



*Prepared for:*

City of Aztec

201 West Chaco

Aztec, New Mexico 87410

*and*

San Juan County

305 South Oliver Drive

Aztec, New Mexico 87410

NPDES Phase II Small MS4  
Annual Report

*for*

San Juan County

and City of Aztec

San Juan County, New Mexico

September 21, 2015

*Prepared by:*

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# NPDES Phase II Small MS4 General Permit Annual Report

San Juan County and City of Aztec  
San Juan County, New Mexico

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## 1.0 General Information

Animas Environmental Services, LLC has completed this National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Separate Storm Sewer System (MS4) General Permit Annual Report on behalf of the City of Aztec and San Juan County, located in northwest New Mexico.

**Municipality/Organization:** City of Aztec and San Juan County

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**EPA NPDES Permit Number:** Pending

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**Reporting Period:** July 1, 2014 – June 30, 2015

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### 1.1 Executive Summary

The Storm Water Management Plan outlines the City of Aztec and San Juan County five year program to comply with the U.S. Environmental Protection Agency Phase II Storm Water Final Rule (64 CFR 6872, 8 Dec 99) to improve storm water quality in accordance with the Clean Water Act of 1972. This program also serves to develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants to the maximum feasible extent possible. The U.S. Environmental Protection Agency has identified six minimum control measures which must be specifically addressed within this plan. City of Aztec and San Juan County must show measurable goals and improvements in these six minimum control areas, which are listed below and outlined in the Table of Contents. These six control measures involve several departments within City of Aztec and San Juan County government. There are numerous storm drain outfalls located in the City and County which discharge into the Waters of the U.S. By following these six control measures, City of Aztec and San Juan County will benefit from significant reductions in pollutants being discharged to these Waters. A record of these results and improvements will be the responsibility of each department.

### 1.2 Storm Water Management Plan: Six Minimum Control Measures

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination (IDDE)
4. Construction Site Storm Water Runoff Control
5. Post-Construction Storm Water Management in New Development and Redevelopment
6. Pollution Prevention and Good House Keeping for Municipal Operators

### *1.3 Permit Coverage*

The Storm Water Management Plan (SWMP) encompasses the urbanized areas within City of Aztec (COA) and San Juan Country (SJC) and covers approximately 44 square miles. The COA has a population of approximately 6,683, and SJC has a population of approximately 128,529 (U.S. Census Bureau 2012).

### *1.4 Reporting Requirements*

The MS4 Annual Report includes the status of compliance with the permit conditions, an assessment of the appropriateness of the Best Management Practices (BMPs) selected, and progress towards achieving the measurable goals for each of the six minimum control measures. The report also summarizes activities undertaken by the COA (City) and SJC (County) during the reporting cycle, any changes to the plan or its measurable goals, and all relevant data obtained during the reporting period. Additionally, any changes made to BMPs or the measurable goals will be addressed.



## 1.5 Certification

Contact Person: T.J. Richards, San Juan County Special Projects Manager

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Telephone #: (505) 334-4574

Email: trichards@sjcounty.net

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Mailing Address: 305 South Oliver Drive, Aztec, New Mexico 87410

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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature (San Juan County):

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Printed Name:

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Title:

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Date:

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Contact Person: Josh Ray, Aztec City Manager

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Telephone #: (505) 334-7600

Email: JRay@aztecnm.gov

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Mailing Address: 201 West Chaco, Aztec, New Mexico 87410

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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature (City of Aztec):

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Printed Name:

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Title:

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Date:

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## 2.0 Self-Assessment

COA and SJC have a Storm Water Management Plan (SWMP) in place which is used as a guide to improve storm water quality and implement compliance with the EPA Phase II Final Rule and the Clean Water Act of 1972 (Aztec 2014).

The COA and SJC SWMP emphasizes Public Education and Outreach, and Public Involvement and Participation as control measures in storm water management. Public education and involvement are effective tools that reach across many socio- and economic boundaries, and the effect on public behavior can last indefinitely. The City and County stress these control measures in an effort to increase awareness and prevention, thereby reducing the number of storm water pollution incidents which may occur. Throughout the year, COA and SJC sponsor clean-up efforts and recycling programs, which receive high participation rates by the public and interest groups.

COA and SJC have implemented a Storm Water Hotline to report spills, illicit discharges, illegal dumping, and general comments or complaints from the public regarding storm water runoff. Between July 1, 2014 and June 30, 2015, COA had two reports of illegal dumping, while SJC had 170 reports of illegal dumping. The Storm Water Hotline has proven to be a valuable resource, though the City and County would like to see more participation and reporting by the public.

Both COA and SJC require the approval of submitted construction plans and land use plans that comply with EPA regulations for all construction projects at least one acre in size. Two Notices of Intent (NOIs) for construction stormwater permits were filed with COA as owner/operator for construction sites during this permit period: Ruins Trail Project and River Walk Trail. Two NOIs were also filed with SJC as the owner/operator for construction sites during this permit period: Shiprock Roads Project and San Juan Chapter Roads.

COA and SJC provide a good example with storm water management with regular inspections and maintenance of their vehicles, street sweeping, working with the Adult Detention Center in efforts to help clean up roadways and outfalls, and implementing a sound Pesticide Management Plan, among many other measures. The City and County also provide a number of resources available for the public, such as access to the GeoPortal interactive mapping website, the Storm Water Hotline, listings of solid waste dumping locations, recycling centers, and hosting hazardous waste collection days.

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## 3.0 Summary of Minimum Control Measures

### 3.1 *Public Education and Outreach*

#### **3.1.1 Target Audiences**

COA and SJC use a variety of methods to reach a diverse audience, such as utilizing mass media campaigns and a mix of resources to promote pollution awareness relevant to the SWMP. The industrial outreach program builds upon existing programs such as setting up a booth at the San Juan County Fair (County Fair), mailing out educational brochures, and recycling to target businesses and industries which significantly impact storm drains.

#### **3.1.2 Education Materials and Strategies**

The public education effort informs residents about COA and SJC recycling programs, including proper disposal of used motor oil, chemicals, solvents, and other hazardous household products. Citizen watch groups are encouraged to identify areas regarding storm water pollution. A Storm Water Hotline has been established to aid the community in reporting illicit discharge and potential spills. These strategies involve using various public service announcements, including multilingual posters, brochures, and flyers to help promote awareness in storm water pollution management.

#### **3.1.3 Pesticide Management/Community Awareness**

An integrated Pest Management brochure for City and County residents to find alternatives for traditional pesticides has been offered. San Juan County Vector Control and the New Mexico State University's (NMSU's) Extension services have been consulted to address urban pest management. A community education program teaches residents xeriscaping, non-chemical pest control, and removal of pests by non-chemical means. Lawn pesticides (and household) application brochures are available to City and County employees and residents through the existing Pesticide Awareness Program.

Table 1. Public Education and Outreach

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./ Person Name</b>	<b>Measurable Goals</b>	<b>Progress on Goal(s) – Permit Year 2014-2015</b>	<b>Planned Activities – Permit Year 2015-2016</b>
1.1	Public notice of upcoming meetings and event schedules	Public Works	Submit notices to area newspapers and post on county website (sjcounty.net).	Public has been notified via newspaper articles, fliers, webpages, etc. of upcoming meetings and events.	Continue notifying public through various means of upcoming meetings and events.
1.2	Employee Guide on Storm Water	Public Works	Train all new City and County employees on preventing storm water pollution.	No new employees trained in 2014-2015 permit period for SJC.	Continue training new employees. Update Guide as needed.
1.3	Stencil drain program and mark outfalls	Public Works	Design and post Storm Drain Markers.	Storm Drain Markers were maintained and replaced as needed.	Maintain and add Storm Drain Markers as needed.
1.4	Storm Water Management Training of COA and SJC personnel	Public Works, AES	Attend training programs and classes, EPA Region 6 Storm Water Conference, attend local interest group meetings.	Laurie Martinez of COA and TJ Richards of SJC were updated on stormwater regulations and BMPs. Stephanie Hinds, of AES, is a member of San Juan Watershed Group which meets bimonthly.	Send COA/SJC representative to appropriate conferences, training classes, and group meetings.
1.5	Education through displays at San Juan County Fair	Public Works	Set up booth at County Fair with educational brochures and pamphlets.	Booth set up for August 2015 County Fair. Handed out brochures and pamphlets to residents.	Attend and set up booth display for upcoming County Fair.

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./ Person Name</b>	<b>Measurable Goals</b>	<b>Progress on Goal(s) – Permit Year 2014-2015</b>	<b>Planned Activities – Permit Year 2015-2016</b>
1.6	Floodplain Management Education	Public Works	Floodplain Management Brochure handed out to City and County residents.	Several hundred brochures handed out at County Fair. Extras saved and handed out at other educational outreach programs. Interactive Floodplain Map available to public on county website.	Continue educating public on flood management and safety.
1.7	Hazardous Products Education	Public Works	Safer Alternatives to Hazardous Products Brochure handed out at County Fair.	Several hundred brochures handed out at County Fair. Extras saved and handed out at other educational outreach programs.	Continue educating public on hazardous products and disposal methods.
1.8	Storm Water Newspaper Articles	Public Works	Newspaper articles notifying public of EPA Storm Water Conference, COA and SJC Storm Water Program, Storm Water Hotline, Hazardous Waste Disposal locations and dates, etc.	Newspaper articles submitted. See Appendix A for a sampling of articles published.	Submit additional newspaper articles as needed.
1.9	Storm Water Flow Chart	Public Works	Education through the use of a SWMP Flow Chart.	Determine if a SWMP Flow Chart would be useful and what it all would entail.	Design SWMP Flow Chart if deemed useful for new employees and COA/SJC residents.
1.10	Pesticide Management Plan	Public Works	Inform/educate residents of pesticide management and offer alternative methods to controlling pests/weeds.	Brochures and pamphlets are made available to public through the Pesticide Awareness Program.	Continue educating the public through the Pesticide Awareness Program.

## **3.2 Public Involvement and Participation**

The COA and SJC public participation control measure has a large public component and involves all socio-economic groups. Support by residents is crucial to the success of the SWMP. Broader public support in the development and decision making process minimizes potential legal challenges and maximizes acceptance and cooperation.

### **3.2.1 Volunteer Educators/Speakers**

Volunteer educators and speakers are encouraged to provide their expertise in the areas of storm water maintenance and pollution prevention. COA and SJC also have the resources available at San Juan College in the fields of water and wildlife conservation, engineering, and hydrology to help support the storm water infrastructure.

### **3.2.2 Public Meetings/Community Outreach**

Public meetings present an opportunity to discuss various topics and provide input concerning appropriate storm water management policies and BMPs. Community clean-up events and activities are City and County sponsored. A telephone hotline has been set up to aid enforcement authorities in the identification of polluters. The program seeks to contact groups such as the City of Aztec Chamber of Commerce, Rotary Clubs, River Walk groups, rafting groups, Glade Recreation Area users, and the Boy and Girl Scouts.

### **3.2.3 Recycling**

Recycling programs have been instituted to recycle yard waste, newspapers, cardboard, plastic, oils, and antifreeze. A recycling program that targets these materials encourages proper disposal and should further reduce pollution of the river and waterways. The feasibility of a swapping center will be discussed in the near future. The swapping center could be used for residents to drop off unused items, such as paint or scrap metal parts, which other residents may be able to use. These efforts will help reduce the amount of usable materials that end up in landfills, as well as provide an affordable alternative disposal method for residents.

Table 2. Public Involvement and Participation

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./ Person Name</b>	<b>Measurable Goals</b>	<b>Progress on Goal(s) – Permit Year 2014-2015</b>	<b>Planned Activities – Permit Year 2015-2016</b>
2.1	Hazardous Waste Collection	Public Works	Set dates and locations for hazardous waste collection.	Hazardous Waste Collection days: September 6, 2014, and May 2, 2015 at two locations in SJC.	Schedule more Hazardous Waste Collection days throughout 2015-2016 permit period.
2.2	Storm Water Hotline	Public Works	Establish Storm Water Hotline to report spills and illicit discharges.	Storm Water Hotline at (505) 334-4560 successfully operating.	Keep Storm Water Hotline available to public. Increase advertisement of hotline and encourage reporting.
2.3	Reporting Illegal Dumping	Public Works	Establish hotline to report illegal dumping activities.	Hotline to report illegal dumping activities in the County or City Municipalities at (505) 334-6622 successfully operating.	Increase awareness of County Ordinances regarding illegal dumping. Encourage reporting illegal dumping activities.
2.4	Leaf Raking, Pet Waste Disposal	Public Works	Newspaper article addressing proper disposal methods for leaves and pet waste.	Article submitted in the November 2014 Aztec Local News.	Advertise in local newspaper for Fall 2015.



<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./ Person Name</b>	<b>Measurable Goals</b>	<b>Progress on Goal(s) – Permit Year 2014-2015</b>	<b>Planned Activities – Permit Year 2015-2016</b>
2.5	Community Clean-Up Days	Public Works	Community clean-up days for curbside pickup, Freon removal, tree branch/limb recycling, and dump convenience center. Services are free to county residents.	Fall clean-up days held on October 13-16, 2014, and spring clean-up days held on April 20-23, 2015.	Schedule clean-up days for fall 2015 and spring 2016.
2.6	County Adult Detention Facility roadside and yard waste clean-up program	Public Works	Inmates of the Adult Detention Facility assist in roadside and yard clean-up of trash and debris.	Recycled 1,408 units of white goods (e.g. washers, driers, refrigerators) and placed in Compactor/Transfer Station.	Continue working with the County Adult Detention Facility and encouraging volunteer hours from the inmates.
2.7	National Public Lands Day	Public Works and U.S. Department of the Interior	Clean up illegally dumped trash in the BLM Glade Run Recreation Area.	Held on September 14, 2014. Picked up approximately 7 dumpster roll-off loads.	Continue to host National Public Lands Day and encourage additional volunteers.

### ***3.3 Illicit Discharge and Detection Elimination***

#### **3.3.1 Visual Inspection/Screening**

The illicit discharge detection measure involves City and County staff as well as local citizens. COA and SJC will locate illicit discharge problem areas through visual inspections, public complaints, visual screening, and dry weather screening methods. The program will work to detect and eliminate illicit discharges. COA and SJC will catalog data pertinent to the NPDES program. The data will be available to interested parties. Visual inspection of storm drains will be integral in identifying those areas of the City and County that have frequent occurrences of illicit discharges.

#### **3.3.2 Geographic Information System (GIS) Mapping**

GIS is utilized by COA and SJC to map the location of all storm sewer lines, ponds, and other waters that receive storm water discharges. This information is made available through the City and County network and ArcGIS software. All outfalls which discharge into a recognized water body are accurately mapped using Global Positioning Systems (GPS) survey equipment. Thus, an accurate map of the various aspects of the storm water system (catch basins, pipes, culverts, and other storm water structures) can also be depicted. This enables the City and County to accurately locate sources of illicit discharges and the affected downstream waterways. SJC also hosts a GeoPortal page on its county website ([www.sjcounty.net](http://www.sjcounty.net)). The GeoPortal presents interactive web maps which display educational tools such as land use plans, waterways, floodplains, and SJC road statuses.

#### **3.3.3 Correct Illicit Discharges**

If illicit discharges are discovered, reported, or suspected, the City and County address each discharge on a case by case basis, where an educational method to approaching illicit dischargers is first used to help prevent future non-compliance by that person or persons. The City and County will submit a written letter, call, or personally talk to the individuals, with an emphasis on educating them about their actions' impacts to waterways, wildlife, and property value. In the event of re-occurring or illicit discharges with notable consequences, proper authorities are notified and legal action is taken in accordance with County Ordinance No. 73 Trash and Refuse Disposal.

#### **3.3.4 Documentation**

COA and SJC catalog pertinent data to the NPDES program. If future sampling in receiving water bodies shows elevated levels of a particular pollutant, then the City and County can use the GIS resource to focus its investigation on possible sources of illicit discharges.

