OIL CONS. DIV DIST. 3

MAR 10 2017

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company **Burlington Resources, a Wholly Owned Subsidiary of ConocoPhillips Company**	Contact **Brady Crouch**
Address **3401 East 30th St., Farmington, NM**	Telephone No. **832-486-3016**
Facility Name **San Juan 27-5 No. 69**	Facility Type **Gas Well**

Surface Owner **Federal**	Mineral Owner (SF-079391)	API No. 30-039-07139

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	**7**	**27N**	**5W**	**1090**	**North**	**990**	**East**	**Rio Arriba**

Latitude 36.59307 **Longitude** -107.39423

NATURE OF RELEASE

Type of Release **Historic**	Volume of Release **Unknown**	Volume Recovered
Source of Release **Discovered below tank pit**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **05-15-14 @ 12:00 p.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Required	If YES, To Whom? **N/A**	
By Whom? **N/A**	Date and Hour **N/A**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **N/A**	

If a Watercourse was Impacted, Describe Fully.*

OIL CONS. DIV DIST. 3

MAR [illegible]

Describe Cause of Problem and Remedial Action Taken.* Soil stain (contamination) was discovered after tank removal during a facility reset. Horiz. delineation via hand auger indicated impacted subsurface soils. Direct-push boring program advanced 14 borings to max 15ft. Refusal to DPT in bedrock at that depth. Field screening and lab analyses (TPH) indicated petrol hydrocarbon impacts outside bermed area. See attached data from assessment reports

Describe Area Affected and Cleanup Action Taken.* Five auger borings were drilled to 25-30 ft followed by 10 additional borings to 25 ft. to further delineate extent of subsurface hydrocarbon impacts. Field screening and lab analyses indicated most impacted area is geographically downslope to the southwest of tank berm. See attached data from assessment reports. To further characterize site for potential human health and environmental impacts, additional soil samples will be collected and analyzed for TX1005/TX1006 and PAH constituents. Results will be used in a human health risk and ecological risk assessment to aid in selection of remedial action.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Joseph B. Crouch	OIL CONSERVATION DIVISION
Printed Name: Joseph B. Crouch	Approved by Environmental Specialist:
Title: Program Manager - RM & R	Approval Date: 6/21/18 Expiration Date:
E-mail Address: j.brady.crouch@cop.com	Conditions of Approval: → Attached ☒ Ema-1
Date: 3-8-17 Phone: 832-486-3016	

* Attach Additional Sheets If Necessary

#NVF1703333 70

302

Smith, Cory, EMNRD

From: Smith, Cory, EMNRD
Sent: Thursday, June 21, 2018 11:09 AM
To: 'Clara Cardoza'
Cc: Fields, Vanessa, EMNRD
Subject: San Juan 27-5 #69 (30-039-07139) Incident#nvf170333370

Clara,

OCD has received a ConocoPhillips now HilCorp C-141 "Initial" on 3/10/2017 for the San Juan 27-5 #69. After Review the OCD has approved the Initial C-141 "Assessment report" with the following conditions of approval.

- OCD has denied HEC request for risk base closure.
- OCD agrees with HEC site assessment the site ranking is a 10 due to distance from significant water course. The Closure standards will be 1,000 mg/kg TPH, 50 mg/kg BTEX and 10 mg/kg Benzene.
- HEC must return to the site and initiate remediation no later than September 21, 2018 this time frame includes submittal of a work plan and associated approval if needed.
- HEC will schedule with OCD District III to witness any final soil confirmation sampling.

If you have any questions please give me a call.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

Table of Contents

Figure Index

Table Index

Appendices

1. Introduction

GHD Services Inc. (GHD) on behalf of ConocoPhillips Company (COP) has prepared this Site Assessment Report and Proposed Remediation Plan for the San Juan 27-5 No. 69 gas well Site (Well Site). The Well Site is located in Section 7, Township 27 North, Range 8 West, in Rio Arriba County, New Mexico, on land maintained by the Bureau of Land Management (BLM). The GPS coordinates for the Well Site are 36°35'35.06"N and 107°23'37.69"W (Figure 1.1).

2. Background

The Well Site is an operational natural gas production well site consisting of an above ground brine tank and production storage tank. On May 15, 2014, ConocoPhillips observed hydrocarbon-impacted soil beneath a recently removed aboveground produced water tank. ConocoPhillips San Juan Business Unit contracted Animas Environmental Services (AES) to conduct a limited subsurface assessment of the tank battery and surrounding area. On May 16, 2014, the initial assessment of nine shallow boreholes was completed by a hand auger. Vertical delineation was not established due to hand auger refusal in weathered shale and sandstone. AES included photoionization detector (PID) screening and field-screening analysis for total petroleum hydrocarbons (TPH) (Figure 2.1).

On June 5, 2014, AES and a sub-contracted direct-push technology (DPT) rig performed additional vertical and horizontal delineation activities at the Well Site. Fourteen DPT soil borings were advanced to maximum depths of 15 feet below ground surface (ft bgs). Borehole refusal was encountered at that depth due to the competent bedrock. Soils were screened in the field for TPH and the results indicated the presence of petroleum hydrocarbons both within and outside the earthen tank berm (Figure 2.1).

In August 2014, GHD advanced five soil borings in the tank area by hollow stem auger to depths up to 25 to 30 ft bgs, followed by ten additional borings in February 2015. Soils were analyzed for benzene, toluene, ethyl-benzene, and xylene (BTEX), TPH Gasoline-Range Organics (TPH-GRO), TPH Diesel-Range Organics (TPH-DRO), and chlorides. Figure 2.2 shows the location of borings and summary of soil analytical data. Table 2.1 shows all existing Well Site data including historical field screening and laboratory analytical data of TPH compared to tentative New Mexico Oil Conservation Division (NMMOCD) action levels.

3. Geology, Physiography, Groundwater, and Surface Water

The Well Site is located in the Carrizo (Cereza) Canyon area of San Juan Basin, within the southeastern portion of the Colorado Plateau physiographic province. The San Juan River; one of the tributaries of the Colorado River is the principal drainage stream in the San Juan Basin. It is the only significant source of fresh surface water along its length. In Rio Arriba County, relatively flat -lying sedimentary rocks sculpted into mesas, buttes, and badlands by the erosive effect of the Colorado River system characterize the Colorado Plateau. Mountain ranges in the Carrizo Canyon area are generally between 6,600 and 7,000 feet and extend 350 to 650 feet above the surrounding

valley floors (Figure 1.1). The formations within this region mainly consist of rocks of the Eocene San Jose Formation, which occupies about 80 percent of western Rio Arriba County, nearly a third of the entire county and includes nearly 2,000 feet of interbedded gray, tan, and reddish-brown sandstone and conglomerate and gray and red shale (Bingler, 1968). The basal beds consist principally of sandstone, are about 100 feet thick, and are conformable upon older rocks. The beds grade upward from 800 to 900 feet of banded shale and interbedded thin sandstone beds. The shale-sandstone part of the sequence is transitional upward into sandstone with an observed thickness of about 1,000 feet. The San Jose Formation lies unconformably on the Paleocene Nacimiento Formation and consists of thick sequence of sedimentary rocks with outcrops appearing about 12 miles west of the Well Site (Figure 3.1).

The near surface geology at the Well Site consists of unconsolidated brown, silty, clayey sand up to 10 feet thick followed by gray and purple clay and weathered shale up to 18 feet thick including discontinuous layers of shale. The lower most unit encountered at the Well Site is gray fine-grained, poor to well-cemented sandstone typically found at a depth of 20 feet where most boreholes are terminated within the upper 10 feet of this consolidated unit. Figure 3.2 and Figure 3.3 are cross sections through the surficial sediments showing the vertical distribution of PID screening and soil analytical results in boreholes.

As shown on Figure 3.1, the area where the Well Site is located lacks any significant alluvium that could potentially host any shallow groundwater aquifer. According to the Ground Water Atlas of the United States (Robson and Banta, 1995), the main aquifers in the Colorado Plateau physiographic province are the Uinta-Animas aquifer, Mesaverde aquifer, Dakota-Glen Canyon aquifer system, and the Coconino-De Chelly Aquifer. The Colorado Plateaus aquifers are contained in a thick sequence of poorly to well-consolidated conglomerate, sandstone, siltstone, and shale. The Uinta-Animas Aquifer, the shallowest of the San Juan Basin aquifers, is hosted by the San Jose Formation and the underlying Animas Formation (and its lateral equivalents, the Nacimiento Formation, and the Ojo Alamo Sandstone). The top of the Uinta-Animas aquifer is typically encountered at 300-600 feet depth and the maximum thickness of the Uinta-Animas aquifer is about 3,500 feet.

The Mesaverde aquifer, which underlies the Uinta-Animas Aquifer, consists of water-yielding units in the Upper Cretaceous Mesaverde Group and some adjacent Tertiary and Upper cretaceous formations that are only present in the subsurface in the Well Site area. In the San Juan Basin, the aquifer consists of sandstone, coal, siltstone, and shale of the Mesaverde Group. The aquifer has a maximum thickness of about 4,500 feet in the southern part of the basin and ranges from 1,000 to 3,500 feet in depth (Robson & Banta, 1995). The other two deeper aquifers (the Dakota-Glen Canyon aquifer system, and the Coconino-De Chelly Aquifer) are not considered as a viable groundwater resource due to their greater depth of more than 2,000 feet and higher salinity (Robson & Banta, 1995).

Groundwater was not encountered in any of the soil borings drilled at the Well Site. Areal distribution of water wells and depth to groundwater in Rio Arriba County were obtained from the New Mexico Office of State Engineer (Figure 3.4, Appendix A). Data indicated no groundwater exists in the upper 300 feet near the Well Site. Water wells within 5 miles of the Well Site have minimum total depth of 303 feet, maximum of 1,850 feet, and an average of 660 feet. No information is available on yield and quality of groundwater at or near the Well Site.

The semiarid, desert-like landscape at the Well Site area is the result of low precipitation, high temperature, and high evaporation rates that prevail in the area. Average monthly precipitation measured at 16 weather stations within 50-mile radius of the Well Site ranges from 0.67 to 1.63 inches (Figure 3.5) and the average annual snowfall is 39 inches with most of the snow falling between November and March. The average monthly evaporation rate ranges between 1.6 and 12.6 inches and throughout the year, evaporation in the area is greater than precipitation, which results in negative net precipitation (Appendix B).

The official hydrographic dataset for the United States is the high resolution National Hydrography Dataset (NHD). The NHD is a geographic information system (GIS) where all surface water bodies of the United States such as streams, rivers, lakes, ponds, and canals are identified and classified. The project was completed in 2007. The corresponding nation-wide watershed delineation GIS, the Watershed Boundary Dataset (WBD), was completed in 2012. The USGS played a key role in coordinating the partnership that built and maintained the official NHD and WBD dataset. Agencies such as the U.S. Environmental Protection Agency, the U.S. Department of Agriculture Forest Service, the U.S. Department of Interior's National Park Service and BLM, along with many state agencies played key roles in the development of the NHD and WBD (Arnold, 2014). The New Mexico Office of the State Engineer and the USGS National Geospatial Technical Operations Center are the stewards for the New Mexico NHD and WBD dataset. NHD and WBD dataset can be accessed through the USGS website - http://nhd.usgs.gov/ and http://nhd.usgs.gov/wbd.html.

According to the NHD and WBD datasets, the nearest surface water body to the Well Site is a dry stream with its uppermost reach located at longitude 107°23'44.43"W and latitude 36°35'30.84"N about 450 feet southwest of the Well Site. The stream is clearly marked in both USGS topographic maps (Figure 1.1) and the NHD data set (Figure 3.6) as an ephemeral/intermittent stream. Ephemeral streams, arroyos or dessert washes are dry streambeds that only flow for a short period in direct response to significant precipitation. The stream channel is at all times above the water table (Meinzer, 1923). Ephemeral streams are not the same as intermittent or seasonal streams, which exist for longer periods, but still are not year round. Intermittent or seasonal streams receive water from springs or from some surface source such as melting snow in mountainous areas. Intermittent or seasonal streams are marked on the official USGS topographic maps and the digital NHD dataset with a line of blue dashes and dots. In arid areas, it is difficult to distinguish between narrow intermittent and ephemeral streams and no distinction is made in the USGS and NHD maps.

Precipitation and evaporation data dating back to 1910 are available for New Mexico. Data is included in Appendix B and Appendix C. Based on precipitation data collected from the nearest four locations with continuous records (Bloomfield, Dulce, Lindrith, and Nageezi) the average precipitation at the Well Site is approximately 1.02 inches per month, with an average snowfall of 2.78 inches per month. These averages are based on 15 years of precipitation data (Appendix B). The average rainfall and snowfall at the Well Site were calculated using the following Inverse Distance Weighted (IDW) formula, which factors in distance from the Well Site:

$$v = \frac{\sum_{i=1}^{n} \frac{1}{d_i} v_i}{\sum_{i=1}^{n} \frac{1}{d_i}}$$

where v is the precipitation or snowfall at the Well Site, v_i is the known precipitation or snowfall value in inches, and d_i is the distance from the Well Site in miles. None of the drainage basins of

the four surrounding locations directly influences the surface runoff at the Well Site (Figure 3.5). The precipitation data was obtained from weather monitoring stations listed in Table 3.1.

Table 3.1 Weather Recording Station Locations

	Latitude & Longitude	Distance from Well Site (miles)
Bloomfield	36°42'40.02"N 107°59'04.24"W	32 W, NW
Dulce	36°56'01.04"N 106°59'56.14"W	32 NE
Lindrith	36°18'16.06"N 107°02'42.15"W	28 SE
Nageezi	36°16'00.04"N 107°44'31.21"W	30 SW

Tables 3.2 and 3.3 show the frequency of rainfall and snowfall events over the last 15 years for Bloomfield, Dulce, Lindrith, and Nageeze. Based on the average rainfall of 1.02 inches per month, the Well Site can expect to see an estimated 38 rainfall events that will bring about 1 inch of rain or more in 15 years. Over a one-year period, the Well Site can expect to see about 2 rainfall events that will bring 1 inch or more of rain. With an average snowfall of 2.78 inches per month, the Well Site can expect to experience less than 17 snowfall events that will bring 5 inches or less of snow over a 15 year period (Appendix B). The Well Site can expect to see about 2 snowfall events in a one-year period that will bring less than 5 inches of snowfall. The frequencies of rainfall and snowfall events, based on inches of rain, are estimated at each of the four locations from the figures and equations in Appendix B.

Appendix B contains detailed graphs of the rainfall and snowfall, as well as graphs of rainfall and snowfall frequencies for each location.

Table 3.2 Rainfall Event Frequency – 15 Year Period

Location	0.5 (in)	1.0 (in)	2.0 (in)	3.0 (in)	≥4.0 (in)
Bloomfield	50	36	7	1	0
Dulce	56	47	29	11	4
Lindrith	52	46	23	12	7
Nageezi	46	25	9	2	0

Table 3.3 Snowfall Event Frequency – 15 Year Period

Location	5 (in)	10 (in)	20 (in)	30 (in)	≥40 (in)
Bloomfield	8	1	0	0	0
Dulce	30	21	10	2	1
Lindrith	22	17	5	2	1
Nageezi	8	1	0	0	0

Flood Hazard data obtained from the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) indicates that the Well Site is located in Zone X, which is described as "Area of Minimal Flood Hazard". This minimal flooding risk designation by FEMA is consistent with the NHD and precipitation datasets discussed earlier. FEMA flood map is included as Figure 3.7.

4. Well Site Data

4.1 Well Site Summary

The constituents of concern (CoCs) at the Site are TPH and BTEX. Soil borings taken at the Site (Figure 2.2) indicate that TPH concentrations ranging from 20 to 22,000 mg/kg were detected to a maximum depth of 25 ft bgs. BTEX concentrations ranging from 0.5 to 57 mg/kg were also detected in soils. The source of the CoCs is likely associated with above ground brine and production tanks and a former historic pit located southwest of the well pad.

The well pad is an approximate 400 feet by 400 feet relatively flat gently sloping area with an elevation range of 6,630 feet in the south to 6,650 feet in the north (Figure 3.6). The surface area appears to be well maintained and contoured in accordance with best management practices regarding storm water management, soil stabilization, and erosion control. The shallowest groundwater aquifer is located at approximately 660 ft bgs, based on wells within a five-mile radius, as previously stated. The nearest down-gradient surface-water receptor is an intermittent stream marked by USGS approximately 450 feet southwest of the well pad. An ephemeral stream is located upgradient approximately 150 feet north of the Site at an elevation of 6,650 feet (Figure 3.6). The nearest residential location is Bixler Ranch, approximately 15 miles northeast (Figure 4.1). The nearest designated critical habitat is for the Mexican Spotted Owl (Strix occidentalis lucida) and is located upgradient approximately 5 miles to the northeast (Figure 4.2).

4.2 Source Characterization

Fifteen soil borings characterize the CoCs at the Site. Figure 2.2 shows the borehole locations and summary of soil analytical data. Concentrations of CoCs in each borehole are in Table 2.1. TPH concentrations exceeding 100 mg/kg are observed in shallow soils at B-1, B-2, B-5, B-9, and B-10. A maximum TPH concentration of 22,430 mg/kg was observed at B-9 at 10 foot depth. Maximum BTEX concentration of 57.99 mg/kg was observed at B-1 at 5 foot depth. Below 10 feet, TPH and BTEX concentrations are very low with no detections at borehole termination depth (25-35 ft bgs).

4.3 Receptors, Media, and Routes of Exposure

Following ASTM E1689-95 standards, humans and terrestrial animals and plants are considered as the potential receptors for constituents of concern. Soil, groundwater, surface water, and air are the types of media the constituents can migrate through, and the routes of exposure are direct contact, ingestion, and inhalation.

4.3.1 Media and Routes of Exposure

The primary sources of release no longer exist (former above-ground tank and historic oil and gas pit). It is evident that CoCs migrated to limited areas within the surface/subsurface soil (Figure 4.3). There is no evidence that CoCs have migrated to groundwater or nearby offsite surface water.

The secondary source of release was delineated as surface soils (<15 feet) at boreholes B-1, B-2, B-9, and B-10, which exhibit elevated concentrations of TPH in surface soil and soils at B-1, which exhibit elevated concentrations of BTEX in surface soil. Pathways linking potential receptors to this secondary source (surface soils) are evaluated. Pathways include surface water and wind. Another secondary source of release was delineated as subsurface soils (>15 feet) at boreholes B-5 and B-9, which have TPH concentrations of 1,246 mg/kg and 1,250 mg/kg, respectively. Pathways

linking potential receptors to this secondary source (subsurface soils) are evaluated, and this includes groundwater.

