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

Oil Conservation Division * 1220 South St. Francis Drive * Santa Fe, New Mexico 87505 * Phone: (505) 476-3440 * Fax (505) 476-3462* <u>http://www.emnrd.state.nin.us</u> Mr. Charles Read October 9, 2008 Page 2

"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.

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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.

Mr. Charles Read October 9, 2008 Page 4

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/gyg

xc: OCD District I Office, Hobbs Thaddeus Kostrubala, State Land Office Rory McMinn, Sage Service Group August 10, 2007

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 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 Site Name: NM Salt Water Disposal Co. Disposal Station # 11 Report Date: August 10, 2007 Page 1



AUG 20 2007

Oil Conservation Division Environmental Bureau

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 (APOS3).

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:

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- 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

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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.

CMB Environmental and Geological Services, Inc.

08/10/2007

Signature:

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Name:

Title:

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Clayton M. Barnhill, PG

Affiliation:

Sr. /Principal Geologist

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

Date:

• 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 ³/₄ 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)

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 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 1/4 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

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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 ¹/₄ 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)

Prepared by CMB Environmental and Geological Services Inc., Roswell, NM

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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

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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 %



<u>Recovery Well # 1</u>: 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)



Prepared by CMB Environmental and Geological Services Inc., Roswell, NM

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

<u>New Mexico Tank Battery Produced Water:</u> 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 ft² (207.48 ft x18ft), K = hydraulic conductivity in gpd/ft², 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- $03 = 2.45 \times 10^{1}$ gallons per day per square foot) K = hydraulic conductivity, in gpd/ft², is 24.5 gpd/ft², 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 0.00001 = 0.000018. Interstitial Velocity is expressed by the equation v = K1 / 7.48n, where v = average velocity in ft per day, K = hydraulic conductivity in gpd/ft², I = hydraulic gradient in ft/ft, and n = effective porosity.

Interstitial velocity = 24.5 x $0.0032 / 7.48 \times 25.1 = 0.263$ 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 / ft² 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.

Prepared by CMB Environmental and Geological Services Inc., Roswell, NM

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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 aguifer (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 \leq 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 (\leq 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)

<u>SW UP-Gradient "Lucky Windmill:</u>" 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

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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 aguifer 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 aguifer 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 ≥ 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 (% cm³/cm³). 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.

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 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	Х	
2	Topographic Map, Satellite Image / Topographic Map	Х	

Included

LIST OF TABLES

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

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Table

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

FIGURES:

Prepared by CMB Environmental and Geological Services Inc., Roswell, NM

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CMB Environmental

NMSWDCO Monitor Well # 1 Soil Sample Analyltical Results

<u>Monitor Well # 1</u>	<u>TPH GRO</u>	<u>TPH DRO</u>	<u>BTEX</u>	<u>Chloride</u>	<u>TDS</u>
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.

CMB Environmental

NMSWDCO Monitor Well # 2 Soil Sample Analyltical Results

<u>Monitor Well # 2</u>	<u>TPH GRO</u>	<u>TPH DRO</u>	<u>BTEX</u>	<u>Chloride</u>	<u>TDS</u>
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 <i>.</i> 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.

 CMB Environmental

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NMSWDCO Monitor Well # 3 Soil Sample Analyltical Results

<u>Monitor Well # 3</u>	<u>TPH GRO</u>	<u>TPH DRO</u>	<u>BTEX</u>	<u>Chloride</u>	<u>TDS</u>
Soil Sample Depth					
0'-2.0'	ND	ND	ND	52	
4.0'-5.0'	ND	ND	ND	180	v
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.

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

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



Laboratory Report for CMB Environmental & Goelogical Services, Inc.

(New Mexico Salt Water Company)

July 31, 2007

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Daniel B. Stephens & Associates, Inc.

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

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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 Albuguergue, NM 87109

505-822-9400 FAX 505-822-8877

Summaries
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Daniel B. Stephens & Associates, Inc.

Summary of Tests Performed

		Saturate	- P								1/3, 15 Bar		
	Initial Soil	Hydrauli		Moi	sture	Unsaturated	Particle				Points and		
Laboratory	Properties ¹	Conductivi	ity ²	Charac	teristics ³	Hydraulic	Size	Effective	Particle	Air	Water Holding	Atterberg	Proctor
Sample Number	(θ, ρ _d , φ)	ч НО	H H	C PP	TH;WP;RH	Conductivity	DS:WS H	Parosity	Density	Permeability	Capacity	Limits	Compaction
MW-1 (34.8-35.3)	×		×					×					
MW-1 (40.2-40.7)	×	×						×					
MW-1 (65.6-66.1)	×		×					×					
MW-2 (31.5- 32.0)	×		×	 				×					
MW-3 (35.7-36.7)	×		×					×					
MW-3 (109-110)	×	×,		•••••				×					

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



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

	Bulk Wet Bulk Calculated	insity Density Porosity cm ³) (g/cm ³) (%)	.84 2.07 30.4	.63 1.85 38.4	.68 1.99 36.6	.74 2.08 34.4	1.58 1.91 40.3	1.89 2.04 28.7	
	olded Dry	Volumetric De (%, cm ³ /cm ³) (g/		1			1	1	
Content	Rem	Gravimetric (%, g/g)	8 2 4		!	I	ł	****	
Moisture	ceived	Volumetric (%, cm³/cm³)	22.9	21.6	30.7	34.3	33.2	15.4	
	As Re	Gravimetric (%, g/g)	12.4	13.3	18.3	19.7	21.0	8.1	
		Sample Number	MW-1 (34.8-35.3)	MW-1 (40.2-40.7)	MW-1 (65.6-66.1)	MW-2 (31.5- 32.0)	MW-3 (35.7-36.7)	MW-3 (109-110)	

NA = Not analyzed



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Summary of Saturated Hydraulic Conductivity Tests

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



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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

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

loisture Content	Remolded Dry Bulk Wet Bulk Calculate	etric Gravimetric Volumetric Density Density Porosi ¹ /cm ³) (%, g/g) (%, cm ³ /cm ³) (g/cm ³) (g/cm ³) (%)	9 1.84 2.07 30.4	6 1.63 1.85 38.4	7 1.68 1.99 36.6	3 1.74 2.08 34.4	2 1.58 1.91 40.3	.4 1.89 2.04 28.7
Moisture Content	As Received Remolded	netric Volumetric Gravimetric Volum g/g) (%, cm ³ /cm ³) (%, g/g) (%, cm	.4 22.9	.3 21.6	30.7	.7 34.3	.0 33.2	.1 15.4
		Gravin Sample Number (%, (MW-1 (34.8-35.3) 12	MW-1 (40.2-40.7)	MW-1 (65.6-66.1) 18	MW-2 (31.5- 32.0)	MW-3 (35.7-36.7)	MW-3 (109-110) 8.

NA = Not analyzed

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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



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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): Tare weight, pan/plate (g): Tare weight, other (g):	0.00 0.00	
Drv weight of sample (g):	142.66	
Sample volume (cm ³):	87.43	
Assumed panicle density (grown).	2.00	
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



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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



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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): Tare weight, ring (g):	137.10 28.86	
Tare weight, pan/plate (g): Tare weight, other (g):	0.00 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



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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): Tare weight, ring (g): Tare weight, pan/plate (g):	166.45 30.42 0.00	
Tare weight, other (g):	0.00	
Dry weight of sample (g):	112.45	
Sample volume (cm°): Assumed particle density (g/cm ³):	71.07 2.65	
Gravimetric Moisture Content (% g/g):	21.0	
Volumetric Moisture Content (vvol):	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



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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

Saturated Hydraulic Conductivity



Daniel B. Stephens & Associates, Inc.

Summary of Saturated Hydraulic Conductivity Tests

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

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Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity Falling Head Method

Job name:	CMB Environme	ntal & Geole	ogical Ser √iµpo, c	of water used:	TAP
Job number:	LB07.0140.00		Backpi	ressure (psi):	0.0
Sample number:	MW-1 (34.8-35.3	3)		Offset (cm):	0.8
Ring Number:	NA		Sample	length (cm):	3.16
Depth (ft):	34.8-35.3	Sa	ample x-sectiona	<i>l area</i> (cm²):	31.53
		Res	ervoir x-sectiona	<i>l area</i> (cm²):	0.70
	Temp	Reservoir	Corrected	Flapsed	Ksat

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	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







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 Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity Constant Head Method

Job name:	CMB Environmental &	Geological Servitoppe by water used:	TAP
Job number:	LB07.0140.00	Collection vessel tare (g):	11.92
Sample number:	MW-1 (40.2-40.7)	Sample length (cm):	2.95
Ring Number:	NA	Sample diameter (cm):	6.14
Depth (ft):	40.2-40.7	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-Jul-07	16:37:02 16:38:21	21.5	11.0	12.3	0.4	. 79	4.2E-05	4.0E-05
Test # 2: 17-Jul-07 17-Jul-07	08:04:22 08:06:55	21.5	6.9	12.3	0.4	153	3.8E-05	3.7E-05
Test # 3: 17-Jul-07 17-Jul-07	08:19:06 08:23:28	21.5	4.4	12.3	0.4	262	3.3E-05	3.2E-05

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





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Daniel B. Stephens & Associates, Inc.

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Saturated Hydraulic Conductivity **Falling Head Method**

	Job name: CMB Environmental & Geological SerVigee, of water used				TAP			
Job number: LB07.0140.00			0	Back	0.0			
	Sample number:	MW-1 (65.6-	66.1)		Offset (cm):	0.8		
	Ring Number:	NA		Sampi	e length (cm):	1.88		
Depth (ft): 65.6-66.1			Sa	Sample x-sectional area (cm ²): 29.17				
			Rese	ervoir x-section	al area (cm²):	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:								

57.1

56.7

56.0

50.5

56.3

55.9

55.2

49.7

Average Ksat (cm/sec): 5.2E-08

5.4E-08

5.0E-08

5.2E-08

4.9E-08

Oversize Corrected Ksat (cm/sec): NA

5975

94419

Comments:

17-Jul-07

17-Jul-07

Test # 3:

17-Jul-07

18-Jul-07

NA = Not analyzed

08:16:45

09:56:20

12:32:30

14:46:09



^{--- =} Oversize correction is unnecessary since coarse fraction < 5% of composite mass



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B ₿ Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity **Falling Head Method**

	Job name:	CMB Environ	mental & Geolo	gical Ser ∕s ,	of water used:	TAP	
	Job number:	LB07.0140.00)	Backp	pressure (psi):	0.0	
	Sample number:	MW-2 (31.5-	32.0)		Offset (cm):	2.1	
	Ring Number:	NA		Sampl	e length (cm):	2.72	
	Depth (ft):	31.5-32.0	Sa	mple x-section	al area (cm ²):	18.57	
	, , , ,		Rese	ervoir x-section	al area (cm²):	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 -J ul-07	10:57:02	21.5	24.7	22.6			

22.6

22.3

Average Ksat (cm/sec): 2.4E-07

2.4E-07

2.3E-07

Oversize Corrected Ksat (cm/sec): NA

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Comments:

Test # 3:

17-Jul-07

17-Jul-07

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--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass

24.7

24.4

21.5

21.5

NA = Not analyzed

10:57:02

12:33:00





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Saturated Hydraulic Conductivity Falling Head Method

Job name:	CMB Environmental	& Geological SerViges, of water used:	TAP
Job number:	LB07.0140.00	Backpressure (psi):	0.0
Sample number:	MW-3 (35.7-36.7)	Offset (cm):	0.5
Ring Number:	NA	Sample length (cm):	2.26
Depth (ft):	36.7-35.7	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







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Daniel B. Stephens & Associates, Inc.

Saturated Hydraulic Conductivity Constant Head Method

Job name:	CMB Environmental & G	eological Servitoge by water used: TAP	
Job number:	LB07.0140.00	Collection vessel tare (g): 10.69)
Sample number:	MW-3 (109-110)	Sample length (cm): 3.29	
Ring Number:	NA	Sample diameter (cm): 6.17	
Depth (ft):	109-110	Sample x-sectional area (cm ²): 29.92	2

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-Jul-07	16:36:35 16:37:50	21.5	2.3	13.4	2.8	75	1.8E-03	1.7E-03
Test # 2: 17-Jul-07 17-Jul-07	07:55:55 07:59:55	21.5	2.0	17.7	7.0	240	1.6E-03	1.6 E- 03
Test # 3: 17-Jul-07 17-Jul-07	08:09:22 08:12:33	21.5	0.7	12.9	2.2	191	1.7E-03	1.6E-03

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



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Effective Porosity



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Summary of Effective Porosity Tests

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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.



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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/cm³): 1.84 Calculated Porosity (% cm³/cm³): 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 (% cm³/cm³): 46.9 Matric potential (-cm): 15,297

Moisture content at -15 bars (% cm³/cm³): 46.9 Effective porosity (% cm³/cm³): -16.4

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

* Weight including tares



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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/cm³): 1.63 Calculated Porosity (% cm³/cm³): 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 (% cm³/cm³): 24.9

Matric potential (-cm): 15,297

Moisture content at -15 bars (% cm³/cm³): 24.9 Effective porosity (% cm³/cm³): 13.6

Comments:

* Weight including tares



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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/cm³): 1.68 Calculated Porosity (% cm³/cm³): 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 (% cm³/cm³): 27.3 Matric potential (-cm): 15,297

Moisture content at -15 bars (% cm³/cm³): 27.3 Effective porosity (% cm³/cm³): 9.3

Comments:

* Weight including tares



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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/cm³): 1.74 Calculated Porosity (% cm³/cm³): 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 (% cm³/cm³): 58.1 Matric potential (-cm): 15,297

Moisture content at -15 bars (% cm³/cm³): 58.1 Effective porosity (% cm³/cm³): -23.7

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

* Weight including tares



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 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/cm³): 1.58 Calculated Porosity (% cm³/cm³): 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 (% cm³/cm³): 23.0 Matric potential (-cm): 15,297

Moisture content at -15 bars (% cm³/cm³): 23.0 Effective porosity (% cm³/cm³): 17.3

Comments:

* Weight including tares



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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/cm³): 1.89 Calculated Porosity (% cm³/cm³): 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 (% cm³/cm³): 3.6 Matric potential (-cm): 15,297

Moisture content at -15 bars (% cm³/cm³): 3.6 Effective porosity (% cm³/cm³): 25.1

Comments:

* Weight including tares

Laboratory Tests and Methods

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Daniel B. Stephens & Associates, Inc.

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	<i>/</i> :							
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.							







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Section 21, **New Mexico Salt Water Disposal Company** Township 10 Station # South, Range 44 34 East, N.M. P. 3

Lea County, New Mexico P,

Location of Cross Section A –

New Mexico Salt Water Disposal Company Station # 11

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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

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USCS SOIL DESCRIPTIO		SM SW: Brown fine gr. to medium gr.sand , sit, & SM caliche	ML: Clayey Sitty Sand, yellow - red brown, fin.sand 10% caliche, 25% ctay ,	CH: Brown clay, 31.5' Eff. Por23.7 Ksat 2.4E-07		SW Sand , fine gr.red- yellowish brown		CH CH: Clay, it office brown. fait clay, francier of tilling at 71' Mudistone? Carbon like Clay @ 89' CH			CH SANDSTONE: Deck creat	 SS to very dark grap, very the grained sand. 25% still and 25% day. Saturated at 113 	bgs. Water @ 116.85 TOC. Ksat @ 109 Capillary Fringe 1.6E-03 Effective Porosity 25.1%	
SOIL SYMBOLS				3	1			R	3 A A					
DEPTH Non	0	- 10 - 15 - 15 - 15		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-20-	1 2 2 2 1 2 2 3 2 1 2 3 2 1 2 3 2 1 2 3 2 1 2 3 2 1 2 3 2 1 2 3 2 1 2 1	- 60	-70	180	ດ ດີດ ທີ່ ທີ່ ທີ່ ທີ່ ທີ່ ທີ່ ທີ່ ທີ່ ທີ່ ທີ່		-105	-126 -125 -130	
SOIL DESCRIPTION		SM: Brown fine gr. to medium gr. sand , sili, & caliche	ML: Clayey Sity Sand, yellow - red brown, fin.sand, 10% caliche, 25% clay ,	34.8" Keat 8.8E-08 Eff. Por.= -16.4%,40.2" Keat = 3.6E-05 Eff. Por.= 13.6%	SVN- Viary fine Brown Sand	,silt &clay,trace gravel,	הבוראומת אמתבו ביו-הכי	Crit: Ctay, light olive brown to light yellowish brown, very tight fat ctay, 10-15%	very fine sand and silt. high	5.2E-08 Eff. Porosity 9.3%		SANDSTONE: Dark gray to very dark gray, very ine grained sand. 25% sift and	25% clay. Saturated at 117 bgs. Water @ 117.25 TOC	
USCS		SM SM	ML	TM	SW		SW	CH	E	EZ CZ		SN SN	SZ SZ	
SOIL SYMBOLS									P.S.		1111			
DEPTH	0	1 1 2 2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2		1 - 1 - 35 2 4 0 4 4 0 4 4 4 4 4 4 4 1 4 1 4 1 4 1 4	150 -	ا ى ساسى	- 201-	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	000	1 1 1 20 0 0 20 0 0 20 0 20 0 20 0 20 0	E90T-	-110	- 120 - 125 - 130	
SOIL DESCRIPTION		SM: Brown fine gr. to madium gr.sand , alti, 2. celicha	ML: Clayey Silty Send, yeliow - red brown, în.send,	CH: Brown clay, 31.5' Eff. Por23.7 Ksat 2.4E-07	vellowish brown	SM: Yellow siliy sand	CH: Fai Clay, It olive	brown. fat clay, harder drilling at 75 Mudstone?	SANDSTONE: Brown	CH: Clay, alit, sand, yelilow brown with carbon?	SANDSTONE: Dark grav	to very dark gray, very ine grained sand. 25% silt and 25% clay. Saturated at 117	bgs. Water @ 116.91 TOC	
USCS	37 60	SM SM	,TM	СН	SW	SM	CH	CH CH	ŝ	E E	Sector and the sector sector sectors	ζΩ 1	SS SS	
SOIL	OI VICIE										8 8 8 8 8 8 8 8 8 8 8 8 8			

Scale: 1" inch = 30' feet (Vertical and Horizontal) Clayton M. Barnhill, PG

CMB Environmental & Geological Services Inc. July 2007





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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.

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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.


CMB Environmental &	Geological Service:	s, Inc.	FI	ELD	BC	REH	OLE LOG
PO Box 2304 Roswe	II, NM 88202-2304	4	BC	OREHC	DLE N	10.: MW	7-1
cmbenviro@dfn.com			T	DTAL D	EPT	H: 135	
(505) 622-2012 Fax (505)	625-0538	_					
PROJECT INFO	RMATION		[ORILLI	NG IN	FORMA	TION
PROJECT: NI	ISWDCO ESA 06/07	DRILI	LING C	:0.:		GeoProje	cts International
SITE LOCATION:	a County, NM	DRILI	ER:			Jose Land	leros
JOB NO .:		RIG T	YPE:			CME-75	
LOGGED BY: LI	ana Rought, PhD	METH	HOD O	FDRILL	ING:	Hollow St	tem Auger 4 1/4"
PROJECT MANAGER: CI	A Barnhill, PG	SAMF	PLING	METHC	DS:	Split Spoo	n
DATES DRILLED: 06	/12/07 - 06/29/07	HAM	MER W	/T./DRC	P	140 lb., 30) in.
NOTES:		2	z Wa z Wa	ter level o ter level i	during on comp	drilling pleted well	Page 1 of 1
DEPTH SOIL SYMBOLS USCS	SOIL DESCRIPTION	SAMP. #	Rec. inches	PID ppm	CON	ORING	WELL DESCRIPTION
0							
-5 -10 -15 -20 -1 -25 -1 -20 -1 -20 -	SM: Brown fine gr. to medium gr.sand , silt, & caliche 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% SW: Very fine Brown Sand ,silt & clay, trace gravel, perched water 61'-63' 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% SANDSTONE: Dark gray to very dark gray, very ine grained sand. 25% silt and 25% clay. Saturated at 117' bgs. Water @ 117.23' TOC	Split Spoon Soil Samples analyzed for TPH Mod 8015 GRO /DRO, BTEX, Chloride Every 5' unless there was no sample recovery	24" 12" 12" 12" 12" 12" 12" 12" 12	0.3 0.3 NS 0.2 0.1 0.4 0.2 0.2 0.2 0.2 NS 0 PPM 0 PPM			Cement Grout Set 6" Sch 40 PVC surface casing surface to 65' TD 135' Cement Grout 0'- 100.5',Betonite 100.5'-109.8'. 16/30 Sand 109.8'- 135',0.010 Slot Screen 114'- 135'

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CMB Environmental &	& Geological Service	s, Inc.	F	IELD	BC	REH	OLE LOG
PO Box 2304 Rosw	rell, NM 88202-230	4	B	OREHO	DLEN	10.: MV	V-2
cmbenviro@dfn.com			T	OTAL E	DEPT	H: 135	9
<u>(505) 622-2012 Fax (50</u>	5) 625-0538						
PROJECT INF	ORMATION		1	DRILLI	NG IN	IFORMA	TION
PROJECT:	NMSWDCO ESA 06/07	DRILL	LING C	:0.:		GeoProje	cts International
SITE LOCATION:	Lea County, NM	DRILL	ER:			Jose Land	leros
IOB NO.:		RIG T	YPE:			CME-75	
OGGED BY:	Luana Rought, PhD	METH	IOD O	F DRILI	LING:	Hollow St	tem Auger 4 1/4"
PROJECT MANAGER:	CM Barnhill, PG	SAMF	PLING	METHC	DS:	Split Spoo	on
DATES DRILLED:	06/06/07 - 06/13/07	HAMN	MER W	T./DRC	P	140 lb., 30) in.
NOTES:		2	z Wa z Wa	ter level (ter level i	d <mark>uring</mark> d n comp	drilling pleted well	Page 1 of 1
DEPTH SOIL SYMBOLS USO	SOIL DESCRIPTION	SAMP. #	Rec. inches	PID ppm	BO	ORING IPLETION	WELL DESCRIPTION
0 -5 -10 -15 -20 -25 -30 -25 -30 -25 -30 -35 -40 -45 -40 -45 -40 -45 -40 -45 -40 -45 -40 -45 -40 -45 -40 -45 -40 -45 -40 -45 -40 -45 -40 -45 -40 -45 -50 -55 -60 -70 -75 -70 -75 -70 -75 -80 -75 -80 -75 -80 -75 -80 -75 -80 -75 -80 -75 -80 -75 -80 -75 -80 -90 -95 -85 -85 -85 -10 -75 -80 -10 -95 -10 -10 -75 -80 -10 -10 -10 -55 -10 -75 -10 -75 -10 -75 -10 -10 -10 -10 -10 -10 -10 -10	SM: Brown fine gr. to medium gr.sand , silt, & caliche ML: Clayey Silty Sand, yellow - red brown, fn.sand, CH: Brown clay,31.5' Eff. Por23.7 Ksat 2.4E-07 SW: Sand , fine gr.red-yellowish brown SM: Yellow silty sand CH: Fat Clay, It olive brown. fat clay, harder drilling at 75' Mudstone? SANDSTONE: Brown CH: Clay, silt, sand, yelllow brown with carbon? SANDSTONE: Dark gray to very dark gray, very ine grained sand. 25% silt and 25% clay. Saturated at 117' bgs. Water @ 116.91' TOC	Split Spoon Soil Samples analyzed for TPH Mod 8015 GRO /DRO, BTEX, Chloride Every 5' unless there was no sample recovery	24" 24" 24" 24" 24" 24" 24" 8/10' 18" 12" 18" 18" 18" 18" 18" 18" 18" 19" 9/10' 18" 19" 9/10' NS 2/10' NS 3/10' 3/10'	4.8 0.1 0.4 0.3 0 0.3 0 0.3 0 0.3 0.4 0.3 0.3 0.4 0.3 0.3 0 0.5 0 NS 0 3.0 NS NS			Cement / Grout Cement Grout TD 135' Cement Grout 0'- 106.3',Betonite 106.3'-111'. 16/30 sand 111'-135',0.010 Slot Screen 114.5'-135'

Services, Inc. FIELD BOREHOLE LOG	Geological Service	nmental & G	Environm	CMB E				
BOREHOLE NO.: MW-3	II, NM 88202-230	04 Roswel	ox 2304	PO Bo				
TOTAL DEPTH: 135'		<u>idfn.com</u>	enviro@df	cmber				
	625-0538	12 Fax (505)	622-2012	<u>(505) 8</u>				
DRILLING INFORMATION	RMATION	DJECT INFOR	PROJE					
SA 06/07 DRILLING CO.: GeoProjects International	ISWDCO ESA 06/07	NM	ECT:	PROJE				
M DRILLER: Jose Landeros	a County, NM	ON: Lea	OCATION:	SITE LC				
RIG TYPE: CME-75			O.:	JOB NC				
PhD METHOD OF DRILLING: Hollow Stem Auger 4 1/4"	LOGGED BY: Luana Rought, PhD							
G SAMPLING METHODS: Split Spoon	PROJECT MANAGER: CM Barnhill, PG							
5/07 HAMMER WT./DROP 140 lb., 30 in.	DATES DRILLED: 06/22/07 - 06/26/07							
SZ Water level during drilling			S:	NOTES				
Water level in completed well Page 1 of 1								
CRIPTION SAMP. # Rec. PID BORING WELL / inches ppm COMPLETION DESCRIPTIO	SOIL DESCRIPTION	DIL BOLS USCS	SOIL SYMBO	DEPTH				
				0				
gr. to d, silt, & Split Spoon 12' 0.4 0.5 00 00 000 Soll 6" NS 0.4 000 000 000 000 000 000 000 000 000	SM: Brown fine gr. to medium gr.sand , silt, & caliche	SM SM		-5 -10 -15 -20				
/ Sand, wn, fn.sand, 3% clay, for TPH Mod 8015 GRO 18" 0.3 022 02 0.1 0.1 0.2	ML: Clayey Silty Sand, yellow - red brown, fn.sand, 10% caliche, 25% clay,	ML		-25 -30 -35				
2.4E-07 BTEX, Chloride NS NS O/ O/ Cement Grout	CH: Brown clay,31.5' Efr. Por23.7 Ksat 2.4E-07	СН		-40 -45 -50				
12" NS 02 02	SW: Sand , fine gr.red- yellowish brown	SW		-55 -				
e brown. fat	CH: Clay, It olive brown. fat	CH	175	-65				
ling at 71' unless bon like unless 12" 0.2 02 was no 12" 0.3 02 sample 1/100 NS	clay, harder drilling at 71' Mudstone? Carbon like Clay @ 89'	СН	L'	-70 - -75 - -80 -				
recovery 6" 0.3 02 02 Grout 0'-		CH		-85				
12" 0.2 0.1 106.3', Betoni		CH	L.L.	-90 -				
6" NS 0.3 0.2 96,109.5' Dark gray y, very ine 12" 0.3 0.2 5% slough Sand, 16/30 Sand 16/30 Sand 5% slit and 1.5" NS 109.5'- 135', 0.010 Sl 16.85' 0.3" NS Screen 114.5' 09' 12" 135' 135'	SANDSTONE: Dark gray to very dark gray, very Ine grained sand. 25% silt and 25% clay. Saturated at 113' bgs. Water @ 116.85' TOC. Ksat @ 109'	CH SS		-100 -105 -110 -110 -120				
y, very ine 6" 0.2 5% silt and 1.5" NS NS 0.3" NS 11.685' 0.3" 1.6E-03 ty 25.1%	to very dark gray, very ine 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%	SS		-103 -120 -125 -130 -135				