Table 3. Illicit Discharge Detection and Elimination

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goals</b>	<b>Progress on Goal(s) – Permit Year 2014-2015</b>	<b>Planned Activities – Permit Year 2015-2016</b>
3.1	Storm Water Hotline	Public Works	Increase participation of Storm Water Hotline.	Storm Water Hotline established and advertised in local papers, pamphlets, fairs, and educational outreach programs.	Continue advertising hotline. Encourage reporting of illicit dumping and spills.
3.2	Visual inspections and monitoring	Public Works	Locate and report illicit discharges, illegal dumping, and spills.	For COA, two illegal dumping incidents were reported to Storm Water Hotline. For SJC, 170 illegal dumping incidents were reported.	Continue tracking and educating offenders. Continue promoting the use of the Storm Water Hotline for reporting illegal dumping and discharges.
3.3	Storm drains, outfalls, and problematic areas monitoring	Public Works, AES	Visual inspection of storm drains and potential problematic areas.	COA visually inspects and monitors on a yearly basis. SJC visually inspects and monitors on a quarterly basis. Results of inspections are attached in Appendix C.	COA will inspect and monitor annually or as needed. SJC will inspect and monitor every quarter.
3.4	City Ordinance on discharges and illegal dumping	Public Works	Update City Ordinances on prohibition of illicit discharges.	City Ordinances proposed/written but not adopted.	Adopt revised City Ordinances.
3.5	Dumpster in Glade Recreation Area	Public Works, BLM	Set up dumpsters throughout Glade for recreation groups/volunteers to fill.	Six dumpsters set up two to three times a year. Publicized a week beforehand. Six 40-cubic yard roll-off dumpsters were completely filled.	Continue setting out dumpsters and advertising to Glade users. Adjust number of dumpsters or collection days as needed.

### *3.4 Construction Site Storm Water Runoff Control*

#### **3.4.1 Site Plan Review**

COA and SJC recognize that construction sites can deposit a significant amount of sediment in a short period of time. The Phase II Rule, according to 40 CFR 122.34(b)(4) (U.S. Government Printing Office 2013), requires the City and County to develop and enforce a storm water management program to address storm water runoff from construction sites one acre or greater in area. The City and County currently require the approval of submitted construction plans and a land use plan that complies with EPA regulations. If construction commences prior to the approval of the plans, heavy fines may be levied.

#### **3.4.2 Erosion Awareness**

COA and SJC are adopting smart growth initiatives, such as Low Impact Development (LID) designs, xeriscaping, and rain gardens, to promote open space and native landscaping to help reduce erosion.

#### **3.4.3 Non-Structural BMPs**

Non-structural BMPs for storm water runoff from construction sites implemented by COA and SJC include: education and awareness to construction personnel, minimizing disturbance to native soil and vegetation, establishing buffers along streams and waterways, minimizing disturbances of high slope areas, and encouraging sheet flow to vegetated areas. Stream buffer guidance will be encouraged by the Public Works Department Staff such that riparian stream areas are restored with native vegetation. The zone will be 100 to 150 feet wide on both sides of the bank. The buffer includes the 100-year flood plain delineation and is governed by the Flood Plain Manager for COA and SJC.

#### **3.4.4 Structural BMPs**

Structural BMPs encouraged by COA and SJC include: check dams, geotextile silt fences, berms, and sediment basins. Native seeds are often incorporated into berms to help stabilize the structure and reduce runoff. This technology has the benefit of being retrofitted in the developed portions of the City and County.

Table 4. Construction Site Storm Water Runoff Control

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goals</b>	<b>Progress on Goal(s) – Permit Year 2014-2015</b>	<b>Planned Activities – Permit Year 2015-2016</b>
4.1	Documentation of construction activities one acre or greater in size	Public Works	Record construction activities which result in construction site runoff. Train City and County staff (inspectors and plan reviewers) and construction operators.	Tracked all construction activity related to storm water runoff. Documented sites with inadequate BMPs. Educating construction workers and responsible parties on storm water runoff management. COA filed two NOIs for construction projects (Ruins Trail Project and River Walk Trail), and SJC filed two construction NOIs (Shiprock Roads Project and San Juan Chapter Roads).	Continue to document construction site compliance as needed, and continue educating construction personnel.
4.2	Storm Water Management Plan	Public Works	Construction sites greater than one acre must submit a SWMP.	Include requirements for SWMP in City Ordinances. Inspect sites for compliance.	Continue enforcing SWMP compliance. Revise City Ordinances as needed.
4.3	Education and Implementation of Structural and Non-Structural BMPs	Public Works, Engineering	Educate and encourage construction personnel and contractors to implement BMPs aimed at reducing storm water runoff and erosion.	Observed BMPs and storm water management practices for construction sites.	Continue with education and encouragement of BMP installation and practices.

### 3.5 Post-Construction Storm Water Management in New Development and Redevelopment

#### 3.5.1 Post-Construction Runoff Control

COA and SJC address post-construction storm water runoff with structural and non-structural BMPs. The controls seek to reduce the amount of impervious cover by increasing natural land and vegetation, and to utilize pervious areas for more effective storm water management. The City and County encourage regional ponds and parks, which provide additional pervious areas and native flora and fauna. The net increase of scenic features will positively impact neighborhood aesthetics and increase residential property values.

Table 5. Post-Construction Storm Water Management  
in New Development and Redevelopment

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./ Person Name</b>	<b>Measurable Goals</b>	<b>Progress on Goal(s) – Permit Year 2014-2015</b>	<b>Planned Activities – Permit Year 2015-2016</b>
5.1	Education and Awareness	Public Works	Visit post-construction sites and ensure compliance of City or County Ordinances.	Visited recent post-construction sites. Inspected to ensure compliance with ordinances.	Continue to visit post-construction sites on an as-needed basis or when compliance issues arise.
5.2	Education and Implementation of Structural and Non-Structural BMPs	Public Works, Engineering	Educate and encourage implementation of BMPs aimed at reducing storm water runoff and erosion.	Post-construction BMPs and storm water management practices observed at construction sites, including waddles and drainage.	Continue with education and encouragement of BMP installation and practices.
5.3	EPA Post Construction Workshop	Public Works, Engineering	Attend trainings and seminars on post-construction stormwater.	Attended EPA Post Construction Workshop on December 3, 2014.	Continue attending educational classes and workshops.

### 3.6 Pollution Prevention and Good Housekeeping in Municipal Operations

#### 3.6.1 Municipal Maintenance

The COA and SJC Pollution Prevention and Good Housekeeping in Municipal Operations Program goals are to reduce pollutant runoff from City and County operations. A vehicle maintenance program requires that all City and County -owned vehicles be regularly inspected to eliminate the amount of oil, grease, and fluid leaks. Street sweeping is performed on all city streets at a frequency based on the most traveled streets and busiest intersections. All street cleaning is performed using vacuum-equipped sweepers. Outfalls are regularly inspected and analyzed according to a standardized checklist. Trouble outfalls are inspected and maintained after every storm event.

#### 3.6.2 City-Wide Clean-Up Days

City-wide clean-up days are held twice a year (April and October) throughout the area for community residents to help clean roadways, side streets, yards, parking lots, ditches, and parks. (Aztec 2014)

Table 6. Pollution Prevention and Good Housekeeping in Municipal Operations

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./ Person Name</b>	<b>Measurable Goals</b>	<b>Progress on Goal(s) – Permit Year 2014-2015</b>	<b>Planned Activities – Permit Year 2015-2016</b>
6.1	Municipal Maintenance	Public Works	Inspect and maintain City and County vehicles. Sweep streets on a regular basis; sweeping more often on the most traveled and busiest streets. Inspect and maintain outfalls.	Government-owned vehicles are regularly inspected and maintained. 45 miles of paved roads are swept in COA. 236 miles of paved road are swept in SJC. Storm drains and outfalls are regularly inspected and maintained.	Continue inspections and maintenance operations. Continue street sweeping on a regular basis, increase frequency as needed.
6.2	City-Wide Clean-Up Days	Public Works	Hold city-wide public clean-up days.	Clean-up days were held twice a year throughout COA, once in April and again in October.	Continue public clean-up days on a semi-annual basis.



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## 4.0 Field Work

There are 12 designated outfall locations that are routinely inspected during dry weather periods and sampled from during stormwater runoff events. These outfall locations are shown in Figure 1.

### 4.1 Outfall Inspections

Outfall inspections were performed during dry periods and runoff events for Permit Year 2014-2015. Outfalls were observed for standing water, evidence of recent spills, changes in plant life, eroded banks, and corrective actions that need to be taken. Dry weather inspections were conducted on June 19, 2015, and June 25, 2015. Wet weather inspections were performed on August 13, September 9, and October 9, 2014, and May 12, 2015.

### 4.2 Stormwater Runoff Sampling and Laboratory Analyses

Stormwater samples were collected during the 2014-2015 permit period and laboratory analyzed for nutrients, metals, oil and grease, *Escherichia coli* (*E. coli*), and suspended solids. Stormwater runoff was sampled from several outfalls during runoff events on August 13, September 9, and October 9, 2014, and May 12, 2015.

Stormwater samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. Samples were laboratory analyzed for:

- Metals, including Aluminum, Arsenic, Cadmium, Copper, Iron, Lead, Mercury, Nickel, Selenium, and Zinc;
- Nutrients, including Nitrite/Nitrate, Total Kjeldahl Nitrogen (TKN), Ammonia, and total Phosphorus;
- Total Suspended Solids (TSS);
- Oil and Grease; and
- Chemical Oxygen Demand (COD).

In addition, *E.coli* samples were collected and laboratory analyzed by CH2MHill in Farmington, New Mexico.

Completed field forms and laboratory results for the runoff events are shown in Table 1 in Appendix D.

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## 5.0 Summary of Information Collected and Analyzed

COA and SJC have used a number of outreach tools and mass media campaigns to educate the public on storm water management. Examples of such control measures include setting up booths at the County Fair, mailing out educational brochures and fliers, and submitting storm water related articles to the local newspapers. Storm Drain Markers, which have been placed throughout the City and County to inform the public which drains flow directly to nearby rivers or waterways, are checked and replaced as needed. A Pesticide Management Plan is utilized to educate the public on proper spraying methods as well as alternative methods to controlling weeds and insects.

COA and SJC personnel have attended and will continue attending training sessions, meetings, and conferences on storm water. New employees to the City or County are educated by their peers and through reading the Employee Guide on Storm Water.

The City and County sponsor recycling programs several times a year to collect chemicals and hazardous household wastes, a city-wide clean-up twice a year, and the set-up of dumpster in the Glade Recreational Area two to three times a year. Citizen watch groups and general members of the public are encouraged to report spills or illicit discharges through the use of the Storm Water Hotline.

With the help of the Adult Detention Center, COA and SJC were able to collect 1,408 units of white goods, which were taken to the landfill. The City sweeps 45 miles of paved roads, while the County sweeps 236 miles of paved roads. Government vehicle operated are regularly inspected and maintained to prevent fluid leaks.

Construction sites equal to or greater than one acre in size are required to submit a storm water management plan in accordance to EPA regulations and City and County Ordinances. The City and County encourage and educate proper installation and maintenance of structural and non-structural BMPs for construction and post-construction sites. LID implementation, xeriscaping, and preservation of natural land and vegetation are also encouraged by COA and SJC.

Stormwater outfalls were inspected throughout the year to ensure they were in good operating condition and to help identify impending structural failures, maintenance needs, and water quality issues of the storm drain system. SJC and COA will continue routine inspections and sampling events to ensure BMPs are met and they are in good operating condition.

---

## 5.0 References

Aztec, San Juan County and City of. *Storm Water Management Plan*. Storm Water Management Plan, Aztec: San Juan County and City of Aztec, 2012.

Federal Emergency Management Agency. *FEMA News Releases*. December 20, 2013. <http://www.fema.gov/news-release/2013/12/20/nm-officials-face-dec-27-deadline-requests-public-assistance> (accessed September 24, 2014).

U.S. Census Bureau. *State and County Quickfacts*. 2012. <http://quickfacts.census.gov/qfd/states/35000.html> (accessed August 26, 2013).

U.S. Government Printing Office. *Electronic Code of Federal Regulations*. June 4, 2013. [http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr122\\_main\\_02.tpl](http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr122_main_02.tpl) (accessed July 8, 2013).

## Figures

**FIGURE 1**

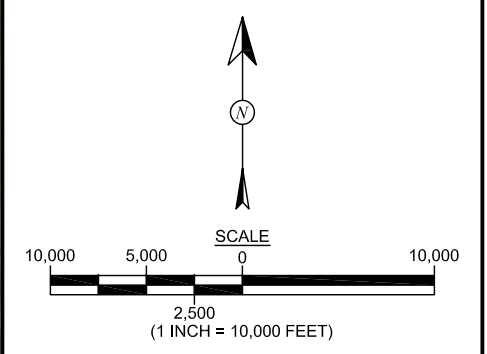
**NPDES MS4 OUTFALL  
SAMPLING LOCATIONS**  
MS4 / NPDES STORM WATER  
MANAGEMENT PLAN  
SAN JUAN COUNTY AND CITY OF AZTEC  
SAN JUAN COUNTY, NEW MEXICO



<b>DRAWN BY:</b> D. Dougi	<b>DATE DRAWN:</b> September 21, 2015
<b>REVISIONS BY:</b> D. Dougi	<b>DATE REVISED:</b> September 21, 2015
<b>CHECKED BY:</b> S. Hinds	<b>DATE CHECKED:</b> September 21, 2015
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> September 21, 2015

**LEGEND**

**SAMPLE LOCATIONS**



## Appendix A.

**Meeting Agenda**  
**August 7, 2014**

**Invitees:** NMDOT District 5, City of Aztec, San Juan County, and City of Farmington

**Purpose:** to discuss Municipal Separate Storm Sewer System (MS4) Permit coordination.

The participants will discuss the MS4 Permit's six Minimum Control Measures (MCMs). We will discuss the control measures one at a time. Each attendee will explain how they are implementing each control measure. Then we will discuss ways we can coordinate, share, and mutually benefit from our combined efforts. This will include opportunities to share credit for jointly published/distributed pamphlets, coordination of IDDE detection and response, potential water quality testing, and combined trainings.

- 1) Public Education and Outreach

---

- 2) Public Involvement and Participation
- 3) Illicit Discharge Detection and Elimination
- 4) Construction Site Stormwater runoff control
- 5) Post-Construction Stormwater Management in New Development and Redevelopment
- 6) Pollution Prevention and Good Housekeeping in Municipal Operations.

## Richards, T.J.

---

**From:** Smith, Nelly [Smith.Nelly@epa.gov]  
**Sent:** Wednesday, September 10, 2014 12:32 PM  
**To:** 'dale.tafoya@belen-nm.gov'; 'lucy.baca@belen-nm.gov'; 'rudy.jaramillo@belen-nm.gov'; 'vialpandor@loslunasnm.gov'; 'martinG@loslunasnm.gov'; 'archuletar@loslunasnm.gov'; 'vigilr@loslunasnm.gov'; 'clerkadmin@bosquefarmsnm.gov'; 'waterdept@bosquefarmsnm.gov'; 'jacobomartinez@co.valencia.nm.us'; 'hoss.foster@co.valencia.nm.us'; 'sarah.schell@co.valencia.nm.us'; debral@mesilla.nm.gov; Keck, Dave; dnpike@santafenm.gov; heathera.patrick@rocketmail.com; henryco@donaanacounty.org; jfkirby@nmsu.edu; jssanchez@santafecounty.nm.gov; Lisa Blueeyes; naschiavo@santafenm.gov; pbennett@las-cruces.org; roodke@santafecounty.org; Ted.Barber@state.nm.us; timothy.trujillo@state.nm.us; Richards, T.J.; 'archuletar@loslunasnm.gov'; 'clerkadmin@bosquefarmsnm.gov'; 'dale.tafoya@belen-nm.gov'; Hashem Faudi; 'hoss.foster@co.valencia.nm.us'; 'jacobomartinez@co.valencia.nm.us'; Loretta Hatch; 'lucy.baca@belen-nm.gov'; 'martinG@loslunasnm.gov'; Michael Jaramillo; Nick Telles; 'rudy.jaramillo@belen-nm.gov'; steven Morgenstern; 'vialpandor@loslunasnm.gov'; 'vigilr@loslunasnm.gov'; 'waterdept@bosquefarmsnm.gov'; Chris Urioste; Dave Reck; David Catanach; David Martinez; Dorian Alcantar; harold.Love; Hashem Faidi; Josh Ray; Laurie Martinez; Michelle Gutierrez; Miguel Gabaldon; Nica Westerling; Paul Kavanagh; Ray Zamora; Rene Molina; Robert Duran  
**Cc:** Larsen, Brent; Holcomb, Sarah, NMENV; Yurdin, Bruce, NMENV  
**Subject:** RE: Save A Date - Meetings in NM with potential permittees - Statewide MS4 Permit

Please see final dates, times, and locations for the EPA meetings. Please make sure someone from your organization can attend the meeting planned in your Urbanized Area.

I apologize if you are receiving this e-mail for the first time. I have updated the e-mail distribution list based on the attendee signature sheets from last year meetings. As I indicated in my initial e-mail, EPA Region 6 is drafting an NPDES general permit for MS4s located in the State of New Mexico, except for these located in the Middle Rio Grande Watershed in the Albuquerque area. The purpose of these meetings is to provide an overview of the stormwater program and the likely permit requirements.

