	Analysis Date:	6/29/2007 6:13:51 PM	
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: MB-13274		*MBLK*			Batch ID:	13274	Analysis Date:	6/30/2007 12:41:39 AM	
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-13275		*LCS*			Batch ID:	13275	Analysis Date:	6/28/2007 7:20:57 AM	
Diesel Range Organics (DRO)	48.61	mg/Kg	10	97.2	64.6	116			
Sample ID: LCS-13275		*LCS*			Batch ID:	13275	Analysis Date:	6/29/2007 6:49:30 PM	
Diesel Range Organics (DRO)	43.40	mg/Kg	10	86.8	64.6	116			
Sample ID: LCS-13274		*LCS*			Batch ID:	13274	Analysis Date:	6/30/2007 1:16:38 AM	
Diesel Range Organics (DRO)	41.71	mg/Kg	10	83.4	64.6	116			
Sample ID: LCSD-13275		*LCSD*			Batch ID:	13275	Analysis Date:	6/28/2007 7:55:20 AM	
Diesel Range Organics (DRO)	44.25	mg/Kg	10	88.5	64.6	116	9.40	17.4	
Sample ID: LCSD-13275		*LCSD*			Batch ID:	13275	Analysis Date:	6/29/2007 7:24:45 PM	
Diesel Range Organics (DRO)	45.38	mg/Kg	10	90.8	64.6	116	4.46	17.4	
Sample ID: LCSD-13274		*LCSD*			Batch ID:	13274	Analysis Date:	6/30/2007 1:51:35 AM	
Diesel Range Organics (DRO)	49.02	mg/Kg	10	98.0	64.6	116	16.1	17.4	
Sample ID: 0706389-18AMS		*MS*			Batch ID:	13275	Analysis Date:	6/29/2007 9:10:30 PM	
Diesel Range Organics (DRO)	41.95	mg/Kg	10	83.9	67.4	117			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWDCO-Station 11 **Work Order:** 0706389

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8015									
Sample ID: 0706389-21A MSD		*MSD*			Batch ID:	13290	Analysis Date:	7/3/2007 2:44:18 AM	
Gasoline Range Organics (GRO)	23.11	mg/Kg	5.0	92.4	69.5	120	0.819	11.6	
Sample ID: MB-13289		*MBLK*			Batch ID:	13289	Analysis Date:	6/30/2007 12:02:40 AM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: MB-13290		*MBLK*			Batch ID:	13290	Analysis Date:	7/2/2007 8:44:37 PM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-13289		*LCS*			Batch ID:	13289	Analysis Date:	6/30/2007 12:32:33 AM	
Gasoline Range Organics (GRO)	20.51	mg/Kg	5.0	82.0	69.5	120			
Sample ID: LCS-13290		*LCS*			Batch ID:	13290	Analysis Date:	7/2/2007 9:14:40 PM	
Gasoline Range Organics (GRO)	24.50	mg/Kg	5.0	98.0	69.5	120			
Sample ID: 0706389-21A MS		*MS*			Batch ID:	13290	Analysis Date:	7/3/2007 2:14:14 AM	
Gasoline Range Organics (GRO)	23.30	mg/Kg	5.0	93.2	69.5	120			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWDCO-Station 11

Work Order: 0706389

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 0706389-21A MSD		*MSD*			Batch ID:	13290	Analysis Date:	7/3/2007 2:44:18 AM	
Benzene	0.2857	mg/Kg	0.050	102	62.7	114	4.32	27	
Toluene	1.828	mg/Kg	0.050	91.4	68.2	121	5.71	19	
Ethylbenzene	0.3994	mg/Kg	0.050	99.8	71.4	115	5.36	10	
Xylenes, Total	2.398	mg/Kg	0.10	104	65	135	5.18	13	
Sample ID: MB-13289		*MBLK*			Batch ID:	13289	Analysis Date:	6/30/2007 12:02:40 AM	
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: MB-13290		*MBLK*			Batch ID:	13290	Analysis Date:	7/2/2007 8:44:37 PM	
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-13289		*LCS*			Batch ID:	13289	Analysis Date:	6/30/2007 12:32:33 AM	
Benzene	0.2778	mg/Kg	0.050	99.2	62.7	114			
Toluene	1.874	mg/Kg	0.050	93.7	68.2	121			
Ethylbenzene	0.4110	mg/Kg	0.050	103	71.4	115			
Xylenes, Total	2.460	mg/Kg	0.10	107	65	135			
Sample ID: LCS-13290		*LCS*			Batch ID:	13290	Analysis Date:	7/2/2007 9:14:40 PM	
Benzene	0.2999	mg/Kg	0.050	107	62.7	114			
Toluene	1.885	mg/Kg	0.050	94.2	68.2	121			
Ethylbenzene	0.4067	mg/Kg	0.050	102	71.4	115			
Xylenes, Total	2.446	mg/Kg	0.10	106	65	135			
Sample ID: 0706389-21A MS		*MS*			Batch ID:	13290	Analysis Date:	7/3/2007 2:14:14 AM	
Benzene	0.2983	mg/Kg	0.050	107	62.7	114			
Toluene	1.935	mg/Kg	0.050	96.8	68.2	121			
Ethylbenzene	0.4214	mg/Kg	0.050	105	71.4	115			
Xylenes, Total	2.526	mg/Kg	0.10	110	65	135			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name NMSWDC