CMB E	nvironmen	tal & G	eological Service	s, Inc.	F	IELD	BOREH	OLE LOG
PO Bo	x 2304 R	oswell	, NM 88202-2304	4	B	OREHC	DLE NO.: RW	V-1
<u>cmber</u> (505) 6	nviro@dfn.c 22-2012 Fa	<u>:om</u> x (505) (625-0538		T	OTAL D	DEPTH: 33'	
	PROJECT	INFOR	MATION			DRILLI	NG INFORMA	TION
PROJE	CT:	NM	SWDCO ESA 06/07	DRILL	ING C	:00	GeoProj	ects International
SITE LO	CATION:	Lea	County, NM	DRILL	ER:		Jose Lan	deros
JOB NC).:			RIG T	YPE:		CME-75	
LOGGE	D BY:	Lua	na Rought, PhD	METH		FDRILL	ING: Hollow S	tem Auger 6 5/8
PROJE	CT MANAGE	R: CM	Barnhill, PG	SAMP	LING	METHC	DS: Split Spo	on
DATES	DRILLED:	06/1	2/07	HAMN	IER V	VT./DRC)P 140 lb., 3	0 in.
NOTES				52	Wa Wa	nter level o nter level i	during drilling n completed well	Page 1 of 1
DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. inches	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0							0000	Cement / Grout
-5 -10 -15 -10 -15 -10 -15 -10 -15 -10 -10 -10 -10 -10 -10 -10 -10 -10 -10								Cement Grout TD 33' Cement Grout 0'- 17', Betonite 17'-20.0'. 16/30 Sand 20'- 33', 0.010 Slot Screen 22.4'- 32.4'

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	FINFOF	RMATION		1	DRILLI	NG INFORMA	TION			
ROJE	CT:	NM	SW Disposal Co.	DRIL	LING C	:0.:	Atkins Er	ngineering			
TE LO	OCATION:	Sec	. 21 T10S R34E	DRIL	LER:		Mort Bat	es			
UB NC).:	NN	ISWDCO2003-02	RIG	RIG TYPE: Mobile Drill B-58						
PGGE	D BY:	CM	I Barnhill, PG	MET	METHOD OF DRILLING: Hollow Stem Auger						
ROJE	CT MANAGE	R: Joh	n Maxey, Jr.	SAM	PLING	METHO	DDS: Split Spo	on			
ATES	DRILLED:	11/2	20/03	HAM	IMER W	T./DRC	OP 140 lb., 30)" inch			
OTES:					∞ Wa ∞ Wa	ter level (ter level i	during drilling in completed well	Page # 1 of # 1			
DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Blows / ft.	CL ppm	BORING COMPLETION	WELL DESCRIPTION			
1			SW: Tan Brown Sand, No	01.21	E0/041	160		Drill Cuttings			
		SW	Hydrocarbon Odor or Staining', Medium	0.=2.	50/24	PPM		/ backfill from surface to 10'			
5 1 1		SW	grained, well sorted sand, caliche nodules @ 4'-19', Non Detect TPH @ 0'-2',	4'-6'	50/12"	800 PPM		BGS			
10-			Detect TPH @ 4'-11' & Non Detect BTEX	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	19'-21'	44/24"	4500 PPM					
-25 -		SC	Odor or staining. Water Sample from 30.82' BGS CI = 45000 PPM, 26 PPM	24'-26'	62/24"	5300					
			Non-Detect, PAH's = ND,			PPM					
-30 -		CH		29'-31'	63/12"	3900		T D 31'			
-35 -		СН	CH: Brown Tight Fat Clay, silty 29'-31', Perched Water @ 30.82' BGS Sampled for PAH's, VOC's, RCRA 8 Metals, TDS, Chloride	34'-36'		PPM		1.D. JI			

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Pr	oject			station	11-Site Assessment	_Sheet: Make 10f5			
LC CU	catio	n:		NMSW	D Co-Station 11	_ 	number		
	illor:			N19_9	SW DCU		number: <u>NMSWOSA</u> -1		
	illing	mot	had	Geoproj	ectsIntohational; Jose Landeros		ai depun:		
Ba	ning ving i	Hata		rsh C	Hollow Sten Hules) (mud kolory > 65 1)		and by: $I P_{2} = I I$		
W	ater l	aate evel:	•	6112/1		_LUy Date	e measured.		
						 <n< td=""><td>Literanie = susp lab muscles</td></n<>	Literanie = susp lab muscles		
<u> </u>	_	SAMP	LE	standard	SOIL DESCRIPTION	<u></u>	COMMENTS		
depth (ft	nterval	number	covery inches)	penetration.	Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	graphic log	Monitoring well installation, geotechnical properties, analytical tests, instrumentation		
-þ-			120	Calif soon			<u>Caeibraled P(D); ambient</u> : C		
1	4	{	2.4"	labs.	Very line to com medium sand there	SW	P(D = 0.3 ppm)		
2	0-2	ł	{	(siet mosley subrounded quarte;				
2	1		{	1	trace biotife; poorey sorted; soft	-	Caliche @ 2'		
		[(n i i i i i i i i i i i i i i i i i i i				
\	4-5		12"	sp/sp labs.	5and/caliche; pinKC7.53R7/3);	SW/	PID= 0.3 ppm		
1					very fine to medicun sand; comente	4 lead	iche		
	-1				with Ca CO, / caliche; poorly sorted;	Y			
+	1	}			have consistency, any to moist.				
8	-						-		
9.	9-9:	5	3/10	spsp	9.0'-9.3' sound/caliche;	suj	PID=insufficientsample		
+0-	1			Labs.	an alegine	/cal	che		
tr.	-					}			
12 .	4								
3	-	Ì							
K .	14-								
15	14.5		5/10	Lubs.	14.0-14.51 sand/ caliche;	SW	PLD=0.2 ppm		
16					as above	1			
]								
19-	7	(,					
18	7.		[2_			
19.	19-20		124	Spep	19.0'-20.0' + sill the one of much class	M1.	PID: Olan		
20	+				light reddish brown to yellowish red		со-ссери		
21	1				(54R6/4 to 54R4/6) and while;	d.	ļ		
2	1				silt with the to very fine to price serve	1			
23 .	-		}		25-30% clay; motteed (caliche in	ML			
24 -				5050	moist; no odor				
25	24-25		12	éalos.	24 254 62 6 214 2 1 5	24			
26.	-				my jourida + 2 ' up malow	g ^m L	PID=U. Ppm		
T	1								
29.		1							
74	-)						
101.	29-30		12"		29-30 0 1 hert mall		-		

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	Pro	oject:			Statio	n 11 - Site Assessment 1	She	eet: $\frac{1}{20f5}$			
		onti	11.		NITSU	DCO - Station 11	-	NIME NEA- 1			
	Dr	iller			IN MIS	W DLD					
	Dr	illina :	meti	hod	Le is	nojects tuten.	- TOL	ring diameter: 2 / 4 >>			
	Bo	rina c	late:		6/12/0	- (mud rotary >65)	P_{and}				
	Wa	ater le	evel:	•	_0[[[]]		Dat	te measured.			
						splitspan - sus 10	-bac	all a Pole I could a a attack			
		5	SAMPI	LE	standa dr	SOIL DESCRIPTION		COMMENTS			
TIME	depth (fi	nterval	Jumber	covery Aches)	penetration Jest-results	Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	graphic log	Monitoring well Installation, geotechnical properties, analytical tests, instrumentation			
1545	30	-= 29-30		2 C	sp sp lab s.	29'-30' = silt with sound and clay;	ML	PID = 0,4 ppm			
	-					(54 R6/4 to 54 R4/6) and white; ei0 Luit 42 -30 % elay and 20% way					
•	-					Pine to fine sand; 10-15 % white caliche in noduces estingers or motted appearance; hard consistency; moist; noos	ML				
1605	36 -	34-35	.5	184	spep Labs.	34-35.5 = set with smidaud clay 1 colors as above	ML	PID= 6,2ppm GEOTECH - Soundle			
	37 -					- ao above -	-	mw-1(34,8-35.3)			
	39 -			10 ¹³	qeaps		- i				
1640	- 40	\$1-40		12	Rabs.	show brown (7.548 5/6);		Ten 2' ala no			
613/07 0915	- 	40- 4\$5		18"	Spyp labs.: [40.7-	fact clay with 20-25% sill and very fine sand; lass than 5% white calleda; sand in um - to cm - site	ML	Atto-41' soft / He O - sa huraled sad's (Atto: S' very hard only maist!			
	42-				4112)	eenses [pockets [stringers; hard eonsistency; moist		WAIT FOR HED IN BOREHOLE ! NEGHT MW-I(40,2-40,2)			
	-					40.2 clay as above		GEOTECHSHMPLE 40-40-5			
1	43 - -			1		40.2-41.5) self to it sound and day; yellowish real to strong brown; sill; 20% very fine sound and the 5% day; had consisting; moist.	ML				
101>	44 - -	44- 45,3		<i>[</i> 15 ⁴	spsp labs.	44.0-45,3' : silt with sand and day. strong brown C7,542 5/6); silt with 20-25°6 very fine to fine sand and	ML	PID = 0.2 ppm			
CT CT	- 46					5% clary; hard consistency; maist to dry; less than 5% adiche (while) had consistency; moist.	ML				
	- 47 -						32	change?			
	5 48 -						5W 5W				
1655	- 49 -	49- 49,5	-	3 .6"	spsp Rabs,	49'-49.5, saud; strong brown Ch53R57 very fine to medium sand with 5-10% silt and less than 5% clay;	Qj SW	PID= insufficient sample_			

P 0 • • 0 • 0 Ø 0 • 0 Ð ł

	Pro	ject:			Station	11 54-1	She	et: <u>306</u>				
		catio	n:		NMS W	DCO - Station 11	 	- Ich number: NASUD SA-				
	Une Dri	ller:			<u>NMS</u>	W DC U		_Job number: <u>MASGO SA</u> - Total denth:				
	Dri	lling i	neth	nod:	HSA	(Mud Potary 765')	Bori	ing diameter: $\frac{3}{4}$ ing liameter: $\frac{3}{4}$				
	Boi	ring c	late:		6/12/05		Log	iged by: <u>LRough</u>				
	Wa	ter le	evel:		<u></u>		Dat	e measured:				
ĩ	þ	brei	×. \	ېد _	Rit spoe	n = spsp / Labsample = Cabs,	<u> sa</u>	undstone asstone	1			
	(tt)			120	Standard Denotration	SUL DESCRIPTION	<u>2</u>					
	depth	Interva	numbe	recover (inches	test recults	Coior, soil type, relative density or consistency, mineralogy, USGS classification moisture content	deuß	Monitoring well installation, geotechnical properties, analytical tests, instrumentation				
	-							-				
	-	54-		2/10	spsp/	54.0-54.3 , sand; brownish yel	low	OID - in stelling of sounds				
ł	55	54.3			140005.	CIONR6/6) to yellow (104R7/6)	el sta	Fills moufficient anyt				
				{		1. % very small C2-4 mmdiamake	w) cw		r I			
	-					rounded growel; sound rounded	(j	-				
	-			Ì	ĺ	poorey sorced; have consistence	jî					
	-			Į	(<u> </u>	A+59' hard dreading 6-12"				
+	60							sstone/mudslone?				
	61 -			}	}							
	62 -				}		SW	-				
•	63-	63.5		, 4	spen	63.5-64.0 : clay , light clive brow	m	63' Driller observes chang				
{	64 -	-64.0	\$	6	Teabs,	(2.5 y 5/4) to eight yellowish brow	nCH	when center rod was tripped ou	+,			
h	65					(2.5) 6/4); very tight fat clay wi	44	164.0-64.5 = 55100 / mud stone 1208 : DTW = 58,8 BG S	Chard			
	-			l	{	10-15% very line sand and silt	s) KH	1305 = DT10 = 61.01 / 1315: DT10= 6	1.0'B			
	-					high plasticity, trace caliche (Cat	0,)	4040 Meron's w/ Hzelz; 10500	me;u			
-						Ary bo motst: 12" of setone/muds	lona		·			
	-	Dr	حقلك	s on	leaun	until 6/20/07		-				
ſ	-	Da	reces	rs -	ehim	on 6/21/07			1			
י	-					$m\omega - 1 = DT\omega = 61.80$ BG	, 9	-				
	-					Borehole open to 63,20 BG	54	-				
,		IJ	r the	m	orning	complete Recovery wel	le Rh	1-1				
	-		$\infty +$	h.	tod	200 mun-1 : soo northad	o	-	1			
	_	3		price			7					
	_			1								

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	CMB E	nvir	onr	nental	& Geological Services, Inc.	Bo	ring ID:	mw-1	-
	Project:	n.		Stati	m II SA-1	She	et:	4 of 5	
	Client:			NMSW	WDCO	Job	number:	NHSWD S	A-1
	Driller:		L.	GP		Tota	al depth:		
	Boring (metn late	ioa:	6/12/07	1 Mud Kotory P65	l oa Bou	ng diameter: ded by:	3/4 /	
-	Water le	evel:				Date	e measured:		
TIME	Robners		sper	tspoon	= sp sp / Lastample = labs, / sa	inds	tone: sstone		٦
	(E)	SAMPL เอ	<u>୮</u> ୮୦ଜ	Stendard-	SOIL DESCRIPTION	Dhic Dhic		MEN I S	1
	depth intervo	ndmur	ecovel (inche:	tost results.	Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	grag	Monitoring well ins properties, analytica	tallation, geotechnical I tests, instrumentation	}
1420	65 65-		17"	sp sp/	65.0-66,4: fatclay; eight deive brown		Drillad to 65'	1 DT0 = 60.3 @14	IS HES .
	66- 0017		ł	GeoTech	(2253 5/4) to light yellowish brown (2.53 6/4); 15-20% very fine sand and	CH	GeoTechimus.	- 1 C65,6 - 66,1)- ter in perched 201	2060'
(1)(1 = 0)25	67-				sill; gray stringers and mon -site layers	s Z LI	drill out boreh	ole with 6 75" a	ugers and
6(26/07 12:05	64-				caliche; dry to moist; very tight clay	5	6/26/07 121Z	S Mud Rotani	2 50 65 100
•	70				men plasticity; hard consistency	\	-+ 67.6 - 68	.5 confirms part	ceoyjas a
	ਸ-					CH		-	-
1330	72-			No	72': fat clay; as above	+400	#172' still	in fat clay, as a	Gove
	73-			ampa			(drill bit	Jample).	-
	74-					C.H		-	1
	75								-
	76-							-	
1435	77-		٢2	spsp/auc	77.6 - 78.6: clayer, silly sand;	C#	change @ 17.	-7715'	b
	70 78.6		•		wery dask gray ish browny (2.543)2)	7SM	pluid/mud	wated wy pay and	Ţ
					strong brown < 1 mm irrequeers bands		78.6 veryh	word the 1 of ss	fore / muds
	81.				very fine to made un sound with 15-20 clan and 15-20 % silt . Cominated	4			
1<20	87 - 82			NO		CL)	-82': source	20 from dielebil	
000	83-			sample	82 = fat way dars gray (2.3 9 4/1) Pat clay: 15-20 - 6 siet and very		- ,	-	4
	84 -		• • *	•	fine said; high plashicity		86-85 - 10 0-1	d'allune -	-
	85			 		-	-sstone/muds	tone	4
	36 -							~	1
	87- 87.5		-					-	4
1615	88 - 28		· .	No sample	Pat clay; 10-15% silt Resthan	CH	hydraneic pu	mp defective	
11-0	89- 89 -	90.B	20"	5.959/145	10% pein sound; high plashicity;		D. A. r.	(hill -	16006-
1000 nulaalm	70				Same 45 above . 81- 90.8		10- 51011 10	avillej C	06/281
00/00/01	91-								1
	92-							-	
ות ירו	95-				Hard Dailling: Sand stone lover	20	94.0 - 94.6.	•	
11.00	14-					:58	55	-	

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CMB Environmental & Geological Services, Inc. Boring ID: MW-/ 5OF5 Station 11 - SA-1 Sheet: Project: Location: NMSWDLO Station / NM5WD- 5N-1 NMSWD60. Job number: Client: COI. Driller: Total depth: Drilling method: MUD Rotary @ 65' HSA to 6 Boring diameter: CMB/LRMSht-Boring date: Logged by: 06/28/07 . Water level: Date measured: Abbyev. Sdit Gpoin Sondstone = 55 1066 4-16 SAMPLE SOIL DESCRIPTION COMMENTS standard TIME Ξ graphic log penetration recovery (inches) Monitoring well installation, geotechnical Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content depth test results properties, analytical tests, instrumentation 95 Davk GRAY to Black . Tat e# 964-NI Same 96 essibly organic 97 Carbon Containin? 98 .99 100 Hend Dailling 102 - 106.4 101 A 102 106.8. Sandstore: Park groy to 4" Spy/40 Very dark GARY: VPry fine to fine Sand. 25% Silt 20-25% Chan Bemi-con Solida Tab. 103 19:00 104 1044-105 106 101 108 119 1 110-A Start ad drilling No/29/07 C 0900 111 112 113 114.0-14.8 sps/ 12 NO Recours - Very hard - Capillany Fringe Samples 114.0 -10:A 114 115 T.D. 135'e TRIMMed Sand -Top Severa e 114.0' with Top Sand & 109.8' 16/30 Trimmy P. je (20 Top Bentonite 109.8-100.5 GROUT 100.5' - Surtare. Surtace Gosing To 65' 611 SCIT 40 PVC-139

	Pro	iect:			Chation	. 11	e ila vacan	and licen-	1) She	et.	10	01	
		geet. Satio	. .		STATION	202	STRE MASSES	SMent CSA-	J_ She	ςι.	10	<u> </u>	
	Clie	acioi ant:	1.		NMC	<u> 100</u>	- Station		loh	number:	NIACO		
	Dril	lor		~	1V 1-15	V DCL	<u> </u>	CCPT		al dopth: 12	1 <u>7</u>	<u>~ 0 . /</u>	a/+ -
	Dril	lina r	moth	u Vodi	<u>to mojec</u>	<u>+5 1.11.</u>	terna himal	$\frac{2 (GPL)}{(1+P)}$	Pori	ing diamotor	1971 <u>2675</u> 	130mg/	135.0 u
	Por	ing a	lator	iou.	Goelou	Stem	Hugersc	HSH)		ing diamete	· <u>\$74</u>	<u></u>	41/4 "1
	DOI	nig c tor ic	ace.		6/6/20	-1000	C competer	0 6/3/67	LUG Dat	geu by.	<u>Una</u>	na Kou	ghd.
	106		ivel.			<u>> ' (5 (3)</u> '	111+ 0S	100			6/23	104	
	,+0	SILE	AMPI	F	<u>per</u>	speer	$\frac{2 - \frac{2}{2} \frac{2}{2$	Cab sampli	e = kat	<u>25, 15ano</u>	<u>X_517544</u> MMENTS		be .
	(ft)	- ei	ษั	120	penetration				jy				-
2	dept	lnterv	dmun	recove (inche:	-t-restorts	Col mine	or, soil type, relative eralogy, USGS classifi	density or consistency cation moisture conter	, <u>E</u> O **	Monitoring well properties, analyt	installation, ical tests, in	geotechnical strumentation	
						01-2115	siety sound ; b	rown C7.55R 5/	4); sm/	PLD= 4.8 p	pm C	ambrent a	ir : ۵~۵,:
	1 1			74"	speplephs	very fine	to fine sand	30% silliphe	ice /ca	a che			
	2 -	0-2		- 1		soft cor	visiotency; ma	pist; ho odor	mons				-1
	3 -					At 0.8'	pink to very	pale brown cal	liche				-
	4 -	ļ		ļ		hard .	At contact so	fine soud ve	5124(3)				-
	5					41-11. r.	the smeet sales	dieles sinte L					-1
	6-	4-6		24"	spsp/labs.	vale br	own 67.531	28132 to (1031	R 713)	PID=0,1	ppm		_
į						'silty s	sand with C	a CO3 comenta	tion i SM) ₂			
	T)		layers	of comented	sand and sh	Letter				
•	0 -		i			caliche	- in prograte	cleangers (pri	able / co	uche			1
	9 -					moist	· · · ·	call plant root	s)				_
	10-	9-11		2411	Simol Calos.	a'_1(')	cial, sec. A wal	calicles as al		PID- M/L			1
	4 -	•			1.1.1		see go was los	the the sec		1.2-0.7	pm		-
I	12 -			l		calich	e also in su	all und las	SM/				-
	13 -]				ريمين المراجع المراجع		L.			-
	14 -								/com	rie			-
	ic												_
		14-16	I	244	4pqp/2465	14'-16	i sichy sand a	of calide		PID=0.3,	pm		
	16 -		-	1		-	as above		sH/	•	1		1
	17-		i	ſ									7
	18 -				(1 Casa	phe			4
ĺ	19 -			ĺ						2 change ?			-
	20				everally ()	101-21	e:01	d and alla a	<u> </u>				-
	21 -	19-21		25	sp sp sabs.	Right re	delish brown	to yellowish red		PID=D	ppm		-
	22-					533R6	14 to 5312 416	; siet with	ML	ſ			_
	22 -			{		15-20 "	10 very fine so	much; 15-20%.	elen;				1
	2.					consist	may; Moist	o treat, rase	1				
						24.0'-	24.31 \ as a	boure.	ML				-
	25	14-26			upsp labs.	24.3'-2	6.0' . clayan	d silt with san	dich	PIDOn.	3 101010		1
	26-	-1 -0		}		Right re	eddish brown	C54R6/4) to	/ML	M1 26'	- 11 m		
	27-					of class	sound sill wi	th 20-2590 ve	-4	PIT CIO WI	ut som	M ! DOTEN	des and
	28 -			1	}	fine sa	md; 7-15%	caliche / moth	Red				-
	24			}	}	appear	ance ; hard c	onsistency; lo	ω k4	{			1
	l - '			l	1	1	- JI moist		1/10	ł			1

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Pro	iect			c1 ()		She	et. 2006
	jeut. Satior	. .		stati	$\sigma_1 \mu s A - \mu$	- 51161	
	nti	1.		NM SW	DCO - Station II	- Ioh	number NM (1)
	111L. 1			NIZSA	1.0.20		I depth: bog 100/ p :
Drii	ier:			GPL			al deput. 1365 139 Istring (
Dril	ling r	neti	nod:	<u>HSA</u>		- ^{Bou}	ng diameter: 3/415 (4
Bor	ing d	ate:		616107	(completed 6/13/07)	Log	ged by: <u>LRough</u>
Wa	ter le	vel:	11	4.05#12=	- RGS / 117.05 TOC		e measured: <u>6/33/07</u>
r7				·····	split spoon = spsp / lab sample	<u>=la</u>	bs. Sandstone = ssto
Ξ	5			standard	SOIL DESCRIPTION	1 <u>2</u> _	COMMENTS
pth	ersa	mbei	oven) (hes)	test results-	Color, soil type, relative density or consistency,	lderg	Monitoring well installation, geotechnic
de	Ľ,	nu.	(inc		mineralogy, USGS classification moisture content	1	properties, analytical tests, instrumentat
30	29-		18"	spsp, aubs,	29.0-30.5 · as above /	ML	PID= 0.3 ppm
31 -	30,5		1		30.5-32.5 : clay with sand and sitt;		
32-	32.5		24	spep. Geo Tech	strong brown (7.55R 5/6); fat day		min-2 (21 5-32.0) in lot
2 -	32.5-		24"	5P 5D	ace then 5% caliche: trace mn - Oride.	{	1110 - 2 C 3113 - 3210 / my
	34.5			• •	sand in mm-size lansas and con-size	1	
34 -				ł	12.5- 34 5 : a a laws	CH	
35	34.5-		1. 11	como labo	34.5-360; to almed sound caloris		
36 -	36.0		18	spap, eaus.	reduction / wellowish : sound distribution	CH	puch - no hammas (soft)
37 -	}		}		is not uniform .		
20	36-28		24"	spsp	36.0-38.0: as above	ļ	
28 -							
391 -	28440		2011	1010	20 milional in the	CH	
40				spsp/lalos.	stid-40.0 (as about	┥───	push - no hammar (soft)
41-							and a st for ran spap a
42							
	}					2.1	Change C 7-42 to 45
φ3						12	
44-	44.0		01"	una labs.	44.0-44.8 1 sect with sound, reddish		learning - again Charder tha
45	44,8		410	1-201	yellow (7,5 3R 6/6); stet with	ML	after the check as she for not
46 -			{		15-20% very fine to five sand;	ML	PiD=0.3ppm
2			{		trace chang; poorly sorted; hard	12.1	
	1		{	ļ	consistency; dry to moist	2	change - 1/- 47 to 48
48 -	••						
49 -						sw	
50	LA n-		ļ	ener Ale	19 a - En a: Cound ined dishindlam	-	P() = 0.4
51_	50,5			ar spi xalos.	(5 486/8); veryfine to madium sand;	SW	hip - nd bbw
					5% sill ; trace clay; 1% rounded		
52-	. 1			ł	and flat gravel to 10 mm diameter;	21	change +/- 52 to 53'
53 -					hard consistency i moist.	/ 2	
54 -			{		At 50' very fine to fine sand with		
55				ļ	caliche camentation; white , hard	SM	END OF DHY
~	54-		12"	spep	54-55: siety sand very pale brown	1	Borehole dry to 53, 50'B
26 ~			1	ļ	to yealows CIOSR 7/4 to 7/6); very	>M	unuiriot ar utitoites
57-				l	price to mean sand 20% silt j	 	- change (2) "1-57"
58 -	ļ		1	ł	in pockets sure to the carcing callede	CH	PID = 0.3 ppm
59 -					moist		
			1	1		1	

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		BE	nvii	ronr	nental	& Geological Services, Inc. B	Boring ID: K	n 10 -2
	Pro	ject:			State	m IC SA-1 SI	heet:	3066
	Loc	ation	1:		NMS	WDCO-Station 11	ob number:	ALLER CAL
	Dril	ler:			Geoba	<u>nocle Tulen</u>	otal-depth: BSS	139' Rima (12135:0)
	Dril	ling r	netł	nod:	HSK	Beck	oring diameter:	31/4 1D C41/4 ID
	Bor	ing c	late:		6/6/0	7 - C completed 6/13/07) La	ogged by:	CRough +
	Wa	ter le	evel:		114.09	5' 112, 3' BGS BGS [117.0570c D:	ate measured:	663/07
		5	SAMPL	Ξ.Ε	chandard	SOIL DESCRIPTION	COM	<u>= sston Q</u> MENTS
Time	depth (ft	interval	number	recovery (inches)	penetration test-results	Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	Monitoring well ins properties, analytics	itallation, geotechnical I tests, instrumentation
802 1802		59-		18"	(ab sample	chay; brownish yellow (1032 6/6) and (1	H PID= 0.3	ppm
	61-	60,5			9930	light olive gray (53 6/2); yellow	1	1
	62 -				1.	less than 15% siet and very fine sand;		
	44			Ì		very small podlets; firm to hard, moist;	-14]
65						trace Mu-Oride salar		
827	66 -	64- 65.5		184	sp.sp	clay - lightolive brown (2.535/6) C	·H	
	a -					to light yellowshown (2.5.36/4)	at 5 mudstowe	-
						At 66.5' hard dilling on gray		-
-	-	(mudstone; approximate by 4-Grithick C	2,14	-
70	-	9 -		18'	Lalo sample	clay: coloras above 11	4 PID=0,5	<i>ppm</i>
420	3⊷_	70.5			\$P\$\$P	part danse clay; as above	in mudstone @71	-74.5'
	-			ł)	trace rangel brown Fe-oxide		-
						ht TI: hard andung; tepusati		-
75	<i>π</i> -			D	spsp	H+74.5 put of hard layer		
٥26 کړ		75- 75,7		7/10'	srsp	fat clay; as above ct	H-	
					l		# # FF change	to sandshore
							- (77'-+/- 5	22
u.		790		2/ '	(ab sample	sound/ stand stone : sand conspecialated 5	V/	-
10 80		-742		//0	- sep	brownish yellows (104 R 6/6) to 1/3	Sitene	Dicional common
1 .0	-					- dry -	m.	The marker
						any with 30 % for sound with all -	+/ 82' chan	ge to clay -
)							· -	-
150								
05	84-			18 "	5050	Clay with silt and sand ;	<u> </u>	
					77	clay 10/ 30 % fein sound and sell;	12:22 : Boreho	le dry to 85'
						abundant yellowed, Brown Fe-Onder		
				1		carbon - containing ; maist	1	