The surface soils are sparsely vegetated and lack any man-made cover preventing potential exposure to wind and stormwater runoff. Sediment from the surface may enter the intermittent stream located 450 feet southwest of the Well Site through these mechanisms. Surface sediments at the intermittent stream could potentially receive CoCs via stormwater runoff. This exposure scenario can be eliminated for the ephemeral stream due to its higher elevation. The absence of elevated water table precludes any potential for leaching and seepage to both streams. Site geology and groundwater conditions exclude any pathway between subsurface soils and groundwater. The closest aquifer is located 640 feet below the lowest impacted soil. The aquifer itself is confined by several impermeable layers as observed at Site and described in literature (see Section 3).

Inhalation, and direct contact with surface soil are the only remaining exposure routes.

4.3.2 Potential Receptors

Potential receptors include area residents, site workers, and terrestrial biota. The Site has no human inhabitants and is 15 miles away from the nearest residential settlement. Current and future landuse will remain industrial with minimal onsite presence of workers. In addition to the occasional site worker, plant and terrestrial fauna are the remaining potential receptors.

5. Conceptual Site Model

The relationships between primary and secondary sources, release mechanisms, exposure routes, and environmental receptors for the Site is illustrated on Figure 5.1. An exposure pathway is incomplete if any of the following elements are missing: (1) a mechanism of contaminant release from primary or secondary sources, (2) a transport medium if potential environmental receptors are not located at the source, and (3) a point of potential contact of environmental receptors with the contaminated medium.

6. Site Evaluation and Risk Assessment

This section addresses site evaluation and risk assessment under different state and Federal environmental regulatory programs. The primary agency dedicated to the assessment and remediation of hydrocarbon releases at oil and gas exploration and production sites in New Mexico is the NMOCD. Two NMOCD programs addressing such releases are the 1993 Guidelines for Remediation of Leaks, Spills and Releases, and the 2013 Order No. R-13506-D (referred to as the Pit Rule). The other applicable New Mexico state program is NMED 2014 Risk Assessment Guidance for Site Investigations and Remediation. Relevant state programs from Texas (RRC Pit Rules and TCEQ TRRP) and Louisiana (LDNR 29-B and LDEQ's RECAP), as well as the EPA Region 6 Risk-Based Screening Standards are also applied to the Site for comparison.

6.1 New Mexico State Programs

6.1.1 NMOCD 1993 Guidelines for Remediation of Leaks, Spills and Releases

Applicability

The NMOCD provides guidelines for remediation of leaks, spills, and releases based on a simplified ranking system that only considers three parameters: depth to groundwater, distance of wellhead protection area, and the distance to the closest downgradient surface water body:

"The operator should determine the horizontal distance to all downgradient surface water bodies. Surface water bodies are defined as perennial rivers, streams, creeks, irrigation canals and ditches, lakes, ponds and playas".

Distance To Surface Water Body	
<200 horizontal feet	*20*
200 - 1000 horizontal feet	*10*
>1000 horizontal feet	*0*

The document is a guide for the cleanup of leaks, spills, and the release of chemical constituents on federal, state, and free lands (NMOCD, 1993). The Site is located on land managed by BLM.

Assumptions

The 1993 guidelines are based on an arbitrary ranking system that assigns a value of 0, 10, or 20 for each parameter. The ephemeral (arroyo) streambed approximately 150 feet to the north of the Well Site is upgradient of the Site and is not identified as a surface water body (stream) according to the USGS and the NHD. Moreover, there is no surface or subsurface pathway for CoCs to reach the arroyo. The nearest stream is the intermittent stream identified approximately 450 feet southwest of the Site. The stream is not perennial so it will have a ranking of 0. Moreover, there is no subsurface pathway to the stream and surface stormwater runoff is unlikely based on precipitation data (Appendix B). The nearest perennial stream, the San Juan River, is 18 miles away.

Assessment

The preliminary Well Site assessment resulted in a ranking score of 20 (Figure 6.1). After further evaluation of potential pathways and receptors, the Well Site should receive a proper ranking score of 0.

New Mexico Oil Conservation Division Site Assessment	
Ranking Criteria	Score
Depth to Ground Water (50 feet - 99 feet)	0
Wellhead Protection Area (< 1000 feet from water source, < 200 feet from domestic source)	0
Distance to Surface Body Water (<200 feet)	20
Ranking Criteria Total Score	**20***
*Because the ranking criteria total score is 20, NMOCD established RRALs are 10 ppm for benzene, 50 ppm for BTEX, 100 ppm for TPH, and 250 ppm for chlorides[1].	

Figure 6.1 Preliminary NMOCD Site Assessment

Results

Considering there is no pathway or potential pathway to surface water, the Well Site receives a ranking of 0, resulting in a recommended cleanup levels of: 10 mg/kg for benzene (laboratory analysis), 50 mg/kg for BTEX (laboratory analysis), and 5,000 mg/kg for TPH. The guidelines state that field-soil-vapor-headspace measurements (Section V.B.1 NMOCD, 1993) may be used for benzene and BTEX in lieu of laboratory analysis, resulting in a remediation action level of 100 ppm for benzene and BTEX concentration limits. Table 6.1 shows the distribution of CoCs and compared to NMOCD remediation guidelines.

6.1.2 NMOCD 2013 Order No. R-13506-D (Pit Rule)

Applicability

In 2013, NMOCD issued Order No. R-13506-D, which regulates pits, closed-loop systems, below-grade tanks and sumps for the protection of fresh water, the environment, and the health of the public for the state of New Mexico. A historical pit associated with the drilling of the well is suspected to have existed in the southwest section of the Well Site in the 1960s; therefore, regulation R-13506-D can provide guidance for site assessment and remediation.

Assumptions

The remnants of the historical pit located in the southwest section of the Well Site contain a TPH concentration of 22,430 mg/kg at a depth of more than 5 feet in B-9. No pathways to groundwater or surface water exist (see discussion in Section 4.3).

Assessment

Regulatory limits for the NMOCD Pit Rule for groundwater > 100 ft bgs are 10 mg/kg for benzene, 50 mg/kg for total BTEX, 1,000 mg/kg for TPH GRO + DRO, and 2,500 mg/kg for Total TPH.

Results

B-1, B-2, B-9 and B-10 exceed the regulatory limit for total TPH while boreholes B-1, B-2, B-5, B-9, and B-10 exceed the regulatory limits for TPH-DRO. All boreholes sampled for total BTEX and benzene are below the regulatory limit except for B-1, which slightly exceeds the regulatory limit for total BTEX. Table 6.2 shows the distribution of CoCs compared to regulatory levels.

6.1.3 NMED 2014 Risk Assessment Guidance for Site Investigations and Remediation

6.1.3.1 Volume 1: Soil Screening Guidance Technical Background Document

Applicability

The New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB) and Ground Water Quality Bureau (GWQB) developed the "*Risk Assessment Guidance for Investigations and Remediation* (RAGSIR)". Volume 1 of RAGSIR includes soil screening guidance (SSG) and soil screening levels (SSLs) to simplify the evaluation of sites that may require corrective action. SSLs exist for residential and non-residential land use in addition to screening levels for tap water and vapor intrusion. The NMED SSG considers receptors and exposure pathways when determining risk levels. Section 4.3 and Figure 5.1 discusses the conceptual model for the Site including sources, media, exposure pathways, and potential receptions for Site.

Assumptions

Landuse at the Well Site is designated as non-residential by RAGSIR standards. There is no exposure pathway from the Well Site to the nearest residential population. There is no mechanism for the source material to reach groundwater or surface water. Inhalation, dermal exposure and ingestion of surface soil by on-Site commercial workers are the only potential exposure pathways.

Assessment

The only potential receptors at the Well Site are industrial workers. RAGSIR assumes that industrial workers may be exposed to soil 0-1 ft bgs. NMED provides generic soil screening limits for BTEX and TPH to determine whether a site requires further evaluation (NMED 2014, *Table 6-2 TPH Soil Screening Levels).* The type of hydrocarbon release differentiates TPH SSLs. The CoCs at the Well Site are classified as "Unknown Oil". The limit for benzene is 87.2 mg/kg, ethyl-benzenebenzene is 368 mg/kg, toluene is 61,300 mg/kg, xylenes is 4,280 mg/kg, and total TPH is 3,800 mg/kg.

Results

For screening sites with multiple CoCs, NMED RGSIR uses the maximum reported concentration for each CoC and divides it by the SSL concentration and then adds the sum to establish a Site Hazard Index. For industrial site workers soil exposure pathway, The NMED RAGSIR defines surface soils as having a depth of 0-1 feet. No Well Site soil samples were available for this interval. To approximate a Site Hazard Index (SHI) score for this Well Site the shallowest available samples were used (from 5 ft bgs).The following SHI is applied to the Site.

$$Site\ Hazard\ Index = \left(\frac{conc\ TPH}{SSL_{TPH}}\right) + \left(\frac{conc_{benzene}}{SSL_{benzene}}\right) + \left(\frac{conc_{ethylbenzene}}{SSL_{ethylbenzene}}\right) + \left(\frac{conc_{toluene}}{SSL_{toluene}}\right) + \left(\frac{conc_{xylene}}{SSL_{xylene}}\right)$$

$$Site\ Hazard\ Index = \left(\frac{7{,}500\ mg/kg}{3{,}800\ mg/kg}\right) + \left(\frac{0.297\ mg/kg}{87.2\ mg/kg}\right) + \left(\frac{2.94\ mg/kg}{368\ mg/kg}\right) + \left(\frac{2.25\ mg/kg}{61{,}300\ mg/kg}\right) + \left(\frac{52.8\ mg/kg}{4{,}280\ mg/kg}\right) = 1.99745$$

An SHI score of less than 1.0 is defined as "unlikely to result in adverse health impacts" in the NMED's *Risk Assessment Guidance for Investigations and Remediation.* Values over 1.0 "warrant further site-specific evaluation." The Site's SHI score of 1.9 is the result of one single high TPH

detection at 5 foot depth at location B-10; based on this screening analysis, further action would be required. Table 6.3 shows Well-Site exceedances compared to the RAGSIR Volume 1 SSLs.

6.1.3.1 Volume 2: Screening-level Ecological Risk Assessments

Applicability

The NMED developed a multi-tier approach to assessing the ecological risk at a site of chemical contamination. An initial qualitative assessment of the Well Site includes gathering all available information, developing a Preliminary Conceptual Site Exposure Model (PSCEM) (Appendix D), and answering a technical question: Is Ecological Risk Suspected? If yes, NMED requires a quantitative assessment of the Well Site.

Assumptions

The Well Site is not a habitat for any threatened or endangered species (Figure 4.2), nor is it adjacent to any sensitive environments as defined by NMED in their Site Assessment Checklist (Appendix D). Desert and shrub area is adjacent to the Well Site, but neither are considered as potential habitat for local endangered or threatened species. There is no visible indication of stressed habitats. There are no exposure pathways to the arroyo north of the Well Site and the intermittent stream southwest of the Well Site via surface water or groundwater.

Assessment

Following the Site-assessment checklist provided by the NMED, ecological impact at the Well Site is minimal. No threat to endangered or threatened species or sensitive environments exists. Exposure pathways are limited to direct contact of soil with terrestrial fauna and plant root uptake.

Results

A PCSEM for the Well Site is provided in Appendix D. Once all scoping assessments and PCSEMs are submitted to NMED for review, the NMED will determine if ecological exposure is present at the Site. NMED will then uses the *Ecological Site Exclusion Criteria Checklist and Decision Tree* found in RAGSIR (Appendix D) to determine if no further action is required at a Site. There are no screening limits for TPH or BTEX in the ecological assessment and the determination of whether further action is necessary is at NMED's discretion. If NMED determines that further action is required, a Screening Level Ecological Risk Assessment (SLERA) will be required.

6.2 Texas State Programs

Chemical releases in Texas are assessed and remediated under two State program in Texas: TCEQ's 1999 TRRP and the RRC's Rule 8 (Water Protection) and Rule 91 (Cleanup of Soil Contaminated by a Crude Oil Spill). For comparison purposes, the San Juan 27-5 #69 Well Site, which analogous to many oil and gas sites in Texas is also evaluated under the aforementioned programs.

6.2.1 RRC Rule 8 (Water Protection) and Rule 91 (Cleanup of Soil Contaminated by a Crude Oil Spill)

Applicability

RRC Statewide Rules 8 and 91 provide criteria to evaluate hydrocarbon spills (including condensate and crude oil) at oil and gas exploration and production sites and establishes cleanup limits based on the nature of the spill and the environmental setting.

Assumptions

RRC Statewide Rule 8 states that no person whose actions are subjected to regulation by the RRC is allowed to cause pollution of the surface or subsurface water. Rule 8 assumes surface or subsurface water to be:

> *"Groundwater, percolating or otherwise, and lakes, bays, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable, or non-navigable, and including the beds and bands of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the stat or inside the jurisdiction of the state (Rule 8)".*

Rule 91(3.91) of the Oil and Gas Division Economic Regulations assumes two types of spills: crude oil spills in non-sensitive areas, and hydrocarbon condensate spills in both non-sensitive and sensitive areas. A "sensitive area", as defined by Rule 91, is, an area that "includes the presence of shallow groundwater or pathways for communication with deeper groundwater; proximity to surface water, including lakes, rivers, streams, dry or flowing creeks, irrigation canals, stock tanks, and wetlands; proximity to natural wildlife refuges or parks; or proximity to commercial or residential areas" (RRC, 1993). Rule 91 states a cleanup level of "1.0 percent by weight total petroleum hydrocarbon" in non-sensitive areas experiencing a crude oil spill (RRC, 1993).

There are three levels of soil-to-groundwater protection limits based on groundwater classification, which is based on yield, quality, and use of water. The limits for soils protective of Class 1 and Class 2 groundwater are 10,000 mg/kg TPH, 0.026 mg/kg benzene, 8.2 mg/kg toluene, 7.6 mg/kg ethyl-benzene, and 120 mg/kg total xylenes. The limits for soil protective of Class 3 groundwater are 10,000 mg/kg TPH, 2.6 mg/kg benzene, 820 mg/kg toluene, 760 mg/kg ethyl-benzene, and 12,000 mg/kg total xylenes.

Assessment

The Site is situated in a non-sensitive area. Although, there are no pathways for CoCs to reach groundwater which is determined to be at about 660 feet bgs at the Well Site (Figure 3.4), the Site can only be evaluated using limits protective of groundwater under the RRC Rules.

Results

Toluene, ethyl-benzene, and total xylenes concentrations at the Well Site are below the limits for Class 1, 2, and 3 soils protective of groundwater at all locations and depths. TPH is above the limit for Class 1, 2, and 3 soils at borehole B-9 at a depth of 10 ft bgs (22,430 mg/kg). All benzene samples at the Site are non-detects (with detection limits ranging from 0.0051 mg/kg to 0.297 mg/kg). These are below the regulatory limits for Class 3 (2.6 mg/kg) but exceed the Class 1 and 2

limits of 0.026 mg/kg for all sampled boreholes. Table 6.4 shows the Well Site data compared to regulatory limits for soils protective of Class 3 groundwater.

6.2.2 TCEQ 1999 TRRP

Applicability

TRRP sets guidelines for the release of chemical constituents that either affect, or have the potential to affect water resources, including groundwater, surface water, and sediment. TRRP requires the assessment, monitoring, cleanup, reporting, and post-response action care and financial assurance for waste management and site closure (TRRP Guidance and Forms, 2010).

TRRP evaluation is conducted for the Site for comparison purposes, even though the intention and the main components of TRRP focus on releases that threaten or affect water resources (groundwater, surface water/sediment) and/or those releases that necessitate decontamination or a control remedy.

Assumptions

TRRP assumes exposure pathways have the potential to affect human health to include surface soil, subsurface soil, and groundwater. Surface soils are defined as those between 0 and 15 feet in depth while subsurface soils are those deeper than 15 ft bgs (TCEQ, 2010). As discussed in Section 4.3, there are no groundwater or surface water pathways at the Site. No exposure to humans exists except for inhalation and direct contact by industrial and construction site workers.

Assessment

TRRP provides a list of protective concentration levels (PCLs) for soil ($^{Tot}Soil_{Comb}$), municipal drinking water ($^{GW}Soil_{Ing}$), and non-drinking water ($^{GW}Soil_{Class3}$), as well as for vapors from the soil (AirSoilInh-V). The analysis did not include AirSoilInh-V. The PCL table for Commercial and Industrial constituents includes values for BTEX (TRRP, Table 2). TPH levels are calculated using the TRRP TPH calculator which provides all of the above PCLs by default. The TPH-GRO range is represented in the TRRP calculated by the following 4 ranges: $>C_6 - C_8$ aliphatics, $>C_8 - C10$ aliphatics, $>C_7 - C_8$ aromatics, and $>C_8 - C10$ aromatics. Maximum sample TPH-GRO values at the Site was equally proportioned among the 4 TRRP calculator ranges (i.e., divided by 4). The TPH-DRO range is represented in the TRRP calculator by the following 8 ranges: $>C_{10} - C_{12}$ aliphatics, $>C_{12} - C_{16}$ aliphatics, $>C_{16} - C_{20}$ aliphatics, $> C_{16}$-C_{21} aliphatics, $>C_{21}$-C_{35} aliphatic: $>C_{10} - C_{12}$ aromatics, $>C_{12} - C_{16}$ aromatics, $>C_{16} - C_{20}$ aromatics, $> C_{16}$-C_{21} aromatics, and $>C_{21}$-C_{35} aromatics. Likewise, maximum sample TPH-DRO value at the Site was equally proportioned among the 8 TRRP calculator ranges (i.e., divided by 8). TPH calculator version 1.7 for soil was used to calculate PCL values for the Site.

Results

Benzene, ethyl-benzene, toluene, and xylenes concentrations for each borehole were compared to the PCL value from TRRP Table 2 for Commercial and Industrial soils. The TPH values were compared to the results from the TRRP calculator.

CoC levels in all boreholes are all below the $^{Tot}Soil_{Comb}$ PCL for benzene (37 mg/kg), ethyl-benzene (10,000 mg/kg), toluene (33,000 mg/kg), and xylenes (1,100 mg/kg).