Date and Time Received: 6/27/2007

Work Order Number 0706389

Received by ARS

Checklist completed by Signature 6/27/07 Date

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	6°	4° C ± 2 *Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

COC 1 of 2

CHAIN-OF-CUSTODY RECORD

QA / QC Package: Std ☒ Level 4 ☐ Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: New Mexico Salt Water Disposal Company

Address: ATTN: John Maxey, P.O. Box 1518, Roswell, NM 88202-1518

Phone #: (505) 822 3770 ext. 224

Fax #:

Project Name: NMSWDCO - Station 11

Project #: NMSWDCO - SA 1

Project Manager: Clayton M. Barnhill, P.G.

Sampler: Lorena Rought, P.G.

Sample Temperature: 6°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative HgCl2	Preservative HNO3	Preservative N/A	HEAL No. 0706389	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel) both	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	Chlorides				Air Bubbles or Headspace (Y or N)
6/22/07	1500	soil	mw-3 (0-2.0)	1@4oz jar			✓	1	✓		✓										✓				N/A
6/22/07	1515	soil	mw-3 (4.0-5.0)				✓	2	✓		✓										✓				N/A
6/22/07	1530	soil	mw-3 (9.0-9.5)				✓	3	✓		✓										✓				N/A
6/22/07	1550	soil	mw-3 (14.0-15.5)				✓	4	✓		✓										✓				N/A
6/22/07	1615	soil	mw-3 (19.0-20.5)				✓	5	✓		✓										✓				N/A
6/22/07	1635	soil	mw-3 (24.0-25.0)				✓	6	✓		✓										✓				N/A
6/22/07	1700	soil	mw-3 (29.0-30.0)				✓	7	✓		✓										✓				N/A
6/22/07	1725	soil	mw-3 (34.0-35.0)				✓	8	✓		✓										✓				N/A
6/22/07	1815	soil	mw-3 (44.0-45.0)				✓	9	✓		✓										✓				N/A
6/22/07	1840	soil	mw-3 (49.0-50.0)				✓	10	✓		✓										✓				N/A
6/22/07	1905	soil	mw-3 (54.0-55.0)				✓	11	✓		✓										✓				N/A
6/23/07	0910	soil	mw-3 (64.0-65.0)	1@4oz jar			✓	12	✓		✓										✓				N/A

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
6/25/07	0550	Lorena Rought	6/27/07 09:15
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks: Analysis: 8021 BTEX only
8015 B mod GRO / DRO
Chlorides

COC 2 of 2

CHAIN-OF-CUSTODY RECORD

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345-3975 Fax 505.345.4107
www.hallenvironmental.com

Client: New Mexico Salt Water Disposal Company

Address: ATTN: John Marey, PO Box 1518, Roswell, NM 88202-1518

Phone #: (505) 822 3770 Ext. 224

Fax #:

Project Name: NMSWDCO - Station 11

Project #: NMSWDCO - SA1

Project Manager: Clayton M. Barnhill, P.G.

Sampler: Luana Rought, P.G.

Samples Cold?: ☐ Yes ☐ No 6°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HCl	Preservative: N/A	HEAL No. 0706389	BTEX + MTBE + TMBs (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Volatiles Full List (8021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)	Chlorides		Air Bubbles or Headspace (Y or N)
6/23/07	0940	soil	mw-3(69.0-70.0)	1@4oz jar			✓	13	✓		✓												✓		N/A
6/23/07	1020	soil	mw-3(74.0-75.0)	↑			✓	14	✓		✓												✓		N/A
6/23/07	1155	soil	mw-3(84.0-84.5)				✓	15	✓		✓												✓		N/A
6/23/07	1325	soil	mw-3(89.0-90.0)				✓	16	✓		✓												✓		N/A
6/23/07	1355	soil	mw-3(94.0-94.5)				✓	17	✓		✓												✓		N/A
6/23/07	1440	soil	mw-3(99.0-100.0)				✓	18	✓		✓												✓		N/A
6/23/07	1550	soil	mw-3(104.0-104.5)				✓	19	✓		✓												✓		N/A
6/23/07	1650	soil	mw-3(109.0-109.2)				✓	20	✓		✓												✓		N/A
6/23/07	1735	soil	mw-3(114.0-114.3)				✓	21	✓		✓												✓		N/A
6/24/07	0840	soil	mw-3(119.0-120.0)	↓ 1@4oz jar			✓	22	✓		✓												✓		N/A