### Meetings Information:

#### Las Cruces/ El Paso Urbanized Area:

Date and time: September 22 – 10:00 am – 11:130 am

Place: Multi-media Conference Room at the Doña Ana Government Center, located at 845 N Motel Blvd. Las Cruces, NM

#### Los Lunas UA

Date and Time: September 22 – 3:30 pm -5:00 pm

Place: Old Valencia County courthouse/ administrative offices, 444 Luna Ave, Los Lunas NM

#### Farmington UA

Date and Time: September 23 – 1:00 pm – 2:30 pm

Place: San Juan County Commission Chambers at 100 S. Oliver Drive, City of Aztec

#### Santa Fe UA

Date and Time: September 24 – 8:00 am to 11:30 am

Place:

State Records Center & Archives - Yucca Room (#2022) on the second floor  
1205 Camino Carlos Rey



# EPA | Post-Construction Region 6 | Workshops New Mexico



## Las Cruces/El Paso

Urbanized Area Workshop  
Date: December 1, 2014  
Time: 9:30 am to 5:00 pm  
Location: Doña Ana  
Government Center  
845 N. Motel Blvd.  
Las Cruces, NM 88007

## Farmington

Urbanized Area Workshop  
Date: December 3, 2014  
Time: 8:30 am to 4:00 pm  
Location: San Juan County  
Commission Chambers  
100 South Oliver Drive  
Aztec, NM 87410

## Albuquerque

Urbanized Area Workshop  
Date: December 4, 2014  
Time: 8:30 am to 4:00 pm  
Location: City of  
Albuquerque Convention  
Center, Taos Room  
401 2nd St NW  
Albuquerque, NM 87102

EPA is inviting you to participate in one of the three post-construction stormwater workshops being held in Las Cruces, Aztec, and Albuquerque, NM, during the dates and locations listed above. Implementation of Green Infrastructure and Low Impact Development practices are an important tool for protecting water quality and useful in meeting post-construction runoff control requirements in MS4 permits across the country.

The goal of the workshops is to educate municipal staff and engineers on how to design sites to mimic predevelopment conditions. The workshops will include case studies of projects that have implemented stormwater controls in arid and semi-arid areas. The workshops will also present the analysis carried out in a Middle Rio Grande Predevelopment Hydrology Study. See additional information on this study at

[http://epa.gov/region6/water/npdes/sw/ms4/nfs\\_albuquerque\\_report\\_april2014\\_v2.pdf](http://epa.gov/region6/water/npdes/sw/ms4/nfs_albuquerque_report_april2014_v2.pdf)

The workshops are open to MS4s, developers, State and Federal regulators, and other stormwater practitioners involved with the municipal stormwater program. The workshops will be at no cost, but due to limited space, attendees need to register using the following website:

<http://water.epa.gov/polwaste/npdes/NPDES-Training-Courses-and-Workshops.cfm>

## MUNICIPAL STORMWATER PROGRAM



For additional information  
contact Nelly Smith (EPA R6 MS4 Coordinator)  
at 214-665-7109 or via e-mail at [smith.nelly@epa.gov](mailto:smith.nelly@epa.gov)

**Richards, T.J.**

---

**From:** Smith, Nelly [Smith.Nelly@epa.gov]  
**Sent:** Friday, August 22, 2014 3:00 PM  
**Subject:** FW: Runoff Rundown August 2014

FYI

Nelly Smith  
Industrial and Municipal Stormwater Coordinator  
EPA Region 6  
Permits and Technical Assistance Section  
NPDES Permits and TMDLs Branch

ph: 214-665-7109  
Email: smith.nelly@epa.gov

**From:** Center for Watershed Protection, Inc. [mailto:center@cwpa.org]  
**Sent:** Thursday, August 21, 2014 9:26 AM  
**To:** Smith, Nelly  
**Subject:** Runoff Rundown August 2014



*Monthly News from the Center for Watershed Protection*  
55

August 2014 \* Issue

[Click Here](#) to read the entire issue online.

**INSIDE THIS  
ISSUE:**

[News from The  
Center](#)

[Latest Webcast](#)

[CWPA Member  
Profile](#)

[Clean Water](#)

**Center Developing Optimization Tool for  
Stormwater Pollution  
Reduction**



The Center is developing a Clean Water Optimization Tool to help Maryland Eastern Shore counties develop more realistic and cost-effective pollution reduction strategies.

Communities on the Eastern Shore of Maryland face some unique challenges with developing stormwater pollution reduction strategies to meet the Chesapeake Bay total maximum daily load (TMDL)

[Optimization Tool](#)

[Citizen Pollution Monitoring](#)

[BMP Design Projects](#)

**NEWS FROM THE CENTER**



**YOU ARE INVITED TO ASSISTANCE AND SUPPORT AT THE NATIONAL TMDL CONFERENCE**

[Read more...](#)

\*\*\*\*\*

**LATEST WEBCAST**



**Stream Restoration as a Pollutant Reduction Strategy**

September 10, 2014 \*  
Time 1-3pm EST

[Read more...](#)

\*\*\*\*\*

**CWP ASSOC. MEMBER PROFILE**



Riverside County Flood Control & Water Conservation District is Going Green with Stormwater Capture  
[Read more...](#)

requirements. Each county was tasked with developing a Phase II Watershed Implementation Plan (WIP) that outlines how they will achieve the TMDL reductions, which will be enforced through the National Pollution Discharge and Elimination System (NPDES) municipal separate storm sewer system (MS4) permit program. Only two Eastern Shore municipalities are currently regulated under the MS4 program, leaving the remaining counties uncertain of their legal obligation to reduce nutrient and sediment loads. [Read more...](#)

\*\*\*\*\*

**Monitoring Guide for Citizens Targets Sewage Discharges**



Water that is contaminated with sewage presents a serious health risk at beaches and in rivers and streams throughout the United States. A 2012 estimate by the US Environmental Protection Agency showed that 35% of US waters are not even clean enough to support fishing or swimming because of pollutants such as bacteria. In

urban areas, untreated or partially treated sewage makes its way into rivers and streams through sewer overflows and leaks, dumping, illegal sewer connections and failing septic systems.

The Center has been working at both the local and federal levels to address the important issue of sewage discharges, including authoring a national guidance on Illicit Discharge Detection and Elimination (IDDE) in 2004 and working with more than 20 communities to implement and refine the monitoring protocols for identifying and tracking the sources of sewage discharges. The IDDE manual was intended for regulated MS4 communities tasked with setting up a program, but does not address the role of volunteers. [Read more...](#)

\*\*\*\*\*

**Center Ramps Up on Stormwater BMP Design**



The Center is undertaking a major design effort this summer, through several grants from the Maryland Department of Natural Resources and other funders. The Center will be designing at least 20 different stormwater retrofits in multiple locations throughout Maryland, including various state parks and both public and private

lands in the City of Frederick, Anne Arundel County, Wicomico County and Howard County.

We're looking forward to this effort as a great chance to continue to practice what we preach, and achieve some real on-the-ground water quality improvements. This effort will allow the Center to work in several communities that we haven't before, and convincing people to adopt stormwater retrofits as part of their water quality improvement efforts becomes a lot easier when there is already a

good example to point to in their community. The retrofits will primarily be bioretention facilities, but there will be plenty of variety to keep things interesting. The projects also include dry swales and regenerative stormwater conveyance practices, some impervious cover removal, and a green roof. [Read more...](#)

## More About the Center for Watershed Protection

[Join our association](#)

[Latest blog on gray and green infrastructure](#)

[Join the 330+ members of our LinkedIn group](#)

[Watershed fun on Facebook](#)

[Online watershed research](#)



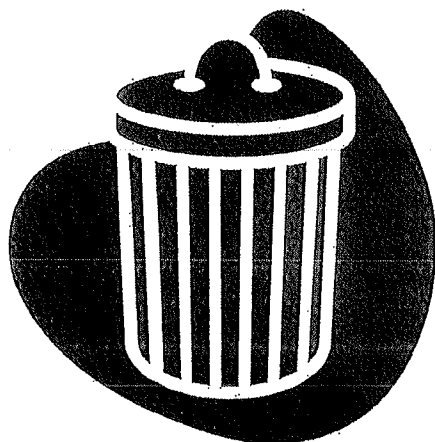
Center for Watershed Protection | 3290 North Ridge Road, Ste 290 | Ellicott City | MD | 21043

## Appendix B.



# HOUSEHOLD HAZARDOUS WASTE COLLECTION DAY

SATURDAY  
Sept. 6<sup>th</sup>  
9:00 a.m. - 1:00 p.m.



## Two Sites:

**San Juan County Facility**  
Administration Parking Lot  
100 South Oliver Drive  
Aztec, NM

**American Plaza Parking  
Lot**  
1001 West Broadway

FREE! TO ALL SAN JUAN  
COUNTY RESIDENTS ONLY!  
(No Commercial Hazardous Waste Please!)

DO YOU HAVE OLD PAINT, MOTOR OIL, WEED KILLERS AND OTHER HAZARDOUS ITEMS THAT YOU WANT TO GET RID OF?

### WE CAN ACCEPT:

Antifreeze, auto fluids, gas, brake fluid, motor oil, batteries, dry cleaning fluid, glue, household cleaners, fertilizer, insecticides, weed killers, aerosols, paints, stains, artist paints & cleaners, chemistry sets, wood paint, enamel paints, and varnishes.

### WE CANNOT ACCEPT:

Biomedical or radioactive wastes, explosives, compressed gases, 55 gal. drums, business generated wastes, yard waste, ammunition or industrial waste, appliances (refrigerators), tires, E-waste (computers, cell phones, etc) – see Farmington Clean & Beautiful (599-1426) for information on disposal of E-waste.

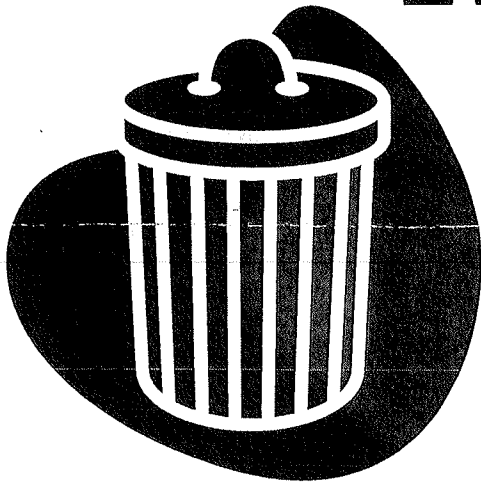
### For More Information, Please Call:

325-6741 or 599-1284  
Mon.-Fri. 8:00am - 4:00pm.

NOTE: Paint in liquid form is considered a Household Hazardous Waste. Paint in dried-out solid form is NOT a Hazardous Waste and can be thrown out in the trash.

# HOUSEHOLD HAZARDOUS WASTE COLLECTION DAY

**SATURDAY**  
May, 2nd  
9:00 a.m. - 1:00 p.m.



---

**FREE! TO ALL SAN JUAN  
COUNTY RESIDENTS ONLY!**  
*(No Commercial Hazardous Waste Please!)*

---

## Two Sites:

**San Juan County Facility**  
Administration Parking Lot  
100 South Oliver Drive  
Aztec, NM

**American Plaza Parking  
Lot**  
1001 West Broadway  
Farmington, NM

DO YOU HAVE OLD PAINT, MOTOR OIL, WEED KILLERS AND OTHER HAZARDOUS ITEMS THAT YOU WANT TO GET RID OF?

### WE CAN ACCEPT:

Antifreeze, auto fluids, gas, brake fluid, motor oil, batteries, dry cleaning fluid, glue, household cleaners, fertilizer, insecticides, weed killers, aerosols, paints, stains, artist paints & cleaners, chemistry sets, wood paint, enamel paints, and varnishes.

### WE CANNOT ACCEPT:

Biomedical or radioactive wastes, explosives, compressed gases, 55 gal. drums, business generated wastes, yard waste, ammunition or industrial waste, appliances (refrigerators), tires, E-waste (computers, cell phones, etc) – see Farmington Clean & Beautiful (599-1426) for information on disposal of E-waste.

**For More Information, Please Call:**

325-6741 or 599-1284  
Mon.-Fri. 8:00am-6:00pm.

**NOTE:** Paint in liquid form is considered a Household Hazardous Waste. Paint in dried-out solid form is NOT a Hazardous Waste and can be thrown out in the trash.

# 2014 San Juan County Fair

## San Juan County Fair attendance increases - Joni Kelsey

Billy Huish, San Juan County Fairboard Director, said "The San Juan County Fair attendance was up close to 2% this year. It may have had to do with moving the fair dates back one week so the fair didn't coincide with the Connie Mack World Series."

Despite rainy weather, evening attendance was very busy. The turn-out for the Susie McEntire concert was incredible.

Revenues for the fair were down a little bit but could be attributed to the Fairboard giving free entrance to seniors and special needs groups. One of the options for free attendance was a food drive for the Farmington ECHO food bank. ECHO received a total of 1,260 pounds of food which will help provide local families with over 1,600 meals. Amy Werner with ECHO, Inc. stated, "That's a huge impact and we appreciate all the hard work. Your help is vitally needed and deeply appreciated. We hope that you will continue to support our

community effort to provide these programs for the less fortunate citizens of San Juan County."

Billy Huish went on to say "The San Juan County Fair couldn't have been so successful without the help of McGee Park and their staff. We really appreciate their support and personnel."



Gretchen Schneider and her children Coulter and Kaitlyn greet fair-goers from the SJC Fire Department booth. Gretchen is the receptionist for the SJC Fire Department.



Melody Buser, 911 Call-Taker, mans the SJC Communications Authority booth at the Fair.





# Fall Cleanup Week ~ 2014

## October 13-16, 2014

During the week of **October 6-9, 2014** residents can call the City' Public Works Office (334-7660) to schedule curbside pickup of oversized objects for pickup the week of **October 13-16, 2014**.

### PROHIBITED ITEMS



- No regular household garbage
- No hazardous waste such as paint, oil or hazardous chemicals
- No tires
- No concrete
- No junk cars
- No Construction Materials (lumber, sheetrock, insulation, etc.)

### OTHER RESTRICTIONS

- **All items MUST be located on the CURB for pickup and bagged as much as possible.** City employees will not pickup items in alleys or in yards – must be on curb.
- **Branches or limbs MUST be cut into 3 feet lengths and tied into a manageable bundle for pickup. If limbs are not in 3 feet lengths, they will not be picked up and it will be your responsibility to dispose of them.**
- **Certified Freon Removal:** Refrigerators, freezers and other appliances containing Freon must have the compressor removed and must be affixed with a red tag from a certified technician indicating that all Freon has been removed.

### DUMP CONVENIENCE CENTER

During Community Cleanup Week the Aztec Recycle Center will serve as a Dump Convenience Center and will accept junk and trash items that are generally required to be taken to the County Dump. This service is FREE during normal **Recycle Center** hours:

**Tuesday through Thursday: 10:00 a.m. – 4:00 p.m.**  
**Friday & Saturday: 9:00 a.m. to 4:00 p.m.**  
**Sunday: Noon to 4:00 p.m.**



*The City would like to **THANK YOU** in advance for your participation in Community Cleanup Week. By working together we can make our city a beautiful place to live, work and play.*

# SPRING FLING ~ 2015

## Community Cleanup Week

### April 20 – April 23



During the week of April 13-16 residents can call the City's Public Works Office (334-7660) to schedule curbside pickup of oversized objects for pickup the week of April 20-23.

#### PROHIBITED ITEMS



- No regular household garbage
- No hazardous waste such as paint, oil or hazardous chemicals
- No tires
- No concrete
- No junk cars
- No Construction Materials (lumber, sheetrock, insulation, etc.)

#### OTHER RESTRICTIONS

- *All items MUST be located on the CURB for pickup and bagged as much as possible. City employees will not pickup items in alleys or in yards – must be on curb.*
- *Branches or limbs MUST be cut into 3 feet lengths and preferably tied or otherwise contained for pickup. If limbs are not in 3 feet lengths, they will not be picked up and it will be your responsibility to dispose of them.*
- **Certified Freon Removal:** Refrigerators, freezers and other appliances containing Freon must have the compressor removed and must be affixed with a red tag from a certified technician indicating that all Freon has been removed.