CoC levels in all boreholes are below $^{Tot}Soil_{Comb}$ PCL for TPH-GRO (2,100 mg/kg) with the exception of B-9 and B-10. $^{Tot}Soil_{Comb}$ PCL for TPH-DRO (7,800 mg/kg) are below the limit with the exception of B-9. Table 6.5 shows CoC levels compared to regulatory levels.

6.3 Louisiana State Programs

Environmental releases at exploration and production sites in Louisiana are evaluated and remediated under the 1986 Statewide Order No. 29-B (Oilfield Pit Rules), LDNR which sets standards for remediation (LDNR, 2003). LDNR which is the primary state agency that regulates oil and gas activities in Louisiana, also uses the LDEQ's RECAP (LDEQ RECAP 2000; revised in 2003 and 2014) to evaluate releases that have the potential of affecting groundwater.

6.3.1 LDNR 1986 Statewide Order No. 29-B

Applicability

The Site CoCs are directly related to oil and gas exploration activities, therefore the provisions of Statewide Order No. 29-B - Chapter 3, Section 311 (Pit Closure), in particular, apply to the Site. Section 311 states that a "*Pit must be closed properly to assure protection of soil, surface water, groundwater aquifers and USDW's. Operators may close pits utilizing onsite land treatment, burial, solidification or other techniques approved by the Office of Conservation only if done so in compliance with §313 and §315*" . Sections 313 deals with pit closure techniques and onsite disposal of E&P wastes, while Section 315 deals with disposal of reserve pit fluids by subsurface injection.

Assumptions

There are no exposure pathways to the arroyo north of the Well Site and the intermittent stream southwest of the Well Site via surface water or groundwater. The groundwater aquifer is 660 feet bgs (Figure 3.4) with no pathways for the CoCs to groundwater.

Assessment

29-B parameters and limits are listed in Louisiana Administrative Code (LAC) 43:XIX.311 313 [LAC 43:XIX, Subpart 1 (Statewide Order No. 29-B), Chapter 3, Section Titles 311 and 313 (LDNR, 2003). There are no standards for soil BTEX constituents. The limits for total TPH in soil is considered as 10,000 mg/kg based on 29-B standard of 1 percent oil and grease.

Results

Table 6.6 shows the distribution of CoCs compared to regulatory levels. Only one borehole (B-9 at 10 feet depth) exceeds the regulatory limit of 1 percent oil and grease (10,000 mg/kg total TPH).

6.3.2 LDEQ RECAP 2014

Applicability

RECAP is LDEQ's primary statutory mandate for remediation activities. Consistent with EPA guidance on risk assessment, RECAP requires that risk to human health and the environment must be evaluated prior to any remediation activities. The remedial decision-making process in RECAP is to: (1) determine if corrective action is necessary for the protection of human health and the

environment, and (2) identify constituent levels in impacted media that do not pose unacceptable risks to human health or the environment, i.e., RECAP Standards.

RECAP consists of a tiered framework composed of a Screening Option (SO) and three Management Options (MO-1, MO-2, and MO-3). This tiered approach allows site evaluation and corrective action efforts to be tailored to site conditions and risks. As the Management Option level increases, the approach becomes more site-specific and, hence, the level of effort required to meet the objectives of the Option increases. Although the level of effort required for each Option varies, each Option achieves a common goal: protection of human health and the environment.

RECAP employs a CSM, which identifies exposure and source media, current and future environmental transport pathways, and current and future exposure points and pathways.

Assumptions

The Well Site is classified as an industrial Site. Under RECAP, surface soils are defined as those between 0 and 15 feet depth while subsurface soils are those deeper than 15 ft bgs (RECAP, 2014). As discussed in Section 4.3, there are no groundwater or surface water pathways at the Site. No exposure to humans exists except for inhalation and direct contact by industrial and construction Site workers

Assessment

The Well Site meets the criteria for Industrial soil classification. The screening option (SO) standards for industrial landuse (SOIL_SSi) are 12.0 mg/kg for benzene, 820 mg/kg for toluene, 480 mg/kg for ethyl-benzene, 400 mg/kg for xylenes, 420 mg/kg for TPH-GRO, and 950 mg/kg for TPH-DRO (Table 1 Screening Standards for Soil and Groundwater (LDEQ, 2014)).

Management Option (MO-1) standards for industrial land use (SOILi) are 12.0 mg/kg for benzene, 62,000 mg/kg for toluene, 41,000 mg/kg for ethyl-benzene, 6,800 mg/kg for xylenes, 6,000 mg/kg for TPH-GRO, 13,000 mg/kg for TPH-DRO, and 100,000 mg/kg for chlorides (Table 2 Management Option-1 Standards for Soil and Groundwater (LDEQ, 2014)).

Results

Tables 6.7 shows the distribution of CoCs compared to Screening Option (SO) standards for soils (SOIL_SSi). BTEX and chlorides are below regulatory limits at all boreholes. Boreholes B-1, B-9, and B10 exceed both TPH-GRO and TPH-DRO limits. Boreholes B-2 and B-5 exceed TPH-DRO limits.

Table 6.8 shows the distribution of CoCs compared to Management Option (MO-1) standards for soils (SOILi). Only one borehole exceeds MO-1 for SOILi, B-9 at a depth of 10 ft bgs.

RECAP further allows for MO-2 or MO-3 evaluation to be conducted limited to those areas, media, and constituents most likely to pose risk. For MO-2, Site-specific environmental fate and transport data must be used in conjunction with default exposure assumptions to calculate a site-specific SOILi and for MO-3, site-specific exposure and environmental fate and transport data must be used to calculate a site-specific SOILi. Site-specific soil parameters required for MO-2 and MO-3 evaluations are not available for the Site.

6.4 Other Programs

6.4.1 EPA Region 6 Risk-Based Screening Standards

Applicability

The EPA developed screening levels (SLs) using risk assessment guidance from the EPA Superfund program. These SLs are mainly used for Superfund sites. They are risk-based concentrations derived from standardized equations combining exposure information assumptions with EPA toxicity data. SLs are considered by the EPA to be protective for humans (including sensitive groups) over a lifetime. They are generic (not site specific) and do not address ecological impacts. Site-specific SLs can be calculated using site-specific data and exposure parameters. EPA SLs also vary by geographic location. The EPA region for the Site, Region 6, does not have region-specific SLs (RSLs) and instead uses Region 3 RSLs. RSLs are generic screening values; they are not cleanup standards. Once a Baseline Risk Assessment (BLRA) is completed, site-specific risk-based remediation goals can be derived using the BLRA results. The selection of final cleanup goals may also include (Applicable or Relevant and Appropriate Requirements (ARARs) and to be considered guidance (TBCs), as well as site-specific risk-based goals.

The EPA standards include screening levels for industrial soil ($soil_i$) and risk-based SSLs based on a dilution attenuation factor (DAF) of 1 ($SSL_{(DAF-1)}$), which is protective of groundwater (EPA, 2015). The risk-based screening standards have a target cancer risk (TR) of 1E-06 and a target hazard quotient (THQ) of 1.0 and 0.1. Hazard quotient (HQ) is the ratio of the potential exposure to the substance and the level at which no adverse effects are expected. If the HQ is calculated to be equal to or less than 1, then no adverse health effects are expected as a result of exposure. If the HQ is greater than 1, then adverse health effects are possible. The rationale for using THQ=0.1 for screening is that when multiple CoCs are present at a site or one or more are present in multiple exposure media, the total hazard index could exceed 1.0 if each were screened at the HQ of 1.0. The application of HQ value can also be determined in consultation with the regional EPA office.

Assumptions

Hydrocarbon fraction characterization varies depending on the source and age of the petroleum hydrocarbon (EPA, 2015)(Brewer, Nagashima, Kelley, Heskett, & Rigby, 2013). In this assessment, the hydrocarbon fractions are characterized according to Figure 6.2.

TPH Fractions	Number of Carbons	Equivalent Carbon Number Index	Representative Compound (RfD/RfC)
Low aliphatic	C5-C8	EC5-EC8	n-hexane
Medium aliphatic	C9-C18	EC>8-EC16	hydrocarbon streams*
High aliphatic	C19-C32	EC>16-EC35	white mineral oil
Low aromatic	C6-C8	EC6-EC<9	benzene
Medium aromatic	C9-C16	EC9-EC<22	2-methylnaphthalene/naphthalene
High aromatic	C17-C32	EC>22-EC35	fluoranthene

Figure 6.2 Hydrocarbon Fraction Ranges (EPA, 2015) http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/faq.htm #FAQ53

The CoC TPH-GRO is assumed to include the low aliphatic and low aromatic fraction range and the TPH-DRO is assumed to include the medium aliphatic and medium aromatic fraction range. TPH-

Oil Range Organics (ORO), or the high aliphatic and high aromatic fraction ranges, were not analyzed. There is no exposure pathway to groundwater and no exposure pathways to the arroyo north of the Well Site and the intermittent stream southwest of the Well Site via surface water or groundwater.

Assessment

Region 3 Screening Levels for industrial soils assuming THQ = 1 are 5.1 mg/kg for benzene, 47,000 mg/kg for toluene, 25 mg/kg for ethyl-benzene, 2,800 mg/kg for xylenes, 22,000 mg/kg for TPH-GRO, and 440 mg/kg for TPH-DRO. Value for TPH-GRO is considered as the minimum of the corresponding carbon fraction (low aliphatic and low aromatic) and the value for TPH-DRO is considered as the minimum of the corresponding carbon fraction (medium aliphatic and medium aromatic). For the more conservative THQ value of 0.1, the screening levels are lowered to one tenth of the above values.

Results

Table 6.9 and Table 6.10 show the magnitude of CoCs at the Site and compare their values to EPA Region 6 Risk-Based Screening Levels for industrial sites using THQ values of 1 and 0.1 respectively. BTEX in all boreholes is below the screening levels for both THQ of 1 and 0.1. Boreholes B-1, B-2, B-5, B9, and B-10 exceed the screening level for TPH-DRO using a THQ of 1. Boreholes B-9 and B-10 exceed the screening level of TPH-GRO using a THQ of 1. When THQ value of 0.1 is used, Boreholes B-1, B-2, B-3, B-4, B-5, B-8, B-9, B-10, B14, and B-15 exceed the screening level for TPH-DRO. Boreholes B-1, B-2, B-9, and B-10 exceed screening level for TPH-GRO when a THQ of 0.1 is applied.

7. Comparative Remediation Cost Estimates

The cost of off-site disposal and backfill for impacted soil is approximately $225 per cubic yard considering site remoteness and distance to the nearest disposal facility capable of handling hydrocarbon waste (Industrial Ecosystems Inc., 116-mile round trip). Other remedial technologies that can be applied at the Site include: onsite land farming at $55 per cubic yard, in-situ bioventing at $12-15 per cubic yard, in-situ bioremediation at $13-15 per cubic yard, in-situ oxidation at $12-15 per cubic yard, in-situ thermal treatment at $10-15 per cubic yard, monitored natural attenuation at $ 5 per cubic yard, and capping at $0.1 per cubic yard.

Remediation costs for each technology at individual TPH cleanup level are included in Table 7.1.

8. Conclusions and Recommendations

Detailed assessment of existing Well Site data and comparison with applicable regulations in New Mexico and other comparable state and Federal oil and gas and risk-based regulations indicates that the appropriate preliminary action levels for TPH-impacted soils are in the in the range of 2,500-10,000 mg/kg (Table 8.1).

Areas that need further evaluation beyond the preliminary action levels are shown on Figure 8.1 and 8.2.

Nature and distribution of constituent of concern, landuse, geological, and environmental setting all indicate minimal risk posed by any constituents left at Site beyond the preliminary action levels.

All proposed remedial alternatives of soil at the Well Site must include consideration of ecological risk and other impacts to the area and must be done in consultation with surface owners to protect the current ecological setting and land use.

9. References

API. (2008). RBSL Spreadsheet for Upstream Sites - User's Guide. *API Publication 4752, 2.*

Arnold, D. E. (2014). The National Map Hydrography Data Stewardship - What it is and why it is importnat? 2. U.S. Geological Survey. Retrieved from http://pubs.usgs.gov/fs/2014/3084/.

Bingler, E. C. (1968). *Geology and Mineral Resources of Rio Arriba County, New Mexico Bulletin 91.*

Brewer, R., Nagashima, J., Kelley, M., Heskett, M., & Rigby, M. (2013). Risk-Based Evaluation of Total Petroleum Hydrocarbons in Vapor Intrusion Studies. *International Journal of Environmental Research and Public Health, 10*, 2441-2467. doi:10.3390/ijerph10062441.

EPA. (1996). *Soil Screening Guidance: Technical Background Document.* Retrieved 2015

EPA. (2015, June). *Regional Screening Level (RSL) Summary Table (TR=1E-6, HQ=1).* Retrieved from http://www.epa.gov/reg3hwnd/risk/human/rb-concentration_table/Generic_Tables/docs/indosoil_sl_table_run_JUNE2015.pdf.

Langbein, W. B., & Iseri, K. T. (1995). Hydrologic Definitions: Watershed. *Manual of Hydrology: Part 1, General Surface-Water Techniques (USGS Water Supply Paper 1541-A).*

LDEQ. (2014). RECAP Table 1: Screening Standars for Soil and Groundwater.

LDEQ. (2014). Risk Evaluation/Corrective Action Program (RECAP).

LDNR. (2003). *Part XIX. General Operations Subpart 1: Statewide Order No. 29-B.* Louisiana Department of Natural Resources, Office of Concervation.

Meinzer, O. E. (1923). *Outline of ground-water hydrology, with definitions Water Supply Paper 494.* Washington, DC: USGS.

Monthly Data. (2015). Retrieved July 22, 2015, from U.S. Climate Data: www.usclimatedata.com.

NMED. (2014). Risk Assessment Guidance for Site Investigations and Remediation. *1.*

NMOCD. (1993). *Guidelines for Remediation of Leaks, Spills and Releases.* Santa Fe.

Robson, S. G., & Banta, E. R. (1995). *Ground Water Atlas of the United States: Arizona, Colorado, New Mexico, Utah, HA730-C, Colorado Plateaus aquifers.* USGS.

RRC. (1993). *Rule 91(3.91) Cleanup of Soil Contaminated by a Crude Oil Spill.* Retrieved from Rail Road Commission of Texas Economic Regulations, Oil and Gas Division:

http://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=91.

RRC. (2015, July 21). *Field Guide for the Assessment of Cleanup of Soil and Groudnwater Contaominated with Condensate From a Spill Incident (Statewide Rules 8, 20, and 91).* Retrieved 2015, from Rail Road Commission of Texas: http://www.rrc.state.tx.us/oil-gas/environmental-cleanup-programs/guidance-documents-and-helpful-links/condensate-spill-guidance/?_sm_byp=iVV2kqFWS3vSR0Wk.

RRC. (2015). *Rule 8(3.8), Water Protection.* Retrieved from Rail Road Commission of Texas Economic Regulation, Oil and Gas Division: http://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=T&app=9&p_dir=P&p_rloc=169759&p_tloc=14637&p_ploc=1&pg=3&p_tac=&ti=16&pt=1&ch=3&rl=8.

RRC. (n.d.). *Field Guide for the Assessment and Cleanup of Soil and Groundwater Contaminated with Condensate From a Spill Incident.* Retrieved from Railroad Commission of Texas.

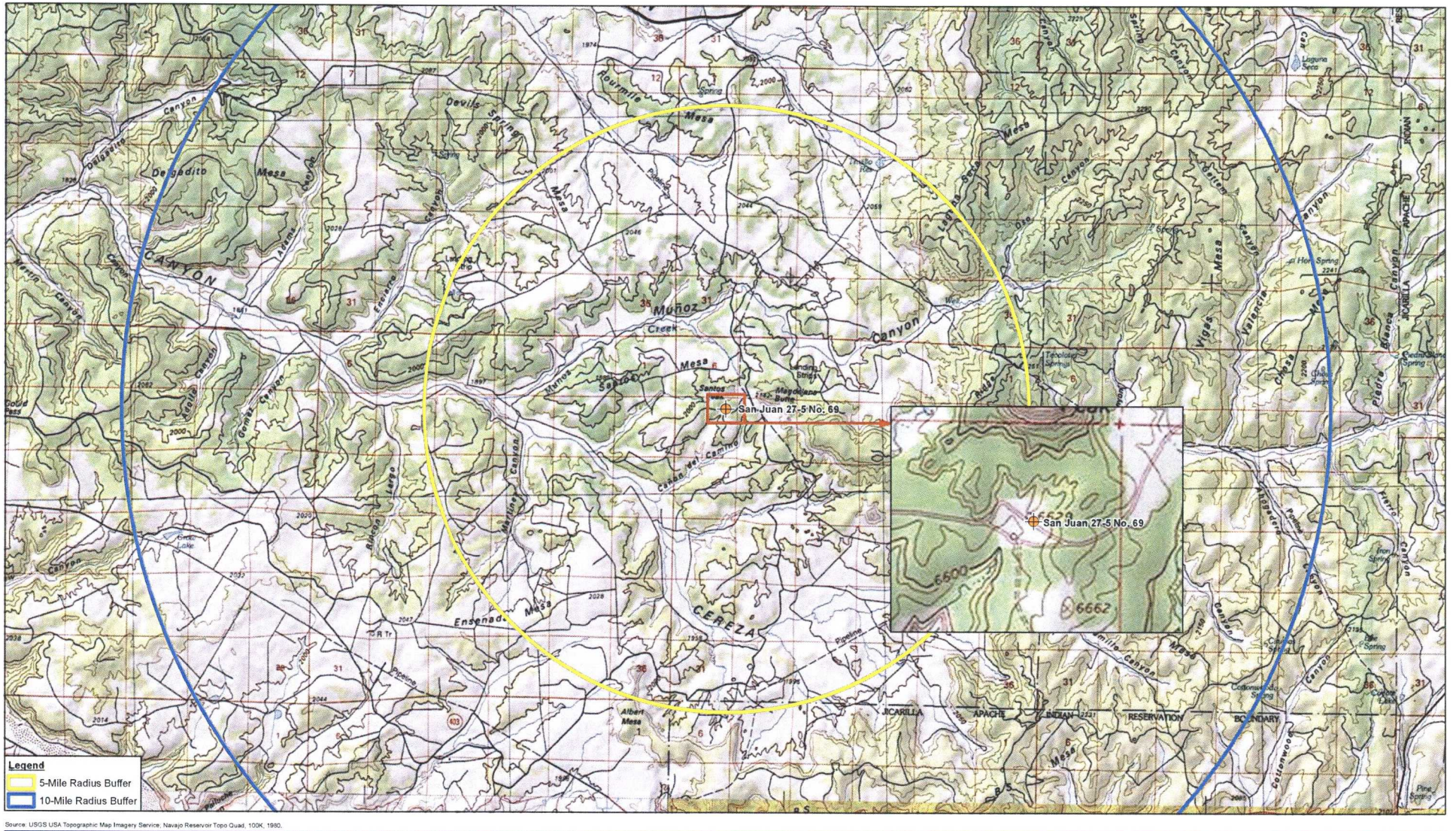
TCEQ. (2010, November 19). *Determining Which Releases are Subject to TRRP.* Retrieved from Texas Commission on Environmental Quality: http://www.tceq.state.tx.us/remediation/trrp/guidance.html.