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	CME	B En	vironr	nental	& Geological Services, Inc.	Bo	ring ID: $m\omega - 2$			
	Proj€	ect:		Statio	nll SA-1	Sheet: <u>4 of 6</u>				
	Loca	tion:		NMS	wDco - station !!					
	Clien	it:		NMSC	JCO	Jop	number: <u>NMSGD S</u> A-			
	Drille	er:		GPI		Tota	al depth: 139 Borng (135.0 well)			
	Drilli	ng me	thod:	HSK	· · · · · · · · · · · · · · · · · · ·	Bori	ing diameter: <u>3 1/4"ID 4</u> 1/4"ID			
	Borir	ig dat	e:	6/6/07	- Ccompleted 6/13/07)	Log	ged by: <u>LRought</u>			
	Wate	er leve	el:	114.05	BGS / 117. DS TOC	Date	e measured: <u>6/23/07</u>			
	r			speit sp	oon = spsp / Labsample = lab	<u>ş. </u>	/ sand stone = sston R			
	E -			ctandard-	SOIL DESCRIPTION	12	COMMENTS			
TIME	depth	interva	recovery (inches)	Lest-respits	 Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content 	lqeng Pot	Monitoring well installation, geotechnical properties, analytical tests, instrumentation			
1310	91 -	1-	18"	spsp/labs	189-90.5; clay; blace (542.5/1); clay with 20-25% sill and fine	cL	PID = 3.0 ppm			
	92 -	{	1	1	(Sund; bottom 3" doste group clay Chentonite?), swells with He D: at 903		(644 Solone: silica-commented (bit chatter: very hard bayer)			
	93 -			1	small pyrile orgetals ->reducing		@928 auger refund ; small preces			
	94 -	}			medium to loss what i i her dre		of suicancemented sofone in cuttings;			
1425	95 10			-	10 moist. JI-3	14	1335 trip out an tobit; 1350; borehold			
1100	94	1.9	7/10	17540/	medium anew · Orminaland · music	a small	1 continue to auger 6; tonly			
				1	largers of clay ishale sstone with varing	Sister	(mr ()) > septes manuelle			
	1	}	{	1	thicknesses,	T				
				}	gray					
ILDE	_ 	·	n	eren			(299 99' veryhard layor /sstore?			
100-	100	•	-+ <u>~</u>	19971			Borehole dry @100' on 6/8/270 nen			
10100 08:00	-	{		}		<u> </u>				
	-		j	}		- 2-	+ -			
							sstone 2 -			
		.		,		<u> </u> .				
0945	105 10	4-	410	/ gege	sound stone; medium to light going;	-	sstone confirmed @104'			
•					amented; very fine to fine grain					
			}		size; very hard	1=-	1			
						-2:	sstone?			
	- .									
	-				so sounda lomtinue dironico ud	-7-	-			
1030	110-				Ho intection					
				}		-2-	>pone 4			
							QUZ' SORKER Make 1			
							Li - interarde			
					114. a-114. 2'1 silty sand, yellowish	SM	No Oak Sau blo take u@ 114 a Ho Ocora			
Nu .	1	4-	3/0.	spsp/-	gray : very line to me di um sand :		injoched into borehole .			
1110	115 "			++++	20 % set; trace claw; hard consistence	H. CM	12:40 Borehole day to 114 BGS			
		{	İ	1	wet to saturated ; very tight formation	ا الك الع ا	OFF SITE : Driegers need 41/4 " augers			
6/9/07							11:40 Drillers bas on sile w/4/4 " augers			
		1	1	1		2/	At 119' depth the centerbit is dry			
			1							

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_	CN	AB E	Invi	ronr	nental	& Geological Services, Inc.	Bo	pring ID: mw-2
	Pro Lo	oject: catio	n:		Statio NM 5	11-5A-1 42200-Station/1	She	eet: <u>50fb</u>
	Driller: Drilling method:			nod:	Geopy	ojacts Intern.	Job Tot Bor	tal depth: $BGS / 39' Borring Classic well,ring diameter: FD 3'/4'' / 4'/4'' FD$
	Вo	ring d ater le	evel:		6/6/C 11405	17 Ccompleted 6/13/07) 1213 BGS / 117,0570C	_Log _Dat	gged by: <u>∠. 12, 10, 4, 4</u> te measured: <u>6/23 /0, 7</u>
	(1)		SAMPL	.E	-standard	SOIL DESCRIPTION	_ iç	COMMENTS
TIME	depth	interva	numpe	recover (inches	test results	Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	Grap	Monitoring well installation, geotechnical properties, analytical tests, instrumentation
1325	-	119- 119.3		3/10	Cabsamp spatspoon	le sand pale yellow (2.547) medium sand rounded with 10% very small rounded gravel (Cass them 3 mm); there is would be	SP SP	PCD: insufficient sample 1350:borehole des wet at bottom, but no H20 coviong in ,
1440	124 -		[3	wet.	Ĭ	1440: Dulled to 124' / light ning '. stop drieding 15:30 DTro = 123,40' BGS
6/10/07 6800	900 -	124,0 124,1		1/6	<u></u>	sand; pale yellow (2,547/3); mosky medium sand, rounded and 2-3% very small rounded	SF	0800 . DT 10 = 42 7'855 115.7'865
30 ¹	- 	1290		1/16	<u>\$p5p</u>	Qravel (2 - 4 imm diameter); well sorted; saturated @125' change in color to	sp	570 = 114.8'BGS
	- - 133-			cuth	and also	heaving in side the august (+-4). 133-135: clay Cchart 1: 5 10G 5/1		brill to 135'
135'				aug	ers ^{1†}	parshic ; dry to moist.););	
				picka off alge	ead Stad	135-140 very have, accordin to doubles Cho sample) 135-139 : fat clay, reddish brow (54R 4/3); clay with 15% sill	y CH	heaving sediments
1229 139				cuti pick ougo	and app land	and fine said; pladic; very moist to wet		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 6/12/07: MW - 2 DTD = JE3. 40 BGS in partially set well -> injected
	-							
	-							
	I	I,]					<u> </u>	L

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CMB Environmental & Geological Services, Inc. Boring ID: Mw -2 6 of 6 Station 11 - 5A-1 Project: Sheet: NMSWDCO-Station Location: Client: NMSW DCO NMSW-DCO Job number: NMSWD-SHA-1 GreeprojectsIMTERIN. 1 Jose Lander Jotal depth: BGS 139 (1350 4000) Driller: 2-1)34"/4/4"IN Drilling method: HSA Boring diameter: L. Rought Boring date: 6/6/07 Completed 6 (13/07) Logged by: Water level: 114.05 BGS (117.05' TOC Date measured: 6/23/07 SAMPLE SOIL DESCRIPTION COMMENTS standard E graphic log penetration recovery (inches) Interval depth numbei Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content Monitoring well installation, geotechnical test results properties, analytical tests, instrumentation WELL SCHEMATIC MW-2 Steel ricer - shickup 3.0'BGS 3'X3'X# 4" 0-114.5= " scH 40 pvc blank casing Enser) -106.3 = comment/bentonite grout 6 106,3-111 = Bentonitk chips hydralad 10ť DTW=114.05'BGS ack 114.5-134.6 = 2"SCH40 PYC 0.010" slotted reen + peush thereaded endcap 1357 0' 139' = \$ foug 139 TD = 139- Hel Data BGS H3H Not to sale! Bailed approximately 35 gal from well mw-2 (very two id but no sand in bailer)

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CMB Environmental & Geological Services, Inc. Boring ID: mw-3 1046 Project: StationII Sheet: SA-1 Location: Station 11 NMSWDCO Client: Job number: NMS40D SA-1 NHSWDCO Geoprofic 15 Intona honal (GPI) Jose lande Ostal depth: 139 365 Cwell Driller:) Boring diameter: 3/4"TD 4/4 Holegio Stem Kugar CHSA) 6/2207 (completed é Drilling method: (completed 6/26/07) Logged by: LRought Boring date: Water level: Date measured: TIME Speid Spoon = Spsp //a SOIL DESCRIPTION =Labs. | sand stone = sstone 1 labsample SAMPLE COMMENTS £ 5 Ξ standard graphic log enetration interval recovery (inches) depth (number Color, soil type, relative density or consistency, Monitoring well installation, geotechnical And results mineralogy, USGS classification moisture content properties, analytical tests, instrumentation 1500 spsp/Bobs 0- a 4's sand with caliche, lightbrown PID= 0.4 ppm 14" 0-2 Statuth . (7. 54 R G/4) and while ; very fine to fine sand w/ ab undow casiche in cmŧ sited pockets ; well sorted; firm to hard consistency; morst bodry. 0.4'-2.0': sound forown (7.53(514); 2 3 SP fine sound 1 so ft consistency; well sorted ; molst. ч 1515 sport labs. 12" 425' ; sand/ caliche ; purk (7,55 R 7/5) SW 4-5 5 factore dour fine to fine so **Leade** PID= 0.5 ppm św 6 and soft layers irregular; plant 7 roots abundant; some mothing accurs "earthy" odor ; firm to have at bottom 8 where caliche hodules are Rager 4 6" 1530 995 spsp/labs. 9.0-9.5' y sich sund; pink (7.53 R76 Sm/ PID= insafficient sample very five to five sound with 15 % self /caliely ŧ. and trace class; caliche on grain boundaries as well as in hard nodulos 12 which make up the half of the sample, L3 consistency ; bareay moist . 14 4-156 18" 1550 5750 Rabs. 14-15.5': silling sand/caliche i 15 samples as above but smaller PID . 0.4 ppm Sm/ 16 caliche nodules make up ease the /caliche 25 % of the sample R 18 3/ change ? 19 19-<u>v</u>" spsp/labs. 19.0-20.5' i silt with sandandday ML 1615 P1D = 0.3 ppm 20 silt with 15% veryfinesand Right reddish brown to yallowish red 53R (514 to 516) tree white ; ML silt with 15% very fine sand and in 15% elary; 1070 to caliche ; hard consistence mottled ; day to moist ; trace man-onia 2 24 - 25' - siet with sand and day 24spsplabs. 1635 ML PID= 0,1 25 eight reddish brown (53 R 6/4) to Borehole dry@ 251 yellowish red (53 R 4/6), silt with 2076 very fine sand and 20 to 25% claure ; appears mothed with Benses and stringers of white sand/caliche; had consistency; loco plasticity, moist trane My - Oxido

	Pro	oject:			Station	11 SQ-1	She	et: <u>2 % 6</u>	
	Lo	catior	1:		NMSW	DCOStation !!		. /	
	Che	ent:			NMSWZ	000	Job	number: <u>NMSW.N/SA</u> 1	
	Dri	ller:	. 1		<u>GPT</u>		lot	al depth: 139 3GS Cwell)
	Dri	ling r	netr	100:	<u>Hary</u>		Bor	ing diameter: <u>3/4 TD 147</u> 4	
	BO	ring a	ate:		6/22/0	+ Ccompled 6/26/07		ged by: <u>LPough</u>	
	¥¥8	iter ie	vei:				- Dat	e measured:	
	[5		F	Split	Spean = SpSp/ (26) Sample = Labs	Υ <u></u>	Sandstore = SStore	
	(£)	ī	<u>ل</u> ور م	23	penetration		i i i i i i i i i i i i i i i i i i i		
ME	depti	nter	dmur	nche	test-results	Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	le fo	Monitoring well installation, geotechnical properties, analytical tests, instrumentation	
00	30-	20-30	•.	23	5.00/0.10	29 0 20 0 1 001			
20	-	2-30		12.	Sport graps.	Sand and clay; yellowishred	ML	P1D=0.2	
	1.			1	}	C5YR 4/6) and white;	ML		
				}		than 5% choiche tace my mide	AX	CHALLER BY	
	-] {			ļ	sand in mm -size poolets; morst	Z.		
5	-	34-35		12"	cierco) lat-	21,0-34,5 = us use 04	C II	change@34.5 /gradual	
5	35				2	154.5-35.0 = fat clay reddish	$\frac{\mathbf{u}}{\mathbf{u}}$		
-	} -	37		241	Sectoch	with 20-25% very fine spend	CH	1745: Geotech Somples; -	
	-	`) •	nigh plasticity; had consistency mois	Aru	mco - 5 - 56.7 - 56.2) fat day	
	-			}		35:0-37:0=fat day; as above		1120-3 -36,2-33, F) Fri -ag	
	-						CH		
ŦS	40	34-		-	ST THE	No sample talorn @ 39'	1	(sampled 35-37 instead)	
	10			Γ -		· · · ·			
	-						21	change in Mio-2400 242-4	e7 ¹
	-	{ }		} '			12		د.
	-	{		ļ	5		1	-	
_	-	$\left\{ \ldots \right\}$			bog-l.	silt with sayed.	ML	-	
815	45	44.45		12.	PSP/Rabs.	(44.0 345.0 · <u>stille</u> 1	133	PID = 0.2 ppm	
	j _					with 30% very line to Ping coud.		_	
	_					S-10°10 charg; poorly sorted;		47	
						hard consistency jory	2/	change	
	ļ						· ·	·	
40		49-		124	spsp/	49.0'-50.0' sand schmaling -	SW	PIDEOLON	
	50			·		(7,54RS/6) to reddish yellow:	<u> </u>		
	-	1				very fine to medium sand; 10% si	4	-	
	-				5	10 To clay; sample breaks in mm-	1'en	1 1	
	-				}	with self -rich layers in between	1 200	-	
	-			ĺ		mosolomu-size rounded flat		· _	
05	~					moist; My- Oxide			
	22	54-		124	515p/2ab5.	54.0-54.5: sand tealiche ;	SW		
	~	25			mirrow	while to see light gray (2,54 7/2)		1	
	-			}		irregulas 11 mo Head & boundary La.		1	
	-	1		for	lats.	54.5-55.01 sandy strongbrown	sw	Insufficient some inter	
	-			1	\	CT.SYR 518 to 5/6); trace sich and		1 1	
25	6.0	meter		-	5000	Clary; sand sub rounded to subanoal	ar .		

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r. _	ĊN	1B E	nvii	ronr	nental	& Geological Services, Inc.	Bo	ring ID: mw-3	
	Pro	oject:			statio	n 11 SA-1	She	et: 3 ol 6	-
	Lo	catio	n:		NMSW	DCO station 11	-	·····	
	Cli	ent:			NMS	WDCD	Job	number: <u>NMSWD</u> S	A-1
	Dri	ller:			GPI		Tot	al depth: 139'BGS Cwell)
	Dri	lling i	neth '	iod:	<u>HSA</u>		Bori	ing diameter: <u>31/44 / 44/4</u>	
	BO	nng c Itor la	ate:		6/22/0	7 Ccompleted 6126107	Log	iged by: <u>L. Rought</u>	
	- Kh	bren		560	it change	Isoch II-Icu a Ala Ia	Dat		
		5	AMPL	.E	Sundard	SOIL DESCRIPTION	marce	COMMENTS	7
	th (f	rzai	lber	(ery	penetration	Color, soil type, relative density or consistency	aphic	Monitoring well installation, geotechnical	1
TIME	dep	inte	มคน	reco.		mineralogy, USGS classification moisture content	Ъ.	properties, analytical tests, instrumentation	
1925	60	59.0-		1/10"		At 59': sound , yellowish brown (105/25/6)	SW	PID = in sufficient comple	1
	61 -		I			fine to coase sand; trace very small			-
(1221-7	62 -					subrounded; moist	sw		-
614104	63 -	1		}		and the state of the		63' driller observes change	1
NAID	64-	64-		12"	Spsp looks	light clive brown (2.535/4 to 5/6);	CH	6/13/07 0745: Borchole dr	B.
0110	65-	_		·	1 / 4403.	Pat clay with stringers and mm - thick layer		65-65.5=mudstore	1
	66					ind sand; high plusticity; hard considency;	c.H		-
	67 -			1		moist; fossios: small mussel shells;		-	-
	68 -				ļ	At 65.0-65.5 gray pale yellow mudstone	l	-	4
0940	69	69_		12"	spep/Dalos.	69.0-70.0; fat clay, as above @64;	CH	PID= 0.2 ppm	-
- COMPO-	70	6		124	sport Carbo	and the is in the second carbon and the			1
	T'	שו						71'-73' = hard dalling	
	+2 -							at this depth	lasime
	+1 -							-	1
1020	74 -	74-75		10"	ences labe	Hen-200 patron land on and	~ LI	PIDARZ	-
	*>			·	And Level 2.	fat day with less than I mm thick			1
	76 -)	layers of strong brown very fine sand/sief	CH	-	-
	77 -	}				high peasticity; possibly carbon -		-	
	78 -					containing; molst.	c#	-	1
1(21)	r4 -	1 4		1/10	spsp/_	74.0-74.2' > mudstone / saudstone;		PID/labs. = in sufficient	-
, <i>v</i>	<u>o</u> u o.				····	may 15h brown (2.545/2); very hard		At 80' softer material	
	0(-		Ì			consistency .		· ·	1
	82-	{					54 /U	An	1
	03 91/						Isw		1
1155	04-	84-		6"	spip/calos.	84.0 -84.5 Sandy day and/or dayay	-	PID= 0.3 ppm	1
1100	ð5					brown C2.59 4/1 to 3/2); clay, silt.	sel.	<u> </u>	1
	-		ļ			and very fine to made um sand in			1
						Climm to I cm thickness, imencar chance).XH	-	
	T					layers of varying composition; trace		-	
						tervide ; clear Ca CO 3; very small			}

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Location: <u>MM Set D.Co</u> - <u>Staffon II</u> Job number: <u>MM Set D. SA</u> - 1 Client: <u>MM Set D.Co</u> - <u>Staffon II</u> Job number: <u>MM Set D. SA</u> - 1 Driller: <u>MM Set D.Co</u> - <u>Staffon II</u> Job number: <u>MM Set D. SA</u> - 1 Driller: <u>MM Set D.Co</u> - <u>Staffon II</u> Job number: <u>MM Set D. SA</u> - 1 Driller: <u>MM Set D.Co</u> - <u>Staffon II</u> Dot ing diameter: <u>3/4</u> , <u>Cash</u> / <u>H/H</u> , Water level: <u>Cl22 0 T. C can plat d [24/07</u> Date measured: <u>Solu DEStaffon</u> <u>Communation</u> <u>Staffon II</u> <u>Communation</u> <u>Solution Communation</u> <u>Sol</u>		Pro	oject:			Sta	him 11 - SA-1	She	et: <u>4006</u>				
Client: $V M Subscreents} SA-1$ Driller: GPT Total depth: $139Bc_5 (u=0)$ Drilling method: $H53$ Boring dameter: $3/k^2 (T_5)/k^2/k^2$ Boring date: $dS2/2 = 2$ C care played $6/2k/0^2$ Logged by: $LRoughs$ Mater level: Date measured: Date measured: $SA=1Mater level: Date measured: SA=1 Roughs Roughs SA=1 Roughs SA=1 Roughs Ro$		Lo	cation	า:		_NMS	WDCO - Station 11	<u> </u>					
Driller: <u>CPT</u> Total depth: 13/2 & 52 Cuells Drilling method: <u>HSM</u> Boring date: <u>GPL</u> or <u>Cearry Placed 6 [26 lot</u>] Water level: <u>CPL or Cearry Placed 6 [26 lot</u>] Date measured: <u>COMMENTS</u> TIME <u>Solutions of the class of second states as showed and the commentation prometers</u> Solutions of the class of second states as showed and the class of second states as showed and the class of second states as showed and the class of /b>		Clie	ent:			NMS	ND CO	Job number: NMSWD SA-1					
Drilling method: Boring date: Water level: Water level: $\frac{622/27}{2} = C \ com p \ laded 6 \ 22 \ Corr} \ congret by: Date measured: Date measured: \frac{92}{2} = \frac{92}{2} \ (\frac{1}{2} \ congret} \ congret by: \ congret by: SAMPLE: \frac{92}{2} = \frac{92}{2} \ (\frac{1}{2} \ congret} \ congret by: \ congret by: SAMPLE: \frac{92}{2} = \frac{92}{2} \ (\frac{1}{2} \ congret by: \ congret by: \ congret by: \ congret by: \frac{92}{2} = \frac{92}{2} \ (\frac{1}{2} \ congret by: \ congret $		Dri	ller:			GPJ		Tot	al depth: 139'BGS (well				
Boring date: Water level: Water level: $\frac{f_{22}}{f_{22}} = \frac{f_{22}}{f_{22}} = \frac{f_{22}} = \frac{f_{22}}{f_{22}} = \frac{f_{22}}{$		Dri	lling r	neth	od:	HSA	· · · · · · · · · · · · · · · · · · ·	Bori	ing diameter: 31/4 (ID) /41/4				
Water level: $\frac{1}{100} = \frac{1}{100} = $		Bo	ring d	late:		6/22/	of Completed 6/26/07	Log	ged by: LPoudry				
$1M6 = \frac{9^{1/4} S_{1} p \text{ on } m = gp \text{ sp} / (L_{2} / S_{2} \text{ or } p) = 2 \text{ labs } / \text{ saudsfuele} = s \text{ spin } e \text{ Soll DESTRIPTION} = COMMENTS = COMMENTS = Solution reasons contents = Solution of the status energy of the status $		Wa	iter le	evel:				Dat	e measured:				
$\frac{1}{2} \frac{1}{2} \frac{1}$	IME						Splitspean = spsp / Labran	nla	= labs / sandstock = sstore				
$\frac{1}{10} \frac{1}{10} \frac$			S	AMPL	.E.	Handard	SOIL DESCRIPTION	ſ	COMMENTS				
$\frac{83}{84} = \frac{12^{11} \text{ sps}/\text{sheet}}{84} = \frac{12^{11} \text{ sps}/\text{sheet}}{14} = \frac{12^{11} \text{ sps}/\text{sheet}$		depth (fi	interval	number	recovery (inches)	Acontention Lost-results	Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	graphic log	Monitoring well installation, geotechnical properties, analytical tests, instrumentation				
$\frac{72}{94} = \frac{12^{11} \text{ sps} p_{10}^{11} descent of the spectrum of the $		83 86 -							85-86': hard; inject Hz D sandstorge till slong/und slag 2				
$\frac{88}{10} = \frac{12^{11} \text{ spsp/kds}}{12^{11} \text{ spsp/kds}} = \frac{89 \cdot -70.01}{2.5 \times 2.5 \times 10} \frac{10 \text{ kack}}{10} \frac{10 \text{ kack}}{$		22.]			CH					
$\frac{87}{90} = \frac{12^{11}}{90} \frac{89 \cdot 0 - 90 \cdot 0 \cdot 164}{10} \frac{164 \cdot 164}{10}$				i)	}]					
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		88 -	1 }	1		}		}					
$ \frac{32.5}{11} = \frac{11}{11} + \frac{12}{11} + \frac{12}{12} + \frac$		84 -	87-		12"	spsplace	89.0-90.0: fat clay; black	-11					
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	325	90-	90			1 1/20.	(22.53 2.5/1); fat clay with		Pibroizppm				
$1355 \frac{1}{44} - \frac{1}{44} = \frac{1}{14} = \frac{1}$		11-					10% silt less than 1% very						
$1355 \frac{1}{14} = \frac{1}{44} = \frac{1}$		47 -					in our un size lanses ; hard	1					
$\frac{44}{45} = \frac{4}{45} = \frac{1}{5} = \frac$							consistency; high plashicity;		}				
1355 41 - 41 - 6" spep/lds: 94.0-44.5 : pat claw, black2 45 41.5 6 " spep/lds: 94.0-44.5 : 2 cm of this claws of 45 41.5 · 2 cm of this claws of 47 - 100 · 124 spep/lds: 124 - 100 · claws; black2 (2.5 × 2.57)) CL 49 - 124 spep/lds: 124 - 100 · claw; black2 (2.5 × 2.57)) CL 49 - 124 spep/lds: 124 - 100 · claw; black2 (2.5 × 2.57)) CL 40 - 100 · 102 · 124 spep/lds: 104.0 - 104.5 · consider cm; i 102.5 - tobe: 103.75 had dalouing pine sand; hard consider cm; i 102.5 - tobe: 103.75 had dalouing 104.5 · 104.5 · course i hard consider cm; i 105.5 · 105.5 · 103.75 had dalouing 105.5 · 105.5 · 105.5 · course i hard consider cm; i 104.5 · course i hard consider cm; i 105.5 · 105.5 · 103.75 had dalouing 105.5 · 105.5 · 103.75 had dalouing 105.5 · 105.5 · 103.75 had dalouing 105.5 · 105.5 · course i hard consider cm; i 105.5 · 105.5 · 105.75 · course i hard consider cm; i 105.5 · 105.5 · 105.75 · course i hard consider cm; i 105.5 · 105.5 · 105.75 · course i hard consider cm; i 105.5 · 105.5 · course i hard consider cm; i 105.5 · 105.5 · course i hard consider cm; i 105.5 · 105.5 · course i hard consider cm; i 105.5 · 105.5 · course i hard consider cm; i 105.5 · 105.5 · course i hard consider cm; i 105.5 · 105.5 · course i hard consider cm; i 105.5 · 105.5 · course i hard consider cm; i 105.5 · 105.5 · course i hard consider cm; i 105.5 · 105.5 · course i hard course i hard; i 105.5 · 106.5 · 107.5 · course i hard; i course i hard; i 105.5 · 106.5 · 107.5 · course i hard; i course i hard; i 105.5 · 106.5 · 107.5 · course i hard; i course i hard; i 105.5 · 107.5 · course i hard; i course i hard; i 107.5 · course i hard; i course i hard; i course i hard; i 107.5 · course i hard; i course i							dry to moist	CH					
$\frac{1}{1650} = \frac{1}{10} = \frac{1}{17} \frac{1}{10} = \frac{1}{17} \frac{1}{10} = \frac{1}{10} \frac{1}{10} \frac{1}{10} = \frac{1}{10} \frac{1}{10} \frac{1}{10} = \frac{1}{10} \frac{1}{10} \frac{1}{10} \frac{1}{10} = \frac{1}{10} \frac{1}{1$	255	44 -	94-		6 "	spaplala	an are cold of the		PIDe 1 AGE 1 A TO THE				
$1650 \qquad 10^{46} - \frac{12^{48} 94.5^{12} 2 \text{ cm of ftim larges of mudstone and states?, my hard mudstone and states?, my hard mudstone and states?, my hard 12^{48} \frac{94'-100'}{100} \cdot \frac{12^{48} 90'/Mds}{100} \frac{94'-100'}{100} \cdot \frac{125' (0 \text{ stell and my hard of the states})}{102,5-100} CL = 10 \cdot 0.3 \text{ pp m}$	、ラコン	95	117			1/2405,	(2,5 y 2,5/1); as a loure !	-	hardlauger / sola 2				
1440 19-19-12" spaint of the construction of		96 -		ĺ			194.5 1: 2 cm of this laws of	}					
$1440 \qquad \frac{98}{19} - \frac{12^{44} \text{ spr}/266}{100} = \frac{94^{4} - 100^{4} \text{ scl} 25^{4} \text{ sol} 5162 \text{ sond very}}{100} \frac{98 - 100^{4} \text{ sol} 20^{4} \text{ sol} 25^{4} \text{ sol} 5162 \text{ sond very}}{100} \frac{910 \text{ sol} 20^{4} \text{ sol} 25^{4} \text{ sol} 100^{4} \text{ sol} 25^{4} so$		97 -				1	mudstone and stake, very hard						
1440 199-		100-						ļ					
1440 100 100 12" spar/lds <u>12" spar/lds</u> <u>102.5 - top. 103.5 should debuig</u> <u>1550</u> <u>104-</u> <u>6" spar/lds</u> <u>104.0 - 104.5 1 silly saud; <u>SN(2 top 100 - 103.5 should debuig</u> <u>1550</u> <u>104-</u> <u>6" spar/lds</u> <u>104.0 - 104.5 1 silly saud; <u>SN(2 top 100 - 103.5 should debuig</u> <u>1550</u> <u>104-</u> <u>1.5" spar/lds</u> <u>104.0 - 104.5 1 silly saud; <u>SN(2 top 100 - 103.5 should debuig</u> <u>1550</u> <u>104-</u> <u>1.5" spar/lds</u> <u>104.0 - 104.5 1 silly saud; <u>SN(2 top 100 - 103.5 should debuig</u> <u>1650</u> <u>101-</u> <u>1.5" spar/lds</u> <u>109.0 - 109.2 : silly saud; <u>SN(2 top 100 - 103.5 should debuig</u>) <u>102-in suppi ient saugle</u> <u>1650</u> <u>101-</u> <u>1.5" spar/lds</u> <u>109.0 - 109.2 : silly saud; gray</u> <u>5M</u> <u>5M</u> <u>5M</u> <u>5M</u> <u>105-in suppi ient saugle</u> <u>1650</u> <u>101-</u> <u>1.5" spar/labs</u> <u>109.0 - 109.2 : silly saud; gray</u> <u>5M</u> <u>5M</u> <u>5M</u> <u>5M</u> <u>5M</u> <u>5M</u> <u>5M</u> <u>5M</u></u></u></u></u></u>		10						l					
1550 102 1.5" app/labs 109.0 - 109.2 : subhu sand; gray 1650 104- 1650 104- 172 104- 174 104- 174 104- 174 104- 174 104- 175 104- 1	14100	14-	aq-		124	spaller	99'-100': clay; black (2.5' 2.5/1)	CL	PIDER Jones				
1550 104- 1550 104- 16" 94/lobs. 104.0-104.51 sidly sand; <u>SH/S</u> 102,5- total. 103,5-haddreduig 1550 1045 6" 94/lobs. 104.0-104.51 sidly sand; <u>SH/S</u> 104.5 haddreduig yor 0.5" 1550 1045 6" 94/lobs. 104.0-104.51 sidly sand; <u>SH/S</u> 104.5 haddreduig yor 0.5" 1550 1045 104.5 104.5 104.51 104.51 104.5 haddreduig yor 0.5" 1550 1045 104.5 104.5 104.51 104.51 104.5 haddreduig yor 0.5" 1550 1045 1.5" 950/labs. 109.0-104.2: sidly sand; <u>Braden</u> 100-25% 1650 104- 1650 105 1.5" 950/labs. 109.0-104.2: sidly sand; gray 1650 104- 1650 104- 1650 104- 1650 104- 1650 105 1.5" 950/labs. 109.0-104.2: sidly sand; gray 1650 104- 1650 104- 1650 104- 1650 104- 1650 104- 1650 104- 1650 105 1.5" 950/labs. 109.0-104.2: sidly sand; gray 1650 104- 1650 104- 172 1	1740	-100	_100_			Thomas.	lease day - 125 % silt and very	<u> </u>	то стрри				
1550 102,5 - title. 103,8=haddreding 1550 105 145 6" 94/lds. lote-loces 1 sich sand; <u>SM/2</u> to be 0,2 pp in 1550 105 1045 6" 94/lds. lote-loces 1 sich sand; <u>SM/2</u> to be 0,2 pp in 1550 105 1045 6" 94/lds. lote-loces 1 sich sand; <u>SM/2</u> to be 0, 2 pp in 1550 105 1045 6" 94/lds. lote-loces 1 sich sand; <u>SM/2</u> to be 0, 2 pp in 1550 105 1045 6" 94/lds. lote-loces 1 sich sand; <u>SM/2</u> to be 0, 2 pp in 1550 105 1045 6" 94/lds. lote-loces 1 sich sand; <u>SM/2</u> to be 0, 2 pp in 1550 105 1045 6" 94/lds. lot 0, 0 - 104, 2 : sich sand 20 - 25% 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 1650 100 103.2 1.5" (psp/labs 109,0 - 104, 2 : sich sand; gray 172 change? 172 change? 172 change? 174 100 100 100 100 100 100 100 100 100 10				ļ		i	fine sand; hard considency;	Į	-				
1550 102, 5 - 102, 5 - 103, 8 = had dela Dig 1550 104.5 6" \$P\$/(chs. 104.0-104.51 sich sand; <u>5N/2</u> the second of the second dela gray to very dask gray C 2.5 S 4 11 to 311); very fine to fine SM Sand with 25 % siet and 20-25% clane; hard consistency; breaks into this - these layer ("flaky"); seighter moist; semi-consolidated 1650 110 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray C 2.5 S 4 5/1); as above 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray C 2.5 S 4 5/1); as above 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 1650 100 103, 1.5" Gsp (aks 109.0-109.2: subhy sand; gray 172 Change? 172 Change? 173 103, 103 100 100 103, 103 100 100 103, 103 100 100 103, 100 100 103, 100 100 103, 100 100 100 100 100 100 100 100 100 10		-					dry to hightly moist						
1550 104- 1									102,5 - 103,8 - hard dreping				
1550 105 1045 6" 977/lds. 104.0-104.51 silly sand; <u>SN/SC 104.500</u> pt D = 0.2 pp in darle gray to very darle gray C 2.5 S 4/1 to 3/1); very fine to fine SM Sand with 25 % sill and 20-25% clary; hard consistency; breaks into him - trice largerst "flake"); slightey wo ist; semi-consolidated 1650 100 105.00 105.00 1.5" Gost (abs. 109.0-104.2: silling sand; gray C 2.5 S 5/1); as also ve 1650 100 105.00 105.00 1.5" Gost (abs. 109.0-104.2: silling sand; gray C 2.5 S 5/1); as also ve 114.0-114.3: sand pele yellow (SS7/3).77 very fine to worth istel 105.00 104.00 104.00 - 104.2: silling sand; gray 114.0-114.3: sound pele yellow (SS7/3).77 very fine to worth indiven sand; '2 change? 104.00 104.00 - 104.0			ł						sstone 2				
1650 Ho 102- 1650 Ho 103- 1650 Ho 103- 1650 Ho 103- 1650 Ho 104- 1650 Ho 104- 172 Change? 172 Change? 172 Change? 173 Ho 104- 174 Ho 114- 174 Ho 114- 174 Ho 114- 175 Ho 114- 1	1550		104-		67	SP#/lats.	104.0-104-51 suchy sand; SN/SC 904	1	PLD= 0.2 ppm				
1650 10 101- 1650 100- 1650 100- 172 100- 1		195					dark gray to very dark gray						
1650 Ho 104.7. 1.5" Cpsp/Cate 109.0-104.2: sikhy sand; gray SM piD=insufficient sample 1650 Ho 104.7. 1.5" Cpsp/Cate 109.0-104.2: sikhy sand; gray SM piD=insufficient sample (2.5 y 5/1); as aloove SM 114.0-114.3: sound pole yellow (537/3); 2 114.0-114.3: sound pole yellow (537/3); 3 114.0-114.3: sound pole yellow (537/3				ĺ			(2.5 y 4/1 to 3/1); very fine to fine	SM					
1650 Ho 104- 1650 Ho 104- 1650 Ho 104- 1650 Ho 104- 105-		1 -		(-		elan: hard consistences breaks		-				
1650 110 101- 1650 110 101- 1.5" Group (Paber 109.0-109.2: sicher sand; group SM piD=insufficient sample (2.5 y 5/1); as above SM 114.0-114.3: sound pale yellows (5y773) 7/2 change? 114.0-114.3: sound pale yellows (5y773) 7/2 change?		-	'	(into mu - thice layers "flaker");		-				
1650 Ho 109.7. 1.5 "Good log 0 - 109.2: silling sand; gray SM PID=insufficient sample (2.5 y 5/1); as above SM PID=insufficient sample 114.0-114.3: sand rele yellow (597/3); 2 Very fine to sand rele yellow (597/3); 2 Very fine to sand rele yellow (597/3); 2 (14,0-114,3: sand r							slightly moist; semi-consolidated		· _				
14.0-114.31 sound pele yellow (557/3)? 14.0-114.31 sound pele yellow (557/3)? Very frie to the first madium sound; 4.14.0-114.31 sound ed; postially comented 14.0-114.31 sound ed; postially come	1650	110	101-		1.5"	fiss labo	109.0-109.2: sicher sand; gray	5M	PID= in sufficient sumple				
114,0-114,31 sound pele yellow (55773) ?? PID ~ in sufficient sample 114,0-114,31 sound pele yellow (55773) ??? change? Very fine to execting medium sand; 445 mounded ; postially comented 114- 114- 114- 114- 114- 143- 143- 143- 144-	1020			1		1 1 1	(2.54 5/1); as above	SM					
14.0-114.3: sand pele yellow (5373)? Very fine to werty medium sand; 22 change? (4.6 rounded; postially cemented (4.6 rounded; postially cemented (4.6 rounded; postially cemented (4.6 rounded; bad store; had consistency; 5w			1	Ì				and	PID = in sull's cient sample				
14- 14- 14- 143 appleto g. to sand store; had consistency; SW			ĺ	1			114.0-114.31 Sound rale yellow (5)7/3	125	chauge?				
1735 - 114- 143 - 4 spopplabo, to sand store; had carsis tency; SW		-	}	1			very fine to medium sand ;	1=	- unige .				
1735 143 12 3pp//way very hard to use curses mug Sw	_	-	114 -	1	•		to sounded ; postially cemented						
	1735		14.3		\$ 3	spip/yaos	very moist to wet	SW					