#### DUMP CONVENIENCE CENTER

During Community Cleanup Week the Aztec Recycle Center will serve as a Dump Convenience Center and will accept junk and trash items that are generally required to be taken to the County Dump. This service is FREE during normal **Recycle Center** hours:



Tuesday through Thursday: 10:00 a.m. – 4:00 p.m.  
Friday & Saturday: 9:00 a.m. to 4:00 p.m. Sunday: Noon to 4:00 p.m.

#### LIMB RECYCLING

Branches or limbs **MUST be cut into 3 feet lengths** and preferably tied or otherwise contained for pickup or may be dropped off at the Recycle Center where MULCH is available for pickup at no charge during the week– Monday – Thursday, April 10 am to 4 pm. **If limbs are not in 3 feet lengths they will not be picked up and it will be your responsibility to dispose of them. Mulch is available throughout the year, at no charge, at the Recycle Center.**

*The City would like to **THANK YOU** in advance for your participation in Community Cleanup Week. By working together we can make our city a beautiful place to live, work and play.*

## Appendix C.

# Storm Water Monitoring Form

## Wet Weather and Sampling

Animas Environmental Services, LLC

\*\*\*To be completed quarterly & filed with SWPPP

<http://www.animasenvironmental.com>  
Tel. (505) 564-2281 Fax (505) 324-2022

Project: Storm Water Quarterly Monitoring  
 Client: San Juan County  
 Location: Outfall #10  
 Inspector: S. Lynn, S. Glasses  
 Inspector's Title: Project Manager

Project No.: \_\_\_\_\_  
 Date: 8/13/14  
 Time: 14:00  
 Weather: partly cloudy  
 Air Temperature: 74°  
 Date of last rainfall: 8/3/14  
 Amount of Last Rainfall (in.): 0.45" for 8/13/14

OUTFALL Location:	Condition	Storm Water Accumulation? (Y/N)	Recent Spill (Y/N)	Notes & Actions Taken
<u>Outfall #10</u>	<u>Good</u>	<u>Y</u>	<u>N</u>	<u>None</u>

1. Is there visible standing water at outfall location? If no, go to next question.

Check all that apply:

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Colored Water          | <input type="checkbox"/> Murky            | <input type="checkbox"/> Stains                           |
| <input type="checkbox"/> Odor                   | <input type="checkbox"/> Floating Objects | <input type="checkbox"/> Notable Difference in Plant Life |
| <input type="checkbox"/> Oily Sheen             | <input type="checkbox"/> Sludge Present   |   |
| <input checked="" type="checkbox"/> Clear Water | <input type="checkbox"/> Suds             |   |

Comments/Notes: Mostly clear water, but slight brownish

2. If no visible standing water at outfall location, check all that apply:

- |   |   |
|---|---|
| <input type="checkbox"/> Sludge Present | <input type="checkbox"/> Notable Difference in Plant Life |
| <input type="checkbox"/> Stains         |   |

Comments/Notes: \_\_\_\_\_

3. Describe any storm water flows and estimate flow rate: Approximately 10 cfs

4. Describe storm water samples collected, if any: Brownish color (very light though)

5. Describe any corrective actions to be taken: None

6. Additional Notes and Water Quality Data:

Temp: 22.67°C DO: 8.02 mg/L pH: 8.36 Cond: 0.546 mS/cm ORP: -121.5

7. Next Inspection Scheduled for: TBD

# Storm Water Monitoring Form

## Wet Weather and Sampling

Animas Environmental Services, LLC

\*\*\*To be completed quarterly & filed with SWPPP

http://www.animasenvironmental.com  
Tel. (505) 564-2281 Fax (505) 324-2022

Project: Storm Water Quarterly Monitoring  
 Client: San Juan County  
 Location: Outfall # 11  
 Inspector: S. Lynn, S. Glasses  
 Inspector's Title: Project Mgr

Project No.:  
 Date: 8/13/14  
 Time: 13:27  
 Weather: lightly raining  
 Air Temperature: 72°F  
 Date of last rainfall: 8/3/14  
 Amount of Last Rainfall (in.): 0.45 inches for 8/13/14

OUTFALL Location:	Condition	Storm Water Accumulation? (Y/N)	Recent Spill (Y/N)	Notes & Actions Taken
Outfall # 11	Good	Y	N	None

1. Is there visible standing water at outfall location? If no, go to next question.

Check all that apply:

- Colored Water      Murky      Stains  
 Odor      Floating Objects      Notable Difference in Plant Life  
 Oily Sheen      Sludge Present  
 Clear Water      Suds

Comments/Notes: Murky - lots of sediment flowing

2. If no visible standing water at outfall location, check all that apply:

- Sludge Present      Notable Difference in Plant Life  
 Stains

Comments/Notes:

3. Describe any storm water flows and estimate flow rate: Flow ~ 15 cfs - 20 cfs

4. Describe storm water samples collected, if any: Brownish color, no odor or discolorations that oily sheen, plant life along banks appear healthy

5. Describe any corrective actions to be taken: None

6. Additional Notes and Water Quality Data:

Temp: 21.23°C     DO: 7.62 mg/L     pH: 8.05     Cond: 0.621 <sup>ms</sup>/cm     ORP: 67.1

7. Next Inspection Scheduled for: TBD



6/19/2015

SJC/COA Stormwater  
Outfall Dry Weather Inspection



Arrive Outfall #6 8:53 am

Currently dry. No stalling, some trash. Slight build-up of sand at outfall from culvert. Slight erosion downstream, but in good condition at outfall and uphill of culvert.

Arrive Outfall #5 9:05 am

La Plata River flowing high into San Juan River, which is also very high. Lots of vegetation at here that accesses outfall. Ducks present, vegetation appears healthy. Water is brown (lots of sediment), but no oil/suds/stalling.

Arrive Outfall #1 9:35 a.m.

Could not quite access outfall location - electric fence left road and and path to outfall. Observed upstream of outfall. Irrigation ditch is flowing, but not very fast. Vegetation appears healthy. Slightly cloudy water, some algae. No observed stalling or oily sheen/suds

Arrive Outfall #2 10:22

Little ditch has clear water in ~~it~~ it, but not running very fast. One section observed was ~1 ft deep. Lots of vegetation, all appear healthy. No signs of stalling/suds/oil.

Arrive Outfall #3 10:41

Could not get near outfall - very overgrown and lots of down-fall (possibility of snakes in brush). But appeared that some water was present in ditch - likely backfill from nearby San Juan River. Vegetation appears healthy.

Arrive Outfall #4 11:00

Lots of vegetation along route to outfall. Talked to neighbor of Mary Fisher - said better place to collect stormwater (and not irrigation ditch water) is at elbow in road just at bottom of hill. Culvert goes under road - partially filled with sediment. ↳ captures runoff from mesa. Currently dry. No ~~suds~~ stalling/trash.

Arrive AES @ 13:00, Highwater = 170826



6/25/15

SJC/COA Outfalls - Dry  
Weather Inspections

Depart AES @ 8:45. Ford 2011 (109). Mileage = 72860.

Arrive SJC office @ 9:10.

Talk with TJ Richards and Laurie Martinez

Depart SJC office @ 10:02.

Arrive Outfall #11 @ 10:10.

Flow from ditch ~ 20 cfs. Good flow, vegetation appears healthy. No suds or sheen/oil in flow base flow. No major erosion - road walls working well. No trash present.

Arrive outfall #12 @ 10:40

Flow from ditch ~ 15 cfs. Water is mostly clear, no suds or oily sheen. No signs of staining. Vegetation appears healthy. No trash.

Arrive Outfall #10 @ 10:48

Deep but very slow flow from ditch, ~ 5 cfs. Vegetation appears healthy. No signs of staining or suds/oily sheen. No trash.

Arrive Outfall #9 @ 11:04

Vegetation very overgrown - could not see or access large culvert. Highly eroded just below large culvert. Smaller upper culvert observed. No flow from either one. No signs of staining or trash.

(Aztec Auto Salvage SWPPP inspection 11:10 - 12:10)

Arrive Outfall #8 @ 12:30.

Ditch is flowing, some water backed up from river. Flow slow ~ 5 cfs?. No signs of staining or oil sheen/suds. Vegetation appears healthy.

Arrive Outfall #7 @ 12:55.

Met wife Cam and showed me easier access to creek. Shallow flow ~ 2 cfs. Water is clear, no signs of staining or oily sheen/suds. Vegetation healthy. Lots of cottonwood seeds nearby.

(Quick lunch = 0.25 hrs)

Arrive AES @ 13:40. Mileage = 72900

Appendix D.

CH2M HILL  
Farmington Project  
816 South Carlton Ave  
Farmington, NM 87401  
Tel 505.325-6953  
Fax 505.564.2680



August 29, 2014

Animas Environmental  
624 E. Comanche  
Farmington, NM 87401

Attention: Ms. Stephanie Lynn

Dear Stephanie,

Please find enclosed the results for the samples submitted August 13, 2014, as well as an invoice for these analyses.

Quality Control parameters were acceptable for all analyses unless otherwise noted below. If you need more information or have any questions, please call us at 505/325-6953.

Sincerely,

A handwritten signature in cursive script that reads "Monica Peterson".

Monica Peterson  
Laboratory Director

cc: File

Animas Environmental

-2-

August 29, 2014

**SAMPLE DATA**

SAMPLE LOCATION	SAMPLE LAB NO.	DATE AND TIME SAMPLED
SJC Outfall #11	2014c-0352	August 13, 2014 @ 1330
SJC Outfall #12	2014c-0353	August 13, 2014 @ 1350
SJC Outfall #10	2014c-0354	August 13, 2014 @ 1410

Samples received August 13, 2014 @ 1452

**RESULTS, *E. coli***

SAMPLE LOCATION	<i>E. coli</i> RESULTS	ANALYSIS DATE & TIME	ANALYST
SJC Outfall #11	148 MPN/100 mL	August 13, 2014 @ 1524	MB
SJC Outfall #12	187 MPN/100 mL	August 13, 2014 @ 1524	MB
SJC Outfall #10	19,863 MPN/100 mL	August 13, 2014 @ 1524	MB

**QC Notes**

NA

**Method of Analysis***E. coli* – Standard Methods 9223B -- 2004

CHAIN OF CUSTODY

1395 S. Lake Street Farmington,  
NM 87401

FARMINGTON ENVIRONMENTAL LAB  
CH2M HILL OMI

505/325-6953

Client Name: Aumas Environmental Services

Sampler - Printed Name and phone number(s)

Address: 624 E. Comanche Farmington, NM 87701.

Stephanie Lynn (505) 564-2281

Sample Location	Date	Time	Type		Lab ID #	Pres.	No. & Type of Containers	Analysis Required
			Comp.	Grab				
EXAMPLE SAMPLE	11/2009	0800	24 hr.			on ice	1 @ 2L plastic	BOD, TSS
SJC Outfall # 11	8/13/14	13:30		<input checked="" type="checkbox"/>	2014c - 0352	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	1 @ 120 p	E. Coli
SJC Outfall # 12	8/13/14	13:50		<input checked="" type="checkbox"/>	2014c - 0353	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	1 @ 120 p	E. Coli
SJC Outfall # 10	8/13/14	14:10		<input checked="" type="checkbox"/>	2014c - 0354	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	1 @ 120 p	E. Coli

Relinquished by: Stephanie Lynn  
Date/Time Received: 08/13/14 1452

Received by: [Signature]  
Date/Time Received: 08/13/14 1452

Comments Please email results to Stephanie Lynn at [aumasenvironmental@aumasenvironmental.com](mailto:aumasenvironmental@aumasenvironmental.com)  
Will GC 11/6 08/29/14

CH2M HILL  
Farmington Project  
615 South Carlton Ave  
Farmington, NM 87401  
Tel 505.325-8953  
Fax 505.564.2680



October 22, 2014

Animas Environmental  
624 E. Comanche  
Farmington, NM 87401

Attention: Ms. Stephanie Hinds

Dear Stephanie,

Please find enclosed the results for the samples submitted October 9, 2014, as well as an invoice for these analyses.

Quality Control parameters were acceptable for all analyses unless otherwise noted below. If you need more information or have any questions, please call us at 505/325-6953.

Sincerely,

A handwritten signature in cursive script that reads "Monica Peterson".

Monica Peterson  
Laboratory Director

cc: File

Animas Environmental

-2-

October 22, 2014

**SAMPLE DATA**

SAMPLE LOCATION	SAMPLE LAB NO.	DATE AND TIME SAMPLED
SJC Outfall #6	2014c-0500	October 9, 2014 @ 0815
SJC Outfall #5	2014c-0501	October 9, 2014 @ 0830
COF Outfall #11	2014c-0502	October 9, 2014 @ 0850

Samples received October 9, 2014 @ 1006

**RESULTS, *E. coli***

SAMPLE LOCATION	<i>E. coli</i> RESULTS	ANALYSIS DATE & TIME	ANALYST
SJC Outfall #6	3,441 MPN/100 mL	October 9, 2014 @ 1100	TKT
SJC Outfall #5	12,997 MPN/100 mL	October 9, 2014 @ 1100	TKT
COF Outfall #11	261.3 MPN/100 mL	October 9, 2014 @ 1100	TKT

**QC Notes**

NA

**Method of Analysis***E. coli* – Standard Methods 9223B – 2004

CHAIN OF CUSTODY

1395 S. Lake Street Farmington, NM 87401

FARMINGTON ENVIRONMENTAL LAB  
CH2M HILL OMI

505/325-6953

Client Name: Animas Environmental Services

Address: 604 W. Pecos St. Farmington, NM 87401

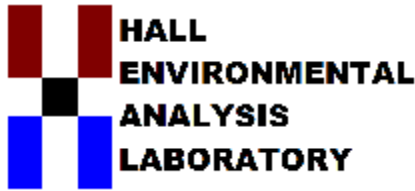
Sampler - Printed Name and phone number(s)  
Stephanie Hinds (505) 564-2281

Sample Location	Date	Time	Type		Lab ID #	Pres.	No. & Type of Containers	Analysis Required
			Comp.	Grab				
EXAMPLE SAMPLE	11/12/09	0800	24 hr.				1 @ 2L plastic	BOD, TSS
SJC Outfall # 6	10/9/14	0815		X	2014A-0500	on ice	1 @ 250mL	E coli
SJC Outfall # 5	10/9/14	0830		X	2014A-0501	on ice	1 @ 250mL	E coli
COF outfall # 11	10/9/14	0850		X	2014A-0502	on ice	1 @ 250mL	E coli

Relinquished by: Stephanie Hinds Received by: [Signature]  
Date/Time Received: 10/9/14 @ 1001a

Comments: Please email results to Stephanie Hinds at shinds@animasenvironmental.com  
DEV/ARC-ARC 10/20/14





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

September 02, 2014

Stephanie Lynn

Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX (505) 324-2022

RE: San Juan County Outfall Sampling

OrderNo.: 1408717

Dear Stephanie Lynn:

Hall Environmental Analysis Laboratory received 3 sample(s) on 8/14/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408717

Date Reported: 9/2/2014

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Outfall #11

**Project:** San Juan County Outfall Sampling

**Collection Date:** 8/13/2014 1:30:00 PM

**Lab ID:** 1408717-001

**Matrix:** AQUEOUS

**Received Date:** 8/14/2014 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/18/2014 5:17:09 PM	R20647
<b>EPA METHOD 200.7: METALS</b>							Analyst: <b>JLF</b>
Aluminum	23	2.0	*	mg/L	100	8/26/2014 11:34:33 AM	14930
Iron	29	2.0	*	mg/L	100	8/26/2014 11:34:33 AM	14930
Zinc	0.28	0.010		mg/L	1	8/26/2014 11:29:41 AM	14930
<b>EPA 200.8: METALS</b>							Analyst: <b>DBD</b>
Arsenic	0.0068	0.0010		mg/L	1	8/25/2014 3:14:54 PM	14930
Cadmium	ND	0.0010		mg/L	1	8/25/2014 3:14:54 PM	14930
Lead	0.045	0.0010	*	mg/L	1	8/25/2014 3:14:54 PM	14930
Nickel	0.015	0.0010		mg/L	1	8/25/2014 3:14:54 PM	14930
Copper	0.037	0.0010		mg/L	1	8/25/2014 3:14:54 PM	14930
Selenium	ND	0.0010		mg/L	1	8/25/2014 3:14:54 PM	14930
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>JLF</b>
Mercury	ND	0.00020		mg/L	1	8/26/2014 1:55:05 PM	14944
<b>EPA METHOD 1664A</b>							Analyst: <b>MRA</b>
N-Hexane Extractable Material	ND	5.3		mg/L	1	8/19/2014 12:00:00 PM	14778
Silica Gel Treated N-Hexane Extractable Material	ND	5.3		mg/L	1	8/19/2014 12:00:00 PM	14778
<b>SM 4500 NH3: AMMONIA</b>							Analyst: <b>TMG</b>
Nitrogen, Ammonia	ND	1.0		mg/L	1	8/22/2014 10:50:00 AM	R20744
<b>SM 4500 NORG C: TKN</b>							Analyst: <b>TMG</b>
Nitrogen, Kjeldahl, Total	1.1	1.0		mg/L	1	8/20/2014 1:25:00 PM	14837
<b>SM 2540D: TSS</b>							Analyst: <b>KS</b>
Suspended Solids	1500	8.0		mg/L	1	8/15/2014 5:45:00 PM	14791