TCEQ. (2013, July 24). *TRRP: Applicability and Grandfathering.* Retrieved from Texas Commission on Environmental Quality: https://www.tceq.texas.gov/publications/rg/rg-366_trrp_02.html.

TRRP Guidance and Forms. (2010, November 19). Retrieved 2015, from Texas Commission on Environmental Quality: http://www.tceq.state.tx.us/remediation/trrp/guidance.html?_sm_byp=iVV2kqFWS3vSR0Wk.

TRRP. (Table 2). Tier 1 Commercial/Industrial Soils PCLs - Table 2.

Western Regional Climate Center. (2015). *Desert Research Institute - Recent Climate in the West.* Retrieved 2015, from Western Evaporation Data: http://www.wrcc.dri.edu/htmlfiles/westevap.final.html#NEW MEXICO.



Source: USGS USA Topographic Map Imagery Service; Navajo Reservoir Topo Quad, 100K, 1980.

0 1.5
Miles

Coordinate System:
NAD 1983 StatePlane New Mexico
Central FIPS 3002 Feet

N

GHD

CONOCO PHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SAN JUAN 27-5 NO. 69

086010-00
Aug 12, 2015

TOPOGRAPHIC MAP

FIGURE 1.1

GIS File: J:\GIS\Projects\86000s\8601D\86010-00(001)PR\86010-00(001)PR-BR004 Topographic Map.mxd

Source: ESRI World Imagery Service.

0 40
Feet

Coordinate System:
NAD 1983 StatePlane New Mexico
Central FIPS 3002 Feet

N

GHD

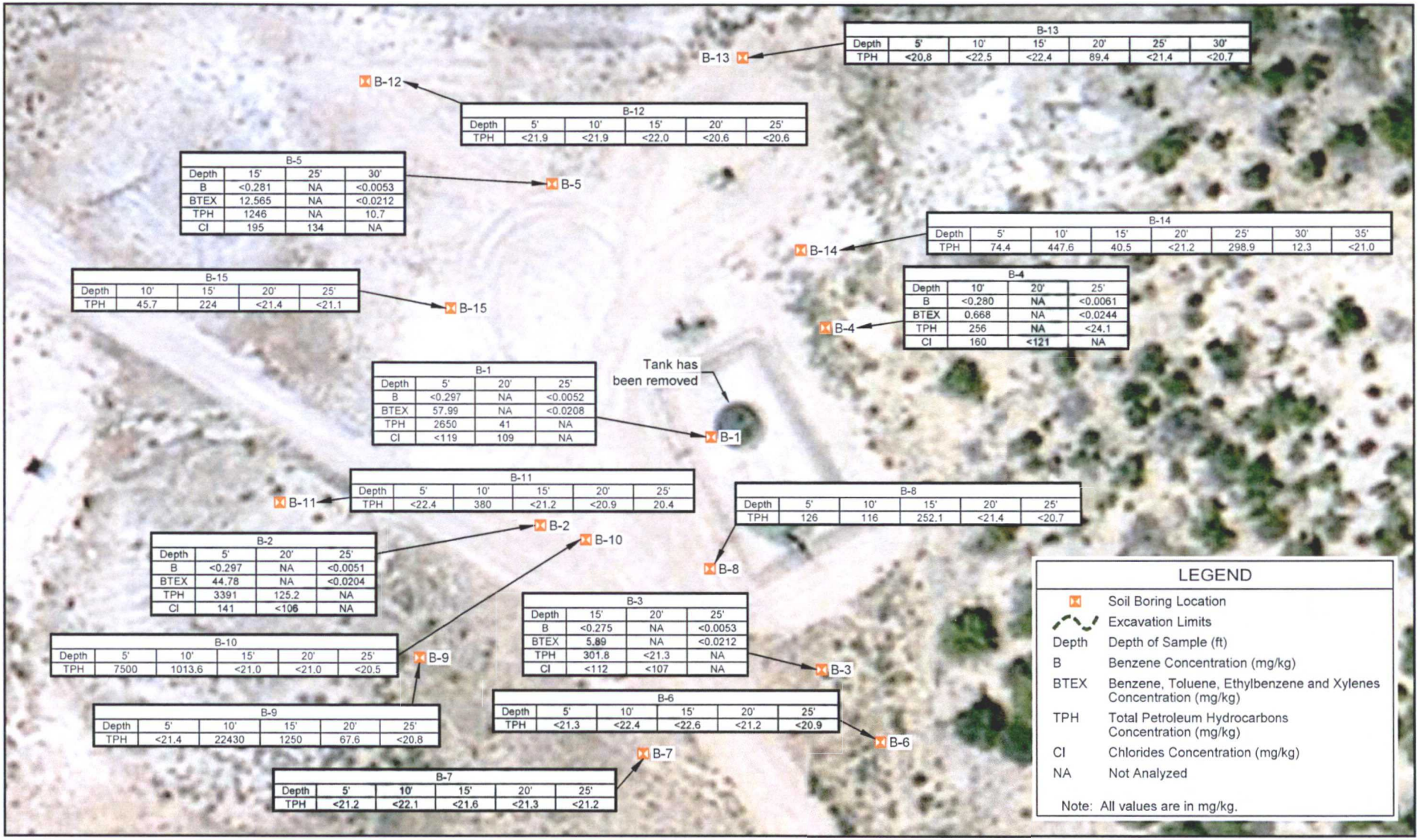
CONOCO PHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SAN JUAN 27-5 NO. 69

086010-00
Aug 12, 2015

SITE DETAILS MAP

FIGURE 2.1

GIS File: J:\GIS\Projects\86000s\86010\86010-00(001)PR\86010-00(001)PR-BR009 Site Details Map.mxd



0 20 50ft

CONOCOPHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SEC 7, T 27-N, R 5-5

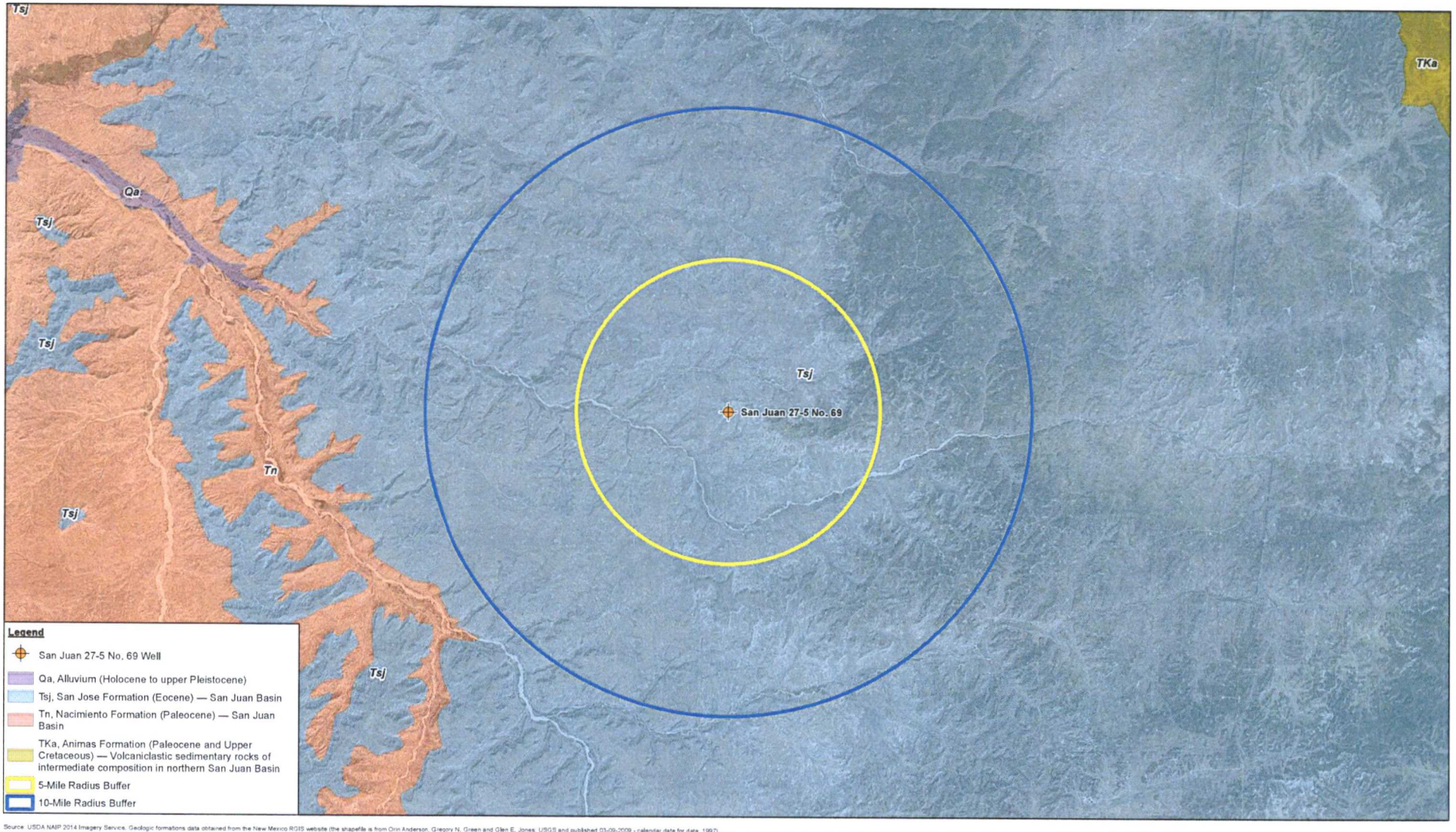
SOIL ANALYTICAL SUMMARY MAP
SAN JUAN 27-5 No. 69

086010-00

Aug 12, 2015

FIGURE 2.2

CAD File: P:\6-chars\08----\086010\086010-Reports\086010-00(001)\086010-00(001)GN\086010-00(001)GN-BR003.dwg



Source: USDA NAIP 2014 Imagery Service. Geologic formations data obtained from the New Mexico RGIS website (the shapefile is from Orin Anderson, Gregory N. Green and Glen E. Jones, USGS and published 03-09-2009 - calendar date for data: 1997).

0 3 Miles

Coordinate System:
NAD 1983 StatePlane New Mexico Central FIPS 3002 Feet

N

GHD

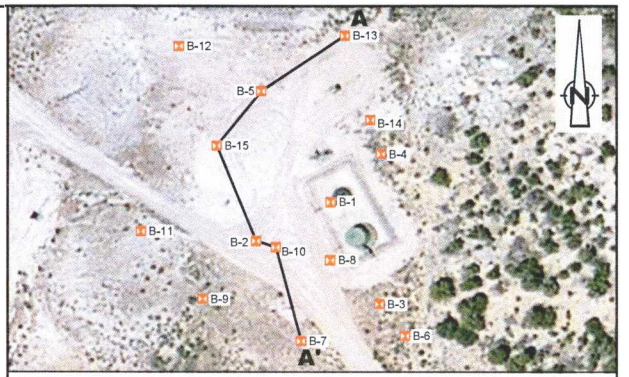
CONOCO PHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SAN JUAN 27-5 NO. 69

086010-00
Jul 31, 2015

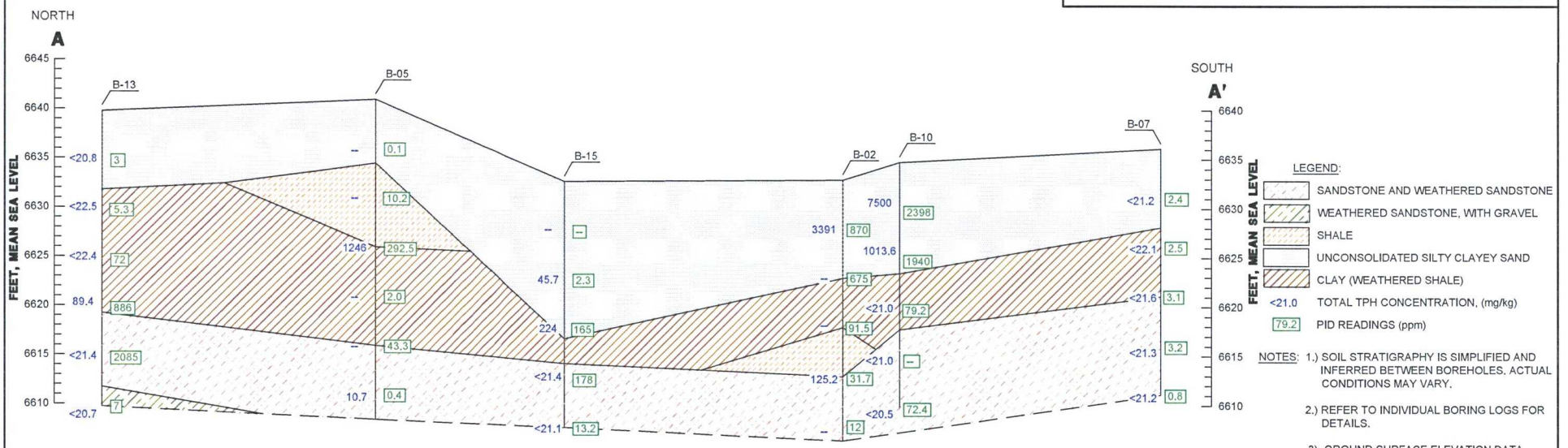
GEOLOGY MAP

FIGURE 3.1

GIS File: J:\GIS\Projects\86000s\86010\86010-00(001)PR\86010-00(001)PR-BR006 Geology Map.mxd



PLAN VIEW



LEGEND:
- SANDSTONE AND WEATHERED SANDSTONE
- WEATHERED SANDSTONE, WITH GRAVEL
- SHALE
- UNCONSOLIDATED SILTY CLAYEY SAND
- CLAY (WEATHERED SHALE)
- <21.0 TOTAL TPH CONCENTRATION, (mg/kg)
- 79.2 PID READINGS (ppm)

NOTES:
1.) SOIL STRATIGRAPHY IS SIMPLIFIED AND INFERRED BETWEEN BOREHOLES. ACTUAL CONDITIONS MAY VARY.
2.) REFER TO INDIVIDUAL BORING LOGS FOR DETAILS.
3) GROUND SURFACE ELEVATION DATA OBTAINED FROM LIDAR AND IS APPROXIMATE.

CROSS SECTION A-A'

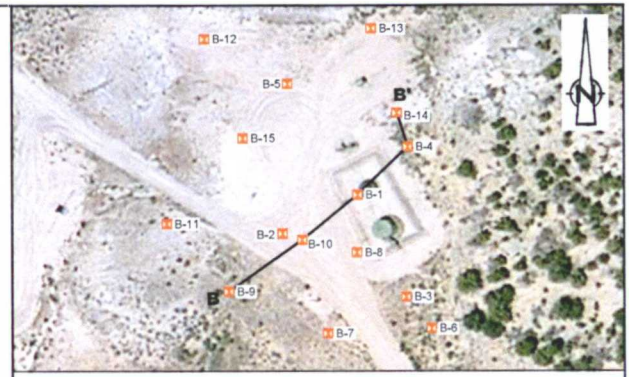
0 10 30ft
HORIZONTAL SCALE
0 5 10ft
VERTICAL SCALE

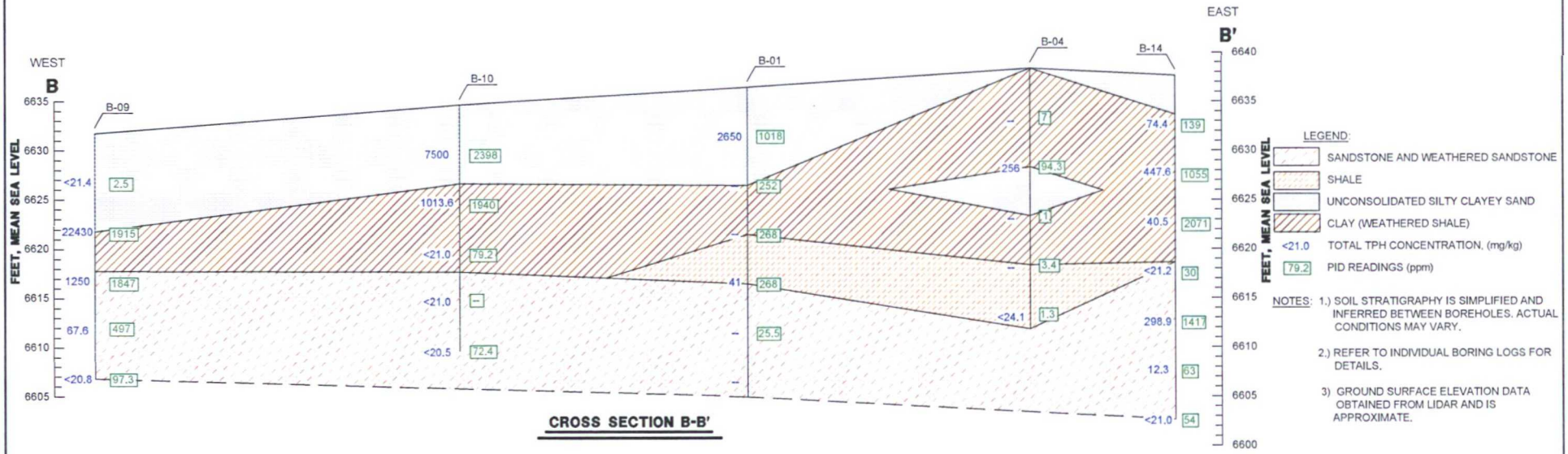
CONOCOPHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SEC 7, T 27-N, R 5-W
CROSS SECTION A-A'
SAN JUAN 27-5 No. 69