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
6/25/07	0550	Luana Rought	[signature] 6/27/07 @ 9:15
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:
Analysis: 8021 BTEX only
8015B MOD GRO/DRO
chlorides

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, July 23, 2007

John Maxey, Jr.
New Mexico Salt Water Disposal Co.
P.O. Box 1518
Roswell, New Mexico 88202-1518

TEL: (505) 625-0266
FAX (505) 622-8643

RE: NMSWD Co Station 11

Order No.: 0707164

Dear John Maxey, Jr.:

Hall Environmental Analysis Laboratory, Inc. received 7 sample(s) on 7/12/2007 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *23-Jul-07*

CLIENT: New Mexico Salt Water Disposal Co.
Project: NMSWD Co Station 11

Lab Order: 0707164

Lab ID: 0707164-01
Client Sample ID: MW-2

Collection Date: 7/9/2007 11:35:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/13/2007 6:51:13 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/13/2007 6:51:13 AM
Surr: DNOP	96.0	58-140		%REC	1	7/13/2007 6:51:13 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/14/2007 4:50:31 AM
Surr: BFB	99.7	79.2-121		%REC	1	7/14/2007 4:50:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	1.0		µg/L	1	7/14/2007 4:50:31 AM
Toluene	ND	1.0		µg/L	1	7/14/2007 4:50:31 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2007 4:50:31 AM
Xylenes, Total	ND	2.0		µg/L	1	7/14/2007 4:50:31 AM
Surr: 4-Bromofluorobenzene	93.6	70.2-105		%REC	1	7/14/2007 4:50:31 AM
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	1.6	0.10		mg/L	1	7/13/2007 5:01:08 AM
Chloride	560	5.0		mg/L	50	7/16/2007 11:53:51 AM
Bromide	2.6	0.10		mg/L	1	7/13/2007 5:01:08 AM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	7/13/2007 6:45:37 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	7/13/2007 5:01:08 AM
Sulfate	260	25		mg/L	50	7/16/2007 11:53:51 AM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Calcium	120	5.0		mg/L	5	7/20/2007 4:40:49 PM
Magnesium	22	1.0		mg/L	1	7/20/2007 3:19:24 PM
Potassium	8.8	1.0		mg/L	1	7/20/2007 3:19:24 PM
Sodium	350	5.0		mg/L	5	7/20/2007 7:08:55 PM
EPA METHOD 310.1: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	200	20		mg/L CaCO3	1	7/13/2007
Carbonate	ND	2.0		mg/L CaCO3	1	7/13/2007
Bicarbonate	200	20		mg/L CaCO3	1	7/13/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	2800	0.010		µmhos/cm	1	7/13/2007
EPA METHOD 150.1: PH						Analyst: LMM
pH	7.50	0.010		pH units	1	7/13/2007
EPA METHOD 160.1: TDS						Analyst: TAF
Total Dissolved Solids	2600	400		mg/L	1	7/13/2007