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408717

Date Reported: 9/2/2014

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Outfall #12

**Project:** San Juan County Outfall Sampling

**Collection Date:** 8/13/2014 1:50:00 PM

**Lab ID:** 1408717-002

**Matrix:** AQUEOUS

**Received Date:** 8/14/2014 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/18/2014 5:29:33 PM	R20647
<b>EPA METHOD 200.7: METALS</b>							Analyst: <b>JLF</b>
Aluminum	11	0.40	*	mg/L	20	8/26/2014 11:36:16 AM	14930
Iron	12	0.40	*	mg/L	20	8/26/2014 11:36:16 AM	14930
Zinc	0.19	0.010		mg/L	1	8/26/2014 11:31:35 AM	14930
<b>EPA 200.8: METALS</b>							Analyst: <b>DBD</b>
Arsenic	0.0038	0.0010		mg/L	1	8/25/2014 3:24:56 PM	14930
Cadmium	ND	0.0010		mg/L	1	8/25/2014 3:24:56 PM	14930
Lead	0.027	0.0010	*	mg/L	1	8/25/2014 3:24:56 PM	14930
Nickel	0.0053	0.0010		mg/L	1	8/25/2014 3:24:56 PM	14930
Copper	0.024	0.0010		mg/L	1	8/25/2014 3:24:56 PM	14930
Selenium	ND	0.0010		mg/L	1	8/25/2014 3:24:56 PM	14930
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>JLF</b>
Mercury	ND	0.00020		mg/L	1	8/26/2014 1:56:54 PM	14944
<b>EPA METHOD 1664A</b>							Analyst: <b>MRA</b>
N-Hexane Extractable Material	ND	5.3		mg/L	1	8/19/2014 12:00:00 PM	14778
Silica Gel Treated N-Hexane Extractable Material	ND	5.3		mg/L	1	8/19/2014 12:00:00 PM	14778
<b>SM 4500 NH3: AMMONIA</b>							Analyst: <b>TMG</b>
Nitrogen, Ammonia	ND	1.0		mg/L	1	8/22/2014 10:50:00 AM	R20744
<b>SM 4500 NORG C: TKN</b>							Analyst: <b>TMG</b>
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	8/20/2014 1:25:00 PM	14837
<b>SM 2540D: TSS</b>							Analyst: <b>KS</b>
Suspended Solids	650	8.0		mg/L	1	8/15/2014 5:45:00 PM	14791

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408717

Date Reported: 9/2/2014

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Outfall #10

**Project:** San Juan County Outfall Sampling

**Collection Date:** 8/13/2014 2:10:00 PM

**Lab ID:** 1408717-003

**Matrix:** AQUEOUS

**Received Date:** 8/14/2014 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/18/2014 5:41:57 PM	R20647
<b>EPA METHOD 200.7: METALS</b>							Analyst: <b>JLF</b>
Aluminum	2.0	0.10	*	mg/L	5	8/28/2014 2:50:39 PM	14981
Iron	1.4	0.10	*	mg/L	5	8/28/2014 2:50:39 PM	14981
Zinc	0.021	0.010		mg/L	1	8/28/2014 2:10:58 PM	14981
<b>EPA 200.8: METALS</b>							Analyst: <b>DBD</b>
Arsenic	ND	0.0010		mg/L	1	8/28/2014 11:54:09 AM	14981
Cadmium	ND	0.0010		mg/L	1	8/28/2014 11:54:09 AM	14981
Lead	0.0036	0.0010		mg/L	1	8/28/2014 11:54:09 AM	14981
Nickel	0.0017	0.0010		mg/L	1	8/28/2014 11:54:09 AM	14981
Copper	0.0043	0.0010		mg/L	1	8/28/2014 11:54:09 AM	14981
Selenium	ND	0.0010		mg/L	1	8/28/2014 11:54:09 AM	14981
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>MMD</b>
Mercury	ND	0.00020		mg/L	1	8/28/2014 7:47:26 AM	14984
<b>EPA METHOD 1664A</b>							Analyst: <b>MRA</b>
N-Hexane Extractable Material	ND	5.5		mg/L	1	8/19/2014 12:00:00 PM	14778
Silica Gel Treated N-Hexane Extractable Material	ND	5.5		mg/L	1	8/19/2014 12:00:00 PM	14778
<b>SM 4500 NH3: AMMONIA</b>							Analyst: <b>TMG</b>
Nitrogen, Ammonia	ND	1.0		mg/L	1	8/27/2014 1:26:00 PM	R20841
<b>SM 4500 NORG C: TKN</b>							Analyst: <b>TMG</b>
Nitrogen, Kjeldahl, Total	1.1	1.0		mg/L	1	8/20/2014 1:25:00 PM	14837
<b>SM 2540D: TSS</b>							Analyst: <b>KS</b>
Suspended Solids	57	4.0		mg/L	1	8/15/2014 5:45:00 PM	14791

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859  
Tax I.D. 62-0814289  
Est. 1970

REPORT OF ANALYSIS

August 26, 2014

Hall Environmental Analysis Laborat  
4901 Hawkins NE  
Albuquerque, NM 87109

Date Received : August 19, 2014  
Description :  
Sample ID : 1408717-001D OUTFALL 11  
Collected By :  
Collection Date : 08/13/14 13:30

ESC Sample # : L716774-01  
Site ID :  
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	400	10.	mg/l	410.4	08/26/14	1
Phosphorus, Total	0.56	0.10	mg/l	365.4	08/26/14	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
Note:  
The reported analytical results relate only to the sample submitted.  
This report shall not be reproduced, except in full, without the written approval from ESC.  
Reported: 08/26/14 16:55 Printed: 08/26/14 16:55



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859  
Tax I.D. 62-0814289  
Est. 1970

REPORT OF ANALYSIS

August 26, 2014

Hall Environmental Analysis Laborat  
4901 Hawkins NE  
Albuquerque, NM 87109

Date Received : August 19, 2014  
Description :  
Sample ID : 1408717-002D OUTFALL 12  
Collected By :  
Collection Date : 08/13/14 13:50

ESC Sample # : L716774-02  
Site ID :  
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	19.	10.	mg/l	410.4	08/26/14	1
Phosphorus, Total	0.22	0.10	mg/l	365.4	08/26/14	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
Note:  
The reported analytical results relate only to the sample submitted.  
This report shall not be reproduced, except in full, without the written approval from ESC.  
Reported: 08/26/14 16:55 Printed: 08/26/14 16:55



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Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859  
Tax I.D. 62-0814289  
Est. 1970

REPORT OF ANALYSIS

August 26, 2014

Hall Environmental Analysis Laborat  
4901 Hawkins NE  
Albuquerque, NM 87109

Date Received : August 19, 2014  
Description :  
Sample ID : 1408717-003D OUTFALL 10  
Collected By :  
Collection Date : 08/13/14 14:10

ESC Sample # : 1716774-03  
Site ID :  
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	20.	10.	mg/l	410.4	08/26/14	1
Phosphorus, Total	BDL	0.10	mg/l	365.4	08/26/14	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
Note:  
The reported analytical results relate only to the sample submitted.  
This report shall not be reproduced, except in full, without the written approval from ESC.  
Reported: 08/26/14 16:55 Printed: 08/26/14 16:55



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory

4901 Hawkins NE  
Albuquerque, NM 87109

Quality Assurance Report  
Level II  
L716774

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859  
Tax I.D. 62-0814289  
Est. 1970

August 26, 2014

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
COD	< 10	mg/l			WG739290	08/26/14 13:05
Phosphorus, Total	< .1	mg/l			WG739283	08/26/14 14:46

Analyte	Units	Result	Duplicate		RPD	Limit	Ref Samp	Batch
			Duplicate	% Rec				
COD	mg/l	650.	650.	0.0	5	L716766-01	WG739290	
COD	mg/l	0.0	0.0	0.0	5	L717033-04	WG739290	
Phosphorus, Total	mg/l	0.260	0.260	0.0	20	L716802-02	WG739283	
Phosphorus, Total	mg/l	0.200	0.210	4.88	20	L716822-01	WG739283	

Analyte	Units	Laboratory Control		% Rec	Limit	Batch
		Known Val	Sample Result			
COD	mg/l	183	196.	107.	90-110	WG739290
Phosphorus, Total	mg/l	1	1.02	102.	90-110	WG739283

Analyte	Units	Laboratory Control		% Rec	Limit	RPD	Limit	Batch
		Ref	Sample Duplicate					
COD	mg/l	190.	196.	104.	90-110	3.11	5	WG739290

Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
COD	mg/l	446.	42.0	400.	100.	90-110	L716766-02	WG739290
Phosphorus, Total	mg/l	2.98	0.340	2.5	100.	90-110	L716821-01	WG739283

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	% Rec					
COD	mg/l	458.	446.	104.	90-110	2.65	5	L716766-02	WG739290
Phosphorus, Total	mg/l	3.00	2.98	106.	90-110	0.669	20	L716821-01	WG739283

Batch number /Run number / Sample number cross reference

WG739290: R2981291: L716774-01 02 03  
WG739283: R2981313: L716774-01 02 03

\* \* Calculations are performed prior to rounding of reported values.  
\* Performance of this Analyte is outside of established criteria.  
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1408717

02-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID <b>MB-14778</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 1664A</b>							
Client ID: <b>PBW</b>	Batch ID: <b>14778</b>		RunNo: <b>20666</b>							
Prep Date: <b>8/15/2014</b>	Analysis Date: <b>8/19/2014</b>		SeqNo: <b>601350</b>	Units: <b>mg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	ND	5.0								
Silica Gel Treated N-Hexane Extrac	ND	5.0								

Sample ID <b>LCS-14778</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 1664A</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>14778</b>		RunNo: <b>20666</b>							
Prep Date: <b>8/15/2014</b>	Analysis Date: <b>8/19/2014</b>		SeqNo: <b>601351</b>	Units: <b>mg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	33	5.0	40.00	0	81.3	78	114			
Silica Gel Treated N-Hexane Extrac	17	5.0	20.00	0	83.5	64	132			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1408717

02-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID	<b>MB-14930</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 200.7: Metals</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>14930</b>	RunNo:	<b>20802</b>					
Prep Date:	<b>8/25/2014</b>	Analysis Date:	<b>8/26/2014</b>	SeqNo:	<b>605257</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Iron	ND	0.020								
Zinc	ND	0.010								

Sample ID	<b>LCS-14930</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 200.7: Metals</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>14930</b>	RunNo:	<b>20802</b>					
Prep Date:	<b>8/25/2014</b>	Analysis Date:	<b>8/26/2014</b>	SeqNo:	<b>605258</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.51	0.020	0.5000	0	103	85	115			
Iron	0.53	0.020	0.5000	0	107	85	115			
Zinc	0.53	0.010	0.5000	0	105	85	115			

Sample ID	<b>MB-14981</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 200.7: Metals</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>14981</b>	RunNo:	<b>20867</b>					
Prep Date:	<b>8/27/2014</b>	Analysis Date:	<b>8/28/2014</b>	SeqNo:	<b>607296</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Iron	ND	0.020								
Zinc	ND	0.010								

Sample ID	<b>LCS-14981</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 200.7: Metals</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>14981</b>	RunNo:	<b>20867</b>					
Prep Date:	<b>8/27/2014</b>	Analysis Date:	<b>8/28/2014</b>	SeqNo:	<b>607297</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.49	0.020	0.5000	0	97.0	85	115			
Iron	0.50	0.020	0.5000	0	99.2	85	115			
Zinc	0.49	0.010	0.5000	0	97.7	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1408717

02-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID	<b>LLLCS-14930</b>		SampType: <b>LCSLL</b>	TestCode: <b>EPA 200.8: Metals</b>						
Client ID:	<b>BatchQC</b>		Batch ID: <b>14930</b>	RunNo: <b>20781</b>						
Prep Date:	<b>8/25/2014</b>		Analysis Date: <b>8/25/2014</b>	SeqNo: <b>604868</b>	Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.2	85	115			
Cadmium	0.024	0.0010	0.02500	0	97.0	85	115			
Lead	0.024	0.0010	0.02500	0	96.7	85	115			
Nickel	0.023	0.0010	0.02500	0	93.1	85	115			
Copper	0.023	0.0010	0.02500	0	93.7	85	115			
Selenium	0.024	0.0010	0.02500	0	94.5	85	115			

Sample ID	<b>MB-14930</b>		SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Metals</b>						
Client ID:	<b>PBW</b>		Batch ID: <b>14930</b>	RunNo: <b>20781</b>						
Prep Date:	<b>8/25/2014</b>		Analysis Date: <b>8/25/2014</b>	SeqNo: <b>604871</b>	Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Cadmium	ND	0.0010								
Lead	ND	0.0010								
Nickel	ND	0.0010								
Copper	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	<b>LLLCS-14981</b>		SampType: <b>LCSLL</b>	TestCode: <b>EPA 200.8: Metals</b>						
Client ID:	<b>BatchQC</b>		Batch ID: <b>14981</b>	RunNo: <b>20877</b>						
Prep Date:	<b>8/27/2014</b>		Analysis Date: <b>8/28/2014</b>	SeqNo: <b>607492</b>	Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Cadmium	0.025	0.0010	0.02500	0	99.2	85	115			
Lead	0.025	0.0010	0.02500	0	99.9	85	115			
Nickel	0.025	0.0010	0.02500	0	99.0	85	115			
Copper	0.025	0.0010	0.02500	0	98.6	85	115			
Selenium	0.024	0.0010	0.02500	0	96.8	85	115			

Sample ID	<b>MB-14981</b>		SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Metals</b>						
Client ID:	<b>PBW</b>		Batch ID: <b>14981</b>	RunNo: <b>20877</b>						
Prep Date:	<b>8/27/2014</b>		Analysis Date: <b>8/28/2014</b>	SeqNo: <b>607493</b>	Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Cadmium	ND	0.0010								
Lead	ND	0.0010								
Nickel	ND	0.0010								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1408717

02-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID	<b>MB-14981</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA 200.8: Metals</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>14981</b>	RunNo:	<b>20877</b>					
Prep Date:	<b>8/27/2014</b>	Analysis Date:	<b>8/28/2014</b>	SeqNo:	<b>607493</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0010								
Selenium	ND	0.0010								

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1408717

02-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID	<b>MB-14944</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>14944</b>	RunNo:	<b>20808</b>					
Prep Date:	<b>8/25/2014</b>	Analysis Date:	<b>8/26/2014</b>	SeqNo:	<b>605517</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	<b>LCS-14944</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>14944</b>	RunNo:	<b>20808</b>					
Prep Date:	<b>8/25/2014</b>	Analysis Date:	<b>8/26/2014</b>	SeqNo:	<b>605518</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.9	80	120			

Sample ID	<b>MB-14984</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>14984</b>	RunNo:	<b>20842</b>					
Prep Date:	<b>8/27/2014</b>	Analysis Date:	<b>8/28/2014</b>	SeqNo:	<b>606610</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	<b>LCS-14984</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>14984</b>	RunNo:	<b>20842</b>					
Prep Date:	<b>8/27/2014</b>	Analysis Date:	<b>8/28/2014</b>	SeqNo:	<b>606611</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.5	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1408717

02-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R20647</b>		RunNo: <b>20647</b>							
Prep Date:	Analysis Date: <b>8/18/2014</b>		SeqNo: <b>600891</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R20647</b>		RunNo: <b>20647</b>							
Prep Date:	Analysis Date: <b>8/18/2014</b>		SeqNo: <b>600892</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.3	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R20647</b>		RunNo: <b>20647</b>							
Prep Date:	Analysis Date: <b>8/18/2014</b>		SeqNo: <b>600927</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R20647</b>		RunNo: <b>20647</b>							
Prep Date:	Analysis Date: <b>8/18/2014</b>		SeqNo: <b>600928</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.3	0.20	3.500	0	93.7	90	110			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1408717