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-	CM	BE	nvir	onn	nental (& Geological Services, Inc.	Bo	ring ID: mw-3
	Pro Loc Clie	oject: catior	1:		Sta NMS	hion 11 SA-1 WDCO station 11	She	$\frac{5066}{1000}$
	Dri	ller:	neth	od	GPI		Tota	al depth: $139'865$ (well)
	Bor Wa	ing c ter le	late: evel:	00.	6722	07 (completed 6/26/07)	Log	iged by: <u>Llough</u>
			AMPL	E	speit	spoon = spsp / Labsample = l Soil Description	abs	COMMENTS
;24/07 TIME	depth (ft	interval	number	ecovery inches)	Benetration test-results	Color, soll type, relative density or consistency, mineralogy, USGS classification moisture content	graphic log	Monitoring well installation, geotechnical properties, analytical tests, instrumentation
0730	-			20			sw	6/24/07 0730/1925 Boneholdugto 113.7 BG
	-							
0840	-	119		12 H	spsp/eabs	\$19-120 : sand; light gray (557/2)	sp	munized yop to get enough inderial
•	-	120				mostly medium vounded cand; 2% very small rounded gravel	SP ====	for a permeability test
·						soft in spop ; wet	\$φ ====3	TRIPOUT 31/1" and and continue
	-						SP	dribling w/ 4//4" angers w/anker plug !"
	125						SP	120' to 125': a face < 2/10" this 2 hard layers
			-					125 to 135: "soft" material
	130					· · · · · · · · · · · · · · · · · · ·		
							}	-
10.5							ł	1525 marad by 134'
6/25/07	135							6/25/07 . DTW - 113' BGS
0730							}	while setting the 2" pvc monibr well
			l	-				
	140					139' = TD of Barehole		_
	-							
							}	
					ļ			
	L]					L	

Pr	oject			Statio	x11. SA-1	Shee	et: <u>6 of 6</u>
	catio enti	n:		NMSL	JDCO Station 11	- Ioh	number: AMERICA SA-L
Dr	iller:			C PT		Tota	al depth: Bac 129' 16mpg
Dr	illina	meth	nod:	HSA		Bori	ng diameter: $2/4$, $4/2$ $24/4$, $4/2$
Bc	ring	date:		6/6/0	7 Compalated 6/20/07)	Load	aed by: L. RoughA
Wa	ater l	evel:		·····		Date	e measured:
5		SAMPL	.E	standard	SCIL DESCRIPTION		COMMENTS
th (f	<u>I</u>	ber	very les)	penetration test results	Color, soil type, relative density or consistency.	oinde Dinde	Monitoring well installation, geotechnical
de	inte	มกน	(inct		mineralogy, USGS classification moisture content	5	properties, analytical tests, instrumentation
				WELL	SCHEMATIC MW-3		_
ļ.	-						-
	4	1			metal	rise	F -
.	1				sticleup	=3,0	
		 			-3X3X44	con	crelepad
	-				50 50	e cer	ment l'bentonite grout-
					o' - 1 !'t.'	5' 2:	"SCH40 PVC blank caping
]				100 10 11 10 11 96-109.5	= 50	ough (mostly site line sand
					2		
.]				109.5-13	5.0	= 16130 Silica sandfiltesp
.]			Į	14.5-13	דין	and lushthreaded a
] .	}			129 1990 : 2013-135-139'=	5200	eah 7
-]				TD=39'BGF		7
					- Nel Data RES-		
-]	[- NOTTOSCALE-		1
.]		•				7
{ .]	{			3 de sa		
.							
					Sailed approximation is	0	a ha ha
.	1			~	there is shill t/ 2' - 0 - at -	fron	n well 11140-3 -
{ •	1			_	slow recoverie I of self a	h u	ell -
1 -	4	(0	1 1	6 / / ···

Pro	ject:			Stati	ion 11/ SA-1Sheet: I of 1
Location:				NMSW	DCO - Station II
Clie	ent:			NMSH	JOD Job number: NMSWD SAI
Dri	ller:			Sneo Proye	cts Finterna Hom (GPI) Yese Lunders Total depth: 33' BGS
Un	lling r	metn Iatai	oa:	Hollon	Designed by the second by the
BOI	ing c	ate.		2. 1	22 of Date measured: Children in
110				Dry TO	5,5 <u>6</u> 6 5 Dute measured. <u>672707</u> 10
2	5	SAMPL	E.	standard	SOIL DESCRIPTION COMMENTS
th (f	Ē	Ĕ	/ery (cs)	penetration	Color, soil type, relative density or consistency.
dep	inter	En C	recov (inch		mineralogy, USGS classification moisture content by properties, analytical tests, instrumentation
				<u>├</u>	No Boring Log Recorded GPI dieled to 24 BGS
- 1		_			before going on their days off.
-			{		in a sol plan of towards out the bottom plug,
-	{			·	Drilled to 35 005 and venter the well casing is at 7-32' BGS.
{ -	{			{	The casing sping lengthe inside the casing @ 32.8'. with 0.4'of
					end cap, the screen is @ 324 (intrada @ 333, Bas)
-	$\left\{ \right\}$			Į	DELL CONFINENTIC PINEL
-					- CELL Setremmine -
-					the metal riser
.					Stickup =2.5
					or 3'X3'X4" concrete pad
_				ŗ	0-22.4= 4"SCH 46 PVC blank caping
					/////_o'-17' = coment/bentonite ground
)	
		. {			
	·.				the state of the s
1					(F.O - 20.0) = Bentonite chups nyating
-					20.0-33.0'= 16/30 silica cand picks pa
			-)	
-					1
-					
					30 till Line Dia Milling
-					32.4-32.8 = 4 SCH 40 PV C peuse minetada min
				1	>> TD = 33 BGS auger peug
-					- BOO DOL- BCC-
-					ITCL DOLTA DUSS -
Ì					Not to scala.

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1 Ō 13:30 Started Poil 4 well. 13:36 8 580 7.79 23.70 2510 282 Lun Time a D.O. 24. TOC Cover. 12 V Remarks 12:25 They - DUMPED Day Bedithe 2 Cylol. a / Gom - 4 621 ans punger Mu-1: 2" SCH 40 PUC . MW C13:15-DTW = 117.23 T.D. = 135.46 WC = 18.23 2.51 Caller (Wall Vol. 「「「「「「「」」」」」 4: CMS let reclarise l'o minutes 12:35 Pr-5/3rtes pumpry - 16Pm Dumped Day a 2.5 Sallous Dupsed. hill Il reclaus Page 2 ar 5 by: Ch Ing men-300 = 8,75 Sallons. 0.00 hour MNSWD Co. and a start of the 5 1023677423.47° -37,72427 Fire "11 24 Sur Sur Sur Sur 5 5.09 11:43 15 260 7.42 22.090-37.3427 Free 10:30 8-10 11:50 DTW = 117.95 ' TD = 130,0 Sit DTW = 1 50066 < 11:35 TM 60000 mines Will 19701 Tax Well GW Samply 3.3 gal / well Volume. 21.04 Will Butis by drillers 20 gal of Time Par D.D. OH TOC COND Runde Gedlogical Services Inc. Faje 1 ac 5 Eyons MW-2: 211 SCH 40 PUC MW 10:36 DTW = 116.51 TD. = 137.95 301 = 10 52/1045 Water Column = 11:02 (mital/18 7.54 23.16 495/4141 Fine 11:04 DRy: - Ardithaz submerside Sitt 5:14 - 50 to 20 moreside Sitt WMSW DCo Station #1/ 07/09/07 Repaired New Mexico Salt Water pringer & / 6pm. the CmB Environ ments 1 & - Recharge 10 minutes. 11:33 > patino at; 1.16 Started 74 × 40 mic Dian Le K

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() 12:51 7.2/10 85 80.1 12:0210 2.35 8.43 1:50 5 4.29 8.44 ine Q D.O MW-3 : 2" SCH 40 PUC MW 2:40 15 2.84 NIM SWDO Co. Status 100 2 1211 1048-1 6 6 20 4.92 8.16 1 Marse 40/ nu 02 199/142 Stage N. () () () SURSE U V G35m Uslone = 5401103 183.49 101 - MU (0)0 4 02 Seo/ 0 novea look a Sample 8.50 i. OUNAC J. W. 0 Absto nert ANIONS O Dao b Water Column= 1813 No. 19.73 3986 19.33 3471 5.66 3.5.5 DTW=116-85 10ge 30x 5 Saller mw -3 という 2 Dissolura 0 - Sull. Levond. 3CU= 8.7052. 1. Oo hove ' 5) as Gou 1/0.071 C+7+ 12 300love 0 4000 · well wer € By Cing 143.5. Truss EN Demants -137 Toxbib -57.8 TUNA Ð 1-1 TORAL Dout-• 0 0 4 Janil Aw-1 0 LOUISAN N/MSWD La Station !! Pridues Propose Clien Stage 1 Abote ment Prolong 136×2 mon Bols, BTEX Suz 1, Arrians d hour × 125 m2 P/ Have the Soy, prt, of mon SUS Change 4x 40mc Vor's 0 4x 40mc Voa's Fre Port = 11 (12) 134 : Child 0 ₽ 2 Chord 12 Cotions 12250 nc P Q 13:00 hove 29.92 Azo C ne l 0 The set 1 2 E-MU € 0 R ₽ 1× 125 mil Hych tur HASNY ters SQL ' DLO BTEN SOL 19.80 Toc 6 ONC OF 0 unte D 124 4ar 5 15:30 2 0/an 0 4 (Greo) Abre 調護

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141 0 34. 20 59 N× 250 X Sampled NW binemill 250 AL MSWDCO 1 - 40/M 12 S もにし 7.65 5444 50L 1 DEC Gy: CMB 9627 Craca 1 3 600 Stature / Out 3.28° 2206 -62.40 Can 99 orepinates: 254 & Nise 0% Tions - 300.0 PURC, 50 00W bove ß 1 COND EV Acmos 80 SUB mersible 0 1460 S 0 7/10/ 30 hove はちん Luc Ly 5052 7055 7 Cleve 1025 201 remarks 1 1 Ð 1 toc.lion ... Trojeci / Murti 0 0 にしょうの運動 0 0 0 Ð Ð 日本はないためのに、人口の時間になった 0 0 11215 0 0 0 0 0 1 A ₿ 0 0 6

Appendix 6: Laboratory Analysis Reports

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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

Dear Clayton M. Barnhill:

Order No.: 0706235

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 E Fax 505.345.4107 www.hallenvironmental.com

Hall Enviro	nmental Analysis	Laborat	ory, In	ıc.	Date:	09-Ju	1-07
CLIENT: Lab Order: Project: Lab ID:	New Mexico Salt Water I 0706235 NMSWDCO - Station 11 0706235-01	Disposal Co		C	lient Sample ID: Collection Date: Date Received: Matrix:	MW- 6/12/2 6/15/2 SOIL	1 (0-2.0) 2007 2:00:00 PM 2007
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 80	15B: DIESEL RANGE OR	GANICS					Analyst: SCC
Diesel Range Orga	anics (DRO)	ND	10		mg/Kg	1	6/20/2007 11:31:26 AM
Motor Oil Range C	Irganics (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 80	15B: GASOLINE RANGE						Analyst: NSB
Gasoline Range O	rganics (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 80	21B: 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
Elhylbenzene		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-Bromoflu	uorabenzene	85.1	68.2-109		%REC	1	6/21/2007 1:49:47 PM
EPA METHOD 90	56A: ANIONS						Analyst: CMS
Chloride		ND	3.0		mg/Kg	10	7/4/2007 1:17:42 PM

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Qu	alif	ìer	"S:

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Value exceeds Maximum Contaminant Level

E Value above quantitation range

J Analyte detected below quantitation limits

ND -Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits 5

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Page 1 of 16

Hall Environmental Analysis Laboratory, Inc.

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Date: 09-Jul-07

CLIENT:	New Mexico Salt Wa	ater Disposal C	Ο.	Client Sample	ID: MW-	1 (4.0-5.0)			
Lab Order:	0706235			Collection I	Date: 6/12/2	2007 2:20:00 PM			
Project:	NMSWDCO - Statio	n 11		Date Recei	Received: 6/15/2007				
Lab ID:	0706235-02			Ma	trix: SOIL				
Analyses	· · . · · · · ·	Result	PQL	Qual Units	DF	Date Analyzed			
EPA METHOD	8015B: DIESEL RANGE	ORGANICS				Analyst: SCC			
Diesel Range C	rganics (DRO)	ND	10	mg/Kg	1	6/20/2007 12:06:24 PM			
Molor Oil Range	e 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 RAI	NGE				Analyst: NSB			
Gasoline Range	e Organics (GRO)	ND	5.0	mg/Kg	1	6/21/2007 3:21:55 PM			
Surn 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			
Elhyibenzene		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-Brom	ofluorobenzene	86.6	68.2-109	%REC	1	6/21/2007 3:21:55 PM			
EPA METHOD	9056A: ANIONS					Analyst: KS			
Chloride		150	3.0	ma/Ka	10	6/23/2007 6:42:04 PM			

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

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Hall Environmental Analysis Laboratory, Inc.

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Date: 09-Jul-07

CLIENT:	New Mexico Salt W	ater Disposal Co	D. .	Client S:	mple ID:	MW-	1 (9.0-9.3)
Lab Order:	0706235			Collect	ion Date:	6/12/2	2007 2:35:00 PM
Project:	NMSWDCO - Stati	on 11		Date	Received:	6/15/2	2007
Lab ID:	0706235-03				Matrix:	SOIL	
Analyses	· · · · · · · ·	Result	PQL	Qual Units		DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANG	E ORGANICS					Analyst: SCC
Diesel Range C)rganics (DRO)	ND	10	mg/Kg		1	6/20/2007 1:16:51 PM
Motor Oil Rang	e 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 RA	NGE					Analyst: NSB
Gasoline Range	e Organics (GRO)	NÐ	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	0.1 0	mg/Kg		1	6/21/2007 3:52:41 PM
Surr: 4-Brom	ofluorobenzene	86.3	68.2-109	%REC		1	6/21/2007 3:52:41 PM
EPA METHOD	9056A: ANIONS						Analyst: KS
Chloride		130	1.5	ma/Ka		5	7/1/2007 6:44:44 PM

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

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Hall Enviro	nmental Analysis	Labora	tory, In	ic.	Date:	09-Ju	1-07
CLIENT: Lab Order:	New Mexico Salt Water I 0706235	Disposal Co).	Client Sa Collect	mple ID: ion Date:	MW- 6/12/2	1 (14.0-14.5) 2007 2:50:00 PM
Project:	NMSWDCO - Station 11			Date I	Received:	6/15/2	2007
Lab ID:	0706235-04				Matrix:	SOIL	
Analyses	• •	Result	PQL	Qual Units		DF	Date Analyzed
EPA METHOD 80	15B: DIESEL RANGE OR	GANICS					Analyst: SCC
Diesel Range Org	anics (DRO)	ND	10	mg/Kg		1	6/20/2007 1:52:09 PM
Motor Oil Range 0	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 80)15B: GASOLINE RANGE						Analyst: NSB
Gasoline Range C	Drganics (GRO)	ND	5.0	mg/Kg		1	6/21/2007 4:23:42 PM
Sun: BFB		109	84-138	%REC		1	6/21/2007 4:23:42 PM
EPA METHOD 80	21B: 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-Bromofl	uorobenzene	84.1	68.2-109	%REC		1	6/21/2007 4:23:42 PM
EPA METHOD 90)56A: ANIONS						Analyst: KS
Chloride		210	1.5	mg/Kg		5	7/1/2007 7:02:08 PM

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B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

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E Value above quantitation range

ND Not Detected at the Reporting Limit

Value exceeds Maximum Containinant Level

Spike recovery outside accepted recovery limits

Analyte detected below quantitation limits

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Date: 09-Jul-07

CLIENT:	New Mexico Salt Wi	ater Disposal Co		Client Sa	ample ID:	MW-	1 (19.0-20.0)			
Lab Order:	.ab Order: 0706235			Collection Date:			6/12/2007 3:10:00 PM			
Project:	NMSWDCO - Statio	n 11		Date 1	Received:	6/15/2	2007			
Lab ID :	0706235-05				Matrix:	SOIL				
Analyses		Result	PQL	Qual Units		DF	Date Analyzed			
EPA METHOD	BO15B: DIESEL RANGE	ORGANICS		····			Analyst: SCC			
Diesel Range O	rganics (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	3015B: GASOLINE RAI	NGE					Analyst: NSB			
Gasoline Range	Organics (GRO)	ND	5.0	тд/Кд		1	6/21/2007 4:54:43 PM			
Surf: 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-Bromo	ofluorobenzene	84.7	68.2-109	%REC		1	6/21/2007 4:54:43 PM			
EPA METHOD	056A: ANIONS						Analyst: CMS			
Chloride		620	6.0	mg/Kg		20	7/4/2007 1:35:06 PM			

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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

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Date: 09-Jul-07

CLIENT:	New Mexico Salt W	/ater Disposal C	ю.	Client Sam	ole ID: MW-	1 (24.0-25.0)
Lab Order:	0706235			Collection	Date: 6/12/2	2007 3:25:00 PM
Project:	NMSWDCO - Stati	on]]		Date Rec	eived: 6/15/2	2007
Lab ID:	0706235-06			N	latrix: SOIL	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANG	E ORGANICS				Analyst: SCC
Diesel Range O	rganics (DRO)	ND	10	mg/Kg	1	6/20/2007 3:02:41 PM
Motor Oil Range	e 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 RA	NGE				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	BO21B: 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-Bromo	piluorobenzene	87.5	68.2-109	%REC	1	6/21/2007 5:25:32 PM
EPA METHOD 9	9056A: ANIONS					Analyst: KS
Chloride		1000	6.0	mg/Kg	20	7/1/2007 8:11:47 PM

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* Value exceeds Maximum Contaminant Level

E Value above quantitation range

- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit

5 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

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CLIENT:	New Mexico Salt W	/ater Disposal C	0.	Client Samp	le ID: MW-	I (29.0-30.0)
Lab Order:	0706235			Collection	Date: 6/12/2	2007 3:45:00 PM
Project:	NMSWDCO - Stati	on 11		Date Reco	eived: 6/15/2	2007
Lab ID:	0706235-07			M	atrix: SOIL	
Analyses	· ·	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANG	E ORGANICS				Analyst: SCC
Diesel Range (Organics (DRO)	ND	10	mg/Kg	1	6/20/2007 3:38:48 PM
Molor Oil Rang	e 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 RA	NGE				Analyst: NSB
Gasoline Rang	e 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
Taluene		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-Brom	olluorobenzene	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

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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

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Hall Envir	onmental Analysis	Da	ite: 09-Jul	-07		
CLIENT: Lab Order: Project:	New Mexico Salt Water 0706235 NMSWDCO - Station 11	Disposal Co	D.	Client Sample Collection Da	(D: MW-1 ite: 6/12/2	(34.0-35.5) 007 4:05:00 PM
Lab Die	0706225 09			Date Receiv	ea: 6/15/2 fix: SOU	007
Analyses		Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE OR	GANICS		······································		Analyst: SCC
Diesel Range C	Organics (DRO)	ND	10	mg/Kg	1	6/20/2007 4:14:07 PM
Motor Oil Rang	e Organics (MRÓ)	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 Rang	e Organics (GRO)	ND	5.D	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-Brom	ofluorobenzene	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

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H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Qualifiers:

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ε Value above quantitation range Analyte detected below quantitation limits J

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Value exceeds Maximum Containinant Level

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CLIENT: Lab Order: Project: Lab ID:	New Mexico Salt W 0706235 NMSWDCO - Stati 0706235-09	/ater Disposal Co		Clien Col Di	t Sample ID: lection Date: ate Received: Matrix:	MW-1 6/12/20 6/15/20 SOIL	(39.0-40.0) 007 4:40:00 PM 007
Analyses		Result	PQL	Qual Ur	its	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANG	E ORGANICS					Analyst: SCC
Diesel Range (Organics (DRO)	ND	10	mg	/Kg	1	6/20/2007 4:49:40 PM
Molor Oil Rang	e Organics (MRO)	ND	50	៣ឮ	/Kg	1	6/20/2007 4:49:40 PM
Sur: DNOP		98.6	61.7-135	%F	REC	1	6/20/2007 4:49:40 PM
EPA METHOD	8015B: GASOLINE RA	NGE					Analyst: NSB
Gasoline Range	e Organics (GRO)	ND	5.0	mg	/Kg	1	6/21/2007 7:58:32 PM
Surr: BFB		110	84-138	%F	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, Tolal		ND	0.10	mg	/Kg	1	6/21/2007 7:58:32 PM
Surr. 4-Brom	ofluorabenzene	84.8	68.2-109	%F	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