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *23-Jul-07*

CLIENT: New Mexico Salt Water Disposal Co.
Project: NMSWD Co Station 11

Lab Order: 0707164

Lab ID: 0707164-02
Collection Date: 7/10/2007 11:00:00 AM
Client Sample ID: MW-1
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/13/2007 7:25:54 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/13/2007 7:25:54 AM
Surr: DNOP	100	58-140		%REC	1	7/13/2007 7:25:54 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/14/2007 5:20:25 AM
Surr: BFB	97.2	79.2-121		%REC	1	7/14/2007 5:20:25 AM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	1.0		µg/L	1	7/14/2007 5:20:25 AM
Toluene	ND	1.0		µg/L	1	7/14/2007 5:20:25 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2007 5:20:25 AM
Xylenes, Total	ND	2.0		µg/L	1	7/14/2007 5:20:25 AM
Surr: 4-Bromofluorobenzene	90.8	70.2-105		%REC	1	7/14/2007 5:20:25 AM
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	1.6	0.10		mg/L	1	7/13/2007 5:18:33 AM
Chloride	550	5.0		mg/L	50	7/16/2007 12:11:16 PM
Bromide	1.3	0.10		mg/L	1	7/13/2007 5:18:33 AM
Nitrate (As N)+Nitrite (As N)	1.3	1.0		mg/L	5	7/13/2007 7:03:01 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	7/13/2007 5:18:33 AM
Sulfate	290	25		mg/L	50	7/16/2007 12:11:16 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Calcium	120	5.0		mg/L	5	7/20/2007 4:43:18 PM
Magnesium	33	1.0		mg/L	1	7/20/2007 3:23:02 PM
Potassium	6.2	1.0		mg/L	1	7/20/2007 3:23:02 PM
Sodium	370	5.0		mg/L	5	7/20/2007 7:11:55 PM
EPA METHOD 310.1: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	220	20		mg/L CaCO3	1	7/13/2007
Carbonate	ND	2.0		mg/L CaCO3	1	7/13/2007
Bicarbonate	220	20		mg/L CaCO3	1	7/13/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	2500	0.010		µmhos/cm	1	7/13/2007
EPA METHOD 150.1: PH						Analyst: LMM
pH	7.31	0.010		pH units	1	7/13/2007
EPA METHOD 160.1: TDS						Analyst: TAF
Total Dissolved Solids	1500	20		mg/L	1	7/13/2007

Qualifiers:
- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *23-Jul-07*

CLIENT: New Mexico Salt Water Disposal Co.
Project: NMSWD Co Station 11

Lab Order: 0707164

Lab ID: 0707164-03
Collection Date: 7/10/2007 1:00:00 PM
Client Sample ID: Tank Battery Dischage Fluid
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	27	1.0		mg/L	1	7/13/2007 8:35:14 AM
Motor Oil Range Organics (MRO)	8.1	5.0		mg/L	1	7/13/2007 8:35:14 AM
Surr: DNOP	105	58-140		%REC	1	7/13/2007 8:35:14 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	55	5.0		mg/L	100	7/16/2007 2:40:15 PM
Surr: BFB	125	79.2-121	S	%REC	100	7/16/2007 2:40:15 PM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	9300	200		µg/L	200	7/17/2007 12:38:44 PM
Toluene	7300	100		µg/L	100	7/16/2007 2:40:15 PM
Ethylbenzene	1200	100		µg/L	100	7/16/2007 2:40:15 PM
Xylenes, Total	2300	200		µg/L	100	7/16/2007 2:40:15 PM
Surr: 4-Bromofluorobenzene	111	70.2-115		%REC	100	7/16/2007 2:40:15 PM
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	ND	5.0		mg/L	50	7/13/2007 5:35:57 AM
Chloride	83000	500		mg/L	5000	7/16/2007 1:20:53 PM
Bromide	140	5.0		mg/L	50	7/13/2007 5:35:57 AM
Nitrate (As N)+Nitrite (As N)	ND	100		mg/L	500	7/13/2007 8:30:04 AM
Phosphorus, Orthophosphate (As P)	ND	25		mg/L	50	7/13/2007 5:35:57 AM
Sulfate	1600	25		mg/L	50	7/13/2007 5:35:57 AM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Calcium	3200	50		mg/L	50	7/20/2007 5:56:37 PM
Magnesium	630	50		mg/L	50	7/20/2007 5:56:37 PM
Potassium	540	50		mg/L	50	7/20/2007 5:56:37 PM
Sodium	45000	500		mg/L	500	7/20/2007 6:00:40 PM
EPA METHOD 310.1: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	200	20		mg/L CaCO3	1	7/13/2007
Carbonate	ND	2.0		mg/L CaCO3	1	7/13/2007
Bicarbonate	200	20		mg/L CaCO3	1	7/13/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	280000	1.0		µmhos/cm	100	7/13/2007
EPA METHOD 150.1: PH						Analyst: LMM
pH	7.20	0.010		pH units	1	7/13/2007
EPA METHOD 160.1: TDS						Analyst: TAF
Total Dissolved Solids	170000	400		mg/L	1	7/13/2007

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

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Hall Environmental Analysis Laboratory, Inc.