02-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>SM 4500 NH3: Ammonia</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R20744</b>		RunNo: <b>20744</b>							
Prep Date:	Analysis Date: <b>8/22/2014</b>		SeqNo: <b>603633</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>SM 4500 NH3: Ammonia</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R20744</b>		RunNo: <b>20744</b>							
Prep Date:	Analysis Date: <b>8/22/2014</b>		SeqNo: <b>603634</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	80	120			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>SM 4500 NH3: Ammonia</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R20841</b>		RunNo: <b>20841</b>							
Prep Date:	Analysis Date: <b>8/27/2014</b>		SeqNo: <b>606587</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>SM 4500 NH3: Ammonia</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R20841</b>		RunNo: <b>20841</b>							
Prep Date:	Analysis Date: <b>8/27/2014</b>		SeqNo: <b>606588</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	80	120			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1408717

02-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID <b>MB-14837</b>	SampType: <b>MBLK</b>		TestCode: <b>SM 4500 Norg C: TKN</b>							
Client ID: <b>PBW</b>	Batch ID: <b>14837</b>		RunNo: <b>20704</b>							
Prep Date: <b>8/19/2014</b>	Analysis Date: <b>8/20/2014</b>		SeqNo: <b>602449</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	1.0								

Sample ID <b>LCS-14837</b>	SampType: <b>LCS</b>		TestCode: <b>SM 4500 Norg C: TKN</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>14837</b>		RunNo: <b>20704</b>							
Prep Date: <b>8/19/2014</b>	Analysis Date: <b>8/20/2014</b>		SeqNo: <b>602450</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	10	1.0	10.00	0	102	80	120			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1408717

02-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID <b>MB-14791</b>	SampType: <b>MBLK</b>		TestCode: <b>SM 2540D: TSS</b>							
Client ID: <b>PBW</b>	Batch ID: <b>14791</b>		RunNo: <b>20615</b>							
Prep Date: <b>8/15/2014</b>	Analysis Date: <b>8/15/2014</b>		SeqNo: <b>599662</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Suspended Solids	ND	4.0								

Sample ID <b>LCS-14791</b>	SampType: <b>LCS</b>		TestCode: <b>SM 2540D: TSS</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>14791</b>		RunNo: <b>20615</b>							
Prep Date: <b>8/15/2014</b>	Analysis Date: <b>8/15/2014</b>		SeqNo: <b>599663</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Suspended Solids	88	4.0	92.40	0	95.2	82.47	119.05			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

**Sample Log-In Check List**

Client Name: Animas Environmental

Work Order Number: 1408717

RcptNo: 1

Received by/date: LM 08/14/14

Logged By: Ashley Gallegos 8/14/2014 8:15:00 AM *AG*

Completed By: Ashley Gallegos 8/14/2014 12:05:54 PM *AG*

Reviewed By: *[Signature]* 08/14/14

**Chain of Custody**

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Courier

**Log In**

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? Yes  No   
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No   
(If no, notify customer for authorization.)

# of preserved bottles checked for pH: 6  
 (≤2 or >12 unless noted)

Adjusted? NO

Checked by: *[Signature]*

**Special Handling (if applicable)**

- 16. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_

By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

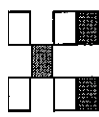
Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.4	Good	Yes			

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107



Standard     Rush  
 Project Name: \_\_\_\_\_  
 San Juan County Outfall Sampling  
 Project #: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_  
 Stephanie Lynn  
 Sampler: S. Glasses     Yes     No  
 Sample Temperature: 34

Project Manager: \_\_\_\_\_  
 Stephanie Lynn  
 Container Type and #  
 Preservative Type  
 HEAL No.

On Ice:  Yes     No  
 Sample Temperature: 34

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
8/13/2014	13:30	H2O	Outfall #11	6-500 mL Plastic, 1-1L Glass	2 HNO <sub>3</sub> , 3 H <sub>2</sub> SO <sub>4</sub> , 2 Non	1408717-001
8/13/2014	13:50	H2O	Outfall #12	6-500 mL Plastic, 1-1L Glass	2 HNO <sub>3</sub> , 3 H <sub>2</sub> SO <sub>4</sub> , 2 Non	-002
8/13/2014	14:10	H2O	Outfall #10	6-500 mL Plastic, 1-1L Glass	2 HNO <sub>3</sub> , 3 H <sub>2</sub> SO <sub>4</sub> , 2 Non	-003

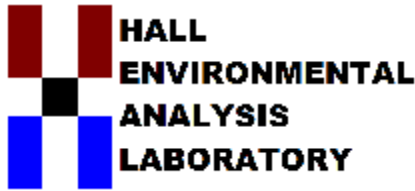
Date: 8/13/14 1656    Relinquished by: [Signature]  
 Date: 8/13/14 1745    Relinquished by: [Signature]

**Analysis Request**

8015 TPH GRO and DRO	
8260 VOCs see below	
8270 SVOC see below	
RCRA 8 Metals	
Dissolved Metals (Ca, Mg, K, Na) 6010	
300.0 Bromide, Fluoride, Sulfate	
Hardness CaCO3 6010	
TDS 2540C	
Specific Conductance EPA 120.1	
COD 410.4	X
Metals 6020/6010/7470 see below	X
TKN, NH3, Total Phosphorus	X
TSS, Nitrate/Nitrite	X
E. Coli Enumeration	X
Oil and Grease 1664A	X
Air Bubbles (Y or N)	

Remarks: Metals: Al, As, Cd, Cu, Fe, Hg, Ni, Pb, Se, and Zn.  
 Please call with questions.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

September 25, 2014

Stephanie Lynn  
Animas Environmental Services  
604 Pinon Street  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX (505) 324-2022

RE: San Juan County Outfall Sampling

OrderNo.: 1409575

Dear Stephanie Lynn:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/12/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409575

Date Reported: 9/25/2014

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Outfall #2

**Project:** San Juan County Outfall Sampling

**Collection Date:** 9/9/2014 5:40:00 PM

**Lab ID:** 1409575-001

**Matrix:** AQUEOUS

**Received Date:** 9/12/2014 6:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Nitrate+Nitrite as N	1.1	1.0		mg/L	5	9/19/2014 2:48:14 AM	R21310
<b>EPA METHOD 200.7: METALS</b>							Analyst: <b>JLF</b>
Aluminum	0.20	0.020		mg/L	1	9/17/2014 3:22:19 PM	15338
Cadmium	ND	0.0020		mg/L	1	9/17/2014 3:22:19 PM	15338
Iron	0.22	0.020		mg/L	1	9/17/2014 3:22:19 PM	15338
Lead	ND	0.0050		mg/L	1	9/17/2014 3:22:19 PM	15338
Nickel	ND	0.010		mg/L	1	9/17/2014 3:22:19 PM	15338
Zinc	ND	0.010		mg/L	1	9/17/2014 3:22:19 PM	15338
<b>EPA 200.8: METALS</b>							Analyst: <b>DBD</b>
Arsenic	ND	0.0010		mg/L	1	9/18/2014 3:25:08 PM	15338
Selenium	0.0023	0.0010		mg/L	1	9/18/2014 2:20:03 PM	15338
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>MMD</b>
Mercury	ND	0.00020		mg/L	1	9/15/2014 2:36:03 PM	15279
<b>EPA METHOD 1664A</b>							Analyst: <b>MRA</b>
N-Hexane Extractable Material	ND	5.4		mg/L	1	9/19/2014	15364
<b>SM 4500 NH3: AMMONIA</b>							Analyst: <b>TMG</b>
Nitrogen, Ammonia	ND	1.0		mg/L	1	9/17/2014 8:00:00 AM	R21250
<b>SM 4500 NORG C: TKN</b>							Analyst: <b>TMG</b>
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	9/16/2014 9:25:00 AM	15290
<b>SM 2540D: TSS</b>							Analyst: <b>KS</b>
Suspended Solids	ND	4.0		mg/L	1	9/15/2014 12:36:00 PM	15264

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 9
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859  
Tax I.D. 62-0814289  
Est. 1970

REPORT OF ANALYSIS

September 22, 2014

Hall Environmental Analysis Laborat  
4901 Hawkins NE  
Albuquerque, NM 87109

Date Received : September 16, 2014  
Description :  
Sample ID : 1409575-001D OUTFALL 2  
Collected By :  
Collection Date : 09/09/14 17:40

ESC Sample # : L721896-01  
Site ID :  
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	13.	10.	mg/l	410.4	09/20/14	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
Note:  
The reported analytical results relate only to the sample submitted.  
This report shall not be reproduced, except in full, without the written approval from ESC.  
Reported: 09/22/14 09:26 Printed: 09/22/14 09:27



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Mt. Juliet, TN 37122  
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1-800-767-5859  
Fax (615) 758-5859  
Tax I.D. 62-0814289  
Est. 1970

REPORT OF ANALYSIS

September 22, 2014

Hall Environmental Analysis Laborat  
4901 Hawkins NE  
Albuquerque, NM 87109

Date Received : September 16, 2014  
Description :  
Sample ID : 1409575-001E OUTFALL 2  
Collected By :  
Collection Date : 09/09/14 17:40

ESC Sample # : L721896-02  
Site ID :  
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Phosphorus, Total	BDL	0.10	mg/l	365.4	09/21/14	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit (PQL)  
Note:  
The reported analytical results relate only to the sample submitted.  
This report shall not be reproduced, except in full, without the written approval from ESC.  
Reported: 09/22/14 09:26 Printed: 09/22/14 09:27

Summary of Remarks For Samples Printed  
09/22/14 at 09:27:07

TSR Signing Reports: 288  
R5 - Desired TAT

Enter Sample ID's AND Client Sample Id name if listed on bottom of CoC requesting All  
dissolved metals are field filtered Confirm Method # with client on all metals if not listed

Sample: L721896-01 Account: HALLENVANM Received: 09/16/14 09:00 Due Date: 09/23/14 00:00 RPT Date: 09/22/14 09:26

Sample: L721896-02 Account: HALLENVANM Received: 09/16/14 09:00 Due Date: 09/23/14 00:00 RPT Date: 09/22/14 09:26





YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory

4901 Hawkins NE  
Albuquerque, NM 87109

Quality Assurance Report  
Level II  
L721896

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
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Tax I.D. 62-0814289  
Est. 1970

September 22, 2014

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Phosphorus, Total	<.1	mg/l			WG744012	09/21/14 13:50
COD	< 10	mg/l			WG743992	09/20/14 10:57

Analyte	Units	Result	Duplicate		Limit	Ref Samp	Batch
			Duplicate	RPD			
Phosphorus, Total	mg/l	0.250	0.240	4.08	20	L721935-01	WG744012
Phosphorus, Total	mg/l	0.330	0.350	5.88	20	L721468-02	WG744012
COD	mg/l	340.	340.	0.0	5	L722545-01	WG743992
COD	mg/l	62.0	63.0	1.60	5	L721342-01	WG743992

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Phosphorus, Total	mg/l	1	0.936	93.6	90-110	WG744012
COD	mg/l	183	186.	102.	90-110	WG743992

Analyte	Units	Result	Laboratory Control Sample Duplicate		Limit	RPD	Limit	Batch
			Ref	%Rec				
Phosphorus, Total	mg/l	0.929	0.936	93.0	90-110	0.751	20	WG744012
COD	mg/l	187.	186.	102.	90-110	0.536	5	WG743992

Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
Phosphorus, Total	mg/l	2.82	0.340	2.5	99.0	90-110	L721808-01	WG744012
COD	mg/l	443.	56.0	400	97.0	90-110	L721754-01	WG743992

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Phosphorus, Total	mg/l	2.83	2.82	99.6	90-110	0.354	20	L721808-01	WG744012
COD	mg/l	443.	443.	96.8	90-110	0.0	5	L721754-01	WG743992

Batch number /Run number / Sample number cross reference

WG744012: R2991454: L721896-02  
WG743992: R2991582: L721896-01

\* \* Calculations are performed prior to rounding of reported values.  
\* Performance of this Analyte is outside of established criteria.  
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1409575

25-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID <b>MB-15364</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 1664A</b>							
Client ID: <b>PBW</b>	Batch ID: <b>15364</b>		RunNo: <b>21364</b>							
Prep Date: <b>9/18/2014</b>	Analysis Date: <b>9/19/2014</b>		SeqNo: <b>623894</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	ND	5.0								
Silica Gel Treated N-Hexane Extrac	ND	5.0								

Sample ID <b>LCS-15364</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 1664A</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>15364</b>		RunNo: <b>21364</b>							
Prep Date: <b>9/18/2014</b>	Analysis Date: <b>9/19/2014</b>		SeqNo: <b>623895</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	36	5.0	40.00	0	89.2	78	114			
Silica Gel Treated N-Hexane Extrac	16	5.0	20.00	0	82.0	64	132			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1409575

25-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID <b>MB-15338</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>15338</b>		RunNo: <b>21261</b>							
Prep Date: <b>9/17/2014</b>	Analysis Date: <b>9/17/2014</b>		SeqNo: <b>620076</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Cadmium	ND	0.0020								
Iron	ND	0.020								
Lead	ND	0.0050								
Nickel	ND	0.010								
Zinc	ND	0.010								

Sample ID <b>LCS-15338</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>15338</b>		RunNo: <b>21261</b>							
Prep Date: <b>9/17/2014</b>	Analysis Date: <b>9/17/2014</b>		SeqNo: <b>620077</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.55	0.020	0.5000	0	111	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.5	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Lead	0.50	0.0050	0.5000	0	101	85	115			
Nickel	0.48	0.010	0.5000	0	95.6	85	115			
Zinc	0.51	0.010	0.5000	0	102	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1409575

25-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID <b>LLLCS-15338</b>	SampType: <b>LCSSL</b>		TestCode: <b>EPA 200.8: Metals</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>15338</b>		RunNo: <b>21296</b>							
Prep Date: <b>9/17/2014</b>	Analysis Date: <b>9/18/2014</b>		SeqNo: <b>621424</b>				Units: <b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	92.7	85	115			
Selenium	0.023	0.0010	0.02500	0	91.1	85	115			

Sample ID <b>MB-15338</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>15338</b>		RunNo: <b>21296</b>							
Prep Date: <b>9/17/2014</b>	Analysis Date: <b>9/18/2014</b>		SeqNo: <b>621427</b>				Units: <b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1409575

25-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID	<b>MB-15279</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>15279</b>	RunNo:	<b>21205</b>					
Prep Date:	<b>9/15/2014</b>	Analysis Date:	<b>9/15/2014</b>	SeqNo:	<b>617635</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	<b>LCS-15279</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>15279</b>	RunNo:	<b>21205</b>					
Prep Date:	<b>9/15/2014</b>	Analysis Date:	<b>9/15/2014</b>	SeqNo:	<b>617636</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	109	80	120			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1409575

25-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R21310</b>		RunNo: <b>21310</b>							
Prep Date:	Analysis Date: <b>9/18/2014</b>		SeqNo: <b>621823</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R21310</b>		RunNo: <b>21310</b>							
Prep Date:	Analysis Date: <b>9/18/2014</b>		SeqNo: <b>621824</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.6	90	110			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1409575

25-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>SM 4500 NH3: Ammonia</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R21250</b>		RunNo: <b>21250</b>							
Prep Date:	Analysis Date: <b>9/17/2014</b>		SeqNo: <b>619403</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>SM 4500 NH3: Ammonia</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R21250</b>		RunNo: <b>21250</b>							
Prep Date:	Analysis Date: <b>9/17/2014</b>		SeqNo: <b>619404</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.8	1.0	10.00	0	98.0	80	120			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1409575

25-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID <b>MB-15290</b>	SampType: <b>MBLK</b>		TestCode: <b>SM 4500 Norg C: TKN</b>							
Client ID: <b>PBW</b>	Batch ID: <b>15290</b>		RunNo: <b>21231</b>							
Prep Date: <b>9/15/2014</b>	Analysis Date: <b>9/16/2014</b>		SeqNo: <b>618486</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	1.0								

Sample ID <b>LCS-15290</b>	SampType: <b>LCS</b>		TestCode: <b>SM 4500 Norg C: TKN</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>15290</b>		RunNo: <b>21231</b>							
Prep Date: <b>9/15/2014</b>	Analysis Date: <b>9/16/2014</b>		SeqNo: <b>618487</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	9.9	1.0	10.00	0	99.4	80	120			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1409575

25-Sep-14

**Client:** Animas Environmental Services  
**Project:** San Juan County Outfall Sampling

Sample ID <b>MB-15264</b>	SampType: <b>MBLK</b>		TestCode: <b>SM 2540D: TSS</b>							
Client ID: <b>PBW</b>	Batch ID: <b>15264</b>		RunNo: <b>21222</b>							
Prep Date: <b>9/12/2014</b>	Analysis Date: <b>9/15/2014</b>		SeqNo: <b>618260</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Suspended Solids	ND	4.0								

Sample ID <b>LCS-15264</b>	SampType: <b>LCS</b>		TestCode: <b>SM 2540D: TSS</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>15264</b>		RunNo: <b>21222</b>							
Prep Date: <b>9/12/2014</b>	Analysis Date: <b>9/15/2014</b>		SeqNo: <b>618261</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Suspended Solids	81	4.0	91.80	0	88.2	83.99	119.83			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |



Hall Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87105  
 TEL: 505-345-3975 FAX: 505-345-4107  
 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1409575

RcptNo: 1

Received by/date: [Signature] 09/12/14

Logged By: Lindsay Mangin 9/12/2014 6:30:00 AM [Signature]

Completed By: Lindsay Mangin 9/12/2014 7:38:26 AM [Signature]

Reviewed By: [Signature] 09/12/14

### Chain of Custody

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Courier

### Log In

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes  No

# of preserved bottles checked for pH: 45 CS 09/12/14  
 (<2 or >12 unless noted)  
 Adjusted? NO  
 Checked by: CS

### Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

# Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 604 W. Penn St Farmington NM 87401

Phone #: 955-524-2281

email or Fax#:

QA/QC Package:  Standard  Level 4 (Full Validation)

Accreditation  NELAP  Other

EDD (Type)

Turn-Around Time:

Standard  Rush

Project Name:

San Juan County Outfall Sampling

Project #:

Project Manager:

S. Lynn

Sampler:

SG/CL

On Ice:  Yes  No

Sample Temperature: 2.1

Date

Time

Matrix

Sample Request ID

Container Type and #

Preservative Type

HEAL No.