086010-00
Aug 3, 2015

FIGURE 3.2

CAD File: P:\6-chans\08—\086010\086010-Reports\086010-00(001)\086010-00(001)GN\086010-00(001)GN-BR001.dwg





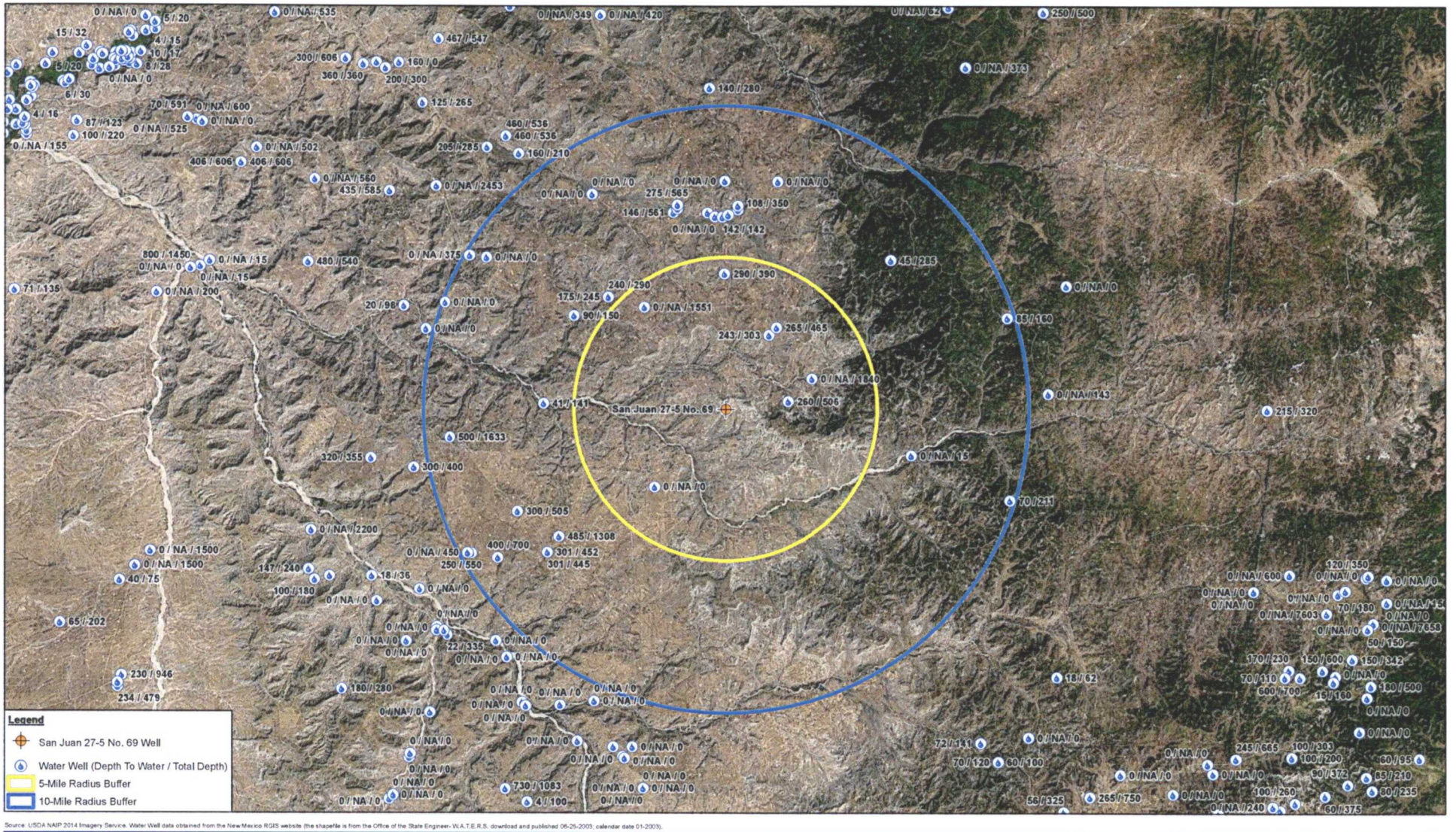
0 10 30ft
HORIZONTAL SCALE
0 5 10ft
VERTICAL SCALE

CONOCOPHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SEC 7, T 27-N, R 5-W
CROSS SECTION B-B'
SAN JUAN 27-5 No. 69

086010-00
Aug 3, 2015

FIGURE 3.3

CAD File P:\6-charts\08—I086010\086010-Reports\086010-00(001)\086010-00(001)GIN086010-00(001)GIN-ER001.dwg



Source: USDA NAIP 2014 Imagery Service. Water Well data obtained from the New Mexico RGIS website (the shapefile is from the Office of the State Engineer- W.A.T.E.R.S. download and published 06-25-2003, calendar date 01-2003).

0 3
Miles

Coordinate System:
NAD 1983 StatePlane New Mexico
Central FIPS 3002 Feet

N

GHD

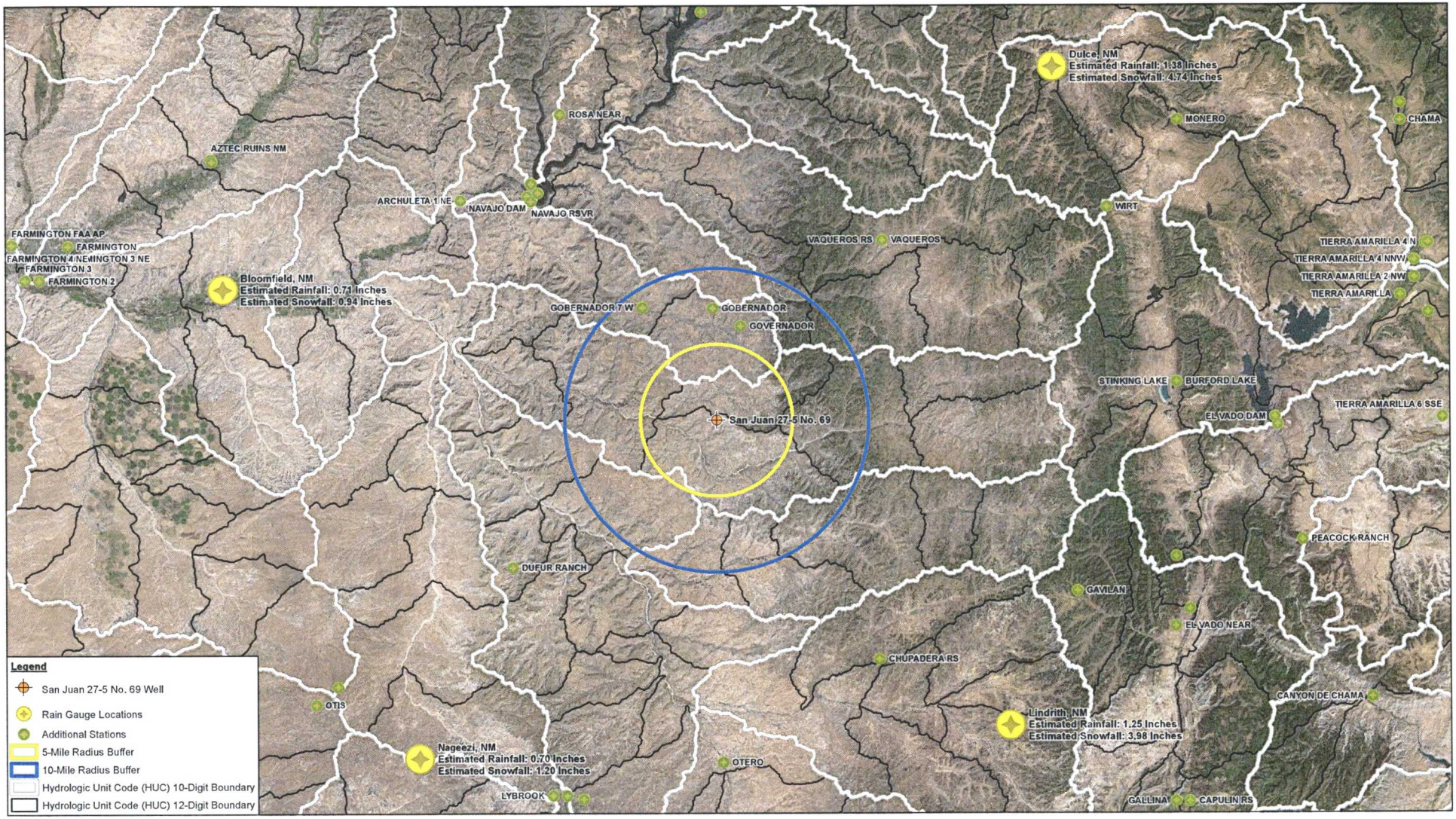
CONOCO PHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SAN JUAN 27-5 NO. 69

086010-00
Aug 3, 2015

WATER WELL MAP

FIGURE 3.4

GIS File: J:\GIS\Projects\86000s\86010\86010-00(001)PR\86010-00(001)PR-BR003 Water Wells.mxd



Source: USDA NAIP 2014 Imagery Service. Watershed data obtained from the New Mexico RGIS website (the shapefile is from theNew Mexico Natural Resources Conservation Service State Office (NRCS) and published in 2005). The National Hydrography Dataset data obtained from USGS; Date range - 01-01-00 - 10-31-12. The average monthly precipitation data obtained from the U.S. Climate Data website.

0 6
Miles

Coordinate System:
NAD 1983 StatePlane New Mexico
Central FIPS 3002 Feet

CONOCO PHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SAN JUAN 27-5 NO. 69

AVERAGE MONTHLY PRECIPITATION
JANUARY 2000 - JULY 2015

086010-00
Aug 12, 2015

FIGURE 3.5

GIS File: J:\GIS\Projects\86000s\86010\86010-00(001)PR\86010-00(001)PR-BR008 Average Precipitation Map.mxd

Source: USDA NAIP 2014 Imagery Service, Contours derived from the National Elevation Dataset, USGS; Date range - 03-08-99 - 02-01-01, The National Hydrography Dataset data obtained from USGS; Date range - 01-01-00 - 10-31-12.

0 300
Feet

Coordinate System:
NAD 1983 StatePlane New Mexico
Central FIPS 3002 Feet

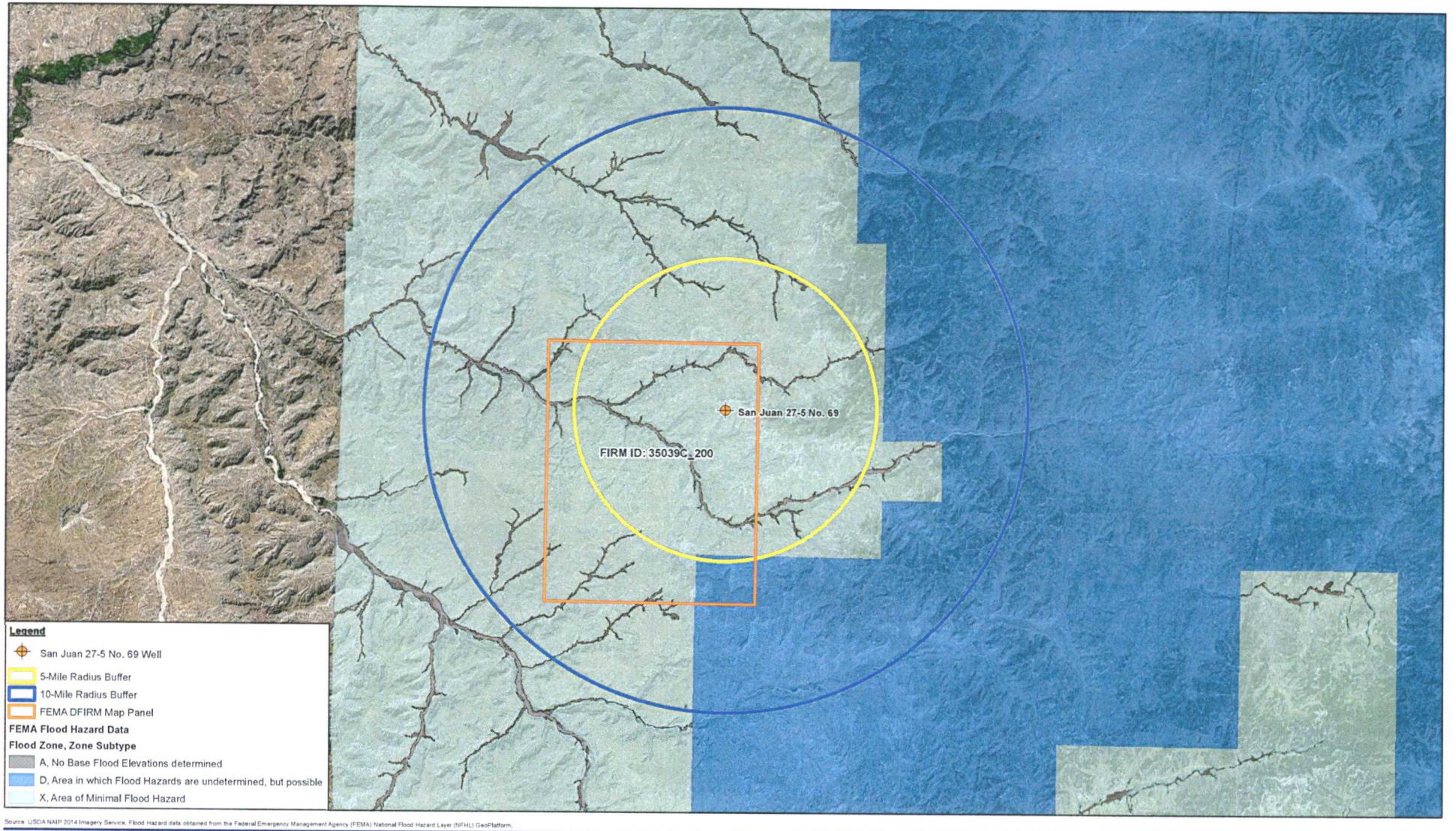
CONOCO PHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SAN JUAN 27-5 NO. 69

USGS NATIONAL HYDROGRAPHY DATASET AND ELEVATION CONTOURS

086010-00
Sep 15, 2015

FIGURE 3.6

GIS File: J:\GIS\Projects\86000s\86010\86010-00(001)PR\86010-00(001)PR-BR002 NHD and DEM Contours.mxd



Source: USDA NAIP 2014 Imagery Service, Flood Hazard data obtained from the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) GeoPlatform.

0 3
Miles

Coordinate System:
NAD 1983 StatePlane New Mexico
Central FIPS 3002 Feet

N

GHD

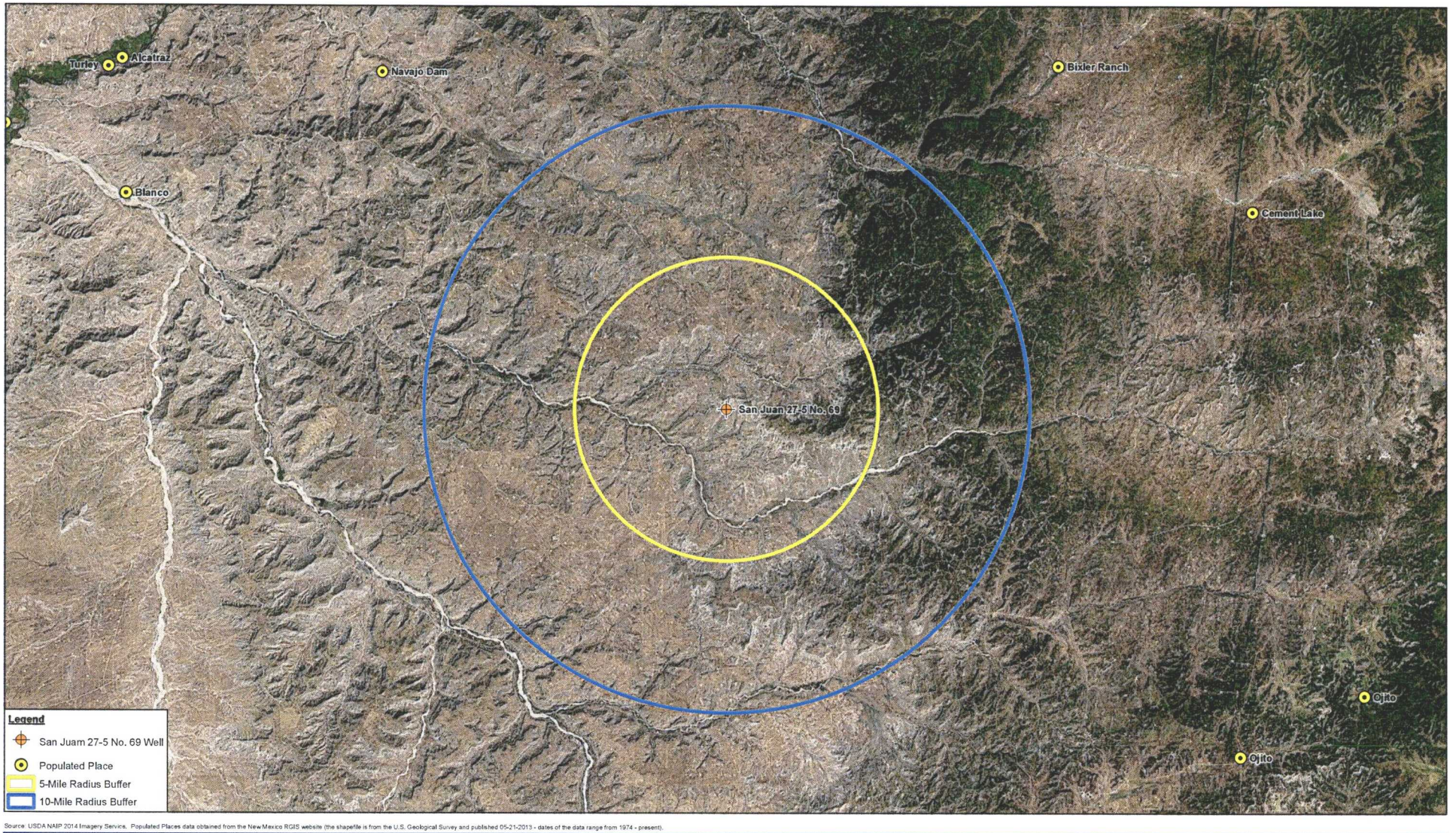
CONOCO PHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SAN JUAN 27-5 NO. 69

086010-00
Aug 10, 2015

FLOOD MAP

FIGURE 3.7

GIS File: J:\GIS\Projects\86000s\86010\86010-00(001)PR\86010-00(001)PR-BR011 FEMA Flood Map.mxd



Source: USDA NAIP 2014 Imagery Service, Populated Places data obtained from the New Mexico RGIS website (the shapefile is from the U.S. Geological Survey and published 05-21-2013 - dates of the data range from 1974 - present).