Date: *23-Jul-07*

CLIENT: New Mexico Salt Water Disposal Co.
Project: NMSWD Co Station 11

Lab Order: 0707164

Lab ID: 0707164-04
Collection Date: 7/10/2007 1:30:00 PM
Client Sample ID: MW-3
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/13/2007 8:00:32 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/13/2007 8:00:32 AM
Surr: DNOP	103	58-140		%REC	1	7/13/2007 8:00:32 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	0.057	0.050		mg/L	1	7/14/2007 8:21:55 AM
Surr: BFB	104	79.2-121		%REC	1	7/14/2007 8:21:55 AM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	1.0		µg/L	1	7/14/2007 8:21:55 AM
Toluene	ND	1.0		µg/L	1	7/14/2007 8:21:55 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2007 8:21:55 AM
Xylenes, Total	ND	2.0		µg/L	1	7/14/2007 8:21:55 AM
Surr: 4-Bromofluorobenzene	96.9	70.2-105		%REC	1	7/14/2007 8:21:55 AM
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	1.6	0.10		mg/L	1	7/13/2007 5:53:22 AM
Chloride	620	5.0		mg/L	50	7/16/2007 12:28:40 PM
Bromide	2.7	0.10		mg/L	1	7/13/2007 5:53:22 AM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	7/13/2007 8:47:29 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	7/13/2007 5:53:22 AM
Sulfate	360	25		mg/L	50	7/16/2007 12:28:40 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Calcium	210	5.0		mg/L	5	7/20/2007 5:05:47 PM
Magnesium	42	1.0		mg/L	1	7/20/2007 3:35:56 PM
Potassium	11	1.0		mg/L	1	7/20/2007 3:35:56 PM
Sodium	350	5.0		mg/L	5	7/20/2007 7:20:00 PM
EPA METHOD 310.1: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	200	20		mg/L CaCO3	1	7/13/2007
Carbonate	ND	2.0		mg/L CaCO3	1	7/13/2007
Bicarbonate	200	20		mg/L CaCO3	1	7/13/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	3100	0.010		µmhos/cm	1	7/13/2007
EPA METHOD 150.1: PH						Analyst: LMM
pH	7.46	0.010		pH units	1	7/13/2007
EPA METHOD 160.1: TDS						Analyst: TAF
Total Dissolved Solids	1800	20		mg/L	1	7/13/2007

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

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Hall Environmental Analysis Laboratory, Inc.

Date: *23-Jul-07*

CLIENT: New Mexico Salt Water Disposal Co.
Project: NMSWD Co Station 11

Lab Order: 0707164

Lab ID: 0707164-05
Client Sample ID: SW Windmill

Collection Date: 7/10/2007 2:30:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	0.66	0.10		mg/L	1	7/13/2007 6:10:47 AM
Chloride	460	5.0		mg/L	50	7/16/2007 12:46:05 PM
Bromide	1.8	0.10		mg/L	1	7/13/2007 6:10:47 AM
Nitrate (As N)+Nitrite (As N)	26	1.0		mg/L	5	7/13/2007 9:04:54 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	7/13/2007 6:10:47 AM
Sulfate	160	25		mg/L	50	7/16/2007 12:46:05 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Calcium	260	5.0		mg/L	5	7/20/2007 5:08:15 PM
Magnesium	32	1.0		mg/L	1	7/20/2007 3:39:33 PM
Potassium	4.2	1.0		mg/L	1	7/20/2007 3:39:33 PM
Sodium	120	5.0		mg/L	5	7/20/2007 7:22:27 PM
EPA METHOD 310.1: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	150	20		mg/L CaCO3	1	7/13/2007
Carbonate	ND	2.0		mg/L CaCO3	1	7/13/2007
Bicarbonate	150	20		mg/L CaCO3	1	7/13/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	2300	0.010		µmhos/cm	1	7/13/2007
EPA METHOD 150.1: PH						Analyst: LMM
pH	7.80	0.010		pH units	1	7/13/2007
EPA METHOD 160.1: TDS						Analyst: TAF
Total Dissolved Solids	1500	20		mg/L	1	7/13/2007

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *23-Jul-07*

CLIENT: New Mexico Salt Water Disposal Co.
Project: NMSWD Co Station 11

Lab Order: 0707164

Lab ID: 0707164-06
Collection Date: 7/10/2007 2:45:00 PM
Client Sample ID: NW Windmill
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: KS
Fluoride	1.8	0.10		mg/L	1	7/13/2007 6:28:12 AM
Chloride	390	5.0		mg/L	50	7/16/2007 1:03:29 PM
Bromide	2.8	0.10		mg/L	1	7/13/2007 6:28:12 AM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	7/13/2007 9:22:18 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	7/13/2007 6:28:12 AM
Sulfate	670	25		mg/L	50	7/16/2007 1:03:29 PM
EPA METHOD 6010B: DISSOLVED METALS						Analyst: TES
Calcium	190	5.0		mg/L	5	7/20/2007 5:10:46 PM
Magnesium	52	1.0		mg/L	1	7/20/2007 3:43:13 PM
Potassium	7.5	1.0		mg/L	1	7/20/2007 3:43:13 PM
Sodium	330	5.0		mg/L	5	7/20/2007 7:24:55 PM
EPA METHOD 310.1: ALKALINITY						Analyst: LMM
Alkalinity, Total (As CaCO3)	210	20		mg/L CaCO3	1	7/13/2007
Carbonate	ND	2.0		mg/L CaCO3	1	7/13/2007
Bicarbonate	210	20		mg/L CaCO3	1	7/13/2007
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: LMM
Specific Conductance	2900	0.010		µmhos/cm	1	7/13/2007
EPA METHOD 150.1: PH						Analyst: LMM
pH	7.50	0.010		pH units	1	7/13/2007
EPA METHOD 160.1: TDS						Analyst: TAF
Total Dissolved Solids	2000	20		mg/L	1	7/13/2007