9-9-14

1740

H<sub>2</sub>O

Outfall #2

6-500mL Plastic

2 H<sub>2</sub>O

1409575

-001

## Analysis Request

<input type="checkbox"/>	BTEX + MTBE + TMBs (8021)
<input type="checkbox"/>	BTEX + MTBE + TPH (Gas only)
<input type="checkbox"/>	TPH 8015B (GRO / DRO / MRO)
<input type="checkbox"/>	TPH (Method 418.1)
<input type="checkbox"/>	EDB (Method 504.1)
<input type="checkbox"/>	PAHs (8310 or 8270 SIMS)
<input type="checkbox"/>	RCRA 8 Metals
<input type="checkbox"/>	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )
<input type="checkbox"/>	8081 Pesticides / 8082 PCBs
<input type="checkbox"/>	8260B (VOA)
<input checked="" type="checkbox"/>	<del>Lead 410.4</del>
<input checked="" type="checkbox"/>	Metals (620/600/770)
<input checked="" type="checkbox"/>	TN, NH <sub>3</sub> , Total Phosphorus
<input checked="" type="checkbox"/>	TSS, Wack / Nitrite
<input checked="" type="checkbox"/>	Oil & Grease (Meth A)
<input type="checkbox"/>	Air Bubbles (Y or N)

Remarks: Metals: Al, As, Cd, Fe, Hg, Ni, Pb, Se and Zn  
Please Call with questions  
One 620mL 500mL is half full. Not enough sample

Relinquished by: [Signature]

Date: 9/11/14

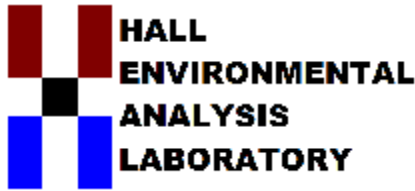
Time: 1800

Received by: [Signature]

Date: 09/12/14

Time: 0630

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

October 28, 2014

Stephanie Hinds  
Animas Environmental Services  
604 Pinon Street  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX (505) 324-2022

RE: SJC

OrderNo.: 1410555

Dear Stephanie Hinds:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/10/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1410555

Date Reported: 10/28/2014

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Outfall #6

**Project:** SJC

**Collection Date:** 10/9/2014 8:15:00 AM

**Lab ID:** 1410555-001

**Matrix:** AQUEOUS

**Received Date:** 10/10/2014 4:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Nitrate+Nitrite as N	1.1	1.0		mg/L	5	10/13/2014 1:41:44 PM	R21876
<b>EPA METHOD 200.7: METALS</b>							Analyst: <b>ELS</b>
Aluminum	17	1.0	*	mg/L	50	10/16/2014 3:11:45 PM	15908
Iron	19	1.0	*	mg/L	50	10/16/2014 3:11:45 PM	15908
Zinc	0.34	0.010		mg/L	1	10/15/2014 6:07:20 PM	15908
<b>EPA 200.8: METALS</b>							Analyst: <b>DBD</b>
Selenium	ND	0.010		mg/L	10	10/15/2014 5:59:55 PM	15908
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>MMD</b>
Mercury	ND	0.00020		mg/L	1	10/16/2014 1:38:35 PM	15933
<b>EPA METHOD 1664A</b>							Analyst: <b>MRA</b>
N-Hexane Extractable Material	ND	5.3		mg/L	1	10/16/2014	15943
<b>SM 4500 NH3: AMMONIA</b>							Analyst: <b>TMG</b>
Nitrogen, Ammonia	ND	1.0		mg/L	1	10/17/2014 7:15:00 AM	R21975
<b>SM 4500 NORG C: TKN</b>							Analyst: <b>TMG</b>
Nitrogen, Kjeldahl, Total	2.5	1.0		mg/L	1	10/16/2014 11:55:00 AM	15936
<b>SM 2540D: TSS</b>							Analyst: <b>KS</b>
Suspended Solids	440	20		mg/L	1	10/14/2014 6:14:00 PM	15886

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1410555

Date Reported: 10/28/2014

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Outfall #5

**Project:** SJC

**Collection Date:** 10/9/2014 8:30:00 AM

**Lab ID:** 1410555-002

**Matrix:** AQUEOUS

**Received Date:** 10/10/2014 4:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Nitrate+Nitrite as N	ND	1.0		mg/L	5	10/13/2014 1:54:09 PM	R21876
<b>EPA METHOD 200.7: METALS</b>							Analyst: <b>ELS</b>
Aluminum	32	2.0	*	mg/L	100	10/16/2014 3:19:05 PM	15908
Iron	41	2.0	*	mg/L	100	10/16/2014 3:19:05 PM	15908
Zinc	0.27	0.010		mg/L	1	10/15/2014 6:08:52 PM	15908
<b>EPA 200.8: METALS</b>							Analyst: <b>DBD</b>
Selenium	ND	0.010		mg/L	10	10/15/2014 6:05:15 PM	15908
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>MMD</b>
Mercury	ND	0.00020		mg/L	1	10/16/2014 1:40:21 PM	15933
<b>EPA METHOD 1664A</b>							Analyst: <b>MRA</b>
N-Hexane Extractable Material	ND	5.4		mg/L	1	10/16/2014	15943
<b>SM 4500 NH3: AMMONIA</b>							Analyst: <b>TMG</b>
Nitrogen, Ammonia	ND	1.0		mg/L	1	10/17/2014 7:15:00 AM	R21975
<b>SM 4500 NORG C: TKN</b>							Analyst: <b>TMG</b>
Nitrogen, Kjeldahl, Total	2.5	1.0		mg/L	1	10/16/2014 11:55:00 AM	15936
<b>SM 2540D: TSS</b>							Analyst: <b>KS</b>
Suspended Solids	1900	20		mg/L	1	10/14/2014 6:14:00 PM	15886

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
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Est. 1970

REPORT OF ANALYSIS

October 17, 2014

Hall Environmental Analysis Laborat  
4901 Hawkins NE  
Albuquerque, NM 87109

ESC Sample # : L727318-01

Date Received : October 14, 2014  
Description :  
Sample ID : 1410555-001D OUTFALL 6  
Collected By :  
Collection Date : 10/09/14 08:15

Site ID :  
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	210	10.	mg/l	410.4	10/16/14	1
Phosphorus, Total	0.46	0.10	mg/l	365.4	10/17/14	1

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit (PQL)  
Note:  
The reported analytical results relate only to the sample submitted.  
This report shall not be reproduced, except in full, without the written approval from ESC.  
Reported: 10/17/14 17:26 Printed: 10/17/14 17:27



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Tax I.D. 62-0814289  
Est. 1970

REPORT OF ANALYSIS

October 17, 2014

Hall Environmental Analysis Laborat  
4901 Hawkins NE  
Albuquerque, NM 87109

Date Received : October 14, 2014  
Description :  
Sample ID : 1410555-002D OUTFALL 5  
Collected By :  
Collection Date : 10/09/14 08:15

ESC Sample # : L727318-02

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	110	10.	mg/l	410.4	10/16/14	1
Phosphorus, Total	0.74	0.10	mg/l	365.4	10/17/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 10/17/14 17:26 Printed: 10/17/14 17:27





YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory

4901 Hawkins NE  
Albuquerque, NM 87109

Quality Assurance Report  
Level II  
L727318

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
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Tax I.D. 62-0814289  
Est. 1970

October 17, 2014

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
COD	< .10	mg/l			WG748889	10/16/14 10:45
Phosphorus, Total	< .1	mg/l			WG748501	10/17/14 03:49

Analyte	Units	Result	Duplicate		RPD	Limit	Ref Samp	Batch
			Duplicate	% Rec				
COD	mg/l	0.0	0.0	0.0	0.0	5	L727732-01	WG748889
COD	mg/l	1000	1000	0.0	0.0	5	L726972-01	WG748889
Phosphorus, Total	mg/l	0.0	0.0	0.0	0.0	20	L727217-01	WG748501
Phosphorus, Total	mg/l	2.60	2.60	0.0	0.0	20	L726816-04	WG748501

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
COD	mg/l	183	188.	103.	90-110	WG748889
Phosphorus, Total	mg/l	1	1.09	109.	90-110	WG748501

Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	% Rec				
COD	mg/l	188.	188.	103.	90-110	0.0	5	WG748889
Phosphorus, Total	mg/l	1.06	1.09	106.	90-110	2.79	20	WG748501

Analyte	Units	Matrix Spike				% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res	TV	% Rec				
COD	mg/l	429.	47.0	400	96.0	90-110	L727222-02	WG748889	
Phosphorus, Total	mg/l	2.85	0.160	2.5	110.	90-110	L726825-02	WG748501	

Analyte	Units	Matrix Spike Duplicate			Limit	RPD	Limit	Ref Samp	Batch
		MSD	Ref	% Rec					
COD	mg/l	429.	429.	95.5	90-110	0.0	5	L727222-02	WG748889
Phosphorus, Total	mg/l	2.95	2.85	112.*	90-110	3.45	20	L726825-02	WG748501

Batch number / Run number / Sample number cross reference

WG748889: R2998067: L727318-01 02  
WG748501: R2998443: L727318-01 02

\* \* Calculations are performed prior to rounding of reported values.

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1410555

28-Oct-14

**Client:** Animas Environmental Services

**Project:** SJC

Sample ID <b>MB-15943</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 1664A</b>							
Client ID: <b>PBW</b>	Batch ID: <b>15943</b>		RunNo: <b>22042</b>							
Prep Date: <b>10/16/2014</b>	Analysis Date: <b>10/16/2014</b>		SeqNo: <b>648062</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	ND	5.0								
Silica Gel Treated N-Hexane Extrac	ND	5.0								

Sample ID <b>LCS-15943</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 1664A</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>15943</b>		RunNo: <b>22042</b>							
Prep Date: <b>10/16/2014</b>	Analysis Date: <b>10/16/2014</b>		SeqNo: <b>648063</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	35	5.0	40.00	0	86.5	78	114			
Silica Gel Treated N-Hexane Extrac	17	5.0	20.00	0	82.5	64	132			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1410555

28-Oct-14

**Client:** Animas Environmental Services

**Project:** SJC

Sample ID <b>MB-15908</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>15908</b>	RunNo: <b>21945</b>								
Prep Date: <b>10/15/2014</b>	Analysis Date: <b>10/15/2014</b>	SeqNo: <b>644633</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Aluminum	ND	0.020								
Iron	ND	0.020								
Zinc	ND	0.010								

Sample ID <b>LCS-15908</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>15908</b>	RunNo: <b>21945</b>								
Prep Date: <b>10/15/2014</b>	Analysis Date: <b>10/15/2014</b>	SeqNo: <b>644634</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Aluminum	0.56	0.020	0.5000	0	112	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Zinc	0.52	0.010	0.5000	0	103	85	115			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1410555

28-Oct-14

**Client:** Animas Environmental Services

**Project:** SJC

Sample ID	<b>LLLCS-15908</b>	SampType:	<b>LCSLL</b>	TestCode:	<b>EPA 200.8: Metals</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>15908</b>	RunNo:	<b>21913</b>					
Prep Date:	<b>10/15/2014</b>	Analysis Date:	<b>10/15/2014</b>	SeqNo:	<b>644765</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	99.2	85	115			

Sample ID	<b>MB-15908</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA 200.8: Metals</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>15908</b>	RunNo:	<b>21913</b>					
Prep Date:	<b>10/15/2014</b>	Analysis Date:	<b>10/15/2014</b>	SeqNo:	<b>644769</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1410555

28-Oct-14

**Client:** Animas Environmental Services

**Project:** SJC

Sample ID	<b>MB-15933</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>15933</b>	RunNo:	<b>21956</b>					
Prep Date:	<b>10/16/2014</b>	Analysis Date:	<b>10/16/2014</b>	SeqNo:	<b>645214</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	<b>LCS-15933</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>15933</b>	RunNo:	<b>21956</b>					
Prep Date:	<b>10/16/2014</b>	Analysis Date:	<b>10/16/2014</b>	SeqNo:	<b>645215</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	105	80	120			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1410555

28-Oct-14

**Client:** Animas Environmental Services

**Project:** SJC

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R21876</b>		RunNo: <b>21876</b>							
Prep Date:	Analysis Date: <b>10/13/2014</b>		SeqNo: <b>642873</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R21876</b>		RunNo: <b>21876</b>							
Prep Date:	Analysis Date: <b>10/13/2014</b>		SeqNo: <b>642874</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.3	0.20	3.500	0	93.9	90	110			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1410555

28-Oct-14

**Client:** Animas Environmental Services

**Project:** SJC

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>SM 4500 NH3: Ammonia</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R21975</b>		RunNo: <b>21975</b>							
Prep Date:	Analysis Date: <b>10/17/2014</b>		SeqNo: <b>645924</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>SM 4500 NH3: Ammonia</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R21975</b>		RunNo: <b>21975</b>							
Prep Date:	Analysis Date: <b>10/17/2014</b>		SeqNo: <b>645925</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.9	1.0	10.00	0	99.4	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1410555

28-Oct-14

**Client:** Animas Environmental Services

**Project:** SJC

Sample ID	<b>MB-15936</b>	SampType:	<b>MBLK</b>	TestCode:	<b>SM 4500 Norg C: TKN</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>15936</b>	RunNo:	<b>21954</b>					
Prep Date:	<b>10/16/2014</b>	Analysis Date:	<b>10/16/2014</b>	SeqNo:	<b>645181</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	1.0								

Sample ID	<b>LCS-15936</b>	SampType:	<b>LCS</b>	TestCode:	<b>SM 4500 Norg C: TKN</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>15936</b>	RunNo:	<b>21954</b>					
Prep Date:	<b>10/16/2014</b>	Analysis Date:	<b>10/16/2014</b>	SeqNo:	<b>645182</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	9.9	1.0	10.00	0	99.4	80	120			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1410555

28-Oct-14

**Client:** Animas Environmental Services

**Project:** SJC

Sample ID <b>MB-15886</b>	SampType: <b>MBLK</b>		TestCode: <b>SM 2540D: TSS</b>							
Client ID: <b>PBW</b>	Batch ID: <b>15886</b>		RunNo: <b>21908</b>							
Prep Date: <b>10/14/2014</b>	Analysis Date: <b>10/14/2014</b>		SeqNo: <b>644079</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Suspended Solids	ND	4.0								

Sample ID <b>LCS-15886</b>	SampType: <b>LCS</b>		TestCode: <b>SM 2540D: TSS</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>15886</b>		RunNo: <b>21908</b>							
Prep Date: <b>10/14/2014</b>	Analysis Date: <b>10/14/2014</b>		SeqNo: <b>644080</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Suspended Solids	86	4.0	91.80	0	93.7	83.99	119.83			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH greater than 2.                          |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

**Sample Log-In Check List**

Client Name: Animas Environmental

Work Order Number: 1410555

RcptNo: 1

Received by/date: CS 10/10/14

Logged By: **Celina Sessa** 10/10/2014 4:15:00 PM *Celina Sessa*

Completed By: **Celina Sessa** 10/10/2014 4:48:16 PM *Celina Sessa*

Reviewed By: *JM* 10/13/14

**Chain of Custody**

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Courier

**Log In**

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0° C? Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes  No