0 3
Miles

Coordinate System:
NAD 1983 StatePlane New Mexico
Central FIPS 3002 Feet

N

GHD

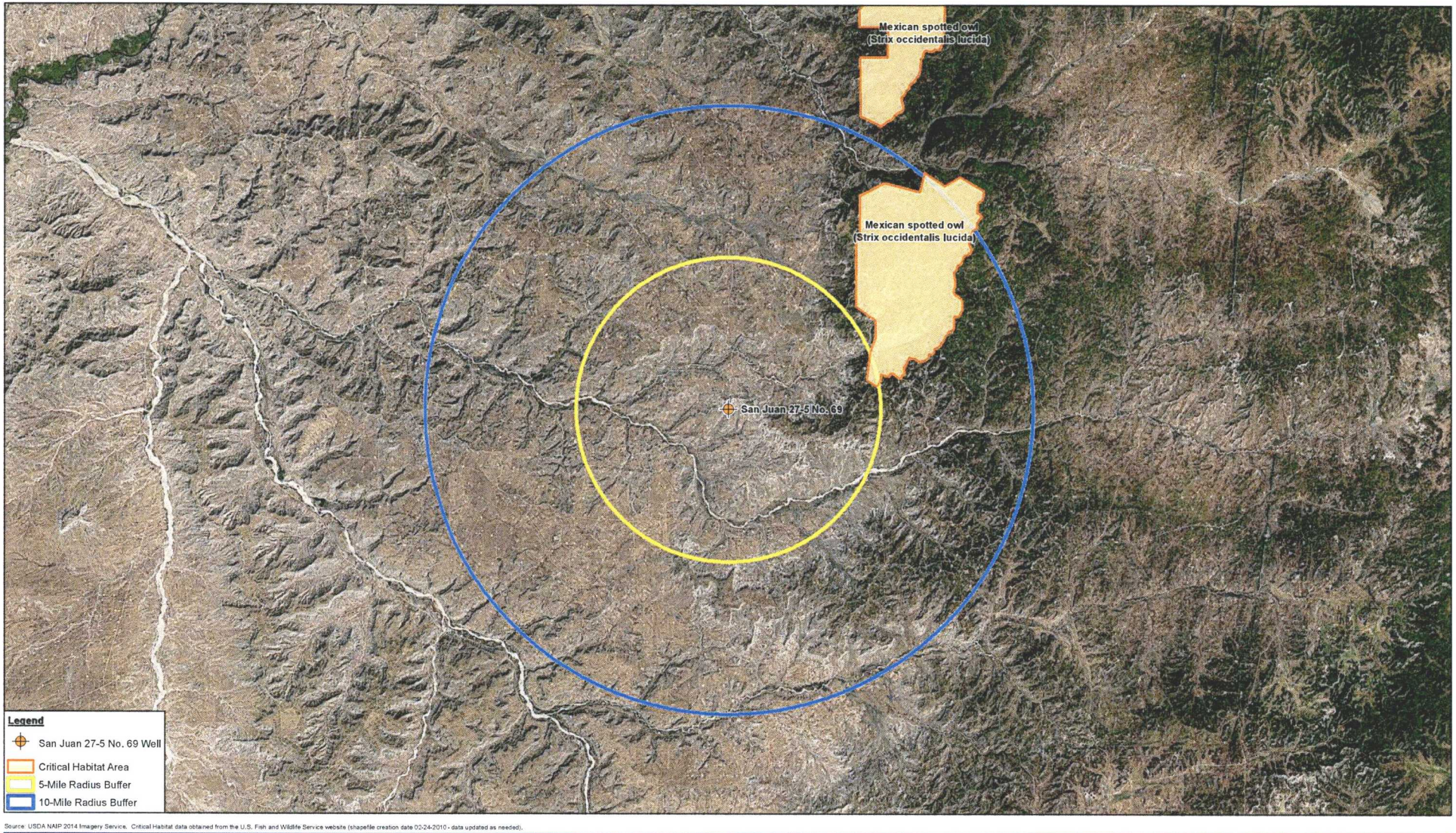
CONOCO PHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SAN JUAN 27-5 NO. 69

086010-00
Jul 31, 2015

POPULATED PLACES

FIGURE 4.1

GIS File: J:\GIS\Projects\86000s\86010\86010-00(001)PR\86010-00(001)PR-BR005 Populated Places.mxd



Source: USDA NAIP 2014 Imagery Service. Critical Habitat data obtained from the U.S. Fish and Wildlife Service website (shapefile creation date 02-24-2010 - data updated as needed).

0 3
Miles

Coordinate System:
NAD 1983 StatePlane New Mexico
Central FIPS 3002 Feet

N

GHD

CONOCO PHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SAN JUAN 27-5 NO. 69

086010-00
Jul 31, 2015

CRITICAL HABITAT

FIGURE 4.2

GIS File: J:\GIS\Projects\86000s\86010\86010-00(001)PR\86010-00(001)PR-BR007 Critical Habitat.mxd

Source: Insert source text here.

0 40
Feet

Coordinate System:
NAD 1983 StatePlane New Mexico
Central FIPS 3002 Feet

N

GHD

CONOCO PHILLIPS COMPANY
RIO ARRIBA COUNTRY, NEW MEXICO
SAN JUAN 27-5 NO. 69

086010-00
Jul 31, 2015

MAXIMUM TPH CONCENTRATION AND ISOPLETH MAP

FIGURE 4.3

GIS File: J:\GIS\Projects\86000s\86010\86010-00(001)PR\86010-00(001)PR-BR001 Maximum TPH Concentration and Isopleth Map.mxd

San Juan 27-5 No. 69 Property
Rio Arriba County, New Mexico

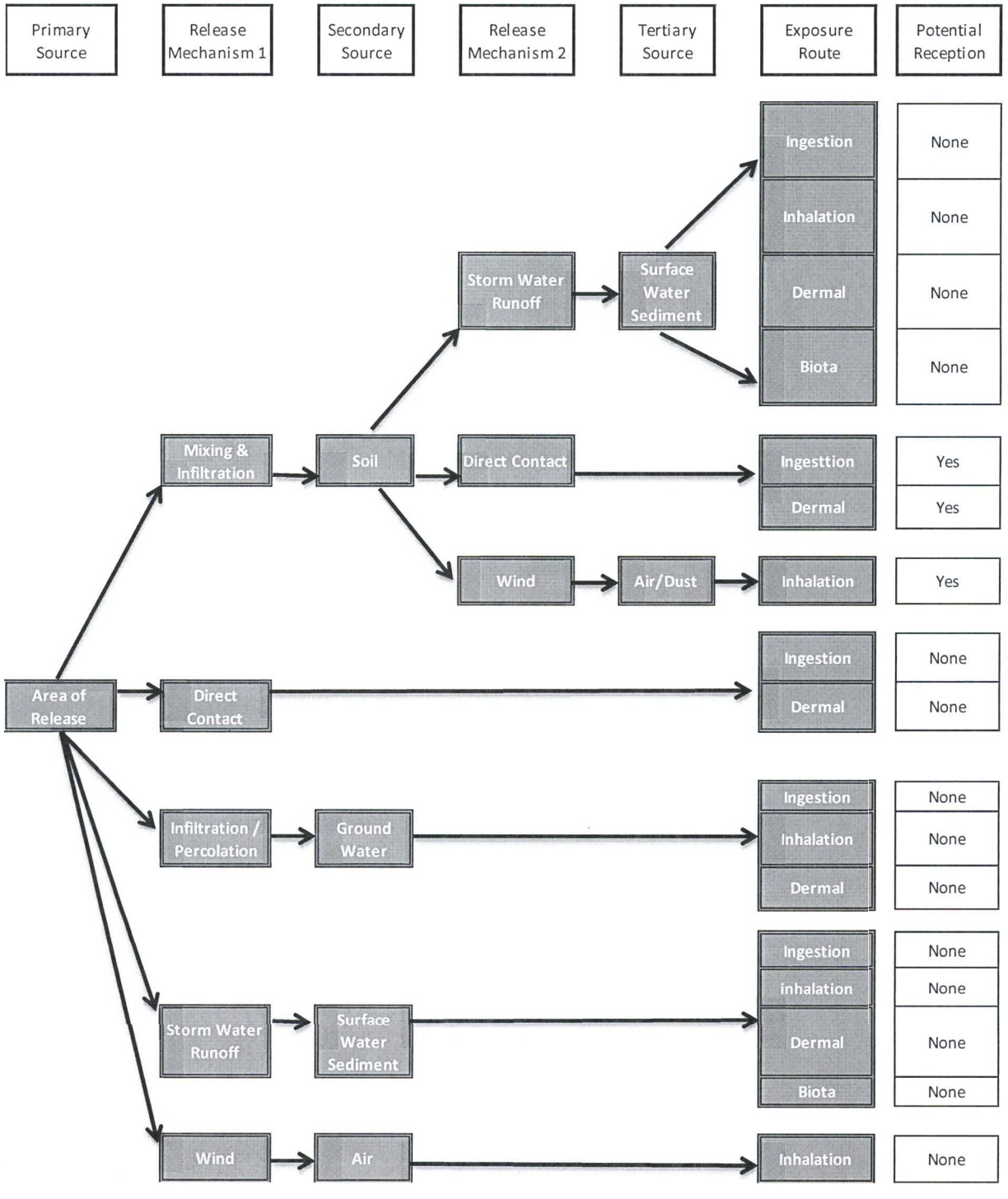
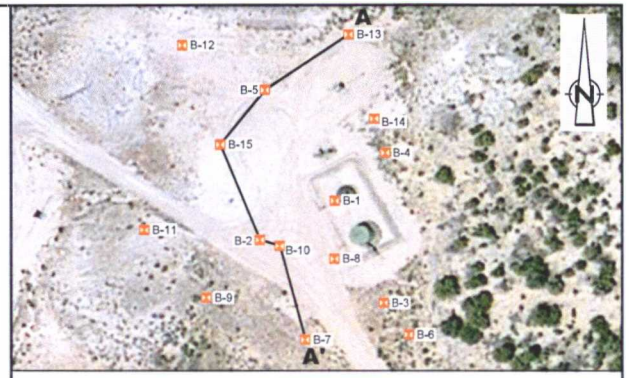
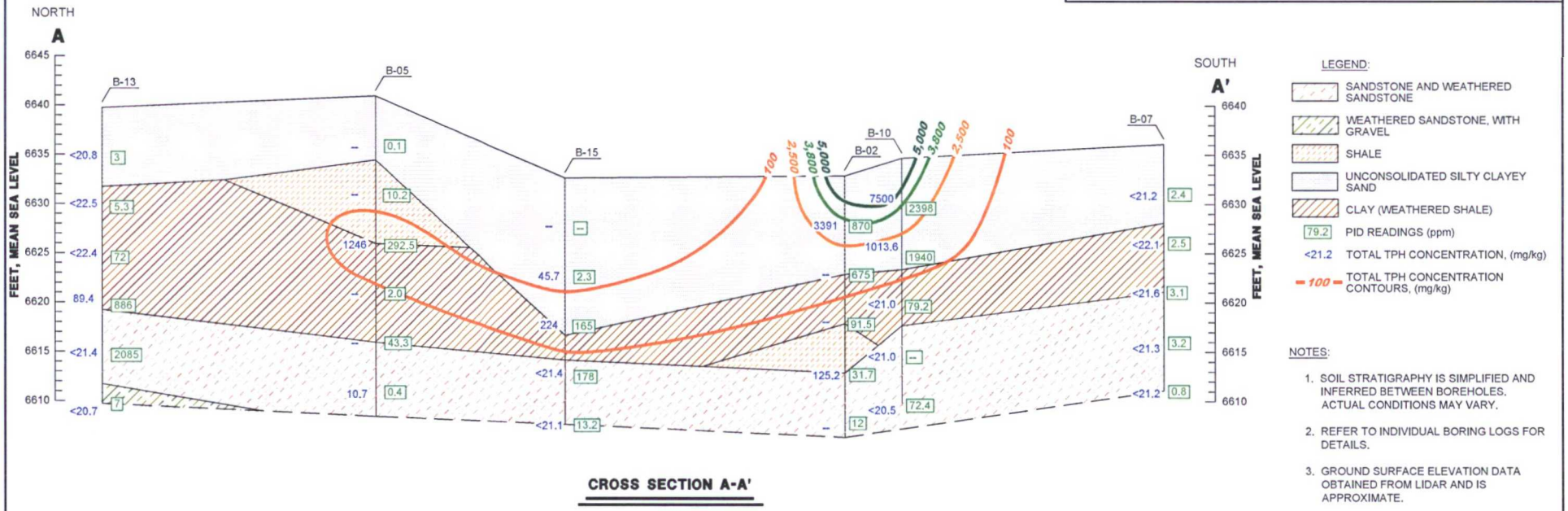


Figure 5.1 Conceptual Site Model (CSM)

NMOCD 1993 SPILL GUIDELINE (SITE RANKING = 20)	100 mg/kg
NMOCD 2014 PIT RULES	2,500 mg/kg
NMED 2014 RISK ASSESSMENT GUIDANCE	3,800 mg/kg
NMOCD 1993 SPILL GUIDELINES (SITE RANKING = 0)	5,000 mg/kg
LDEQ 2003 RECAP	5,100 mg/kg
TX TRRP	7,800 mg/kg
TX RRC RULE 8 AND 91	10,000 mg/kg
LDNR ORDER 29-B	10,000 mg/kg



PLAN VIEW



CROSS SECTION A-A'

NOTES:

1. SOIL STRATIGRAPHY IS SIMPLIFIED AND INFERRED BETWEEN BOREHOLES. ACTUAL CONDITIONS MAY VARY.
2. REFER TO INDIVIDUAL BORING LOGS FOR DETAILS.
3. GROUND SURFACE ELEVATION DATA OBTAINED FROM LIDAR AND IS APPROXIMATE.

0 10 30ft
HORIZONTAL SCALE
0 5 10ft
VERTICAL SCALE

CONOCOPHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SEC 7, T 27-N, R 5-W

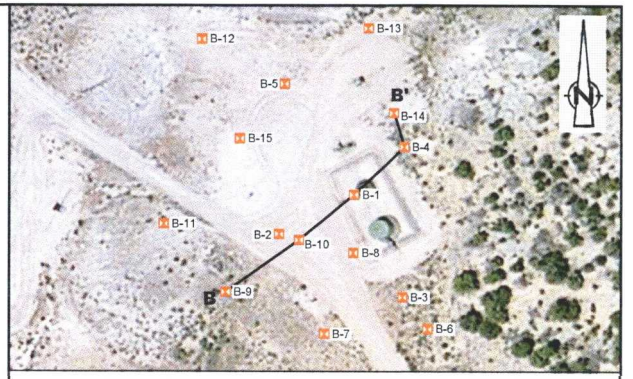
086010-00
Aug 12, 2015

CROSS SECTION A-A' WITH TOTAL TPH CONCENTRATION CONTOURS
SAN JUAN 27-5 No. 69

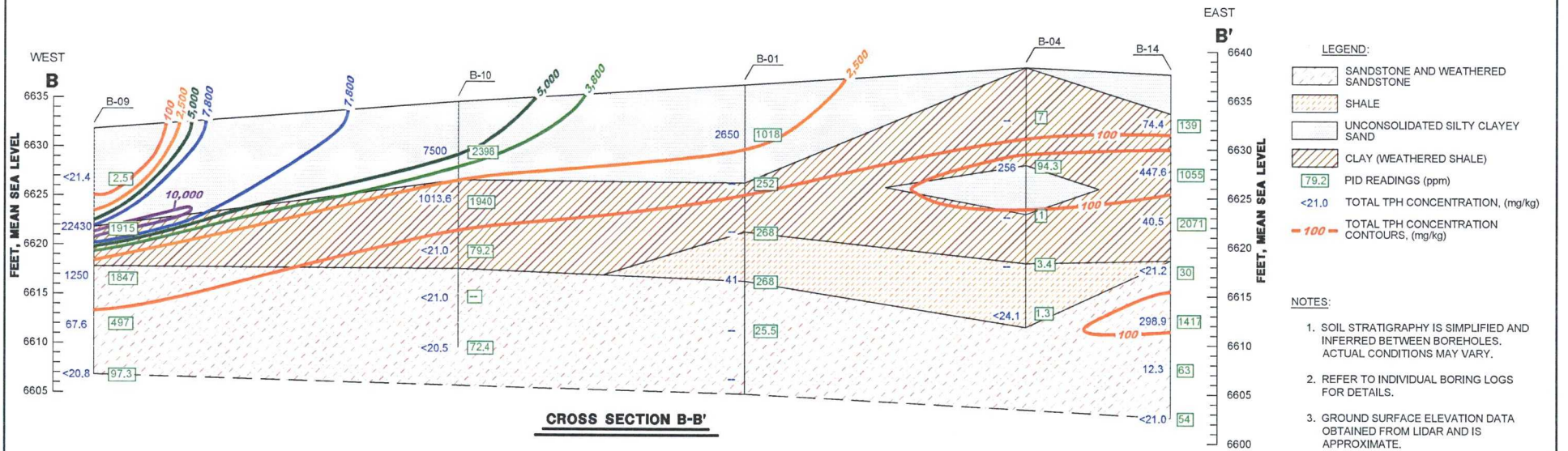
FIGURE 8.1

CAD File: P:\6-chars\08---\086010\086010-Reports\086010-00(001)\086010-00(001)GN\086010-00(001)GN-BR004.dwg

NMOCD 1993 SPILL GUIDELINE (SITE RANKING = 20)	100 mg/kg
NMOCD 2014 PIT RULES	2,500 mg/kg
NMED 2014 RISK ASSESSMENT GUIDANCE	3,800 mg/kg
NMOCD 1993 SPILL GUIDELINES (SITE RANKING = 0)	5,000 mg/kg
LDEQ 2003 RECAP	5,100 mg/kg
TX TRRP	7,800 mg/kg
TX RRC RULE 8 AND 91	10,000 mg/kg
LDNR ORDER 29-B	10,000 mg/kg



PLAN VIEW



CROSS SECTION B-B'

NOTES:

1. SOIL STRATIGRAPHY IS SIMPLIFIED AND INFERRED BETWEEN BOREHOLES. ACTUAL CONDITIONS MAY VARY.
2. REFER TO INDIVIDUAL BORING LOGS FOR DETAILS.
3. GROUND SURFACE ELEVATION DATA OBTAINED FROM LIDAR AND IS APPROXIMATE.