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 Qualifiers:
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 Value exceeds Maximum Contaminant Level

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 Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

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B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

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Date: 09-Jul-07

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Date: 09-Jul-07

CLIENT: Lab Order: Project: Lab ID:	New Mexico Salt W. 0706235 NMSWDCO - Static 0706235-10	ater Disposal C on 11	0.	Client Sample Collection Da Date Receiv Matu	ID: MW- nte: 6/13/2 ed: 6/15/2 fix: SOIL	1 (40.7-41.2) 2007 9:15:00 AM 2007
Analyses	<u></u>	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE	EORGANICS				Analyst: SCC
Diesel Range C	Organics (DRO)	ND	10	mg/Kg	1	6/20/2007 5:25:07 PM
Motor Oil Rang	e 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 RA	NGE				Analyst: NSB
Gasoline Range	e 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-Brom	ofluorobenzene	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:

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* 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

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Hall Envir	onmental Analysis	s Labora	tory, ir	10.	Date:	09-Jui-	-07
CLIENT:	New Mexico Salt Wate	r Disposal Co).	C	lient Sample ID:	MW-1	(44.0-45.3)
Lab Order:	0706235				Collection Date:	6/13/20	007 10:15:00 AM
Project:	NMSWDCO - Station	1			Date Received-	6/15/20	07
Lab ID:	0706235 11				Matrix	SOU	
1.40 1.	0700255-11					UUIE	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE C	RGANICS					Analyst: SCC
Diesel Range C	Irganics (DRO)	ND	10		mg/Kg	1	6/20/2007 7:46:03 PM
Motor Oil Rang	e 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 RANG	E					Analyst: NSB
Gasoline Range	e 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	T	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-Brom	olluorobenzene	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

Qualifie	r5:
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\$.	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

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Date: 09-Jul-07

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Hall Environmental Analysis Laboratory, Inc.					Date:	09-Jul-07		
CLIENT: Lab Order: Project:	New Mexico Salt Water 0706235	'ater Disposal Co.			Client Sample ID: Collection Date:		MW-1 (49.0-49.5) 6/13/2007 10:55:00 AM	
Lab ID:	0706235-12	I			Date Received: Matrix:	SOIL	/ 0/	
Analyses	· · · · · ·	Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE OF	RGANICS					Analyst: SCC	
Diesel Range C	Organics (DRO)	ND	10	r	ng/Kg	1	6/20/2007 8:20:57 PM	
Motor Oil Rang	e Organics (MRO)	ND	50	r	ng/l <g< td=""><td>1</td><td>6/20/2007 8:20:57 PM</td></g<>	1	6/20/2007 8:20:57 PM	
Surr: DNOP		98.8	61.7-135	Ľ	%REC	1	6/20/2007 8:20:57 PM	
EPA METHOD	8015B: GASOLINE RANGE	E					Analyst: NSB	
Gasoline Range	e Organics (GRO)	ND	5.0	ı	ng/Kg	1	6/21/2007 9:29:49 PM	
Surr: BFB		108	84-138	t,	%REC	1	6/21/2007 9:29:49 PM	
EPA METHOD	8021B: VOLATILES						Analyst: NSB	
Benzene		ND	0.050	r	ng/Kg	1	6/21/2007 9:29:49 PM	
Toluene		ND	0.050	ſ	ng/Kg	1	6/21/2007 9:29:49 PM	
Ethylbenzene		ND	0.050	r	ng/Kg	1	6/21/2007 9:29:49 PM	
Xylenes, Total		NÐ	0.10	r	ng/Kg	1	6/21/2007 9:29:49 PM	
Surr: 4-Brom	olluorobenzene	81.0	68.2-109	c	%REC	1	6/21/2007 9:29:49 PM	
EPA METHOD	9056A: ANIONS						Analyst: KS	

6.0

mg/Kg

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7/1/2007 9:56:16 PM

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Value exceeds Maximum Contaminant Level

Analyte detected below quantitation limits

Spike recovery outside accepted recovery limits

Value above quantitation range

ND Not Detected at the Reporting Limit

Qualifiers:

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Chloride

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B Analyte detected in the associated Method Blank

- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level

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RL Reporting Limit

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健 Date: 09-Jul-07

CLIENT: Lab Order: Project: Lab ID:	New Mexico Salt W 0706235 NMSWDCO – Statio 0706235-13	ater Disposal Co	•••••	Client Sa Collect Date I	mple ID: ion Date: Received: Matrix:	MW-1 (54.0-54.3) 6/13/2007 11:20:00 AM 6/15/2007 SOIL		
Analyses		Result	PQL	Qual Units		DF	Date Analyzed	
EPA METHOD	B015B: DIESEL RANG	E ORGANICS		<u> </u>			Analyst: SCC	
Diesel Range O	rganics (DRO)	ND	10	mg/Kg		1	6/20/2007 8:55:57 PM	
Motor Oil Range	e 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 RA	NGE					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-Bramo	olluorabenzene	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	

Ĩ.			U	Analyte detected in the associated internot di	ank
1-	E	Value above quantitation range	H	Holding times for preparation or analysis exce	2eded
t	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level	
N	١D	Not Detected at the Reporting Limit	RL	Reporting Limit	
c	5	Spike recovery outside accepted recovery limits		Pa	ige 13 (

Page 13 of 16

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Hall Enviro	ıc.	Date: 09-Jul-07					
CLIENT: Lab Order:	New Mexico Salt Water 1 0706235	Disposal Co.		Cli C	ent Sample ID: Collection Date:	MW-1 6/13/20	(63.5-64.0) 007 12:25:00 PM
Project:	NMSWDCO - Station 11				Date Received:	6/15/20	07
Lab ID:	0706235-14				Matrix:	SOIL	
Analyses	· · · · · · · · · · · · · · · · · · ·	Result	PQL	Qual 4	Units	DF	Date Analyzed
EPA METHOD 8	015B: DIESEL RANGE OR	GANICS			·····		Analysi: SCC
Diesel Range Or	ganics (DRO)	ND	10	r	ng/Kg	1	6/20/2007 9:31:02 PM
Molor Oil Range	Organics (MRO)	ND	50	r	ng/Kg	1	6/20/2007 9:31:02 PM
Surr: DNOP		101	61.7-135	a	%REC	1	6/20/2007 9:31:02 PM
EPA METHOD 8	015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range	Organics (GRO)	ND	5.0	r	ng/Kg	1	6/21/2007 10:31:01 PM
Surr: BFB		117	84-138	0	%REC	1	6/21/2007 10:31:01 PM
EPA METHOD 8	021B: VOLATILES						Analyst: NSB
Benzene		ND	0.050	г	ng/Kg	1	6/21/2007 10:31:01 PM
Toluene		ND	0.050	r	ng/Kg	1	6/21/2007 10:31:01 PM
Elhylbenzene		NÐ	0.050	r	ng/Kg	1	6/21/2007 10:31:01 PM
Xylenes, Total		ND	0.10	r	ng/Kg	1	6/21/2007 10:31:01 PM
Surr: 4-Bromo	fluorobenzene	85.2	68.2-109	0	%REC	1	6/21/2007 10:31:01 PM
EPA METHOD 9	056A: ANIONS						Analyst: KS
Chloride		460	1.5	ſ	ng/Kg	5	7/3/2007 12:30:35 AM

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٠	Value exceeds Maximum Contaminant Level	В	Analyte detected in the
Ε	Value above quantitation range	Н	Holding times for prepa
ļ	Analyte detected below quantitation limits	MCL	Maximum Contaminant

Qualifiers:

S Spike recovery outside accepted recovery limits

- associated Method Blank
- aration or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

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		· · · · · · · · · · · · · · · · · · ·					
CLIENT:	New Mexico Salt Wate	r Disposal C	Co.	Cl	ient Sample 1D:	MW-1	(61.0-63.5)
Lab Order:	0706235			(Collection Date:	6/13/2	007 1:45:00 PM
Project:	NMSWDCO - Station	11			Date Received:	6/15/2	007
Lab ID:	0706235-15				Matrix:	AQUE	EOUS
Analyses	· ·	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE						Analyst: SCC
Diesel Range (Drganics (DRO)	ND	1.0		mg/L	1	6/18/2007 3:57:21 PM
Motor Oil Rang	je 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 RANG	ε					Analyst: NSB
Gasoline Rang	e 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-Trimethy	lbenzene	ND	1.0		µg/L	1	6/22/2007 11:45:20 AM
1,3,5-Trimethy	lbenzene	ND	1.0		µg/L	1	6/22/2007 11:45:20 AM
Surr: 4-Bron	nofluorobenzene	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	l Solids	51000	400		mg/L	1	6/19/2007

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Date: 09-Jul-07

Qualifiers:

* Value exceeds Maximum Contaminant Level

E Value above quantitation range

J Analyte detected below quantitation limits

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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

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Date: 09-Jul-07 _____

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CLIENT:	New Mexico Salt Water	Disposal Co		Cl	ient Sample ID:	Trip I	Blank
Lab Order:	0706235				Collection Date:		
Project:	NMSWDCO - Station 1	1			Date Received:	6/15/2	2007
Lab ID:	0706235-16				Matrix:	TRIP	BLANK
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: GASOLINE RANG	Ε					Analyst: NSB
Gasoline Rangi	e 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						Analysi: NSB
Benzene		NĎ	1.0		hð\r	1	6/22/2007 12:46:44 PM
Toluene		ND	1.0		µg/L	1	6/22/2007 12:46:44 PM
Elhylbenzene		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-Trimethyl	benzene	ND	1.0		µg/L_	1	6/22/2007 12:46:44 PM
1,3,5-Trimethyl	benzene	ND	1.0		µg/L	1	6/22/2007 12:46:44 PM
Surr: 4-Brom	afluorobenzene	75.6	70.2-105		%REC	1	6/22/2007 12:46:44 PM

Qualifiers:

- + Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- Analyte detected below quantitation limits ł
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits S

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- -----B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

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Client: New Mexico Salt Water Disposal Co.

NMSWDCO - Station 11

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Project: NMSWDCO	- Station 1	1				Work O	rder: 0706235
Analyle	Result '	Units	PQL	%Rec	LowLimit HighLimit	%RPD RPDLi	mit Qual
Method: SW9056A	· · · · · · · -				· · · · · · · · · · · · · · · · · · ·		
Sample ID: MB-13267		MBLK			Balch ID: 13267	Analysis Date:	7/1/2007 6:09:55 PM
Chloride	ND	mg/Kg Mel K	0.30		Batch ID: 13306	Appluric Date:	10/2007 11-39-20 PM
Chloride	ND	ma/Ko	0.30		Dator 10, 13300	Analysis bale.	12/2007 11:00:2011
Sample ID: LCS-13267		LCS	0.50		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:	/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 AN
Chloride	ND	mg/L LCS	0.10		Ratch ID: D24024	Apolucie Data: 6/	17/2007 12:24-31 PM
Chloride	4 823	moll	0.10	96.5		Analysis Date: 0/	1112007 12.24.31 FW
Sample ID: LCS ST300-07014	4,020	LCS	0.10	50.5	Batch ID: R24067	Analysis Date: 6	/21/2007 5:36:55 AN
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 MBLK	50		Patch ID: 12109	Apolysis Doto: (140/2007 4-26-23 Db
Diesel Ranne Organics (DRO)	MD	malia	10		Daterrio. 13196	Analysis Date.	19/2001 4.30.23 FW
Motor Oil Range Organics (MRO)	ND	mg/Kg	50				
Sample ID: LCS-13195		LCS			Baich ID: 13195	Analysis Date: 6/	17/2007 10:43:59 PN
Diesel Range Organics (DRO)	38.35	mg/Kg	10	76.7	64.6 116		
Sample ID: LCS-13198		LCS			Batch ID: 13198	Analysis Date: (5/19/2007 5:11:59 PN
Diesel Range Organics (DRO) Sample ID: LCSD-13195	45.73	mg/Kg LCSD	10	91.5	64.6 116 Batch ID: 1319 5	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:	5/19/2007 5:47:16 PM
Diesel Range Organics (DRO) Sample ID: 0706235-10AMS	45.82	mg/Kg MS	10	91.6	64.6 116 Batch ID: 13198	0.186 17.4 Analysis Date: 1	5/20/2007 6:00:24 Pt
Diesel Range Organics (DRO)	49.13	ma/Ka	10	86.6	67.4 117	-	

Ē Value above quantitation range

ſ Analyte detected below quantitation limits

R RPD outside accepted recovery limits H Holding times for preparation or analysis exceeded

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- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Page 1

New Mexico Salt Water Disposal Co. Client:

NMSWDCO - Station 11 Project:

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Project: NMSWDCO	- Station)	I				Work Order: \$706235
Analyle	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) Sample ID: LCS-13196	ND	mg/L LCS	5.0		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		1150				
Sample ID: 0706235-01A MSD		MSD			Batch ID: 13212	Analysis Date: 6/2 //2007 2.50.56 FW
Gasoline Range Organics (GRO) Sample ID: MB-13212	20.10	mg/Kg MBLK	5.0	80.4	69.5 120 Batch ID: 13212	3.42 11.6 Analysis Date: 6/21/2007 11:17:21 AM
Gasoline Range Organics (GRO) Sample ID: LCS-13212	ND	mg/Kg LCS	5.0		Batch ID: 13212	Analysis Dałe: 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	B3.2	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) Sample ID: 2.5UG GRO LCS	ND	mg/L LCS	0.050		Batch ID: R24083	Analysis Date: 6/22/2007 3:21:10 PM
Grasoline Range Organics (GRO)	0 4720	mo/l	0.050	90.0	80 115	
Sample ID: 2.5UG GRO LCSD	0.7720	LCSD	0.000	00.0	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:

Ε Value above quantitation range

Analyte detected below quantitation limits J

R RPD outside accepted recovery limits Н Holding times for preparation or analysis exceeded

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- ND Not Detected at the Reporting Limit S Spike recovery outside accepted recovery limits
 - 18/20

Page 2

Client: New Mexico Salt Water Disposal Co.

Project: NMSWDCO - Station 11

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Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDI	_imit Qual
Method: SW8021		MSD			Dates I	D. 12313	Applusic Dr		6/01/2007 250-56 PM
	0.2503	malka	0.050	02.6	60 7	11.1	Andrysis De	אוט. דוי	0/21/2007 1.30.301 1
Senzene	0.2093	mg/Kg ma/Ka	0.050	92,0	02.7	114	2.93	27	
	0.3304	mg/Kg mg/Kg	0.050	90.0 84 8	00.2 71.4	121	3.32	10	
	2.063	maiKa	0.000	09.0 89.7	65	135	2.32	10	
Sample ID: MB-13212	2.005	MBLK	0.10	03.7	Batch I	D: 13212	Analysis Da	ate: 0	5/21/2007 11:17:21 AM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	ma/Ka	0.050						
Elhylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-13212		LCS			Batch I	D: 13212	Analysis Da	ate:	5/21/2007 11:47:48 AN
Benzene	0.2669	mg/Kg	0.050	95.3	62.7	114			
Taluene	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 I	D: 13212	Analysis Da	ate:	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 I	D: R24083	Analysis Da	ate:	6/22/2007 9:21:25 AN
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	hð\r	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	hðir	1.0						
Sample ID: 100NG BTEX LCS		LCS			Batch I	D: R24083	Analysis Da	ale:	6/22/2007 1:48:43 PM
Benzene	17.57	µg/L	1.0	87.8	85.9	113			
Toluene	17.41	hð\r	1.0	87.0	86.4	113			
Ethylbenzene	17.38	µg/L	1.0	86.9	83.5	118			
Xylenes, Total	51.71	hð/F	2.0	86.2	83.4	122			
1,2,4-Trimelhylbenzene	18.36	µg/L	1.0	91.8	83.5	115			
1,3,5-Trimelhylbenzene	17.88	μg/L	1.0	89.4	85.2	113			
Sample ID: 100NG BTEX LCSD		LCSD			Batch I	D: R24083	Analysis Da	ale:	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, Tolal	51.83	µg/L	2.0	86.4	83.4	122	0.224	13	
1,2,4-Trimethylbenzene	17.91	hâyr L	1.0	89.6	83.5	115	2.48	21	
1,3,5-1 rimethylbenzene	17.64	µg/L	1.0	88.2	85.2	113	1.33	10	

E Value above quantitation range

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J Analyte detected below quantitation limits

RPD outside accepted recovery limits R

Holding times for preparation or analysis exceeded H

ND Not Detected at the Reporting Limit S Spike recovery outside accepted recovery limits

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Sample Receipt Checklist

Client Name NMSWDC		Date and Time	Received:	6/	15/2007
Work Order Number 0706235	١	Received by	TLS		
Checklist completed by Signature	0/15/07 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 subr	mitted	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 Accepta	able		
COMMENTS:		If given sufficient	time to cool.		

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Client contacted	Date contacted:	Person contacted	
Contacted by:	Regarding		· · · · · ·
Comments:			
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Corrective Action			
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	HALL ENVIRONMENTAL ANALYSIS LABORATORY	4901 Hawkins NE, Suite D	Albuquerque, New Mexico 87109 Tel. 505.345.3975 Fax 505.345.4107	www.hallenvironmental.com	ANALYSIS REQUEST		(N) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7	808) z 808) z 0 Y) a:	57 57 600 (H (L2 (1)	00 00 00 00 00 00 00 00 00 00 00 00 00	AthaM) 80 (rthaM) 70 (PVM AVG) 71 (rtham) AVG (PVM A A A A A A A A A A A A A A A A A A A	3 3 3 4 8 8 9 7 7			2 2 2					7				235'S: TPH MED BOIS GRO/DED	Chloniclos 1392× 8021
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	QA/ QC Package: Std 🗖 Level 4 🗖		DCO- Station 11		THS -00 RMS	on M. Burnhull , P.G.	rana Reword . P.G.	erature:	Preservative	HERIS HNDS WARDEN COTOCONS	د ۲ 13	z 14						wed By: (Signature) (0/15/07	ived By: (Signature)
	Other:	Project Name	WWSW	Project #:	SHN	Project Mana	2 Sampler: 22	 Sample Temp 	MimbooAdd	יאטע אווחפו א	() leuori	164024		 	 	 	 		Hech
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HALL ENVIRONMENTAL ANALYSIS LABORATORY 4901 Hawkins NE, Suite D	Albuquerque, New Mexico 87109 Tei: 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com				ι Ν) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7	0 X) 90	(1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	174 bo 08 bo 08 bo 21634 21004 216345 21634 216345 216345 216345 2163555555555555555555555555555555555555	црамі (1946) 1000 1000 1000 1000 1000 1000 1000 10	н нч 1 803 0 500 2 700 2 700								nolysis: 80 21 · BTEX TPH MON 8015 6 20 /DED	TDS, Chlonides
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GA / GC Package: Std 🔲 Level 4 🗍 Other:	Project Name: NM S VI V CO - Charling 11		Project #:	NMSWDCO-SA 1	Project Manager:	clayton M. Barnhill, P.G.	Sampler: License Vee ught; P.G.	Sample Temperature:	Preservative	HEAL NO. HEAL NO. HEAL NO.	HELEWENDRY V 15 V	2 CHERRON V NOV DUCK						Received By: (Signetyre) (2) ISTOT	(Redeived By-(Signature)
F.CUSTODY RECORD	lexico Saet Water	sal Company	John Maren	10× 1518	SIZI-ZUCSS MIN 10		400 475 0 545 CT 9 (Marrie Dama La Constanta	IVIBUTY SHITIPIE I.L. IVU.	H=0 Mw-1 (61.0-63,5)	the TRIPBlank						Relinguished By: (Signature)	Relinquished By: (Signatúre)
CHAIN-OF	Client: New Mr	Dippes	Address:	P.O. B	Ro Swy		Phone #:	Fax #:			6/13/07 1345							Date: Time: 6/14/b子 0子/S	Date: Time:

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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

Dear John Maxey, Jr.:

Order No.: 0707009

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 M Suite D M Albuquerque, NM 87109 505.345.3975 M Fax 505.345.4107 www.hallenvironmental.com

Date: 10-Jul-07

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CLIENT:	New Mexico Salt Water	Disposal Co.		 C	lient Sample ID:	MW-1	(77.6-78.6')
Lab Order:	0707009				Collection Date:	6/26/2	007 2:35:00 PM
Project:	NMSWDCO-Station 11				Date Received:	7/2/20	07
Lab ID:	0707009-01				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE OF	RGANICS		*******		<u></u>	Analyst: SCC
Diesel Range (Drganics (DRO)	ND	10		mg/Kg	1	7/9/2007 2:09:18 PM
Motor Oil Rang	e Organics (MRO)	ND	50		mg/Kg	1	7/9/2007 2:09:18 PM
Surr: DNOP		86.B	61.7-135		%REC	1	7/9/2007 2:09:18 PM
EPA METHOD	8015B: GASOLINE RANGE	Ξ					Analysi: LMM
Gasoline Rang	e 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-Bron	nofluorobenzene	100	68.2-109		%REC	1	7/9/2007 1:12:31 AM

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EPA METHOD 9056A: ANIONS

Chloride

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Qualifiers:

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- Value exceeds Maximum Contaminant Level E Value above quantitation range
- Analyte detected below quantitation limits 5
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits S

. _ _ _ . . . В Analyte detected in the associated Method Blank

- Holding times for preparation or analysis exceeded Н
- MCL Maximum Contaminant Level RL Reporting Limit

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mg/Kg

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Page 1 of 3

Analyst: CMS

7/6/2007 4:52:07 PM

Hall	Environment	tal Analysis	Laboratory.	Inc.
	· · · · · · · · · · · · · · · · ·			

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 Date: 10-Jul-07

CLIENT:	New Mexico Salt Water	Disposal Co),	Client Sar	nple ID:	MW-1	(89.0-90.8')
Lab Order:	0707009			Collectio	on Date:	6/28/2	007 4:30:00 PM
Project:	NMSWDCO-Station 11			Date R	eceived:	7/2/20	07
Lab ID:	0707009-02				Matrix:	SOIL	
Analyses		Result	PQL	Qual Units		DF	Date Analyzed
EPA METHOD 8	BO15B: DIESEL RANGE O	RGANICS					Analyst: SCC
Diesel Range O	rganics (DRO)	ND	10	mg/Kg		1	7/9/2007 2:40:55 PM
Motor Oil Range	e 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	3015B: GASOLINE RANGI	Ξ	l.				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	B021B: 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-Bromo	olluorobenzene	99.0	68.2-109	%REC		1	7/9/2007 1:42:26 AM
EPA METHOD	056A: ANIONS						Analyst: CMS
Chloride		ND	6.0	mg/Kg		20	7/6/2007 5:44:19 PM

Qualifiers:

Value exceeds Maximum Contaminant Level
 E Value above quantitation range

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- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Page 2 of 3

- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

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Date: 10-Jul-07

CLIENT.	New Maxico Salt Water	Disposal Co	· . · . ·	Client Sample		<u></u>
	New Mexico Sali Waler	Disposar Co		Chent Sample		1 (104.4-100.8)
Lab Order:	0707009			Collection Da	ite: 6/28/2	2007 7:00:00 PM
Project:	NMSWDCO-Station 11			Date Receiv	ed: 7/2/20	007
Lab ID:	0707009-03			Matr	ix: SOIL	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8	015B: DIESEL RANGE O	RGANICS				Analyst: SCC
Diesel Range Or	ganics (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 8	015B: GASOLINE RANG	Ξ				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 8	021B: 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
Elhylbenzene		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-Bromo	fluorobenzene	95.2	68.2-109	%REC	1	7/9/2007 2:12:23 AM
EPA METHOD 9	056A: ANIONS					Analyst: CMS
Chloride		20	6.0	mg/Kg	20	7/6/2007 6:01:44 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level

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- 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

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Client: New Mexico Salt Water Disposal Co.

Project: NMSWDCO-Station 11 Work Order: 0707009 PQL %Rec LowLimit HighLimit %RPD RPDLimit Qual Analyte Result Units Method: SW9056A Sample ID: MB-13334 MBI K Batch ID; 13334 Analysis Date: 7/6/2007 11:03:00 AM 0.30 Chloride ND mg/Kg Sample ID: MB-13334 MBLK Batch ID: 13334 Analysis Date: 7/6/2007 11:03:58 AM Chloride mg/Kg 0.30 ND Batch ID: 7/6/2007 11:21:00 AM Sample ID: LCS-13334 LCS 13334 Analysis Date: Chloride 14.43 mg/Kg 0.30 96.2 90 110 Batch ID: Sample ID: LCS-13334 LCS 13334 Analysis Date: 7/6/2007 11:21:22 AM Chloride 0.30 96.2 90 14.43 mg/Kg 110 Method: SW8015 7/2/2007 10:46:49 PM Sample ID: MB-13307 MBLK Batch ID: 13307 Analysis Date: Diesel Range Organics (DRO) 10 ND mg/Kg 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 90.2 64.6 Diesel Range Organics (DRO) 10 116 45.10 mg/Kg Sample ID: LCSD-13307 Batch ID: 7/2/2007 11:56:42 PM LCSD 13307 Analysis Dale: Diesel Range Organics (DRO) mg/Kg 10 95.2 64.6 116 47.60 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) 5.0 ND ma/Ka Batch ID: Sample ID: MB-13330 MBLK 13330 Analysis Date: 7/9/2007 12:47:34 PM Gasoline Range Organics (GRO) ND mg/Kg 5.0 Batch ID: Sample ID: LCS-13330 LCS 13330 Analysis Date: 7/8/2007 8:12:29 PM Gasoline Range Organics (GRO) 22.86 5.091.3 69.5 120 mg/Kg Method: SW8021 Sample ID: MB-13330 MBLK Batch ID: 13330 Analysis Date: 7/9/2007 12:47:34 PM Benzene 0.050 ND mg/Kg 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 62.7 Benzene 0.050 107 114 0.3217 mg/Kg 68.2 98.4 Toluene 1.969 mg/Kg 0.050 121 Ethylbenzene 0.4475 mg/Kg 0.050 89.5 71.4 115 65 Xylenes, Total 2.664 mg/Kg 0.10 84.1 135

Qualifiers:

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Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

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ND Not Detected at the Reporting LimitS pike recovery outside accepted reco

Spike recovery outside accepted recovery limits 4 / 5

Page 1

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Sample Receipt Checklist					
Client Name NMSWDC		Date and Time	Received:	7/2/2007	
Work Order Number 0707009		Received by	TLS		
Checklist completed by family Signature	-1 J-C	2)07			
Matrix Carrier	name <u>Greyhound</u>				
Shipping container/cooler in good condition?	Yes 🗹	Но 🗔	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 🗹				
Sufficient sample volume for indicated test?	Yes 🗹	No 🗀			
All samples received within holding time?	Yes 🗹	No \Box			
Water - VOA vials have zero headspace? No VOA via	Is submitted	Yes 🗋	No 🗍		
Water - Preservation labels on bollle and cap match?	Yes 🗌	No	N/A 🔽		
Water - pH acceptable upon receipt?	Yes 🗍	No 🗔	N/A 🔽		
Container/Temp Blank temperature?	8°	4° C ± 2 Accepti	able		
COMMENTS:		lf given sufficien	t lime to cool.		
				· · · · ·	
Client conlacted Date contacte	ed:	Pers	son conlacted	· <i>··</i> · · · · ·	
Contacted by: Regarding				·····	
Comments:	49			. .	