# of preserved bottles checked for pH: 6

Adjusted: NO (<2 or >12 unless noted)

Checked by: *[Signature]*

**Special Handling (if applicable)**

- 16. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_

By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person

Regarding: \_\_\_\_\_

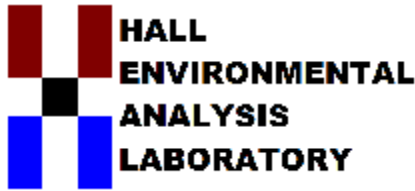
Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

June 10, 2015

Stephanie Hinds  
Animas Environmental Services  
604 Pinon Street  
Farmington, NM 87401  
TEL: (505) 564-2281  
FAX (505) 324-2022

RE: San Juan County Stormwater

OrderNo.: 1505544

Dear Stephanie Hinds:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/13/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505544

Date Reported: 6/10/2015

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Outfall #6

**Project:** San Juan County Stormwater

**Collection Date:** 5/12/2015 4:10:00 PM

**Lab ID:** 1505544-001

**Matrix:** AQUEOUS

**Received Date:** 5/13/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 1664A</b>							Analyst: <b>MRA</b>
N-Hexane Extractable Material	7.7	5.2		mg/L	1	5/26/2015	19379
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	5/13/2015 7:40:22 PM	R26175
Nitrogen, Nitrate (As N)	6.3	0.50		mg/L	5	5/13/2015 7:40:22 PM	R26175
<b>SM 4500 NH3: AMMONIA</b>							Analyst: <b>JML</b>
Nitrogen, Ammonia	ND	1.0		mg/L	1	5/19/2015 11:11:00 AM	R26290
<b>SM 4500 NORG C: TKN</b>							Analyst: <b>JML</b>
Nitrogen, Kjeldahl, Total	21	5.0		mg/L	1	5/24/2015 2:29:00 PM	19363
<b>SM 2540D: TSS</b>							Analyst: <b>JML</b>
Suspended Solids	14000	80		mg/L	1	5/18/2015 10:20:00 AM	19261
<b>EPA METHOD 200.7: TOTAL METALS</b>							Analyst: <b>JLF</b>
Aluminum	80	2.0	*	mg/L	100	5/21/2015 12:39:28 PM	19301
Iron	79	2.0	*	mg/L	100	5/21/2015 12:39:28 PM	19301
Zinc	0.81	0.010		mg/L	1	5/21/2015 12:01:40 PM	19301
<b>200.8 ICPMS METALS:TOTAL</b>							Analyst: <b>DBD</b>
Selenium	ND	0.0050		mg/L	5	5/20/2015 4:54:44 PM	19301
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>MED</b>
Mercury	0.00052	0.00020		mg/L	1	5/28/2015 9:47:51 AM	19401

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH Not In Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505544

Date Reported: 6/10/2015

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Outfall #5

**Project:** San Juan County Stormwater

**Collection Date:** 5/12/2015 4:35:00 PM

**Lab ID:** 1505544-002

**Matrix:** AQUEOUS

**Received Date:** 5/13/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 1664A</b>							Analyst: <b>MRA</b>
N-Hexane Extractable Material	ND	5.3		mg/L	1	5/26/2015	19379
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	5/13/2015 8:05:10 PM	R26175
Nitrogen, Nitrate (As N)	0.97	0.50		mg/L	5	5/13/2015 8:05:10 PM	R26175
<b>SM 4500 NH3: AMMONIA</b>							Analyst: <b>JML</b>
Nitrogen, Ammonia	ND	1.0		mg/L	1	5/19/2015 11:11:00 AM	R26290
<b>SM 4500 NORG C: TKN</b>							Analyst: <b>JML</b>
Nitrogen, Kjeldahl, Total	12	5.0		mg/L	1	5/24/2015 2:29:00 PM	19363
<b>SM 2540D: TSS</b>							Analyst: <b>JML</b>
Suspended Solids	8500	80		mg/L	1	5/18/2015 10:20:00 AM	19261
<b>EPA METHOD 200.7: TOTAL METALS</b>							Analyst: <b>JLF</b>
Aluminum	25	2.0	*	mg/L	100	5/21/2015 12:41:24 PM	19301
Iron	33	2.0	*	mg/L	100	5/21/2015 12:41:24 PM	19301
Zinc	0.63	0.010		mg/L	1	5/21/2015 12:03:30 PM	19301
<b>200.8 ICPMS METALS:TOTAL</b>							Analyst: <b>DBD</b>
Selenium	ND	0.0050		mg/L	5	5/20/2015 4:57:47 PM	19301
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>MED</b>
Mercury	0.00040	0.00020		mg/L	1	5/28/2015 9:49:54 AM	19401

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH Not In Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	



Collected date/time: 05/12/15 16:10

L765160

Wet Chemistry by Method 365.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Phosphorus,Total	5.82		0.200	2	05/26/2015 10:10	WG790312

1c

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
COD	341		10.0	1	05/21/2015 06:06	WG790307

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

5 Al

9 Sc



Collected date/time: 05/12/15 16:35

L765160

Wet Chemistry by Method 365.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Phosphorus, Total	2.89		0.100	1	05/26/2015 10:11	WG790312

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
COD	314		10.0	1	05/21/2015 06:06	WG790307

<sup>3</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) 05/26/15 09:20

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Phosphorus, Total	ND	0.100	0.100

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L764714-01 Original Sample (OS) • Duplicate (DUP)

(OS) 05/26/15 09:26 • (DUP) 05/26/15 09:27

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Phosphorus, Total	4.6	4.7	1	2.2		20

L765182-02 Original Sample (OS) • Duplicate (DUP)

(OS) 05/26/15 10:31 • (DUP) 05/26/15 10:32

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Phosphorus, Total	8.9	9.0	5	2.2		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCS-D)

(LCS) 05/26/15 09:22 • (LCS-D) 05/26/15 09:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS-D Result mg/l	LCS Rec. %	LCS-D Rec. %	Rec. Limits %	LCS Qualifier	LCS-D Qualifier	RPD %	RPD Limits %
Phosphorus, Total	1.00	0.966	1.04	96.6	104	90.0-110			7.38	20

L765036-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 05/26/15 09:37 • (MS) 05/26/15 09:38 • (MSD) 05/26/15 09:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Phosphorus, Total	2.50	0.200	2.78	2.55	103	94.0	1	90.0-110			8.63	20

2 Tc  
3 Ss  
4 Cn  
5 Sr  
6 **QC**  
7 Gl  
8 Al  
9 Sc

Method Blank (MB)

(MB) 05/21/15 05:59

Analyte	MB Result mg/l	MB Qualifier	MB RD L mg/l
COD	ND		10.0

L765112-19 Original Sample (OS) • Duplicate (DUP)

(OS) 05/21/15 06:06 • (DUP) 05/21/15 06:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	17	17	1	0.00		5

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 05/21/15 06:00 • (LCSD) 05/21/15 06:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
COD	183	168	168	91.8	91.8	90.0-110			0.000	5

L765112-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 05/21/15 06:02 • (MS) 05/21/15 06:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
COD	400	ND	378	377	94.5	94.3	1	90.0-110			0.265	5

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:

PAGE:

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1505544

10-Jun-15

**Client:** Animas Environmental Services

**Project:** San Juan County Stormwater

Sample ID	<b>MB-19379</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 1664A</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>19379</b>	RunNo:	<b>26411</b>					
Prep Date:	<b>5/26/2015</b>	Analysis Date:	<b>5/26/2015</b>	SeqNo:	<b>784738</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	ND	5.0								

Sample ID	<b>LCS-1L-19379</b>	SampType:	<b>LCS-1L</b>	TestCode:	<b>EPA Method 1664A</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>19379</b>	RunNo:	<b>26411</b>					
Prep Date:	<b>5/26/2015</b>	Analysis Date:	<b>5/26/2015</b>	SeqNo:	<b>784739</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	38	5.0	40.00	0	94.8	78	114			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1505544

10-Jun-15

**Client:** Animas Environmental Services

**Project:** San Juan County Stormwater

Sample ID	<b>MB-19301</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 200.7: Total Metals</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>19301</b>	RunNo:	<b>26339</b>					
Prep Date:	<b>5/19/2015</b>	Analysis Date:	<b>5/21/2015</b>	SeqNo:	<b>782717</b>	Units:	<b>mg/L</b>			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Iron	ND	0.020								
Zinc	ND	0.010								

Sample ID	<b>LCS-19301</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 200.7: Total Metals</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>19301</b>	RunNo:	<b>26339</b>					
Prep Date:	<b>5/19/2015</b>	Analysis Date:	<b>5/21/2015</b>	SeqNo:	<b>782718</b>	Units:	<b>mg/L</b>			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.53	0.020	0.5000	0	106	85	115			
Iron	0.47	0.020	0.5000	0	94.5	85	115			
Zinc	0.47	0.010	0.5000	0	94.3	85	115			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1505544

10-Jun-15

**Client:** Animas Environmental Services

**Project:** San Juan County Stormwater

Sample ID	<b>LLLCS-19301</b>	SampType:	<b>LCSLL</b>	TestCode:	<b>200.8 ICPMS Metals:Total</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>19301</b>	RunNo:	<b>26324</b>					
Prep Date:	<b>5/19/2015</b>	Analysis Date:	<b>5/20/2015</b>	SeqNo:	<b>782283</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.022	0.0010	0.02500	0	89.5	85	115			

Sample ID	<b>MB-19301</b>	SampType:	<b>MBLK</b>	TestCode:	<b>200.8 ICPMS Metals:Total</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>19301</b>	RunNo:	<b>26324</b>					
Prep Date:	<b>5/19/2015</b>	Analysis Date:	<b>5/20/2015</b>	SeqNo:	<b>782287</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1505544

10-Jun-15

**Client:** Animas Environmental Services

**Project:** San Juan County Stormwater

Sample ID	<b>MB-19401</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>19401</b>	RunNo:	<b>26454</b>					
Prep Date:	<b>5/27/2015</b>	Analysis Date:	<b>5/28/2015</b>	SeqNo:	<b>786366</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	<b>LCS-19401</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>19401</b>	RunNo:	<b>26454</b>					
Prep Date:	<b>5/27/2015</b>	Analysis Date:	<b>5/28/2015</b>	SeqNo:	<b>786367</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.3	80	120			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1505544

10-Jun-15

**Client:** Animas Environmental Services

**Project:** San Juan County Stormwater

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R26175</b>		RunNo: <b>26175</b>							
Prep Date:	Analysis Date: <b>5/13/2015</b>		SeqNo: <b>776655</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R26175</b>		RunNo: <b>26175</b>							
Prep Date:	Analysis Date: <b>5/13/2015</b>		SeqNo: <b>776656</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	99.9	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R26175</b>		RunNo: <b>26175</b>							
Prep Date:	Analysis Date: <b>5/14/2015</b>		SeqNo: <b>776767</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R26175</b>		RunNo: <b>26175</b>							
Prep Date:	Analysis Date: <b>5/14/2015</b>		SeqNo: <b>776768</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	98.2	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.2	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1505544

10-Jun-15

**Client:** Animas Environmental Services

**Project:** San Juan County Stormwater

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>SM 4500 NH3: Ammonia</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R26290</b>		RunNo: <b>26290</b>							
Prep Date:	Analysis Date: <b>5/19/2015</b>		SeqNo: <b>780972</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>SM 4500 NH3: Ammonia</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R26290</b>		RunNo: <b>26290</b>							
Prep Date:	Analysis Date: <b>5/19/2015</b>		SeqNo: <b>780973</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.8	1.0	10.00	0	98.0	80	120			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1505544

10-Jun-15

**Client:** Animas Environmental Services

**Project:** San Juan County Stormwater

Sample ID	<b>MB-19363</b>	SampType:	<b>MBLK</b>	TestCode:	<b>SM 4500 Norg C: TKN</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>19363</b>	RunNo:	<b>26381</b>					
Prep Date:	<b>5/22/2015</b>	Analysis Date:	<b>5/24/2015</b>	SeqNo:	<b>783885</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	1.0								

Sample ID	<b>LCS-19363</b>	SampType:	<b>LCS</b>	TestCode:	<b>SM 4500 Norg C: TKN</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>19363</b>	RunNo:	<b>26381</b>					
Prep Date:	<b>5/22/2015</b>	Analysis Date:	<b>5/24/2015</b>	SeqNo:	<b>783886</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	10	1.0	10.00	0	101	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1505544

10-Jun-15

**Client:** Animas Environmental Services

**Project:** San Juan County Stormwater

Sample ID <b>MB-19261</b>	SampType: <b>MBLK</b>		TestCode: <b>SM 2540D: TSS</b>							
Client ID: <b>PBW</b>	Batch ID: <b>19261</b>		RunNo: <b>26256</b>							
Prep Date: <b>5/15/2015</b>	Analysis Date: <b>5/18/2015</b>		SeqNo: <b>779672</b>				Units: <b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Suspended Solids	ND	4.0								

Sample ID <b>LCS-19261</b>	SampType: <b>LCS</b>		TestCode: <b>SM 2540D: TSS</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>19261</b>		RunNo: <b>26256</b>							
Prep Date: <b>5/15/2015</b>	Analysis Date: <b>5/18/2015</b>		SeqNo: <b>779673</b>				Units: <b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Suspended Solids	91	4.0	91.80	0	99.1	83.99	119.83			

**Qualifiers:**

- |   |  |
|---|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits      | ND Not Detected at the Reporting Limit               |
| O RSD is greater than RSDlimit                    | P Sample pH Not In Range                             |
| R RPD outside accepted recovery limits            | RL Reporting Detection Limit                         |
| S Spike Recovery outside accepted recovery limits |  |

Client Name: Animas Environmental

Work Order Number: 1505544

RcptNo: 1

Received by/date: CPM 05/13/15

Logged By: **Anne Thorne** 5/13/2015 7:00:00 AM *Anne Thorne*

Completed By: **Anne Thorne** 5/13/2015 *Anne Thorne*

Reviewed By: *JA* 05/13/15

**Chain of Custody**

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Courier

**Log In**

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No  *CS 05/13/15*
- 9. Was preservative added to bottles? *for metals analysis, added 1ml HNO<sub>3</sub> to -20°C for acceptable pH. Held in Log in for 24 hours. CS 05/13/15*  
 Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: 8  
 (<2 or >12 unless noted)  
 Adjusted? yes  
 Checked by: CS

**Special Handling (if applicable)**

- 16. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Yes			



10/9/14 SJC and COF Stormwater

Mileage 90319 - 90329 Tacoma 2010

08:00 - 09:00

Bisti Bridge at 8:15 (SJC) Outfall # 6

- Good flow (~ 2 cfs), very murky, grey, lots of trash downstream

Farmington Glade at 8:30 (SJC) Outfall # 5

- Strong flow, dark/clovely

Baseball Fields at 8:50 (COF) Outfall # 11

- Small flow, ~ 0.5 cfs, very brown

No YSI data. YSIs were being calibrated at time of sampling.

Drop off E coli samples at OMI = 0.5 hr

TW 243 and Gasmat 556

Mileage 123489 - 123506

Depart AES @ 10:30 10:15, Arrive 10:30.

Large rainstorm ~ 14:30. Waited 30 minutes for it to pass.

Depart 15:45. Arrive AES @ 16:00.

10/10/14 TW 243

Returned to site location at 8:15. Re-sampled MW-4 due to runoff from yesterday's storm affecting samples.

Sampled TW-243 MW-4 @ 8:33.

5/12/15 Stormwater Sampling - SJC

Tacoma 2008, Mileage 92540.

Depart AES @ 15:45

YSI # 2

\* Arrive SJC outfall # 6 at 16:00

(By Bridge of West side of Bisti Hwy / Broadway Intersection)

Sampled at 16:10

YSI readings Temp: 13.74°C

DO: 16.2 mg/L

Cond: 0.125 mS/cm

pH: 9.32

ORP: 115.9

Flow ~ 8 cfs

Very cloudy, dark brown, some suds, no signs of oil or sheen

↳ muddy, "chocolate brown"

\* Arrive SJC Outfall # 5 at 16:30 (downstream of Sweetlands)

Sampled at 16:35

YSI readings: Temp: 13.32°C

DO: 8.71

Cond: 0.322 mS/cm

pH: 8.37

ORP: 120.0

Flow ~ 30 cfs

Very muddy, "chocolate brown", some suds/foam, some debris/trash floating down

Arrive back at AES at 16:50.

Mileage = 92543