Lab ID: 0707164-07
Collection Date:
Client Sample ID: Trip Blank
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/14/2007 8:51:54 AM
Surr: BFB	97.4	79.2-121		%REC	1	7/14/2007 8:51:54 AM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	1.0		µg/L	1	7/14/2007 8:51:54 AM
Toluene	ND	1.0		µg/L	1	7/14/2007 8:51:54 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2007 8:51:54 AM
Xylenes, Total	ND	2.0		µg/L	1	7/14/2007 8:51:54 AM
Surr: 4-Bromofluorobenzene	90.5	70.2-105		%REC	1	7/14/2007 8:51:54 AM

Qualifiers:
- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWD Co Station 11 **Work Order:** 0707164

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: E300									
Sample ID: MBLK		*MBLK*			Batch ID:	R24373	Analysis Date:	7/12/2007 10:09:33 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB-13369		*MBLK*			Batch ID:	R24373	Analysis Date:	7/12/2007 10:44:22 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB		*MBLK*			Batch ID:	R24386	Analysis Date:	7/13/2007 10:32:00 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MBLK		*MBLK*			Batch ID:	R24391	Analysis Date:	7/13/2007 7:55:14 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB		*MBLK*			Batch ID:	R24411	Analysis Date:	7/16/2007 11:19:02 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS ST300-07026		*LCS*			Batch ID:	R24373	Analysis Date:	7/12/2007 10:26:58 AM	
Fluoride	0.5482	mg/L	0.10	110	90	110			
Chloride	4.890	mg/L	0.10	97.8	90	110			
Bromide	2.549	mg/L	0.10	102	90	110			
Nitrate (As N)+Nitrite (As N)	3.419	mg/L	0.20	97.7	90	110			
Phosphorus, Orthophosphate (As P)	5.007	mg/L	0.50	100	90	110			
Sulfate	10.16	mg/L	0.50	102	90	110			
Sample ID: LCS-13369		*LCS*			Batch ID:	R24373	Analysis Date:	7/12/2007 11:19:11 AM	
Fluoride	0.5444	mg/L	0.10	109	90	110			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWD Co Station 11 **Work Order:** 0707164