0 10 20ft
HORIZONTAL SCALE

0 5 10ft
VERTICAL SCALE

CONOCOPHILLIPS COMPANY
RIO ARRIBA COUNTY, NEW MEXICO
SEC 7, T 27-N, R 5-W

086010-00
Aug 12, 2015

CROSS SECTION B-B' WITH TOTAL TPH CONCENTRATION CONTOURS
SAN JUAN 27-5 No. 69

FIGURE 8.2

CAD File: P:\6-chars\08—I086010\086010-Reports\086010-00(001)\086010-00(001)GN\086010-00(001)GN-BR004.dwg

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	TPH (Field Screening) (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Recommended Remediation Action Levels based on Preliminary Site Ranking of 20 (NMOCD 1993 Guidelines for Remediation of Leaks, Spills and Releases)						10 mg/kg	--- mg/kg	--- mg/kg	--- mg/kg	50 mg/kg	--- mg/kg	--- mg/kg	100 mg/kg	250 mg/kg
B-1	S-086010-080614-JW-B-1-5	5	8/6/2014	1018.0	--	<0.297	2.25	2.94	52.8	57.99	790	1860	2650	< 119
		10	8/6/2014	252.0	--	--	--	--	--	--	--	--	--	--
		15	8/6/2014	268.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-1-20	20	8/6/2014	268.0	--	--	--	--	--	--	26.3	14.7	41	109
	S-086010-080614-JW-B-1-25	25	8/6/2014	25.5	--	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0208	--	--	--	--
B-2	S-086010-080614-JW-B-2-5	5	8/6/2014	870.0	--	< 0.297	< 0.297	2.48	42.3	44.78	301	3090	3391	141
		10	8/6/2014	675.0	--	--	--	--	--	--	--	--	--	--
		15	8/6/2014	91.5	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-2-20	20	8/6/2014	31.7	--	--	--	--	--	--	17.2	108	125.2	< 106
	S-086010-080614-JW-B-2-25	25	8/6/2014	12.0	--	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0204	--	--	--	--
B-3		5	8/6/2014	31.0	--	--	--	--	--	--	--	--	--	--
		10	8/6/2014	42.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-3-15	15	8/6/2014	95.8	--	< 0.275	< 0.275	< 0.275	5.89	5.89	55.8	246	301.8	< 112
	S-086010-080614-JW-B-3-20	20	8/6/2014	3.6	--	--	--	--	--	--	< 10.6	< 10.7	< 21.3	< 107
	S-086010-080614-JW-B-3-25	25	8/6/2014	4.5	--	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	--	--	--	--
B-4		5	8/6/2014	7.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-10	10	8/6/2014	94.3	--	< 0.280	< 0.280	< 0.280	0.668	0.668	26	230	256	160
		15	8/6/2014	1.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-20	20	8/6/2014	3.4	--	--	--	--	--	--	--	--	--	< 121
	S-086010-080614-JW-B-4-25	25	8/6/2014	1.3	--	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0244	< 12.2	< 11.9	< 24.1	--
B-5		5	8/7/2014	0.1	--	--	--	--	--	--	--	--	--	--
		10	8/7/2014	10.2	--	--	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-15	15	8/7/2014	292.5	--	< 0.281	< 0.281	0.565	12	12.565	126	1120	1246	195
		20	8/7/2014	2.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-25	25	8/7/2014	43.3	--	--	--	--	--	--	--	--	--	134
	S-086010-080714-CB-B-5-30	30	8/7/2014	0.4	--	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	< 10.7	10.7	10.7	--
B-6	S-086010-021915-JW-B6-5	5	2/19/2015	5.8	--	--	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-021915-JW-B6-10	10	2/19/2015	5.6	--	--	--	--	--	--	< 11.3	< 11.1	< 22.4	--
	S-086010-021915-JW-B6-15	15	2/19/2015	5.2	--	--	--	--	--	--	< 11.3	< 11.3	< 22.6	--
	S-086010-021915-JW-B6-20	20	2/19/2015	4.6	--	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021915-JW-B6-25	25	2/19/2015	2.5	--	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
B-7	S-086010-022015-JW-B7-5	5	2/20/2015	2.4	--	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-022015-JW-B7-10	10	2/20/2015	2.5	--	--	--	--	--	--	< 11.2	< 10.9	< 22.1	--
	S-086010-022015-JW-B7-15	15	2/20/2015	3.1	--	--	--	--	--	--	< 10.9	< 10.7	< 21.6	--
	S-086010-022015-JW-B7-20	20	2/20/2015	3.2	--	--	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-022015-JW-B7-25	25	2/20/2015	0.8	--	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
B-8	S-086010-021915-JW-B8-5	5	2/19/2015	13.1	--	--	--	--	--	--	< 12.0	126	126	--
	S-086010-021915-JW-B8-10	10	2/19/2015	108.0	--	--	--	--	--	--	< 11.7	116	116	--
	S-086010-021915-JW-B8-15	15	2/19/2015	1510.0	--	--	--	--	--	--	14.1	238	252.1	--
	S-086010-021915-JW-B8-20	20	2/19/2015	86.0	--	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021915-JW-B8-25	25	2/19/2015	13.2	--	--	--	--	--	--	< 10.4	< 10.3	< 20.7	--

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	TPH (Field Screening) (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Recommended Remediation Action Levels based on Preliminary Site Ranking of 20 (NMOCD 1993 Guidelines for Remediation of Leaks, Spills and Releases)						10 mg/kg	--- mg/kg	--- mg/kg	--- mg/kg	50 mg/kg	--- mg/kg	--- mg/kg	100 mg/kg	250 mg/kg
B-9	S-086010-022015-JW-B9-5	5	2/20/2015	2.5	--	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-022015-JW-B9-10	10	2/20/2015	1915.0	--	--	--	--	--	--	5530	16900	**22430**	--
	S-086010-022015-JW-B9-15	15	2/20/2015	1847.0	--	--	--	--	--	--	469	781	**1250**	--
	S-086010-022015-JW-B9-20	20	2/20/2015	497.0	--	--	--	--	--	--	15.3	52.3	67.6	--
	S-086010-022015-JW-B9-25	25	2/20/2015	97.3	--	--	--	--	--	--	< 10.5	< 10.3	< 20.8	--
B-10	S-086010-021915-JW-B10-5	5	2/19/2015	2398.0	--	--	--	--	--	--	**3460**	**4040**	**7500**	--
	S-086010-021915-JW-B10-10	10	2/19/2015	1940.0	--	--	--	--	--	--	**73.6**	**940**	**1013.6**	--
	S-086010-021915-JW-B10-15	15	2/19/2015	79.2	--	--	--	--	--	--	< 10.8	< 10.2	< 21.0	--
	S-086010-021915-JW-B10-20	20	2/19/2015	--	--	--	--	--	--	--	< 10.6	< 10.4	< 21.0	--
	S-086010-021915-JW-B10-25	25	2/19/2015	72.4	--	--	--	--	--	--	< 10.4	< 10.1	< 20.5	--
B-11	S-086010-021915-JW-B11-5	5	2/19/2015	4.4	--	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021915-JW-B11-10	10	2/19/2015	2856.0	--	--	--	--	--	--	**132**	**248**	**380**	--
	S-086010-021915-JW-B11-15	15	2/19/2015	51.0	--	--	--	--	--	--	< 10.8	< 10.4	< 21.2	--
	S-086010-021915-JW-B11-20	20	2/19/2015	10.4	--	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
	S-086010-021915-JW-B11-24	24	2/19/2015	--	--	--	--	--	--	--	< 10.4	< 10.0	< 20.4	--
B-12	S-086010-021915-JW-B12-5	5	2/19/2015	0.7	--	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-10	10	2/19/2015	1.2	--	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-15	15	2/19/2015	1.6	--	--	--	--	--	--	< 11.2	< 10.8	< 22.0	--
	S-086010-021915-JW-B12-20	20	2/19/2015	--	--	--	--	--	--	--	< 10.6	< 10.0	< 20.6	--
	S-086010-021915-JW-B12-23	23	2/19/2015	--	--	--	--	--	--	--	< 10.4	< 10.2	< 20.6	--
B-13	S-086010-021815-JW-B13-5	5	2/18/2015	3.0	--	--	--	--	--	--	< 10.4	< 10.4	< 20.8	--
	S-086010-021815-JW-B13-10	10	2/18/2015	5.3	--	--	--	--	--	--	< 11.3	< 11.2	< 22.5	--
	S-086010-021815-JW-B13-15	15	2/18/2015	72.0	--	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021815-JW-B13-20	20	2/18/2015	886.0	--	--	--	--	--	--	**89.4**	< 11.3	**89.4**	--
	S-086010-021815-JW-B13-25	25	2/18/2015	2085.0	--	--	--	--	--	--	< 10.9	< 10.5	< 21.4	--
	S-086010-021815-JW-B13-30	30	2/18/2015	7.0	--	--	--	--	--	--	< 10.5	< 10.2	< 20.7	--
B-14	S-086010-021815-JW-B14-5	5	2/18/2015	139.0	--	--	--	--	--	--	< 11.0	**74.4**	**74.4**	--
	S-086010-021815-JW-B14-10	10	2/18/2015	1055.0	--	--	--	--	--	--	**72.6**	**375**	**447.6**	--
	S-086010-021815-JW-B14-15	15	2/18/2015	2071.0	--	--	--	--	--	--	**16.3**	**24.2**	**40.5**	--
	S-086010-021815-JW-B14-20	20	2/18/2015	30.0	--	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021815-JW-B14-25	25	2/18/2015	1417.0	--	--	--	--	--	--	**266**	**32.9**	**298.9**	--
	S-086010-021815-JW-B14-30	30	2/18/2015	63.0	--	--	--	--	--	--	**12.3**	< 10.0	**12.3**	--
	S-086010-021815-JW-B14-35	35	2/18/2015	54.0	--	--	--	--	--	--	< 10.5	< 10.5	< 21.0	--
B-15	S-086010-021815-JW-B15-10	10	2/18/2015	2.3	--	--	--	--	--	--	< 10.6	**45.7**	**45.7**	--
	S-086010-021815-JW-B15-15	15	2/18/2015	165.0	--	--	--	--	--	--	< 11.3	**224**	**224**	--
	S-086010-021815-JW-B15-20	20	2/18/2015	178.0	--	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021815-JW-B15-25	25	2/18/2015	13.2	--	--	--	--	--	--	< 10.7	< 10.4	< 21.1	--
SB-1	--	1 to 8	5/16/2014	3074	>2300	--	--	--	--	--	--	--	--	--
SB-2	--	1.5	5/16/2014	0.7	53.9	--	--	--	--	--	--	--	--	--

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	TPH (Field Screening) (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Recommended Remediation Action Levels based on Preliminary Site Ranking of 20 (NMOCD 1993 Guidelines for Remediation of Leaks, Spills and Releases)						10 mg/kg	--- mg/kg	--- mg/kg	--- mg/kg	50 mg/kg	--- mg/kg	--- mg/kg	100 mg/kg	250 mg/kg
SB-3	--	Surface	5/16/2014	2.4	58.6	--	--	--	--	--	--	--	--	--
	--	1		4.5	--	--	--	--	--	--	--	--	--	--
	--	2		5.5	42.4	--	--	--	--	--	--	--	--	--
	--	3		19.6	60.9	--	--	--	--	--	--	--	--	--
SB-4	--	Surface	5/16/2014	6.8	--	--	--	--	--	--	--	--	--	--
	--	2		0.5	--	--	--	--	--	--	--	--	--	--
	--	3		4.1	50.5	--	--	--	--	--	--	--	--	--
SB-5	--	Surface	5/16/2014	11.5	--	--	--	--	--	--	--	--	--	--
	--	2		1314	112	--	--	--	--	--	--	--	--	--
SB-6	--	Surface	5/16/2014	3.7	--	--	--	--	--	--	--	--	--	--
	--	0.75		42.5	41.2	--	--	--	--	--	--	--	--	--
	--	4		3269	>2300	--	--	--	--	--	--	--	--	--
	--	6		2872	--	--	--	--	--	--	--	--	--	--
SB-7	--	1	5/17/2014	3.3	--	--	--	--	--	--	--	--	--	--
	--	4		2342	>2300	--	--	--	--	--	--	--	--	--
SB-8	--	1	5/18/2014	5.4	--	--	--	--	--	--	--	--	--	--
	--	4		276	64.3	--	--	--	--	--	--	--	--	--
SB-9	--	1	5/19/2014	2.8	--	--	--	--	--	--	--	--	--	--
	--	4		3255	>2300	<0.95	--	--	--	57	1500	3600	--	--
TH-1	--	10 to 12	6/5/2014	859	67.3	--	--	--	--	--	--	--	--	--
	--	12 to 15		27.8	59.2	--	--	--	--	--	--	--	--	--
TH-2	--	4 to 8	6/5/2014	1303	>2500	--	--	--	--	--	--	--	--	--
	--	8 to 12		157	172	--	--	--	--	--	--	--	--	--
	--	12 to 15.5		537	72.8	--	--	--	--	--	--	--	--	--
TH-3	--	4 to 8	6/5/2014	1453	>2500	--	--	--	--	--	--	--	--	--
	--	8 to 12		695	250	--	--	--	--	--	--	--	--	--
	--	12 to 15		72.6	--	--	--	--	--	--	--	--	--	--
TH-4	--	4 to 8	6/5/2014	1027	851	--	--	--	--	--	--	--	--	--
	--	8 to 12		290	--	--	--	--	--	--	--	--	--	--
	--	12 to 15		380	49.7	--	--	--	--	--	--	--	--	--
TH-5	--	4 to 8	6/5/2014	--	615	--	--	--	--	--	--	--	--	--
	--	8 to 12		369	482	--	--	--	--	--	--	--	--	--
	--	12 to 15.5		588	58.6	--	--	--	--	--	--	--	--	--
TH-6	--	8 to 10	6/5/2014	>5000	1520	--	--	--	--	--	--	--	--	--
	--	10 to 12		5582	1780	--	--	--	--	--	--	--	--	--
	--	12 to 14		123	--	--	--	--	--	--	--	--	--	--
TH-7	--	4 to 8	6/5/2014	3759	1740	--	--	--	--	--	--	--	--	--
	--	8 to 10		1510	80.9	--	--	--	--	--	--	--	--	--
	--	10 to 12		--	70.1	--	--	--	--	--	--	--	--	--
	--	12 to 14		116	--	--	--	--	--	--	--	--	--	--

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	TPH (Field Screening) (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Recommended Remediation Action Levels based on Preliminary Site Ranking of 20 (NMOCD 1993 Guidelines for Remediation of Leaks, Spills and Releases)						10 mg/kg	--- mg/kg	--- mg/kg	--- mg/kg	50 mg/kg	--- mg/kg	--- mg/kg	100 mg/kg	250 mg/kg
TH-8	--	4 to 8	6/5/2014	3330	>2500	--	--	--	--	--	--	--	--	--
	--	8 to 10		1121	--	--	--	--	--	--	--	--	--	--
	--	10 to 12		881	--	--	--	--	--	--	--	--	--	--
	--	12 to 15		619	47.0	--	--	--	--	--	--	--	--	--
TH-9	--	4 to 6	6/5/2014	2351	>2500	--	--	--	--	--	--	--	--	--
	--	6 to 8		1656	--	--	--	--	--	--	--	--	--	--
	--	8 to 10		1146	296	--	--	--	--	--	--	--	--	--
	--	10 to 12		771	--	--	--	--	--	--	--	--	--	--
TH-10	--	4 to 8	6/5/2014	1797	--	--	--	--	--	--	--	--	--	--
	--	8 to 10		757	390	--	--	--	--	--	--	--	--	--
	--	10 to 12		1351	108	--	--	--	--	--	--	--	--	--
TH-11	--	4 to 8	6/5/2014	100.1	--	--	--	--	--	--	--	--	--	--
	--	8 to 12		574	307	--	--	--	--	--	--	--	--	--
TH-12	--	4 to 8	6/5/2014	4167	>2500	--	--	--	--	--	--	--	--	--
	--	8 to 10		3405	1710	--	--	--	--	--	--	--	--	--
	--	10 to 12		237	--	--	--	--	--	--	--	--	--	--
TH-13	--	4 to 6	6/5/2014	2.6	--	--	--	--	--	--	--	--	--	--
	--	6 to 8		1.7	--	--	--	--	--	--	--	--	--	--
	--	8 to 12		--	--	--	--	--	--	--	--	--	--	--
TH-14	--	4 to 8	6/5/2014	--	--	--	--	--	--	--	--	--	--	--

Notes:
1. BTEX analyzed by EPA Method 8021B
2. TPH analyzed by EPA Method 8015B Mod.
3. Chloride analyzed by EPA 300.0
4. '-- - Not Analyzed
5. Bold concentrations above laboratory reporting limits.
6. Highlighted cells indicated concentrations above regulatory limits.
7. bgs = below ground surface
8. NA - Not Applicable