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Corrective Action	
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0 Cabenneed Oue. 1 2 Z (Mino Y) estables or Meedspace (Y or N) Ž 1 Albuquerque, New Mexico 87109 Tel. 505.345.3975 Fax 505.345.4107 0 0 ANALYSIS LABORATORY HALL ENVIRONMENTAL 577 Wayyo 7 ❹ (A0V-ims2) 0758 Remarks: Serie Corry Resaute Antrop 4901 Hawkins NE, Suite D www. hallenvironmental. com 1 ANALYSIS REQUEST Analysis: TPH 205 B MOD (AOV) 80858 0 (S808) a'809 \ asbioitea9 f 808 € BTEX 8021 Anians (F, Cl, NO₃, NO₂, SO₄, SO₄) Chlonides 0 RCRA B Metals 0 (HA9 no AN9) 01°68 0 (1508 bortaM) 203 0 (1.403 bontaM) 803 0 A. 24.96 (1.814 bodteM) HAT 0 (lesei0/se0)82108 bortsM H9T 7 > (yinO aniloseO) H9T + 38TM + XƏTB BTEX}+ MTBE + TMB's (8021) 0 2 5 Ð HaCI2 HNU2 MARCHOTOTOO Station 11 L HEAL No. *1*24 72/21 0 \mathbf{i} 3 Clayton M. Barnhill, ín 0 Sampler: Levener, Rought P.G. SAL 0 Level 4 🗆 Regeived By: (Signatura) < QA / GC Package: 7 • 7 Bedeived By: (Stymature) 1 Preservative 0 NMSWDCO NHSWDCO 0 StdX StdX Sample Temperature: 0 Project Manager: m w-1 (77.6-78,6) 12 402 for Number/Volume 1 5 0 Project Name * Other: 1 Project #: 106,8 1 5010 MW-11044-42 \geq 0 89.0-90,8 Ø と CHAIN-OF-CUSTODY RECORD 15/8 Phone # CSOS)622.3770 2x4.2 0 Sample I.D. No. 0 Client: New mextoo Salt Waker telingy/Shed By: (Signature) (Signature) "HTTN: John Maxey Paivell, WH 88202-Disposal Company A 1-11 hd 0 PO BOX 1518 0 2010 Soile Matrix Ø 0 16:30 1900 1410 1435 Time 0 ITTE: Ë ₿ Fax #: -1240F LOBT. cu/101, Address: Date のか -÷., 0

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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

Dear Clayton M. Barnhill:

Order No.: 0706145

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,

(Asav)

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager

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



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

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CLIENT:	New Mexico Salt Water	Disposal Co.		C	lient Sample ID:	MW-2	(0-2.0)
Lab Order:	0706145				Collection Date:	6/6/20	07 10:34:00 AM
Project:	NMSWDCO-Station 11				Date Received:	6/11/2	007
Lab ID:	0706145-01				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	ÐF	Date Analyzed
EPA METHOD 8	015B: DIESEL RANGE OF	RGANICS			· · · · · · · · · · · · · · · · · · ·	, <u></u>	Analyst: SCC
Diesel Range Or	ganics (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 8	015B: GASOLINE RANGE	Ξ					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 8	021B: 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
Sum: 4-Bromol	luorobenzene	91.8	68.2-109		%REC	1	6/12/2007 5:01:00 PM
EPA METHOD 8 Gasoline Range 6 Surr: BFB EPA METHOD 8 Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromo	015B: GASOLINE RANGE Organics (GRO) 021B: VOLATILES	E ND 116 ND ND ND 91.8	5.0 84-138 0.050 0.050 0.050 0.050 0.10 68.2-109		mg/Kg %REC mg/Kg mg/Kg mg/Kg mg/Kg %REC	1 1 1 1 1	Analyst: 6/12/2007 5:01:00 6/12/2007 5:01:00 Analyst: 6/12/2007 5:01:00 6/12/2007 5:01:00 6/12/2007 5:01:00 6/12/2007 5:01:00

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Qualifiers:

EPA METHOD 9056A: ANIONS

Chloride

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- Value exceeds Maximum Contaminant Level
- E Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

Date: 25-Jun-07

- MCL Maximum Contaminant Level
- RL Reporting Limit

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Analyst: KS

6/21/2007 9:51:48 PM

CLIENT:	New Mexico Salt Water	Disposal Co		С	lient Sample ID:	MW-2	2 (4.0-6.0)
Lab Order:	0706145				Collection Date:	6/6/20	07 10:50:00 AM
Project:	NMSWDCO-Station 11				Date Received:	6/11/2	007
Lab ID:	0706145-02				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD E	015B: DIESEL RANGE OF	RGANICS					Analyst: SCC
Diesel Range Or	rganics (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 8	015B: GASOLINE RANGE	E					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 8	8021B: VOLATILES						Analyst: NSB
Вепzеле		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-Bromo	olluorobenzene	91.6	68.2-109		%REC	1	6/12/2007 5:31:08 PM
EPA METHOD	056A: ANIONS						Analyst: CMS
Chloride		230	3.0		mg/Kg	10	6/14/2007 5:57:32 AM

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Date: 25-Jun-07

- ···· . Value exceeds Maximum Contaminant Level
- Value above quantitation range
- J Analyte detected below quantitation limits
- NÐ Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

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- Qualifiers:
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CLIENT:	New Mexico Salt Water	Disposal Co.		С	lient Sample ID:	MW-2	(9.0-11.0)
Lab Order:	0706145				Collection Date:	6/6/200	7 11:10:00 AM
Project:	NMSWDCO-Station 11				Date Received:	6/11/20	07
Lab ID:	0706145-03				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8	015B: DIESEL RANGE OF	GANICS					Analyst: SCC
Diesel Range Org	janics (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 8	015B: 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 80	21B: 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-Bromof	luorobenzene	92.2	68.2-109		%REC	1	6/12/2007 6:31:30 PM
EPA METHOD 90	56A: ANIONS						Analyst: KS
Chloride		1400	6.0		mg/Kg	20	6/19/2007 10:00:45 PM

Value exceeds Maximum Contaminant Level

£ Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

5 Spike recovery outside accepted recovery limits 3/19 B Analyte detected in the associated Method Blank

Date: 25-Jun-07

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

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CLIENT:	New Mexico Salt Wate	r Disposal Co	Э.	C	Client Sample ID:	MW-	2 (14.0-16.0)
Lab Order:	0706145				Collection Date:	6/6/20	007 11:33:00 AM
Project:	NMSWDCO-Station 1	1			Date Received:	6/11/2	2007
Lab ID:	0706145-04				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE C	RGANICS					Analyst: SCC
Diesel Range C	Irganics (DRO)	ND	10		mg/Kg	1	6/13/2007 12:47:34 AM
Motor Oil Rang	e Organics (MRO)	ND	50		mg/Kg	1	6/13/2007 12:47:34 AM
Sure DNOP		95.2	61.7-135		%REC	1	6/13/2007 12:47:34 AM
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: NSB
Gasoline Rang	e 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
Elhylbenzene		ND	0.050		mg/Kg	1	6/12/2007 7:01:37 PM
Xylenes, Total		ND	D.10		mg/Kg	1	6/12/2007 7:01:37 PM
Surr: 4-Brom	ofluorobenzene	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

mg/Kg

6/14/2007 6:32:21 AM

Hall Environmental Analysis Laboratory, Inc.

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Qualifiers:

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Value exceeds Maximum Contaminant Level

Ε Value above quantitation range

1 Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Spike recovery outside accepted recovery fimits S

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

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Date: 25-Jun-07

Hall Environmental Analysis Laboratory,	, Inc. ¹
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Date: 25-Jun-07

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CLIENT:	New Mexico Salt Water Disposal Co.
Lab Order:	0706145
Project:	NMSWDCO-Station 11
Lab ID:	0706145-05

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Client Sample ID:	MW-2 (24.0-26.0)
Collection Date:	6/6/2007 12:05:00 PM
Date Received:	6/11/2007
Matrix:	SOIL

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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 RAN	GE				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/iKg	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

- E Value above quantitation range
- J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

5 Spike recovery outside accepted recovery limits

B — Analyte detected in the associated Method Blank

H Holding times for preparation of analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

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5/19

Date: 25-Jun-07

Hall Environmental Analysis Laboratory, Inc.

CLIENT:New Mexico Salt Water Disposal Co.Lab Order:0706145Project:NMSWDCO-Station 11Lab ID:0706145-06

1 **(**) B Ø Ð **() e** (Client Sample ID: MW-2 (19.0-21.0) Collection Date: 6/6/2007 11:50:00 AM Date Received: 6/11/2007 Matrix: SOIL

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE C	RGANICS			· · · · · · · ·	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 RANG	E				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-Bromolluorobenzene	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:

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- 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

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Envir	ronmental Analysis	s Laborat	ory, Ir	ic.		Date:	25-Jun-	07
CLIENT:	New Mexico Salt Wate	r Disposal Co.			Client S:	mple ID:	MW-2 (29.0-30.5)	
Lab Order:	0706145				Collect	ion Date:	6/6/200	7 1:00:00 PM
Project:	NMSWDCO-Station 11				Date	Received:	6/11/20	07
Lab ID:	0706145-07					Matrix:	SOIL	
Analyses		Result	PQL	Qua	l Units		DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE C	RGANICS						Analyst: SCC
Diesel Range (Organics (DRO)	ND	10		mg/Kg		1	6/13/2007 2:30:38 AM
Motor Oil Rang	je 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 RANG	E						Analyst: NSB
Gasoline Rang	e 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-Bron	nofluorobenzene	92.3	68.2-109		%REC		1	6/12/2007 8:31:56 PM

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mg/Kg

Qualifiers:	٠	Value exceeds Maximum Contaminant Level
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EPA METHOD 9056A: ANIONS

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit

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- S Spike recovery outside accepted recovery limits 7/19
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

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- MCL Maximum Contaminant Level
- RL Reporting Limit

Analyst: KS 6/20/2007 9:35:47 AM

Hall	Enviro	onmenta	l Analysis	Labor	ratory,	Inc.	
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Date: 25-Jun-07

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

Analyses	Result	PQL Q	ual 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 RAN	IGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	6/12/2007 9:01:53 PM
Sufr: 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, Totał	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	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	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
	5	Spike recovery outside accepted recovery limits		Page 8 of 16
		8/19)	

		<u>.</u> .				·	
CLIENT:	New Mexico Salt Wate	r Disposal Co).	C	lient Sample ID:	MW-2	(38.0-40.0)
Lab Order:	0706145				Collection Date:	6/6/200	7 2:40:00 PM
Project:	NMSWDCO-Station 11				Date Received:	6/11/20	07
Lab ID:	0706145-09				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE C	RGANICS	· · · · · · · · · · · · · · · · · · ·				Analyst: SCC
Diesel Range C	Drganics (DRO)	ND	1 0		mg/Kg	1	6/13/2007 3:04:44 AM
Motor Oil Rang	e 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 RANG	E					Analyst: NSB
Gasoline Rang	e 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
Elhylbenzene		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-Bron	nofluorobenzene	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

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- . Value exceeds Maximum Contaminant Level E Value above quantitation range
- 3 Analyte detected below quantilation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- в Analyte detected in the associated Method Blank

Date: 25-Jun-07

- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit
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Hall	Enviror	imental	Analys	is Lab	oratory	. Inc.
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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 RANG	E 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 RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	6/12/2007 10:02:09 PM
Surr: BFB	1 17	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:

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- ٠ Value exceeds Maximum Contaminant Level Е
 - Value above quantitation range
- Analyte detected below quantitation limits J
- ND Not Detected at the Reporting Limit S

Spike recovery outside accepted recovery limits 10/19 Analyte detected in the associated Method Blank

- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RE Reporting Limit

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Hall Environmental Analysis Laboratory, Inc. Date:						25-Jun-07		
CLIENT:	New Mexico Salt Water	Disposal Co).	C	lient Sample ID	MW-	2 (49.0-50.5)	
Lab Order: 0706145				Collection Date	6/6/20	6/6/2007 3:45:00 PM		
Project:	NMSWDCO-Station 11				Date Received	6/11/2	2007	
Lab ID:	0706145-11				Matrix	SOIL		
Analyses	•	Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE OF	RGANICS					Analyst: SCC	
Diesel Range C)rganics (DRO)	ND	10		mg/Kg	1	6/13/2007 4:47:02 AM	
Motor Oil Rang	e 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 Rang	e Organics (GRO)	ND	5.0		тд/Кд	1	6/12/2007 11:02:26 PM	
Surr: BFB		118	84-138		%REC	1	6/12/2007 11:02:26 PM	

cosonio (lange englanica (ente)	,	0.0	n gring	•	0/12/2007 11.02.201 11
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	в	Analyte detected in the associated Method Blank
	E	Value above quantitation range	Н	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 $11/19^+$		Page

Page 11 of 16
Date: 25-Jun-07

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	New Mexico Salt Water Disposal Co.	
Lab Order:	0706145	
Project:	NMSWDCO-Station 11	
Lab ID:	0706145-12	

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B B Ø ß 9 () Client Sample ID: MW-2 (59.0-60.5) Collection Date: 6/7/2007 8:02:00 AM Date Received: 6/11/2007 Matrix: SOIL

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E 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
Surf: DNOP	90.9	61.7-135	%REC	1	6/13/2007 5:21:09 AM
EPA METHOD 8015B: GASOLINE RA	NGE				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-Bromolluorobenzene	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:

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- Value exceeds Maximum Contaminant Level
 E Value above quantitation range
- J Analyse 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

12/19

Page 12 of 16

Hall Enviro	25-Jun-07								
CLIENT:	ENT: New Mexico Salt Water Disposal Co.			C	lient Sample ID:	MW-2 (69.0-70.5)			
Lab Order:	0706145	0706145			Collection Date:	6/7/200	7 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 8	015B: DIESEL RANGE OF	GANICS					Analyst: SCC		
Diesel Range Org	janics (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 8	015B: 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 8	021B: 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-Bromof	luorobenzene	95.9	68.2-109		%REC	1	6/14/2007 5:18:22 PM		
EPA METHOD 9	056A: ANIONS						Analyst: KS		
Chloride		16	1.5		mg/Kg	5	6/23/2007 1:28:44 PM		

Qualifiers:

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Value exceeds Maximum Contaminant Level 1

Е Value above quantitation range

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J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits S

- В Analyte detected in the associated Method Blank
- Н Flolding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level

RL Reporting Limit

13/19

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Hall Envir	onmental Analysis	ic.	Date:	25-Jun-07					
CLIENT:	New Mexico Salt Water	• •	C	Client Sample ID:	MW-2 (79.0-79.2)				
Lab Oruer:	NMCN/DCO Station 11				Collection Date:		6/7/2007 11:10:00 AM		
Project:	NMSWDCO-Station 11				Date Received:	6/11/	2007		
Lab 1D:	0706145-14				Matrix:	SOIL			
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE OF	RGANICS					Analyst: SCC		
Diesel Range O	Irganics (DRO)	ND	10		mg/Kg	1	6/13/2007 6:29:24 AM		
Motor Oil Range	e 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	e 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		
Elhylbenzene		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-Brom	ofluorobenzene	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		

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Qualifiers:	+	Value exceeds Maximum Contaminant Level	В	Analyte detected in the associated Method Blank
	E	Value above quantilation range	14	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		Page 1
		14/1	9	

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Hall Enviro		Date:	25-Jun-07						
CLIENT:	New Mexico Salt Water Disposal Co.			C	Client Sample ID:		MW-2 (89.0-90.5)		
Lab Order:	0706145				Collect	ion Date:	6/7/2007 1:10:00 PM		
Project:	NMSWDCO-Station 11				Date	Received:	6/11/20	007	
Lab ID:	0706145-15					Matrix:	SOIL		
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed	
EPA METHOD 8	015B: DIESEL RANGE O	RGANICS						Analyst: SCC	
Diesel Rarige Org	janics (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 8	015B: GASOLINE RANGI	Ē						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 8	21B: 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-Bromol	luorobenzene	94.5	68.2-109		%REC		1	6/14/2007 6:18:33 PM	
EPA METHOD 90	56A: ANIONS							Analyst: KS	
Chlorida		24	15		malka		5	6/23/2007 2:28:21 DM	

					11 b .
Qualifiers:	٠	Value exceeds Maximum Contaminant Level	В	Analyte detected in the associated	Method Blank
	E	Value above quantitation range	H	Holding times for preparation or a	nalysis 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			Page 15 of 16
		15/19			

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Hall Environr	25-Ju	n-07					
CLIENT: N	ew Mexico Salt Water	lient Sample ID:	MW-2 (119.0-119.3)				
Lab Order: 0'	706145				Collection Date:	6/9/20	007 1:25:00 PM
Project: N	MSWDCO-Station 11			Date Received:	6/11/2	2007	
Lab 1D: 0	706145-16				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015	B: DIESEL RANGE OF	RGANICS					Analyst: SCC
Diesel Range Organi	cs (DRO)	NÐ	10		mg/Kg	1	6/13/2007 11:31:28 AM
Motor Oil Range Org	anics (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 8015	B: GASOLINE RANGE						Analyst: NSE
Gasoline Range Orga	anics (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 8021	B: 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-Bromofluor	obenzene	94.6	68.2-109		%REC	1	6/14/2007 6:48:37 PM
EPA METHOD 9056	A: ANIONS						Analyst: KS
Chloride		12	3.0		mg/Kg	10	6/23/2007 2:55:46 PM

Qualifiers:	+ E J ND S	Value exceeds Maximum Contaminant Level Value above quantitation range Analyte detected below quantitation limits Not Detected at the Reporting Limit Spike recovery outside accepted recovery limits 16/19

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 H Holding times for preparation or analysis exceeded MCL Maximum Contaminant Level

RL Reporting Limit

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QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co.

Project: NMSWDCO-Station 11

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• B B Ð Ð B P 働 Work Order: 0706145

Analyle	Result	Units	PQL	%Rec	LowLimit HighLimit	%RPD RPDLimit Qual
Method: SW9056A Sample ID: MB-13163		MBLK			Batch ID: 13163	Analysis Date: 6/14/2007 320:52 AN
Chloride Sample ID: LCS-13163	П	mg/Kg LCS	0.30		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) Motor Oil Range Organics (MRO) Sample ID: MB-13153	ND ND	mg/Kg mg/Kg <i>MBLK</i>	10 50		Balch ID: 13153	Analysis Date: 6/12/2007 12:07:47 PM
Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Sample ID: LCS-13150	ND ND	mg/Kg mg/Kg LCS	10 50		Batch ID: 13150	Analysis Date: 6/12/2007 10:59:00 AM
Diesel Range Organics (DRO) Sample ID: LCS-13153	40.50	mg/Kg LCS	10	81.0	64.6 116 Batch ID: 1315 3	Analysis Date: 6/12/2007 12:42:16 PM
Diesel Range Organics (DRO) Sample ID: LCSD-13150	44.97	mg/Kg LCSD	10	89.9	64.6 116 Balch ID; 13150	Anałysis Date: 6/12/2007 11:33:21 AN
Diesel Range Organics (DRO) Sample ID: LCSD-13153	40.62	mg/Kg LCSD	10	81.2	64.6 116 Balch ID; 13153	0.298 17.4 Analysis Date: 6/12/2007 t:16:55 PN
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			Balch ID: 13151	Analysis Date: 6/13/2007 12:02:30 AM
Gasoline Range Organics (GRO) Sample ID: MB-13151	25.72	mg/Kg MBLK	5.0	87.2	69.5 120 Batch ID: 1 315 1	2.76 11.6 Analysis Date: 6/12/2007 4:00:56 PM
Gasoline Range Organics (GRO) Sample ID: LCS-13151	ND	mg/Kg LCS	5.0		Batch ID: 13151	Analysis Date: 6/12/2007 4:30:54 PM
Gasoline Range Organics (GRO) Sample ID: 0706145-11A MS	25.35	mg/Kg MS	5.0	84.8	69.5 120 Balch ID: 13151	Analysis Date: 6/12/2007 11:32:29 PN
Gasoline Range Organics (GRO)	25.02	mg/Kg	5.0	84.4	69.5 120	

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 E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting LimitS Spike recovery outside accepted reco
 - Spike recovery outside accepted recovery limits 17/19

QA/QC SUMMARY REPORT

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

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Project: NMSWDCC	D-Station 11						V	Vork (Order:	0706145
Analyte	Result	Units	PQL	%Rec	LówLimit	HighLimit	%RPD	RPD	Limit C)ual
Method: SW8021										
Sample ID: 0706145-11A MSD		MSD			Batch	ID: 13151	Analysis D	ale:	6/13/200	7 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 D	ale:	6/12/20	07 4:00:56 PM
Benzene	ND	mg/Kg	0.050							
Toluene	ND	mg/Kg	0.050							
Ethylbenzene	ND	mg/Kg	0.050							
Xylenes, Tolal	ND	mg/Kg	0.10							
Sample ID: LCS-13151		LCS			Batch	ID: 13151	Analysis D	ale:	6/12/20	07 4:30:54 PN
Benzene	0.2843	mg/Kg	0.050	102	62.7	114				
Toluene	1.890	mg/Kg	0.050	94.5	68.2	121				
Elhylbenzene	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 C	ale:	6/12/200	7 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				

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Ę Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit S

Spike recovery outside accepted recovery limits

Page 2

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Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name NMSWDC		Date and	Time Received:	6/11/2007
Work Order Number 0706145		Receive	ed by TLS	
Checklist completed by	. 6	LII U7		
Matrix Carrier nam	ie <u>Greyho</u>	und		
Shipping container/cooler in good condition?	Yes 🗹		Not Present	
Custody seals intact on shipping container/cooler?	Yes 💆	2 No 🖸	Not Present	Not Shipped
Custody seals intact on sample bottles?	Yes 🔽	2 No 🛄	n/a [
Chain of custody present?	Yes 🗹	2 No 🗋		
Chain of custody signed when relinquished and received?	Yes 🔽	2 No Li		
Chain of custody agrees with sample labels?	Yes 🔽	No []		
Samples in proper container/bottle?	Yes 🗹	2 No 🗆		
Sample containers intact?	Yes 🗹	No 🗌		
Sufficient sample volume for indicated test?	Yes 🖌	Z No□		
All samples received within holding time?	Yes 🗹	2 _{No} []		
Water - VOA vials have zero headspace? No VOA vials su	ubmitted	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 Ac	ceptable	
COMMENTS:		If given suff	icient time to cool.	

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Client contacted Date contacted: Person contacted Contacted by: Regarding Comments: -- ---- --. **Corrective Action** ··· •· ··· · ···

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	HALL ENVIRONMENTAL	4901 Hawkins NE, Suite D	Albuquerque, New Mexico 87109 Tel. 505,345.3975 Fax 505.345.4107	www.hallenvironmental.com	ANALYSIS REQUEST		L N)	ю (,) өс 5 ° 808) s 5 '°0d	Pedspe 77,000 ((1 ^e ON ¹ (1 (1 (1 (1) (1)	02 bov 08 bo slast cov, k cov,	11960) 119600) 119600) 119600) 119600000000000000000000000000000000000	E006 831 831 827 826 8826 808 8826 8826 8826 8826 8827 827	H /									Aykis': TPH MOD Seis Crela	TOS, CHLOLIPES, 1 Says R RCB- 8 Metals BTEX Ser
						وہر - (۸)	9 (0: 10 au	110260) 1110260) SeiO\26	1018 1011 1011 1011 1011 1011 1011 1011	+ 381 + 381	419eW) 0439W W + X W + X	Hdl (318 (318) ⁷ 7	>	7	~	Æ	 		 		Remarks: Au	
DA / DC Package:	Std X Level 4	Other:	Project Name:	NMSWDCO - Station 11	Project #:	NMSWDCO - SA 1	Project Manager:	Clayton M. Barnhull, PG	Sampler: Luana Rought	Sample Temperature:	Preservative HEAI Mn	SHORT O TOT O TOT OT OT OT OT OT OT OT OT OT	10407 Jar 13	124 07 Jar 14	10 to 3 for 15	10402 für)				-	Received By: (Signature) (2) [1] (5)	(Received By: (Gignature)
らたく		I UDY RECORD	ICO SALT	SPOSAL COMPAN	L MAXEU	1518	111 88202 -	1518	22-3770	Ext. 224	samnie I Nn		mw-2 (69.0-70.5)	mw-2(79,0-79,2)	mw-2(39,0-90.5)	mw-2(19.0-119.3)						ished By: (Signature)	ished By: (Signature)
727 8		AIN-UF-CUS	New Mex.	ATER DI	TTN STON	20 Bex	" Swell		#:505-6;		Time		7 0920 50ip	7 1110 SOIL	7 1310 Soil	F 1325 5018						L DSSS Relingu	Time: Relinqu
			Client:	14	Addres		X		Phone	Fax #:	Date		64103	<u>Fol-f</u> o	6月65	Fa/9/2						Glivlo7	Date:

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

Dear Clayton M. Barnhill:

Order No.: 0706389

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 E Fax 505.345.4107 www.hallenvironmental.com

Hall Envir	onmental Analysis	Laborat	ory, Ir	ic.	Date:	09-Ju	ıl-07
CLIENT:	New Mexico Salt Water	Disposal Co.		С	lient 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 OF	RGANICS					Analyst: SCC
Diesel Range C)rganics (DRO)	ND	10		mg/Kg	1	6/29/2007 10:18:35 PM
Motor Oil Rang	e 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	Ē					Analyst: NSB
Gasoline Rang	e 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-Brom	ofluorobenzene	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

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* Value exceeds Maximum Contaminant Level В E Value above quantitation range Н l

Analyte detected below quantitation limits Not Detected at the Reporting Limit ND

Spike recovery outside accepted recovery limits S

Qualifiers:

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

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MCL Maximum Contaminant Level

RL Reporting Limit

Page 1 of 22

Date: 09-Jul-07

CLIENT:	New Mexico Salt Water	r Disposal Co	D.	Client Sample 1	ID: MW-	3 (4.0-5.0)
Lab Order:	0706389			Collection Da	te: 6/22/2	2007 3:15:00 PM
Project:	NMSWDCO-Station 11			Date Receive	ed: 6/27/2	2007
Lab ID:	0706389-02			Matr	ix: SOIL	
Analyses	······································	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS				Analyst: SCC
Diesel Range O	Irganics (DRO)	ND	10	mg/Kg	1	6/29/2007 10:49:34 PM
Motor Oil Range	e 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 RANG	E				Analyst: NSB
Gasoline Range	e 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-Brom	ofluorobenzene	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
 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

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@ @ Date: 09-Jul-07

CLIENT:	New Mexico Salt Water	Disposal Co.		Client Sample I	D: MW-3	3 (9.0-9.5)
Lab Order:	0706389			Collection Da	te: 6/22/2	2007 3:30:00 PM
Project:	NMSWDCO-Station 11			Date Receive	d: 6/27/2	2007
Lab ID:	0706389-03			Matri	ix: SOIL	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8	015B: DIESEL RANGE O	RGANICS				Analyst: SCC
Diesel Range O	rganics (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	3015B: GASOLINE RANG	E				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-Brome	ofluorobenzene	92.5	68.2-109	%REC	1	7/2/2007 1:44:02 PM
EPA METHOD	056A: ANIONS					Analyst: KS
Chloride		230	1.5	mg/Kg	5	7/3/2007 4:51:41 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

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Date: 09-Jul-07

CLIENT: Lab Order: Project: Lab ID:	New Mexico Salt Wate 0706389 NMSWDCO-Station 11 0706389-04	r Disposal Co I		Client Sa Collecti Date F	mple ID: ion Date: Received: Matrix:	MW-1 6/22/2 6/27/2 SOIL	3 (14.0-15.5) 2007 3:50:00 PM 2007
Analyses		Result	PQL	Qual Units		DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE C	RGANICS					Analyst: SCC
Diesel Range (Drganics (DRO)	ND	10	mg/Kg		1	6/29/2007 11:51:31 PM
Motor Oil Rang	e Organics (MRO)	ND	50	mg/Kg		1	6/29/2007 11:51:31 PM
Surn DNOP		89.1	61.7-135	%REC		1	6/29/2007 11:51:31 PM
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: NSB
Gasoline Rang	e 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-Brom	nolluorobenzene	93.2	68.2-109	%REC		1	7/2/2007 2:14:06 PM
EPA METHOD	9056A: ANIONS						Analyst: TES
Chloride		670	6.0	ma/Ka		20	7/3/2007 10:05:02 AM

-----Qualifiers:

* Value exceeds Maximum Contaminant Level Е Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

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Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level RL Reporting Limit

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CLIENT:	New Mexico Salt Water	Disposal Co.		(Client Sample ID:	MW-3	(19.0-20.5)
Lab Order:	0706389				Collection Date:	6/22/20	007 4:15:00 PM
Project:	NMSWDCO-Station 11				Date Received:	6/27/2(007
Lab ID:	0706389-05				Matrix:	SOIL	
Analyses	• •	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE OI	RGANICS					Analyst: SCC
Diesel Range C	Drganics (DRO)	ND	10		mg/Kg	1	6/30/2007 12:22:33 AM
Motor Oil Rang	e 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	Ξ					Analyst: NSB
Gasoline Range	e 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-Brom	ofluorobenzene	94.7	68.2-109		%REC	1	7/2/2007 2:44:14 PM
EPA METHOD	9056A: ANIONS						Analyst: KS
Chloride		450	1.5		ma/Ka	5	7/3/2007 5:26:29 AM

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mg/Kg

Hall Environmental Analysis Laboratory, Inc.