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: E300									
Sample ID: LCS-13369		*LCS*			Batch ID:	R24373	Analysis Date:	7/12/2007 11:19:11 AM	
Chloride	4.781	mg/L	0.10	95.6	90	110			
Bromide	2.435	mg/L	0.10	97.4	90	110			
Nitrate (As N)+Nitrite (As N)	3.369	mg/L	0.20	96.3	90	110			
Phosphorus, Orthophosphate (As P)	4.798	mg/L	0.50	96.0	90	110			
Sulfate	9.893	mg/L	0.50	98.9	90	110			
Sample ID: LCS ST300-07026		*LCS*			Batch ID:	R24386	Analysis Date:	7/13/2007 10:49:25 AM	
Fluoride	0.5060	mg/L	0.10	101	90	110			
Chloride	4.895	mg/L	0.10	97.9	90	110			
Bromide	2.548	mg/L	0.10	102	90	110			
Nitrate (As N)+Nitrite (As N)	3.488	mg/L	0.20	99.7	90	110			
Phosphorus, Orthophosphate (As P)	4.729	mg/L	0.50	94.6	90	110			
Sulfate	10.08	mg/L	0.50	101	90	110			
Sample ID: LCS ST300-07026		*LCS*			Batch ID:	R24391	Analysis Date:	7/13/2007 8:12:39 AM	
Fluoride	0.5492	mg/L	0.10	110	90	110			
Chloride	4.954	mg/L	0.10	99.1	90	110			
Bromide	2.579	mg/L	0.10	103	90	110			
Nitrate (As N)+Nitrite (As N)	3.467	mg/L	0.20	99.1	90	110			
Phosphorus, Orthophosphate (As P)	5.134	mg/L	0.50	103	90	110			
Sulfate	10.28	mg/L	0.50	103	90	110			
Sample ID: LCS ST300-07026		*LCS*			Batch ID:	R24411	Analysis Date:	7/16/2007 11:36:27 AM	
Fluoride	0.4956	mg/L	0.10	99.1	90	110			
Chloride	4.747	mg/L	0.10	94.9	90	110			
Bromide	2.481	mg/L	0.10	99.2	90	110			
Nitrate (As N)+Nitrite (As N)	3.391	mg/L	0.20	96.9	90	110			
Phosphorus, Orthophosphate (As P)	4.576	mg/L	0.50	91.5	90	110			
Sulfate	9.820	mg/L	0.50	98.2	90	110			
Method: E310.1									
Sample ID: MB		*MBLK*			Batch ID:	R24388	Analysis Date:	7/13/2007	
Alkalinity, Total (As CaCO3)	ND	mg/L CaC	20						
Carbonate	ND	mg/L CaC	2.0						
Bicarbonate	ND	mg/L CaC	20						
Sample ID: LCS		*LCS*			Batch ID:	R24388	Analysis Date:	7/13/2007	
Alkalinity, Total (As CaCO3)	82.00	mg/L CaC	20	103	80	120			
Method: SW8015									
Sample ID: MB-13366		*MBLK*			Batch ID:	13366	Analysis Date:	7/12/2007 1:23:35 PM	
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-13366		*LCS*			Batch ID:	13366	Analysis Date:	7/12/2007 1:58:37 PM	
Diesel Range Organics (DRO)	5.689	mg/L	1.0	101	74	157			
Sample ID: LCSD-13366		*LCSD*			Batch ID:	13366	Analysis Date:	7/12/2007 2:33:51 PM	
Diesel Range Organics (DRO)	5.477	mg/L	1.0	96.6	74	157	3.80	23	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWD Co Station 11 **Work Order:** 0707164

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8015									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R24375**	Analysis Date:	7/13/2007 9:56:27 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R24405**	Analysis Date:	7/16/2007 9:45:12 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R24424**	Analysis Date:	7/17/2007 8:50:32 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID:	**R24375**	Analysis Date:	7/14/2007 9:21:50 AM	
Gasoline Range Organics (GRO)	0.4258	mg/L	0.050	85.2	80	115			
Sample ID: 2.5UG LCS		*LCS*			Batch ID:	**R24405**	Analysis Date:	7/17/2007 3:40:10 AM	
Gasoline Range Organics (GRO)	0.4540	mg/L	0.050	85.2	80	115			
Sample ID: 2.5UG LCS		*LCS*			Batch ID:	**R24424**	Analysis Date:	7/17/2007 9:18:52 PM	
Gasoline Range Organics (GRO)	0.4442	mg/L	0.050	83.3	80	115			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWD Co Station 11 **Work Order:** 0707164

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW8021									
Sample ID: 5ML RB		*MBLK*			Batch ID:	R24375	Analysis Date:	7/13/2007 9:56:27 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 5ML RB		*MBLK*			Batch ID:	R24405	Analysis Date:	7/16/2007 9:45:12 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 5ML RB		*MBLK*			Batch ID:	R24424	Analysis Date:	7/17/2007 8:50:32 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 2.0UG LCS LCS		*LCS*			Batch ID:	R24375	Analysis Date:	7/14/2007 9:51:44 AM	
Benzene	4.374	µg/L	1.0	97.2	80	120			
Toluene	27.72	µg/L	1.0	85.5	80	120			
Ethylbenzene	5.368	µg/L	1.0	85.2	80	120			
Xylenes, Total	30.72	µg/L	2.0	81.6	80	120			
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	R24375	Analysis Date:	7/14/2007 10:21:37 AM	
Benzene	20.29	µg/L	1.0	101	85.9	113			
Toluene	19.86	µg/L	1.0	97.5	86.4	113			
Ethylbenzene	19.20	µg/L	1.0	96.0	83.5	118			
Xylenes, Total	56.95	µg/L	2.0	94.1	83.4	122			
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	R24405	Analysis Date:	7/16/2007 5:10:31 PM	
Benzene	18.32	µg/L	1.0	91.6	85.9	113			
Toluene	17.95	µg/L	1.0	89.8	86.4	113			
Ethylbenzene	17.68	µg/L	1.0	88.4	83.5	118			
Xylenes, Total	53.74	µg/L	2.0	89.6	83.4	122			
Sample ID: 2.5UG LCS		*LCS*			Batch ID:	R24424	Analysis Date:	7/17/2007 9:18:52 PM	
Benzene	5.780	µg/L	1.0	103	85.9	113			
Toluene	37.89	µg/L	1.0	94.7	86.4	113			
Ethylbenzene	7.604	µg/L	1.0	96.3	83.5	118			
Xylenes, Total	43.98	µg/L	2.0	95.6	83.4	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.
Project: NMSWD Co Station 11 **Work Order:** 0707164