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Qualifiers:

1 Value exceeds Maximum Contaminant Level

E Value above quantitation range

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Analyte detected below quantitation limits J

Not Detected at the Reporting Limit ND

Spike recovery outside accepted recovery limits 5

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded

Date: 09-Jul-07

- MCL Maximum Contaminant Level
- RL Reporting Limit

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5/26

7/3/2007 5:26:29 AM

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 Date: 09-Jul-07

CLIENT:	New Mexico Salt Water	Disposal Co).	Cli	ient Sample ID:	MW-3	(24.0-25.0)
Lab Order:	0706389			(Collection Date:	6/22/20	07 4:35:00 PM
Project:	NMSWDCO-Station 11				Date Received:	6/27/20	07
Lab ID:	0706389-06				Matrix:	SOIL	
Analyses	· · · ·	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: SCC
Diesel Range C	Organics (DRO)	ND	10	1	mg/Kg	1	6/30/2007 12:53:31 AM
Motor Oil Rang	e Organics (MRO)	NÐ	50	1	mg/Kg	1	6/30/2007 12:53:31 AM
Sure DNOP		95.5	61.7-135		%REC	1	6/30/2007 12:53:31 AM
EPA METHOD	8015B: GASOLINE RANG	Ξ					Analyst: NSB
Gasoline Range	e Organics (GRO)	ND	5.0	1	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	1	mg/Kg	1	7/2/2007 3:14:15 PM
Ethylbenzene		ND	0.050	I	mg/Kg	1	7/2/2007 3:14:15 PM
Xylenes, Total		ND	0.10	i	mg/Kg	1	7/2/2007 3:14:15 PM
Surr: 4-Brom	ofluorobenzene	93.6	68.2 - 109		%REC	1	7/2/2007 3:14:15 PM
EPA METHOD	9056A: ANIONS						Analyst: TES
Chloride		720	6.0		ma/Ka	20	7/3/2007 10:22:26 AM

 Qualifiers:
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 Value exceeds Maximum Contaminant Level
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 E
 Value above quantitation range
 H

 J
 Analyte detected below quantitation limits
 MCL

- 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

rian Environmental Analysis Laboratory, in	Hall	Environmental	Analysis	Laboratory,	Inc
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Date: 09-Jul-07

CLIENT:	New Mexico Salt Water	r Disposal Co.		C	lient Sample ID:	MW-3	3 (29.0-30.0)
Lab Order:	0706389				Collection Date:	6/22/2	2007 5:00:00 PM
Project:	NMSWDCO-Station 11	l			Date Received:	6/27/2	2007
Lab ID:	0706389-07				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: SCC
Diesel Range C	Drganics (DRO)	ND	10		mg/Kg	1	6/30/2007 1:55:28 AM
Motor Oil Rang	e 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 RANG	E					Analyst: NSB
Gasoline Rang	e 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	٦	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-Brom	nofluarobenzene	99.3	68.2-109		%REC	1	7/2/2007 4:14:12 PM
EPA METHOD	9056A: ANIONS						Analyst: TES
Chloride		1800	6.0		ma/Ka	20	7/3/2007 10:39:50 AM

Value exceeds Maximum Contaminant Level Qualifiers: ٠ В Analyte detected in the associated Method Blank Н Holding times for preparation or analysis exceeded E Value above quantitation range MCL Maximum Contaminant Level J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

- RL Reporting Limit

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Date: 09-Jul-07

CLIENT:	New Mexico Salt Water	Disposal Co		Client Sa	mple ID:	MW-3	3 (34.0-35.0)
Lab Order:	0706389			Collecti	on Date:	6/22/2	2007 5:25:00 PM
Project:	NMSWDCO-Station 11			Date F	Received:	6/27/2	2007
Lab ID:	0706389-08				Matrix:	SOIL	
Analyses	••••	Result	PQL	Qual Units		DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: SCC
Diesel Range C	Irganics (DRO)	ND	10	mg/Kg		1	6/30/2007 2:26:28 AM
Motor Oil Rangi	e 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
Elhylbenzene	ND	0.050	mg/Kg	1	7/2/2007 4:44:16 PM
Xylenes, Total	ND	0.10	mg/Kg	1	7/2/2007 4:44:15 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:

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Value exceeds Maximum Contaminant Level

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- 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 09-Jul-07

CLIENT: Lab Order: Project:	New Mexico Salt Water 0706389 NMSWDCO-Station 11	er Disposal Co. Client Sample I Collection Da Date Receive			imple ID: ion Date: Received: Motrivi	MW-3 (44.0-45.0) 6/22/2007 6:15:00 PM 6/27/2007		
Lab ID:	0706389-09	-						
Analyses		Result	PQL	Qual Units		DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE OF	RGANICS					Analyst: SCC	
Diesel Range C	Drganics (DRO)	ND	10	mg/Kg		1	6/30/2007 2:57:27 AM	
Motor Oil Rang	e 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	2					Analyst: NSB	
Gasoline Range	e 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-Brom	iofluarobenzene	92.1	68.2-109	%REC		1	7/2/2007 5:14:20 PM	
EPA METHOD	9056A: ANIONS						Analyst: CMS	
Chloride		91	0.30	ma/Ka		1	7/6/2007 1:12:03 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

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Date: 09-Jul-07

CLIENT: Lab Order: Project:	New Mexico Salt Water 0706389 NMSWDCO-Station 11	Disposal Co	D .	Client Sample Collection D Date Recei	ID: MW- Date: 6/22/2 ved: 6/27/2	MW-3 (49.0-50.0) 6/22/2007 6:40:00 PM 6/27/2007		
Lab ID:	0706389-10			Ma	trix: SOIL			
Analyses		Result	PQL	Qual Units	DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE O	RGANICS		- <u> </u>		Analyst: SCC		
Diesel Range C)rganics (DRO)	ND	10	mg/Kg	1	6/30/2007 3:28:24 AM		
Molor Oil Rangi	e 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 RANGI	Ξ				Analyst: NSB		
Gasoline Range	e 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-Brom	ofluorobenzene	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		

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+ Value exceeds Maximum Contaminant Level Е

Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits S

---- - -----B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

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CLIENT: Lab Order: Project: Lab ID:	New Mexico Salt Water 0706389 NMSWDCO-Station 11 0706389-11	r Disposal Co		(Client Sample 1D: Collection Date: Date Received: Matrix:		MW-3 (54.0-55.0) 6/22/2007 7:05:00 PM 6/27/2007 SOIL		
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE O	RGANICS						Analyst: SCC	
Diesel Range (Organics (DRO)	ND	10		mg/Kg		1	6/30/2007 3:59:06 AM	
Motor Oil Rang	e Organics (MRO)	ND	50		mg/Kg		1	6/30/2007 3:59:06 AM	
Surr: DNOP		94.0	61.7-135		%REC		1	6/30/2007 3:59:06 AM	
EPA METHOD	8015B: GASOLINE RANG	ε						Analyst: NSB	
Gasoline Rang	e 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-Brom	olluorabenzene	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	

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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

Date: 09-Jul-07

MCL Maximum Contaminant Level

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RL Reporting Limit

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() () Date: 09-Jul-07

CLIENT:	New Mexico Salt Wate	er Disposal C	0.	Client Sa	mple ID:	MW-3	3 (64.0-65.0)		
Lab Order:	0706389			Collecti	on Date:	: 6/23/2007 9:10:00 AM			
Project:	NMSWDCO-Station 1	1		Date F	Received:	6/27/2	2007		
Lab 1D:	0706389-12				Matrix:	SOIL			
Analyses		Result	PQL	Qual Units		DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE	ORGANICS		····			Analyst: SCC		
Diesel Range C	Organics (DRO)	NÐ	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 RANG	GE					Analyst: NSB		
Gasoline Rangi	e 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	тg/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-Brom	ofluorobenzene	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
- E Value above quantitation range

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- 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

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Hall Envir	onmental Analysis	09-Jul-07							
CLIENT: Lab Order:	New Mexico Salt Water 0706389	Disposal Co.		(Client Sample ID: Collection Date:	MW-3 (69.0-70.0)			
Project:	NMSWDCO-Station 11				Date Received:	6/27/20	6/27/2007		
Lab ID:	0706389-13				Matrix:	SOIL			
Analyses		Result	PQL	Qual	Units	ÐF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: SCC		
Diesel Range (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 RANG	E					Analyst: NSB		
Gasoline Rang	e 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		
Taluene		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-Bron	rofluorobenzene	93.5	68.2-109		%REC	1	7/2/2007 7:44:37 PM		

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EPA METHOD 9056A: ANIONS Chloride

Qualifiers:	*	Value exceeds Maximum Contaminam Level
Qualifiers:	*	Value exceeds Maximum Contaminant Lev

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

mg/Kg

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1.5

Analyst: CMS

7/6/2007 2:56:31 AM

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Hall Enviro	Date:	09-Jul-()7							
CLIENT:	New Mexico Salı Water	Disposal Co.		Cli	lient Sample ID: MW-3 (74.0-75.0)					
Lab Order:	0706389	0706389			ollection Date:	6/23/20	07 10:20:00 AM			
Project:	NMSWDCO-Station 11	MSWDCO-Station 11				6/27/20	6/27/2007			
Lab ID:	0706389-14				Matrix:	atrix: SOIL				
Analyses		Result	PQL	Qual l	Units	DF	Date Analyzed			
EPA METHOD 8	015B: DIESEL RANGE OF	RGANICS		,			Analyst: SCC			
Diesel Range Or	ganics (DRO)	ND	10	n	ng/Kg	1	6/30/2007 5:31:16 AM			
Motor Oil Range Organics (MRO)		ND	50	n	ng/Kg	1	6/30/2007 5:31:16 AM			
Surr: DNOP		96.4	61.7-135	0	%REC	1	6/30/2007 5:31:16 AM			
EPA METHOD 8	015B: GASOLINE RANGE	E					Analyst: NSB			
Gasoline Range	Organics (GRO)	ND	5.0	n	ng/Kg	1	7/2/2007 8:14:38 PM			
Surr: BFB		108	84-138	9	%REC	1	7/2/2007 8:14:38 PM			
EPA METHOD 8	021B: VOLATILES						Analyst: NSB			
Benzene		ND	0.050	n	ng/Kg	1	7/2/2007 8:14:38 PM			
Toluene		ND	0.050	n	ng/Kg	1	7/2/2007 8:14:38 PM			
Ethylbenzene		ND	0.050	n	ng/Kg	1	7/2/2007 8:14:38 PM			
Xylenes, Total		ND	0.10	រា	ng/Kg	1	7/2/2007 8:14:38 PM			
Surr: 4-Bromo	ofluorobenzene	93.5	68.2-109	0	%REC	1	7/2/2007 8:14:38 PM			
EPA METHOD	1056A: ANIONS						Analyst: CMS			
Chloride		12	3.0	n	ng/Kg	10	7/6/2007 3:13:55 AM			

..... * Value exceeds Maximum Contaminant Level Qualifiers: Value above quantitation range

Not Detected at the Reporting Limit

Analyte detected below quantitation limits

Spike recovery outside accepted recovery limits

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- B Analyte detected in the associated Method Blank
 - Н Holding times for preparation or analysis exceeded
 - MCL Maximum Contaminant Level
 - RL Reporting Limit

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Chloride

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

Date: 09-Jul-07

CLIENT:	New Mexico Salt Wate	r Disposal Co).	Client S	Client Sample ID: MW-3 (84.0-84.5)			
Lab Order:	0706389			Colle	tion Date:	6/23/2007 11:55:00 AM		
Project:	NMSWDCO-Station 11	1		Date	Received:	6/27/2	2007	
Lab ID:	0706389-15				Matrix:	SOIL		
Analyses		Result	PQL	Qual Units	;	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE C	RGANICS			·	<u></u>	Analyst: SCC	
Diesel Range C	Drganics (DRO)	ND	10	mg/Kg]	1	6/30/2007 6:01:54 AM	
Motor Oil Rang	e Organics (MRO)	ND	50	mg/Kg)	1	6/30/2007 6:01:54 AM	
Surr: DNOP		87.8	61.7-135	%RE0	2	1	6/30/2007 6:01:54 AM	
EPA METHOD	8015B: GASOLINE RANG	ε					Analyst: NSB	
Gasoline Rang	e Organics (GRO)	ND	5.0	mg/Kg	}	1	7/2/2007 9:44:32 PM	
Surr: BFB		106	84-138	%REC	2	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	j	1	7/2/2007 9:44:32 PM	
Ethylbenzene		ND	0.050	mg/Kj)	1	7/2/2007 9:44:32 PM	
Xylenes, Total		ND	0.10	mg/K	3	1	7/2/2007 9:44:32 PM	
Surr: 4-Brom	iofluorobenzene	91.8	68.2-109	%RE	2	1	7/2/2007 9:44:32 PM	
FPA METHOD	9056A: ANIONS						Analyst: CMS	

1.5

mg/Kg

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Value exceeds Maximum Contamir	ant Level	в	Analyte detected in the associated Method	l Blank
Value above quantitation range		Н	Holding times for preparation or analysis	exceeded
Analyte detected below quantitation	1 limits	MCL	Maximum Contaminant Level	

- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits S
- RL Reporting Limit

7/6/2007 3:31:20 AM

Hall	Environmental	Analysis	Laboratory,	Inc.

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0 Ø 6 働 P P B • P • • B Ø Ø Ð ø e Date: 09-Jul-07

CLIENT:	New Mexico Salt Water	r Disposal Co.		C	lient Sample ID:	: MW-3	MW-3 (89.0-90.0)		
Lab Order:	0706389				Collection Date:	6/23/2	6/23/2007 1:25:00 PM		
Project: NMSWDCO-Station					Date Received:	6/27/2	6/27/2007		
Lab ID:	0706389-16				Matrix:	SOIL			
Analyses	. -	Result	PQL	Qual	Units	DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: SCC		
Diesel Range C)rganics (DRO)	ND	10		mg/Kg	1	7/2/2007 6:45:16 AM		
Motor Oil Rang	e 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 RANG	E					Analyst: NSB		
Gasoline Rang	e 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-Brom	ofluorobenzene	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:

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٠ 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

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Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

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Hall	Environmental	Analysis	Laboratory,	Inc.

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Date: 09-Jul-07

CLIEN'I':	New Mexico Salt Water	· Disposal Co	• ••••••	Client S	Sample ID:	MW-3	(94.0-94.5)
Lab Order:	0706389	·		Colle	tion Date:	6/23/20	007 1:55:00 PM
Project:	NMSWDCO-Station 11			Date	Received:	6/27/20	007
Lab ID:	0706389-17				Matrix:	SOIL	
••••						··· · · ·	
Analyses		Result	PQL	Qual Units	;	DF	Date Analyzed
EPA METHOD 8	015B: DIESEL RANGE O	RGANICS				*****	Analyst: SCC
Diesel Range Org	ganics (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	2	1	7/2/2007 7:19:57 AM
EPA METHOD 8	015B: GASOLINE RANG	E					Analyst: NSB
Gasoline Range	Organics (GRO)	ND	5.0	mg/Kg	Ŧ	1	7/2/2007 11:14:30 PM
Surr: BFB		111	84-138	%REC	:	1	7/2/2007 11:14:30 PM
EPA METHOD 8	021B: 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	ł	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-Bromol	luorobenzene	97.5	68.2-109	%REC	:	1	7/2/2007 11:14:30 PM
EPA METHOD 9	056A: ANIONS						Analyst: CMS
Chloride		4.2	1.5	mg/Kg	ţ	5	7/6/2007 4:06:09 AM

Qualifiers:

Value exceeds Maximum Contaminant Level

E Value above quantitation range

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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 Enviro	nmental Analysis	Laborat	ory, In	IC.		Date:	09-Ju	1-07
CLIENT:	New Mexico Salt Water	Disposal Co		CI	ient Sam	ole ID:	MW-	3 (99.0-100.0)
Lab Order:	0706389			(Collection	Date:	6/23/2	2007 2:40:00 PM
Project:	NMSWDCO-Station 11				Date Red	eived:	6/27/2	2007
Lab ID:	0706389-18				N	latrix:	SOIL	
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed
EPA METHOD 80	15B: DIESEL RANGE OF	GANICS						Analyst: SCC
Diesel Range Org	anics (DRO)	ND	10		mg/Kg		1	6/29/2007 8:00:00 PM
Motor Oil Range C	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 80	15B: GASOLINE RANGE							Analyst: NSB
Gasoline Range C	Irganics (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 80	21B: 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
Elhylbenzene		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-Bromofi	uorobenzene	94.7	68.2-109		%REC		1	7/2/2007 11:44:34 PM
EPA METHOD 90	56A: ANIONS							Analyst: CMS
Chloride		3.2	1.5		mg/Kg		5	7/6/2007 4:23:34 AM

. -----٠ Value exceeds Maximum Contaminant Level E Value above quantitation range H Analyte detected below quantitation limits J

ND Not Detected at the Reporting Limit

Qualifiers:

S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

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Hall Enviro	Date:	09-Jul-07					
CLIENT:New Mexico Salt Water Disposal CLab Order:0706389Project:NMSWDCO-Station 11				C	Client Sample ID: Collection Date: Date Received:	MW-3 (104.0-104.5) 6/23/2007 3:50:00 PM 6/27/2007	
Lab ID:	0706389-19				Matrix:	SOIL	
Analyses	· · ·	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8	015B: DIESEL RANGE OF	GANICS			1. 11 - 11 - 11 - 11 - 11 - 11 - 11 - 1		Analyst: SCC
Diesel Range Or	ganics (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 8	015B: 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 8	021B: 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-Bromo	fluorobenzene	94.1	68.2-109		%REC	1	7/3/2007 12:14:31 AM
EPA METHOD 9	056A: ANIONS						Analyst: CMS
Chloride		25	1.5		mg/Kg	5	7/6/2007 4:40:58 AM

Qualifiers: , Value exceeds Maximum Contaminant Level В 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 Not Detected at the Reporting Limit NÐ RL Reporting Limit

Spike recovery outside accepted recovery limits S

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 Date: 09-Jul-07

CLIENT:	New Mexico Salt Water	Disposal Co).	Client Sample	ID: MW-	3 (109.0-109.2)
Lab Order:	0706389			Collection D	ate: 6/23/2	2007 4:50:00 PM
Project:	NMSWDCO-Station 11			Date Recei	ved: 6/27/2	2007
Lab ID:	0706389-20			Mat	rix: SOIL	
Analyses	· · · ·	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS				Analyst: SCC
Diesel Range O	rganics (DRO)	ND	10	mg/Kg	1	6/29/2007 10:56:18 PM
Motor Oil Range	e Organics (MRO)	ND	50	тд/Кд	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 RANGI	=				Analyst: NSB
Gasoline Range	e 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	D.10	mg/Kg	1	7/3/2007 12:44:29 AM
Surr: 4-Brom	ofluorobenzene	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
 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

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Date: 09-Jul-07

	4 The second se Second second seco		
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 RANG	E 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 RA	NGE				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
Elhylbenzene	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	ma/Ka	1	7/6/2007 5:15:47 AM

Qualifiers:

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Value exceeds Maximum Contaminant Level ٠

- Е Value above quantitation range
- Analyte detected below quantitation limits J
- Not Detected at the Reporting Limit ND

Spike recovery outside accepted recovery limits S

- -----B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Page 21 of 22

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Date: 09-Jul-07

The second						,			
CLIENT:	New Mexico Salt Water	r Disposal C	0.	Cli	Client Sample ID: MW-3 (119.0-120.0)				
Lab Order:	0706389			c	Collection Date: 6/24/2007 8:40:00 AM				
Project:	NMSWDCO-Station 11				Date Received:	6/27/20	007		
Lab ID:	0706389-22				Matrix:	SOIL			
Analyses		Result	PQL	Qual l	Units	ÐF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE O	RGANICS			an an -		Analyst: SCC		
Diesel Range (Drganics (DRO)	ND	10	r	ng/Kg	1	6/30/2007 12:06:34 AM		
Motor Oil Rang	e Organics (MRO)	ND	50	г	ng/Kg	1	6/30/2007 12:06:34 AM		
Surr: DNOP		96.2	61.7-135	٥	%REC	1	6/30/2007 12:06:34 AM		
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: NSB		
Gasoline Rang	e Organics (GRO)	ND	5.0	r	ng/Kg	1	7/3/2007 3:14:19 AM		
Surr: BFB		107	84-138	0	%REC	1	7/3/2007 3:14:19 AM		
EPA METHOD	8021B: VOLATILES						Analyst: NSB		
Benzene		ND	0.050	r	ng/Kg	1	7/3/2007 3:14:19 AM		
Toluene		ND	0.050	г	ng/Kg	1	7/3/2007 3:14:19 AM		
Ethylbenzene		ND	0.050	r	ng/Kg	1	7/3/2007 3:14:19 AM		
Xylenes, Total		ND	0.10	г	ng/Kg	1	7/3/2007 3:14:19 AM		
Surr: 4-Brom	ofluorobenzene	94.0	68.2-109	0	%REC	1	7/3/2007 3:14:19 AM		

1.5

mg/Kg

5

9.4

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22/26

EPA METHOD 9056A: ANIONS

Chloride

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Qualifiers:

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

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Analyst: CMS

7/6/2007 5:33:12 AM

QA/QC SUMMARY REPORT								
Client:New IProject:NMS	Mexico Salt Wate WDCO-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 Sample ID: LCS-13306	ND	mg/Kg LCS	0.30		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: 0706389-18A	MSD	MSD			Batch ID: 13275	Analysis Date: 6/29/2007 9:45:48 PM		
Diesel Range Organics (DR Sample ID: MB-13275	0) 46.78	mg/Kg MBLK	10	93.6	67.4 117 Batch ID: 13275	10.9 17.4 Analysis Date: 6/28/2007 6:46:35 AM		
Diesel Range Organics (DR Motor Oil Range Organics (Sample ID: MB-13275	O) ND MRO) ND	mg/Kg mg/Kg MBLK	10 50		Batch ID: 13275	Analysis Date: 6/29/2007 6:13:51 PM		
Diesel Range Organics (DR Motor Oil Range Organics (Sample ID: MB-13274	O) ND MRO) ND	mg/Kg mg/Kg MBLK	10 50		Batch ID: 13274	Analysis Date: 6/30/2007 12:41:39 AM		
Diesel Range Organics (DR Motor Oil Range Organics (Sample ID: LCS-13275	O) ND MRO) ND	mg/Kg mg/Kg LCS	10 . 50		Batch ID: 13275	Analysis Date: 6/28/2007 7:20:57 AM		
Diesel Range Organics (DR Sample ID: LCS-13275	48.61	mg/Kg LCS	10	97.2	64.6 116 Batch ID: 13275	Analysis Date: 6/29/2007 6:49:30 PM		
Diesel Range Organics (DR Sample ID: LCS-13274	:0) 43.40	mg/Kg LCS	10	86.8	64.6 116 Batch ID: 13274	Analysis Date: 6/30/2007 1:16:38 AM		
Diesel Range Organics (DR Sample ID: LCSD-13275	(0) 41.71	mg/Kg LCSD	10	83.4	64.6 116 Baich ID: 13275	Analysis Date: 6/28/2007 7:55:20 AM		
Diesel Range Organics (DR Sample ID: LCSD-13275	44.25	mg/Kg LCSD	10	88.5	64.6 116 Batch (D: 13275	9.40 17.4 Analysis Date: 6/29/2007 7:24:45 PM		
Diesel Range Organics (DR Sample ID: LCSD-13274	(O) 45.38	mg/Kg LCSD	10	90.8	64.6 116 Batch ID: 13274	4.46 17.4 Analysis Date: 6/30/2007 1:51:35 AM		
Diesel Range Organics (DF	(O) 49.02	mg/Kg	10	98.0	64.6 116	16.1 17.4		

MS

mg/Kg

10

83.9

41.95

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Qualifiers:

Е Value above quantitation range

Sample ID: 0706389-18AMS

Diesel Range Organics (DRO)

٦ Analyte detected below quantitation limits

R RPD outside accepted recovery limits H Holding times for preparation or analysis exceeded

Batch ID:

117

67.4

13275 Analysis Date:

- ND Not Detected at the Reporting Limit S
 - Spike recovery outside accepted recovery limits

Page 1

6/29/2007 9:10:30 PM

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QA/QC SUMMARY REPORT

Client: New Mexico Project: NMSWDCC	o Salt Water Disposal Co. O-Station 11						Work Order: 0706389			
Analyte	Result	Units	PQL	%Rec	LowLimit Hig	hLimit	%RPD RP	DLimil 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) Sample ID: MB-13289	23.11	mg/Kg MBLK	5.0	92.4	69.5 12 Baich ID:	20 1 3289	0.819 1 Analysis Date:	t.6 6/30/2007 12:02:40 AM		
Gasoline Range Organics (GRO) Sample ID: MB-13290	ND	mg/Kg MBLK	5.0		Batch ID:	13290	Analysis Date:	7/2/2007 8:44:37 PM		
Gasoline Range Organics (GRO) Sample ID: LCS-13289	ND	mg/Kg LCS	5.0		Batch ID: 13289		Analysis Date:	6/30/2007 12:32:33 AM		
Gasoline Range Organics (GRO) Sample ID: LCS-13290	20.51	mg/Kg LCS	5.0	82.0	69.5 12 Batch ID:	20 1 3290	Analysis Date:	7/2/2007 9:14:40 PM		
Gasoline Range Organics (GRO) Sample ID: 0706389-21A MS	24.50	mg/Kg MS	5.0	98.0	69.5 12 Batch ID:	20 13290	Analysis Date:	7/3/2007 2:14:14 AM		
Gasoline Range Organics (GRO)	23,30	mg/Kg	5.0	93.2	69.5 12	20	-			

Qualifiers:

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Е Value above quantitation range

Analyte detected below quantitation limits J

R RPD outside accepted recovery limits Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits Page 2

QA/QC SUMMARY REPORT

Client: New Mexico Salt Water Disposal Co. Station 11

Project:	NMSWDCO-

Project: NMSWDCO	-Station 11							ork Ore	ler: 0706389
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLin	iit Qual
Method: SWB021					· · · · · · · · · · · · · · · · · · ·				
Sample ID: 0706389-21A MSD		MSD			Batch	ID: 13290	Analysis Da	ate: 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 Da	ate: 6/3	0/2007 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 Da	ale: 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, Totai	ND	mg/Kg	0.10						
Sample ID: LCS-13289		LCS			Batch I	ID: 13289	Analysis Da	ate: 6/30	0/2007 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: 1 3290	Analysis Da	nte: 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 I	D: 13290	Analysis Da	le: 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:

 Ε Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

S Spike recovery outside accepted recovery limits Page 3
Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name NMSWDC		Date and Time	Received;	6/27/20)7
Work Order Number 0706389	j	Received by	ARS	
Checklist completed by Signature	7./07- Date			
Matrix Carrier name	Greyhound			
Shipping container/cooler in good condition?	Yes 🗹	No	Not Present	
Custody seals infact 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 🗹	Na 🗔		
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 subm	hilled 🗹	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 Accepta If given sufficient	ble tíme to cool.	

COMMENTS:

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Contacted by:		Regarding	· · · · · · · · · · · · · · · · · · ·		
Comments:		a second second	···· •••	·	
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Corrective Action		- ··· ···	···· · · ····		
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					(li	:08) %	841	- 111		>	7	7	7	7	7	7	7	1	7	7	7	Негта	
QA/ QC Package: Std X Level 4 🗆 Other:	Project Name:	NM SW DCO - Station 11		NASWACO - SAA	Project Manager:	clayton M. Barnhill, P.G.	Sampter: Actor Rought D.C.	Sample Temperature:	Number/Volume H9Cl2 HND3 N/A 0706389	1 / <u>-</u> 527-001	A 7	2	7	۲ ۲	د ۲	7	7 20	7 2 2	2 0		10402 Jus	Rectined By: (Signature)	Received By: (Signature)
CHAIN-OF-CUSTODY RECORD	Olient: New Mexico Sultivales	Disposed Company	ADDRESS: YORN MAYEN	PLOLBOX 1518	alsi-cocs & M N 10mised		Phone #: (505) 822 3770 64.000	Fax #:	Date Matrix Sample I.D. No.	6/22/07 1500 Soil mw-3 (0.2.0)	6/22/07 1515 50il mus-3 (4.0-5.0)	6[22/07 1530 501 C ma-369.0-9.5)	6 (22/07 1550 Soi C mo-3040-1515)	6 12407 1615 Soil mo-3 49.0 - 205)	5 (22/07 1635 Soil mu-3(24,0-25,0)	(12/07 1700 Soil ma-3(29.0-30.0)	5(22/07 1725 50i & mw-3(34.0-35.0)	122/07 1815 50il mw-3 (44.0-45.0)	(22/07 1840 Soil mw-3(49.0-50.0)	(22/07 1905 Soil ma-2(54.0-55.)	(23/07 0910 Soil MN-3(64.0-65.0)	bate: Itme: Relinquished By: (Signature) 6125/07/0550 River Cought	Date: Time: Relinquished By: (Signature)

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HALL ENVIRONMENTAL ANALYSIS LABORA	Tel. 505.345-3975 Fax 505.345.4107	2 www.hallenvironmental.com	ANALYSIS REQUEST	(1) (1) (1) (1) (1) (1) (1) (1)	(1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (22, POL (802) (608) (608) (608) (608) (608) (608) (608) (608) (608) (608) (608) (608	Figure 1 (1000)		22 81 81 81 81 82 82 82 82 82 82 82 82 82 82										7		Remarks: 7.15 Analusis: 2021 BTEX only	SOISB HOD GROIDRO Chlorides
	roject Name:	NMSWDCO - Station 1.	roject #:	NMSWDCO - SAT	roject Manager.	Clayton M. Barhill, P.G.	ampler Lerana Rought, P.G.	amples Cold?: 🗆 Yes 🗅 No 🗸 °	umber/Volume Preservative HEAL No.	Etoz jus 13	↑ × 14	51	<u>د</u>	<u></u>	~	7	r 20	, V 2,	10402 Jay	2	Rectified av (Signature)	Received By: (Signature)
USTODY RECORD	Win Sultone Ler	soil Company	John mater	x 1518 0	216, N.M. 88202-1518) 4°CC 743 0225 228(Matrix Sample I.D. No.	5016 min-369.0-70.0)1	Soil mu-3 (740-75.0)	50il mus-3(840-845)	5018 (mu-3891.0-90.0)	50' (S.44, 0-94, S- WM) So' 102	50il mu-3(91.0-100.0)	50il ma-3(104.0-104.5)	Sil mw-3(109.0-109.2)	501 @ MW-3(14.0-114.3)	502 mw-3(19.0-120.0)		Relinquished By: (Signature)	Aelinquished By: (Signature) /
CHAIN-OF-C	Client: N. a. a. YY 2	Dis poi	Address: ATT N :	PO BOX	Rosure		Phone #: CSOS	Fax #:	Dale	0710 2040 ,	6 23/07 1020	6/22/07 1155	6/23/07 1325	6(23/07 1355	6/23/07 1440	6/23/07 1550	6123/07 1650 5	6/2407 1735	24/07 0840 S		bate: Time: 1 6/25/07 05SD	Date: Time:

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,

1 Im

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	Envir	onmental	Analysis	Laboratory.	, Inc.
					,

CLIENT:

New Mexico Salt Water Disposal Co.

Date: 23-Jul-07

Lab Order:

0707164

Lab ID:	A7A7164 A1				Callection D		07 11,75,00 AP+
Lab ID:	0707164-01			4	Collection Date	: 7/9/20	07 11:35:00 AM
Chent Sample IE): MW-2			_	Matrix	: AQUE	COUS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
PA METHOD 80	15B: DIESEL RANGE						Analyst: SCC
Diesel Range Org	anics (DRO)	ND	1.0		mg/L	1	7/13/2007 6:51:13 AM
Motor Oil Range C	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 80	15B: GASOLINE RANG	ЭE					Analyst: BDF
Gasoline Range C)rganics (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 80	21B: VOLATILES						Analyst: BDF
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
Elhylbenzene		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-Bromofl	uorobenzene	93.6	70.2-105		%REC	1	7/14/2007 4:50:31 AM
EPA METHOD 30	0.0: 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 AN
Bromide		2.6	0.10		mg/L	1	7/13/2007 5:01:08 AM
Nitrate (As N)+Nit	rite (As N)	ND	1.0		mg/L	5	7/13/2007 6:45:37 AM
Phosphorus, Orth	ophosphate (As P)	ND	0,50	Н	mg/L	1	7/13/2007 5:01:08 AM
Suifate		260	25		mg/L	50	7/16/2007 11:53:51 AM
EPA METHOD 60	10B: DISSOLVED MET	ALS					Analyst: TES
Calcium		120	5.0		mg/L	5	7/20/2007 4:40:49 PM
Magnesium		22	1.0		mg/L	t	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 31	0.1: ALKALINITY						Analyst: LMM
Alkalinity, Total (A	s 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: SPE(SIFIC CONDUCTANCE						Analyst: LMM
Specific Conducta	ance	2800	0.010		µmhos/cm	1	7/13/2007
EPA METHOD 1	50.1: PH						Analyst: LMM
pН		7.50	0.010		pH units	1	7/13/2007
EPA METHOD 1	50.1: TDS						Analvst: TAF
Total Dissolved S	olids	2600	400		mg/L	1	7/13/2007
Q	Value under Manier	antaminant			D Amelan d	······································	
-Quantiers: F	Value above quantitation n	102e	~ .		H Holding time	s for orenai:	ation or analysis exceeded
L	Analyte detected below on	untitation limits		Ν	ACL Maximum Cr	ntaminant 1	evel
NΓ	Not Detected at the Report	ing Limit	1/1	2	RL Reporting Lu	nit	
5	Spike recovery outside per	ented recovery h	imits	_			Page 1

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Lab ID: Client Sample ID: Analyses EPA METHOD 801 Diesel Range Organ	0707164-02 MW-1						
Client Sample ID: Analyses EPA METHOD 801 Diesel Range Organ	MW-I				Collection Dat	e: 7/10/200	7 11:00:00 AM
Analyses EPA METHOD 801 Diesel Range Organ					Matri	x: AQUEO	US
EPA METHOD 801 Diesel Range Organ		Result	PQL	Qual	Units	DF	Date Analyzed
Diesel Range Organ	B. DIESEL DANCI	=	· · · •• ••		• • • •		Applust: SCC
prese range organ	ics (DRO)	- ND	1.0		moll	1	7/13/2007 7:25:54 AM
Motor Oil Range Or	anics (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 801	5B: GASOLINE RA	NGE					Analyst: BDF
Gasoline Range Orc	anics (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 802	1B: VOLATILES						Analyst: BDF
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, Tolal		ND	2.0		µg/L	1	7/14/2007 5:20:25 AM
Surr: 4-Bromofluc	robenzene	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	e (As N)	1.3	1.0		mg/L	5	7/13/2007 7:03:01 AM
Phosphorus, Orthop	hosphate (As P)	ND	0.50	н	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 601	0B: DISSOLVED M	ETALS					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: LMI
Alkafinity, Total (As	CaCO3)	220	20		mg/L CaCO3	1	7/13/2007
Carbonate		ND	2.0		mg/L CaCO3	1	7/13/2007
Bicarbonale		220	20		mg/L CaCO3	1	7/13/2007
EPA 120.1: SPECI	FIC CONDUCTANC	E					Analyst: LMI
Specific Conductant	ce	2500	0.010		µmhos/cm	1	//13/2007
EPA METHOD 150	.1: PH	_	_				Analyst: LMM
ρН		7.31	0.010		pH units	1	7/13/2007
EPA METHOD 160	.1: TDS						Analyst: TAF
Total Dissolved Soli	ds	1500	20		mg/L	1	7/13/2007
Qualifiers: * E	Value exceeds Maximur Value above quantitation	n Contaminant Levi 1 range	cl		B Analyte dete H Holding time	cted in the asso is for preparatio	ciated Method Blank on or analysis exceeded
ſ	Analyte detected below	quantitation limits	_	٨	ACL Maximum C	ontaminant Lev	/el
ND	Not Detected at the Rep	orting Limit	2/1	.2	RL Reporting Li	mit	T. *

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 Date: 23-Jul-07

CLIENT: Project:		New Mexico Salt Wate NMSWD Co Station 1	r Disposal Co l).		1	.ab Order:	0707164
Lab ID:		0707164-03				Collection Date	e: 7/10/200	7 1:00:00 PM
Client Samp	le ID	Tank Battery Discha	ge Fluid			Matrix	AQUEO	US
Analyses		-	Result	PQL	Qual	Units	DF	Date Analyzed
	- 11 80-	58-DIESEL PANCE						Appluct: SCC
Discol Pana	00 00 0 0ron		27	1.0		mail	1	7/12/2007 P-25-14 AM
Motor Oil Pa	unce O	max(BNO)	81	1.0 5.0		mg/L	1	7/13/2007 8-35-14 AM
Surr: DNC)P	ganas (mr.c)	105	58-140		%REC	1	7/13/2007 8:35:14 AM
EPA METHO	D 80 [.]	5B: GASOLINE RANG	Ε					Analyst: NSE
Gasoline Ra	nge Oi	ganics (GRO)	55	5.0		mg/L	100	7/16/2007 2:40:15 PM
Surr: BFB			125	79.2-121	5	%REC	100	7/16/2007 2:40:15 PM
EPA METHO	DD 802	1B: VOLATILES						Analyst: BDF
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
Ethylbenzen	е		1200	100		µg/L	100	7/16/2007 2:40:15 PM
Xylenes, Tol	al		2300	200		µg/L	100	7/16/2007 2:40:15 PM
Surr: 4-Br	omofiu	orobenzene	111	70.2 -1 15		%REC	100	7/16/2007 2:40:15 PM
EPA METHO	D 300	0.0: 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	1)+Nitri	te (As N)	ND	100		mg/L	500	7/13/2007 8:30:04 AM
Phosphorus.	, Ortho	phosphate (As P)	ND	25		mg/L	50	7/13/2007 5:35:57 AM
Sulfate			1600	25		mg/L	50	//13/2007 5:35:57 AM
EPA METHO	D 60.	10B: DISSOLVED MET	ALS	* 0				Analyst: TES
Calcium M			3200	50 50		mg/∟ ma/l	50	7/20/2007 5:56:37 PM
Nagnesium			540	50		mg/∟ ma/l	50	7/20/2007 5:56:37 PM
Sodium			45000	500		ту/ц та//	500	7/20/2007 5:56:37 PM
56010m			10000	000			000	112012001 0.00.401 W
EPA METHO	DD 310).1: ALKALINITY						Analyst: LMN
Alkalinity, To	otal (As	CaCO3)	200	20		mg/L CaCO3	1	7/13/2007
Carbonate				2.0		mg/L CaCO3	1	7/13/2007
Bicarbonate			200	20		mg/L CaCO3	1	//13/2007
EPA 120.1:	SPEC	IFIC CONDUCTANCE	000000	. –				Analyst: LMN
Specific Cor	nductar	ice	280000	1.0		µmnos/cm	100	//13/2007
ЕРА МЕТНО	DD 15).1: PH	7.65	0.0			,	Analyst: LMN
рН			7.20	0.010		pH units	1	7/13/2007
EPA METHC	DD 16).1: TDS						Analyst: TAF
Total Dissol	ved So	lids	170000	400		mg/L	1	7/13/2007
Ouslifiers:	+	Value exceeds Maximum C	ontaminant Leve			B Analyte detec	ted in the asso	ciated Method Blank
	E	Value above quantitation m	nge			H Holding time	s for preparatio	m or analysis exceeded
	J	Analyte detected below qua	ntitation limits		١	MCL Maximum Ci	ontaminant Lev	nel
	ND	Not Detected at the Report	ng Limit	3/1	2	RL Reporting Li	nsit	. –
	S	Spike recovery outside acco	pted recovery lin	nits				Page 3

CLIENT: Project:	New Mexic NMSWD C	o Salt Water Disposal o Station 11	Co.		L:	ab Order	: 0707164
Lab ID:	0707164	-04		Cc	llection Date:	7/10/20	07 1:30:00 PM
Chent Sampl	16 ID: MM-3				Watrix:	AQUEC	005
Analyses		Result	PQL	Qual l	Inits	DF	Date Analyzed
EPA METHO	D 8015B: DIESE	L RANGE					Analyst: SCC
Diesel Range	Organics (DRO)	ND	1.0	п	ig/L	1	7/13/2007 8:00:32 AM
Motor Oil Rar	nge Organics (MRC)) ND	5.0	n	ig/L	1	7/13/2007 8:00:32 AM
Surr: DNO	þ	103	58-140	9	REC	1	7/13/2007 8:00:32 AM
EPA METHO	D 8015B: GASO	LINE RANGE					Analyst: BDF
Gasoline Ran	ige Organics (GRO) 0.057	0.050	л	ig/L	1	7/14/2007 8:21:55 AM
Surr: BFB	-	104	79.2-121	9	REC	1	7/14/2007 8:21:55 AM
ΕΡΔ ΜΕΤΗΟΙ	ם 2021B · VOI מ	THES					Analyst: BDL
Benzene		ND	1.0	u	a/L	1	7/14/2007 8:21:55 AM
Toluene		ND	1.0	ם ע	g/L	1	7/14/2007 8:21:55 AM
Ethylbenzene	2	ND	1.0	н Ц	g/L	1	7/14/2007 8:21:55 AM
Xylenes, Tota	al	ND	2.0	μ	g/L	1	7/14/2007 8:21:55 AM
Surr: 4-Bro	mafluorobenzene	96.9	70.2-105	9	REC	1	7/14/2007 8:21:55 AM
EPA METHO	D 300.0: ANIONS	3		,			Analysi: KS
Fluoride		1.6	0.10	п	ια/L	1	7/13/2007 5:53:22 AM
Chloride		620	5.0	п	ng/L	50	7/16/2007 12:28:40 PM
Bromide		2.7	0.10	п	ig/L	1	7/13/2007 5:53:22 AM
Nitrate (As N))+Nitrite (As N)	D	1.0	п	ig/L	5	7/13/2007 8:47:29 AM
Phosphorus,	Orthophosphate (A	sP) ND	0.50	Ηп	ig/L	1	7/13/2007 5:53:22 AM
Sulfate		360	25	п	ng/L	50	7/16/2007 12:28:40 PM
EPA METHO	D 6010B: DISSO	LVED METALS					Analyst: TES
Calcium		210	5.0	п	ng/L	5	7/20/2007 5:05:47 PM
Magnesium		42	1.0	п	ig/L	1	7/20/2007 3:35:56 PM
Potassium		11	1.0	п	ng/L	1	7/20/2007 3:35:56 PM
Sodium		350	5.0	n	lg/L	5	7/20/2007 7:20:00 PM
EPA METHO	D 310.1: ALKAL	INITY					Analyst: LMN
Alkalinity, Tol	lal (As CaCO3)	200	20	n	ig/L CaCO3	1	7/13/2007
Carbonale		ND	2.0	п	ig/L CaCO3	1	7/13/2007
Bicarbonate		200	20	n	ig/L CaCO3	1	7/13/2007
EPA 120.1: S	PECIFIC CONDI	JCTANCE					Analyst: LMN
Specific Conc	luctance	3100	0.010	μ	mhos/cm	1	7/13/2007
EPA METHO	D 150.1: PH						Analyst I MAN
рH		7.46	0.010	ρ	H units	1	7/13/2007
EPA METHO Total Dissolu	D 160.1: TDS ed Solids	1800	מכ	n	10/1	1	Analyst: TAF
		1000	20		ายเค	3	1113/2007
Qualifiers:	+ Value exceed	s Maximum Contaminant L	evel	В	Analyte detecto	ed in the ass	ociated Method Blank
•	E Value above	quantitation range		н	Holding times :	for preparati	on or analysis exceeded
	J Analyte detec	ted below quantitation limit	s	MC	L Maximum Con	taminant Le	vel
	ND Not Detected	at the Reporting Limit	4/1	2 RI.	Reporting Limi	it	_
	S Spike recover	ry outside accepted recovery	limits		. 7		Page 4

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Hall Environmental Analysis Laboratory, Inc.	
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Date: 23-Jul-07

CLIENT: New Mexico Sa Project: NMSWD Co Sta	It Water Disposal Co. ation 11			La	b Orde	er: 0707164
Lab ID:0707164-05Client Sample ID:SW Windmill	· · · · ·			Collection Date: Matrix:	7/10/2 AQUE	007 2:30:00 PM EOUS
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	Н	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: DISSOLVE	DMETALS					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
Polassium	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 CONDUCTA	ANCE					Analyst: LMM
Specific Conductance	2300	0.010		µmhos/cm	1	7/13/2007
EPA METHOD 150.1: PH						Analyst: LMM
рН	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

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٠ Value exceeds Maximum Contaminant Level В Qualifiers: Analyte detected in the associated Method Blank E Value above quantitation range H Holding times for preparation or analysis exceeded Analyte detected below quantitation limits MCL Maximum Contaminant Level J 5/12Not Detected at the Reporting Limit RL Reporting Limit ND Spike recovery outside accepted recovery limits 5

Page 5 of 6

Hall	Env	vironmental	Analysis	s Laboratory.	.Inc.
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Date: 23-Jul-07

CLIENT: New Mexico Salt Water Disposal Co. Lab Order: 0707 Project: NMSWD Co Station 11				1.000 million (2000 million) (2000 m	
Project: NMSWD Co Station 11	CLIENT:	New Mexico Salt Water Disposal Co.		Lab Order:	0707164
	Project:	NMSWD Co Station 11			

Lab ID:	0707164-06			(Collection Date:	7/10/2	007 2:45:00 PM
Client Sample ID: NW Windmill					Matrix:	AQUE	OUS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.	D: 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, Orthoph	iosphate (As P)	ND	0.50	н	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 6010	B: DISSOLVED META	ALS					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
Polassium		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 C	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: SPECIF	IC CONDUCTANCE						Analyst: LMM
Specific Conductanc	е	2900	0.010		µmhos/cm	1	7/13/2007
EPA METHOD 150.	1: PH						Analyst: LMM
рH		7.50	0.010		pH units	1	7/13/2007
EPA METHOD 160.	1: TDS						Analyst: TAF
Total Dissolved Solid	ls	2000	20		mg/L	1	7/13/2007

Lab ID: 0707164-07			Collection D	ate:	
Client Sample ID: Trip Blank			Mat	rix: TRIP I	3LANK
Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANG	E	· · · · · · · · · · · · · · · · · · ·		· •	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	hð\r	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

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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

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

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Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD RP	DLimit Qual
Method: E300								·······
Sample ID: MBLK		MBLK			Batch I	D: 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 II	D: 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					
Pinosphorus, Orthophosphale (As P)	ND	mg/l_	0.50					
Sulfate	ND	mg/೬	0.50					
Sample ID: MB		MBLK			Batch II	D: 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, Orthophosphale (As P)	ND	mg/L	0.50					
Sulfate	ND	mg/L	0.50					
Sample ID: MBLK		MBLK			Batch I	D: R24391	Analysis Date:	7/13/2007 7:55:14 AM
Fluoride	ND	ma/L	0.10					
Chloride	ND	ma/L	0.10					
Brornide	ND	ma/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 I	D: R24411	Analysis Date:	7/16/2007 11:19:02 AM
Fluoride	ND	ma/L	0.10					
Chloride	ND	ma/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 I	D: R24373	Analysis Date:	7/12/2007 10:26:58 AM
Fluoride	0.5482	ma/L	0.10	110	90	110		
Chloride	4.890	ma/L	0.10	97.8	90	110		
Bromide	2.549	ma/L	0.10	102	90	110		
Nitrate (As N)+Nitrite (As N)	3.419	ma/L	0.20	97.7	90	110		
Phosphorus Orthophosphate (As P)	5.007	ma/L	0.50	100	90	110		
Sulfate	10.16	ma/L	0.50	102	90	110		
Sample ID: 1.CS-13369		LCS			Batch I	D: 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			н	Holding	times for prepar	ration or analys	is exceeded	
J Analyte detected below quantitat	tion limits		ND	Not Deu	cted at the Rep	orting Limit		
R RPD outside accented recovery	imits		S	Snike re	noon outride :	warman and the man	m limite	Page 1

Client: New Mexico Salt Water Disposal Co.

Project: NMSWD Co Station 11

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Project: NMSWD Co	Station 11	l					Wo	ork Order: 0707164
Analyte	Result	Unils	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit Qual
Method: E300		••••••						
Sample ID: LCS-13369		LCS			Batch	ID: R24373	Analysis Date	e: 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	e: 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	e: 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	e: 7/16/2007 11:36:27 AN
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	e: 7/13/2007
Alkalinity, Total (As CaCO3)	ND	mg/L CaC	20					
Carbonale	ND	mg/L CaC	2.0					
Bicarbonate	ND	mg/L CaC	20					
Sample ID: LCS		LCS			Batch	ID: R24388	Analysis Date	e: 7/13/200
Alkalinity, Total (As CaCO3)	82.00	mg/L CaC	20	103	80	120		
Method: SW8015 Sample ID: MR-13365		MBLK			Batch	ID: 13366	Applucie Date	
		WIDEN	1.0		Datan	13300	Analysis Date	
Matter O'l Base - Organics (URO)		mg/L	1.0					
Sample ID: LCS-13366	ND	ng/L LCS	5.0		Batch	ID: 13366	Analysis Date	e 7/12/2007 1:58:37 PM
Diesel Range Organics (DBO)	5 689	ma/L	1.0	101	74	157	r maryala bak	
Sample ID: LCSD-13366	0.000	LCSD			Batch	ID: 13366	Analysis Date	e: 7/12/2007 2:33:51 Pt
Diesel Range Organics (DRO)	5.477	mg/L	1.0	96.6	74	157	3.80	23
Qualifiers: E Value above quantitation range			 Н	Holding	times for prep	aration or analysi	s exceeded	·····
J Analyte detected below quantity	ntion limits		ND	Not Dete	ered at the Re	porting Limit		Price 2
R RPD outside accepted recovery	lunits		5	Spike red 8/12	covery outside	accepted recover	y limits	1 UEV ~

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

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Analyte	Result	Units	PQL	%Rec	LowLimit HighLimit	%RPD RPDLimil (Jual
Method: SW8015 Sample ID: 5ML RB		MBLK			Batch ID: R24375	Analysis Date: 7/13/20	007 9:56:27 AM
Gasoline Range Organics (GRO) Sample ID: 5ML RB	ND	mg/L MBLK	0.050		Balch ID: R24405	Analysis Date: 7/16/20)07 9.45:12 AM
Gasoline Range Organics (GRO) Sample ID: 5ML RB	ND	mg/L MBLK	0.050		Batch ID: R24424	Analysis Date: 7/17/20)07 8:50:32 AN
Gasoline Range Organics (GRO) Sample ID: 2.50G GRO LCS	ND	mg/L LCS	0.050		Balch ID: R24375	Analysis Date: 7/14/20)07 9:21:50 AN
Gasoline Range Organics (GRO) Sample ID: 2.5UG LCS	0.4258	mg/L LCS	0.050	85.2	80 115 Batch ID; R24405	Analysis Date: 7/17/20)07 3:40:10 AN
Gasoline Range Organics (GRO) Sample ID: 2.5UG LCS	0.4540	mg/L LCS	0.050	85.2	80 115 Batch ID: R24424	Analysis Date: 7/17/20)07 9:18:52 PN
Gasoline Range Organics (GRO)	0.4442	mg/L	0.050	83.3	80 115		

Qualifiers:

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E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S pike recovery outside accepted recovery limits
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Client: New Mexico Salt Water Disposal Co.

NMSWD Co Station 11

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Analyte Resul	t Units	PQL	%Rer	Lowtimit			
				LOWLINIIL	HIGHLITH	%RPD RP	DLimil 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	ւրն/Ր	1.0					
Xylenes, Tolal 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	1 20		
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	91.0	85,9	113		
Toluene 17.95	µg/L	1.0	89.8	86.4	113		
Ethylbenzene 17.68	μg/L	1.D	88.4	83.5	11B		
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	րց/լ	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	µ g/t _	2.0	95.6	83.4	122		

Qualifiers:

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E Value above quantitation range

Analyte detected below quantitation limits 1

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R RPD outside accepted recovery limits H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits 10/12

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والأحاج المركز الرابي الموجد مدارية

Client: New Mexico Salt Water Disposal Co.

Project: NMSWD Co Station 11

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Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD RPI	DLimit Qual
Method: SW6010A	••••••							
Sample ID: MB		MBLK			Batch	ID: R24471	Analysis Date:	7/20/2007 237:53 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			Balch	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	rng/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		

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() () E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Snike recovery outside accepted recovery limits 11/12

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Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name NMSWDC

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Date and Time Received: Received by MLN

Person contacted

7/12/2007

Work Order Number 0707164

Matrix:

Checklist completed by Julies

12/07 Dale

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 red	ceived? Yes	V	No			
Chain of custody agrees with sample labels?	Yes	V	No			
Samples in proper container/bottle?	Yes	V	No			
Sample containers intact?	Yes	v	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 mate	ch? Yes	~	No	N/A		
Water - pH acceptable upon receipt?	Yes	\mathbf{V}	No	N/A		
Container/Temp Blank temperature?		4°	4° C ± 2 Acceptab	le	•	
COMMENTS:			If given sufficient ti	ime to cool.		

Client contacted

Date contacted:

Regarding:

Contacted by:

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Comments:

Corrective Action

43 N/2 24 6 4 24 1 TPH mor Sol Geo Me (Nin Subbles or Headspace (Yor N) BTEX BO2/1705, PH Conviction 49 ۲ Albuquerque, New Mexico 87109 Tel, 505.345.3975 Fax 505.345.4107 AMICHS, JN0 901 HALL ENVIRONMENTAL ANALYSIS LABORATORY 5081141 ANALYSIS REQUEST 7U (AOV-ima2) 0758 www. hallenvironmental. com 4901 Hawkins NE, Suite D CATIONS, (AOV) 80858 (S808) e'809 / Pesticides / PCB's (8082) (¹08 , ¹09 , ¹00 , ¹00 , ¹0 , ¹0 , ¹0 , ¹0 , ¹0 6 **PCRA B Metals** ((HA9 no AN9) O168 0 בוצט/ מעא EDC (Mechod 8021) 0 (1.408 horbaM) 803 (1.814 bodtaM) H9T a the state as 4 TPS DO STORE DE LOB POULO NO HAL 0 Remarks: BTEX + MTBE + TPH (Gasoline Only) 9 BTEX+ MIBE + TMB's (BO21) € ſ J 3 V. 140 0 () HEAL No. ١ } ١ M BAZAHIL, PG Sampler: CM BARNHIC, P. 4 V NM5WD CO-5Aģ 1 HgCI, HNO, #5k Level 4 🗖 Nait 20% 0 \geq QA / GC Package: Project Name: NMSWD Preservative Received By: (Signature) 0 Nette STATION 0 Std 因 2000 Beceived By: 199 2 224 Sample Temperature: 0 Kightect Manager: 2×35000 Number/Volume 2 X 250AL Vou 5 0 2X250KL 2× 1250 004 DXHORL 2×125 46 1X ZGDA 2×4045 litta 21401 Other: Project #: 0 OMPAN Fluid -5/201 -14104X8 Ð 4. OSW Walder N'M WIND M'N CHAIN-OF-CUSTODY RECORD 67 Tayle Battery Discharge Ele Sample I.D. No. MAXEY 85222-5417 MW-2 3770 0 MW-3 8643 : (Signature) - M W Ø U15005RU 410 Ø 622-۱ Client: New MexICCO MN Sour BOX 1518 Relinguished 5 622 Gen 01/10/07 N445 H20 40 120 Relinguist 6 Matrix ❶ 111 55.11 0 505-١ 13:30 Ż to she 00 . 13:00 1430 Time: 1030 505 MATEN Time Time: 104/60/ 0 rolar, 10/01 Phone #: 10/01 le/4/120 B Address: Date Fax #: Date: 6 6 2 an/ 6 -