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SW6010A									
Sample ID: MB		*MBLK*			Batch ID:	R24471	Analysis Date:	7/20/2007 2:37:53 PM	
Calcium	ND	mg/L	1.0						
Magnesium	ND	mg/L	1.0						
Potassium	ND	mg/L	1.0						
Sodium	ND	mg/L	1.0						
Sample ID: LCS		*LCS*			Batch ID:	R24471	Analysis Date:	7/20/2007 2:40:21 PM	
Calcium	47.49	mg/L	1.0	94.0	80	120			
Magnesium	47.49	mg/L	1.0	94.0	80	120			
Potassium	50.74	mg/L	1.0	92.2	80	120			
Sodium	50.84	mg/L	1.0	101	80	120			
Method: E160.1									
Sample ID: MB-13379		*MBLK*			Batch ID:	13379	Analysis Date:	7/13/2007	
Total Dissolved Solids	ND	mg/L	20						
Sample ID: LCS-13379		*LCS*			Batch ID:	13379	Analysis Date:	7/13/2007	
Total Dissolved Solids	1018	mg/L	20	102	80	120			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name NMSWDC | Date and Time Received: 7/12/2007

Work Order Number 0707164 | Received by NJM

Checklist completed by Signature Date 7/12/07

Matrix: | Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ✓	No	Not Present	
Custody seals intact on shipping container/cooler?	Yes	No	Not Present ✓	Not Shipped
Custody seals intact on sample bottles?	Yes	No	N/A ✓	
Chain of custody present?	Yes ✓	No		
Chain of custody signed when relinquished and received?	Yes ✓	No		
Chain of custody agrees with sample labels?	Yes ✓	No		
Samples in proper container/bottle?	Yes ✓	No		
Sample containers intact?	Yes ✓	No		
Sufficient sample volume for indicated test?	Yes ✓	No		
All samples received within holding time?	Yes ✓	No		
Water - VOA vials have zero headspace?	No VOA vials submitted	Yes ✓	No	
Water - Preservation labels on bottle and cap match?	Yes ✓	No	N/A	
Water - pH acceptable upon receipt?	Yes ✓	No	N/A	
Container/Temp Blank temperature?	4°	*4° C ± 2 Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted | Date contacted: | Person contacted

Contacted by: | Regarding:

Comments:

Corrective Action

CHAIN-OF-CUSTODY RECORD

QA / QC Package: Std ☒ Level 4 ☐
Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: New Mexico Salt Water Disposal Company
Address: ATTN: John Maxey, PO Box 1518, Roswell, NM 88202-1518
Phone #: 505-622-3770 ext. 224
Fax #: 505-622-8643

Project Name: NMSWDCo. Station 11
Project #: NMSWDCO-SA-1
Project Manager: CM Barnhill, PG
Sampler: CM Barnhill, PG
Sample Temperature: 4°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HNO_3	Preservative: H_2SO_4	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	Cations Major	TDS, pH, Cond.			Air Bubbles or Headspace (Y or N)
07/09/07	11:35	H_2O	MW-2	3x40mL VOA's	X	X	X	0709164-1	X		X						X				X	X			N/A
07/10/07	11:00	H_2O	MW-1	2x125mL P, 1x250mL P				-2	X		X						X				X	X			N/A
07/10/07	13:00	H_2O	Tank Battery Discharge Effluent 3x40mL VOA's	2x250mL plastic	X	None	X	-3	X		X						X				X	X			N/A
07/10/07	13:30	H_2O	MW-3	3x40mL VOA's	X		X	-4	X		X						X				X	X			N/A
				2x125mL P, 1x250mL P	/	X	None																		
07/10/07	1430	H_2O	SW Windmill	2x250mL	H_2SO_4		None	-5									X				X	X			N/A
07/10/07	1445	H_2O	NW Windmill	2x250mL	"		"	-6									X				X	X			N/A
		H_2O	Trip Blank	2x40mL VOA's	X																				

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	
07/11/07	1030			7/12/07
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	1140

Remarks: Analysis: Cations/Anions, TPH mod 8015 GRO/DRO, BTEX 8021, TDS, pH Conductivity.
Send copy Results ASAP to cmbenvirne@hotmail.com