Table 6.1

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: NMOCD 1993 Guidelines for Remediation of Leaks, Spills and Releases (Total Ranking Score = 0)													
					10 mg/kg	**NA mg/kg**	**NA mg/kg**	**NA mg/kg**	**50 mg/kg**	**NA mg/kg**	**NA mg/kg**	**5,000 mg/kg**	**250 mg/kg**
B-1	S-086010-080614-JW-B-1-5	5	8/6/2014	1018.0	<0.297	**2.25**	**2.94**	**52.8**	**57.99**	**790**	**1860**	**2650**	< 119
		10	8/6/2014	252.0	–	–	–	–	–	–	–	–	–
		15	8/6/2014	268.0	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-1-20	20	8/6/2014	268.0	–	–	–	–	–	**26.3**	**14.7**	**41**	**109**
	S-086010-080614-JW-B-1-25	25	8/6/2014	25.5	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0208	–	–	–	–
B-2	S-086010-080614-JW-B-2-5	5	8/6/2014	870.0	< 0.297	< 0.297	**2.48**	**42.3**	**44.78**	**301**	**3090**	**3391**	**141**
		10	8/6/2014	675.0	–	–	–	–	–	–	–	–	–
		15	8/6/2014	91.5	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-2-20	20	8/6/2014	31.7	–	–	–	–	–	**17.2**	**108**	**125.2**	< 106
	S-086010-080614-JW-B-2-25	25	8/6/2014	12.0	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0204	–	–	–	–
B-3		5	8/6/2014	31.0	–	–	–	–	–	–	–	–	–
		10	8/6/2014	42.0	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-3-15	15	8/6/2014	95.8	< 0.275	< 0.275	< 0.275	**5.89**	**5.89**	**55.8**	**246**	**301.8**	< 112
	S-086010-080614-JW-B-3-20	20	8/6/2014	3.6	–	–	–	–	–	< 10.6	< 10.7	< 21.3	< 107
	S-086010-080614-JW-B-3-25	25	8/6/2014	4.5	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	–	–	–	–
B-4		5	8/6/2014	7.0	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-4-10	10	8/6/2014	94.3	< 0.280	< 0.280	< 0.280	**0.668**	**0.668**	**26**	**230**	**256**	**160**
		15	8/6/2014	1.0	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-4-20	20	8/6/2014	3.4	–	–	–	–	–	–	–	–	< 121
	S-086010-080614-JW-B-4-25	25	8/6/2014	1.3	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0244	< 12.2	< 11.9	< 24.1	–
B-5		5	8/7/2014	0.1	–	–	–	–	–	–	–	–	–
		10	8/7/2014	10.2	–	–	–	–	–	–	–	–	–
	S-086010-080714-CB-B-5-15	15	8/7/2014	292.5	< 0.281	< 0.281	**0.565**	**12**	**12.565**	**126**	**1120**	**1246**	**195**
		20	8/7/2014	2.0	–	–	–	–	–	–	–	–	–
	S-086010-080714-CB-B-5-25	25	8/7/2014	43.3	–	–	–	–	–	–	–	–	**134**
	S-086010-080714-CB-B-5-30	30	8/7/2014	0.4	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	< 10.7	10.7	10.7	–

Table 6.1

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: NMOCD 1993 Guidelines for Remediation of Leaks, Spills and Releases (Total Ranking Score = 0)													
					10 mg/kg	**NA mg/kg**	**NA mg/kg**	**NA mg/kg**	**50 mg/kg**	**NA mg/kg**	**NA mg/kg**	**5,000 mg/kg**	**250 mg/kg**
B-6	S-086010-021915-JW-B6-5	5	2/19/2015	5.8	–	–	–	–	–	< 10.7	< 10.6	< 21.3	–
	S-086010-021915-JW-B6-10	10	2/19/2015	5.6	–	–	–	–	–	< 11.3	< 11.1	< 22.4	–
	S-086010-021915-JW-B6-15	15	2/19/2015	5.2	–	–	–	–	–	< 11.3	< 11.3	< 22.6	–
	S-086010-021915-JW-B6-20	20	2/19/2015	4.6	–	–	–	–	–	< 10.6	< 10.6	< 21.2	–
	S-086010-021915-JW-B6-25	25	2/19/2015	2.5	–	–	–	–	–	< 10.6	< 10.3	< 20.9	–
B-7	S-086010-022015-JW-B7-5	5	2/20/2015	2.4	–	–	–	–	–	< 10.6	< 10.6	< 21.2	–
	S-086010-022015-JW-B7-10	10	2/20/2015	2.5	–	–	–	–	–	< 11.2	< 10.9	< 22.1	–
	S-086010-022015-JW-B7-15	15	2/20/2015	3.1	–	–	–	–	–	< 10.9	< 10.7	< 21.6	–
	S-086010-022015-JW-B7-20	20	2/20/2015	3.2	–	–	–	–	–	< 10.7	< 10.6	< 21.3	–
	S-086010-022015-JW-B7-25	25	2/20/2015	0.8	–	–	–	–	–	< 10.6	< 10.6	< 21.2	–
B-8	S-086010-021915-JW-B8-5	5	2/19/2015	13.1	–	–	–	–	–	< 12.0	**126**	**126**	–
	S-086010-021915-JW-B8-10	10	2/19/2015	108.0	–	–	–	–	–	< 11.7	**116**	**116**	–
	S-086010-021915-JW-B8-15	15	2/19/2015	1510.0	–	–	–	–	–	**14.1**	**238**	**252.1**	–
	S-086010-021915-JW-B8-20	20	2/19/2015	86.0	–	–	–	–	–	< 10.7	< 10.7	< 21.4	–
	S-086010-021915-JW-B8-25	25	2/19/2015	13.2	–	–	–	–	–	< 10.4	< 10.3	< 20.7	–
B-9	S-086010-022015-JW-B9-5	5	2/20/2015	2.5	–	–	–	–	–	< 10.7	< 10.7	< 21.4	–
	S-086010-022015-JW-B9-10	10	2/20/2015	1915.0	–	–	–	–	–	**5530**	**16900**	**22430**	–
	S-086010-022015-JW-B9-15	15	2/20/2015	1847.0	–	–	–	–	–	**469**	**781**	**1250**	–
	S-086010-022015-JW-B9-20	20	2/20/2015	497.0	–	–	–	–	–	**15.3**	**52.3**	67.6	–
	S-086010-022015-JW-B9-25	25	2/20/2015	97.3	–	–	–	–	–	< 10.5	< 10.3	< 20.8	–
B-10	S-086010-021915-JW-B10-5	5	2/19/2015	2398.0	–	–	–	–	–	**3460**	**4040**	**7500**	–
	S-086010-021915-JW-B10-10	10	2/19/2015	1940.0	–	–	–	–	–	**73.6**	**940**	**1014**	–
	S-086010-021915-JW-B10-15	15	2/19/2015	79.2	–	–	–	–	–	< 10.8	< 10.2	< 21.0	–
	S-086010-021915-JW-B10-20	20	2/19/2015	–	–	–	–	–	–	< 10.6	< 10.4	< 21.0	–
	S-086010-021915-JW-B10-25	25	2/19/2015	72.4	–	–	–	–	–	< 10.4	< 10.1	< 20.5	–

Table 6.1

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: NMOCD 1993 Guidelines for Remediation of Leaks, Spills and Releases (Total Ranking Score = 0)													
					10 mg/kg	**NA mg/kg**	**NA mg/kg**	**NA mg/kg**	**50 mg/kg**	**NA mg/kg**	**NA mg/kg**	**5,000 mg/kg**	**250 mg/kg**
B-11	S-086010-021915-JW-B11-5	5	2/19/2015	4.4	–	–	–	–	–	< 11.2	< 11.2	< 22.4	–
	S-086010-021915-JW-B11-10	10	2/19/2015	2856.0	–	–	–	–	–	**132**	**248**	**380**	–
	S-086010-021915-JW-B11-15	15	2/19/2015	51.0	–	–	–	–	–	< 10.8	< 10.4	< 21.2	–
	S-086010-021915-JW-B11-20	20	2/19/2015	10.4	–	–	–	–	–	< 10.6	< 10.3	< 20.9	–
	S-086010-021915-JW-B11-24	24	2/19/2015	–	–	–	–	–	–	< 10.4	< 10.0	< 20.4	–
B-12	S-086010-021915-JW-B12-5	5	2/19/2015	0.7	–	–	–	–	–	< 11.0	< 10.9	< 21.9	–
	S-086010-021915-JW-B12-10	10	2/19/2015	1.2	–	–	–	–	–	< 11.0	< 10.9	< 21.9	–
	S-086010-021915-JW-B12-15	15	2/19/2015	1.6	–	–	–	–	–	< 11.2	< 10.8	< 22.0	–
	S-086010-021915-JW-B12-20	20	2/19/2015	–	–	–	–	–	–	< 10.6	< 10.0	< 20.6	–
	S-086010-021915-JW-B12-23	23	2/19/2015	–	–	–	–	–	–	< 10.4	< 10.2	< 20.6	–
B-13	S-086010-021815-JW-B13-5	5	2/18/2015	3.0	–	–	–	–	–	< 10.4	< 10.4	< 20.8	–
	S-086010-021815-JW-B13-10	10	2/18/2015	5.3	–	–	–	–	–	< 11.3	< 11.2	< 22.5	–
	S-086010-021815-JW-B13-15	15	2/18/2015	72.0	–	–	–	–	–	< 11.2	< 11.2	< 22.4	–
	S-086010-021815-JW-B13-20	20	2/18/2015	886.0	–	–	–	–	–	**89.4**	< 11.3	89.4	–
	S-086010-021815-JW-B13-25	25	2/18/2015	2085.0	–	–	–	–	–	< 10.9	< 10.5	< 21.4	–
	S-086010-021815-JW-B13-30	30	2/18/2015	7.0	–	–	–	–	–	< 10.5	< 10.2	< 20.7	–
B-14	S-086010-021815-JW-B14-5	5	2/18/2015	139.0	–	–	–	–	–	< 11.0	**74.4**	74.4	–
	S-086010-021815-JW-B14-10	10	2/18/2015	1055.0	–	–	–	–	–	**72.6**	**375**	**447.6**	–
	S-086010-021815-JW-B14-15	15	2/18/2015	2071.0	–	–	–	–	–	**16.3**	**24.2**	40.5	–
	S-086010-021815-JW-B14-20	20	2/18/2015	30.0	–	–	–	–	–	< 10.6	< 10.6	< 21.2	–
	S-086010-021815-JW-B14-25	25	2/18/2015	1417.0	–	–	–	–	–	**266**	**32.9**	**298.9**	–
	S-086010-021815-JW-B14-30	30	2/18/2015	63.0	–	–	–	–	–	**12.3**	< 10.0	12.3	–
	S-086010-021815-JW-B14-35	35	2/18/2015	54.0	–	–	–	–	–	< 10.5	< 10.5	< 21.0	–
B-15	S-086010-021815-JW-B15-10	10	2/18/2015	2.3	–	–	–	–	–	< 10.6	**45.7**	45.7	–
	S-086010-021815-JW-B15-15	15	2/18/2015	165.0	–	–	–	–	–	< 11.3	**224**	**224**	–
	S-086010-021815-JW-B15-20	20	2/18/2015	178.0	–	–	–	–	–	< 10.7	< 10.7	< 21.4	–
	S-086010-021815-JW-B15-25	25	2/18/2015	13.2	–	–	–	–	–	< 10.7	< 10.4	< 21.1	–

Notes:
1. BTEX analyzed by EPA Method 8021B
2. TPH analyzed by EPA Method 8015B Mod.
3. Chloride analyzed by EPA 300.0
4. '-- - Not Analyzed
5. Bold concentrations above laboratory reporting limits.
6. Highlighted cells indicated concentrations above regulatory limits.
7. bgs = below ground surface
8. NA - Not Applicable

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) GRO+DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: NMOCD 2013 Order No. R-13506-D (Pit Rule) where groundwater is > 100 ft. deep					10 mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	50 mg/kg	NA mg/kg	NA mg/kg	1,000 mg/kg	2,500 mg/kg	20,000 mg/kg
B-1	S-086010-080614-JW-B-1-5	5	8/6/2014	1018.0	<0.297	2.25	2.94	52.8	57.99	790	1860	2650	2650	< 119
		10	8/6/2014	252.0	–	–	–	–	–	–	–	–	–	–
		15	8/6/2014	268.0	–	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-1-20	20	8/6/2014	268.0	–	–	–	–	–	26.3	14.7	41	41	109
	S-086010-080614-JW-B-1-25	25	8/6/2014	25.5	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0208	–	–	–	–	–
B-2	S-086010-080614-JW-B-2-5	5	8/6/2014	870.0	< 0.297	< 0.297	2.48	42.3	44.78	301	3090	3391	3391	141
		10	8/6/2014	675.0	–	–	–	–	–	–	–	–	–	–
		15	8/6/2014	91.5	–	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-2-20	20	8/6/2014	31.7	–	–	–	–	–	17.2	108	125.2	125.2	< 106
	S-086010-080614-JW-B-2-25	25	8/6/2014	12.0	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0204	–	–	–	–	–
B-3		5	8/6/2014	31.0	–	–	–	–	–	–	–	–	–	–
		10	8/6/2014	42.0	–	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-3-15	15	8/6/2014	95.8	< 0.275	< 0.275	< 0.275	5.89	5.89	55.8	246	301.8	301.8	< 112
	S-086010-080614-JW-B-3-20	20	8/6/2014	3.6	–	–	–	–	–	< 10.6	< 10.7	< 21.3	< 21.3	< 107
	S-086010-080614-JW-B-3-25	25	8/6/2014	4.5	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	–	–	–	–	–
B-4		5	8/6/2014	7.0	–	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-4-10	10	8/6/2014	94.3	< 0.280	< 0.280	< 0.280	0.668	0.668	26	230	256	256	160
		15	8/6/2014	1.0	–	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-4-20	20	8/6/2014	3.4	–	–	–	–	–	–	–	–	–	< 121
	S-086010-080614-JW-B-4-25	25	8/6/2014	1.3	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0244	< 12.2	< 11.9	< 24.1	< 24.1	–
B-5		5	8/7/2014	0.1	–	–	–	–	–	–	–	–	–	–
		10	8/7/2014	10.2	–	–	–	–	–	–	–	–	–	–
	S-086010-080714-CB-B-5-15	15	8/7/2014	292.5	< 0.281	< 0.281	0.565	12	12.565	126	1120	1246	1246	195
		20	8/7/2014	2.0	–	–	–	–	–	–	–	–	–	–
	S-086010-080714-CB-B-5-25	25	8/7/2014	43.3	–	–	–	–	–	–	–	–	–	134
	S-086010-080714-CB-B-5-30	30	8/7/2014	0.4	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	< 10.7	10.7	10.7	10.7	–

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified)				Chloride (mg/kg)
										GRO (mg/kg)	DRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	
Regulatory Limits: NMOCD 2013 Order No. R-13506-D (Pit Rule) where groundwater is > 100 ft. deep														
					10 mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	50 mg/kg	NA mg/kg	NA mg/kg	1,000 mg/kg	2,500 mg/kg	20,000 mg/kg
B-6	S-086010-021915-JW-B6-5	5	2/19/2015	5.8	--	--	--	--	--	< 10.7	< 10.6	< 21.3	< 21.3	--
	S-086010-021915-JW-B6-10	10	2/19/2015	5.6	--	--	--	--	--	< 11.3	< 11.1	< 22.4	< 22.4	--
	S-086010-021915-JW-B6-15	15	2/19/2015	5.2	--	--	--	--	--	< 11.3	< 11.3	< 22.6	< 22.6	--
	S-086010-021915-JW-B6-20	20	2/19/2015	4.6	--	--	--	--	--	< 10.6	< 10.6	< 21.2	< 21.2	--
	S-086010-021915-JW-B6-25	25	2/19/2015	2.5	--	--	--	--	--	< 10.6	< 10.3	< 20.9	< 20.9	--
B-7	S-086010-022015-JW-B7-5	5	2/20/2015	2.4	--	--	--	--	--	< 10.6	< 10.6	< 21.2	< 21.2	--
	S-086010-022015-JW-B7-10	10	2/20/2015	2.5	--	--	--	--	--	< 11.2	< 10.9	< 22.1	< 22.1	--
	S-086010-022015-JW-B7-15	15	2/20/2015	3.1	--	--	--	--	--	< 10.9	< 10.7	< 21.6	< 21.6	--
	S-086010-022015-JW-B7-20	20	2/20/2015	3.2	--	--	--	--	--	< 10.7	< 10.6	< 21.3	< 21.3	--
	S-086010-022015-JW-B7-25	25	2/20/2015	0.8	--	--	--	--	--	< 10.6	< 10.6	< 21.2	< 21.2	--
B-8	S-086010-021915-JW-B8-5	5	2/19/2015	13.1	--	--	--	--	--	< 12.0	**126**	**126**	**126**	--
	S-086010-021915-JW-B8-10	10	2/19/2015	108.0	--	--	--	--	--	< 11.7	**116**	**116**	**116**	--
	S-086010-021915-JW-B8-15	15	2/19/2015	1510.0	--	--	--	--	--	**14.1**	**238**	**252.1**	**252.1**	--
	S-086010-021915-JW-B8-20	20	2/19/2015	86.0	--	--	--	--	--	< 10.7	< 10.7	< 21.4	< 21.4	--
	S-086010-021915-JW-B8-25	25	2/19/2015	13.2	--	--	--	--	--	< 10.4	< 10.3	< 20.7	< 20.7	--
B-9	S-086010-022015-JW-B9-5	5	2/20/2015	2.5	--	--	--	--	--	< 10.7	< 10.7	< 21.4	< 21.4	--
	S-086010-022015-JW-B9-10	10	2/20/2015	1915.0	--	--	--	--	--	**5530**	**16900**	**22430**	**22430**	--
	S-086010-022015-JW-B9-15	15	2/20/2015	1847.0	--	--	--	--	--	**469**	**781**	**1250**	**1250**	--
	S-086010-022015-JW-B9-20	20	2/20/2015	497.0	--	--	--	--	--	**15.3**	**52.3**	**67.6**	67.6	--
	S-086010-022015-JW-B9-25	25	2/20/2015	97.3	--	--	--	--	--	< 10.5	< 10.3	< 20.8	< 20.8	--
B-10	S-086010-021915-JW-B10-5	5	2/19/2015	2398.0	--	--	--	--	--	**3460**	**4040**	**7500**	**7500**	--
	S-086010-021915-JW-B10-10	10	2/19/2015	1940.0	--	--	--	--	--	**73.6**	**940**	**1014**	**1014**	--
	S-086010-021915-JW-B10-15	15	2/19/2015	79.2	--	--	--	--	--	< 10.8	< 10.2	< 21.0	< 21.0	--
	S-086010-021915-JW-B10-20	20	2/19/2015	--	--	--	--	--	--	< 10.6	< 10.4	< 21.0	< 21.0	--
	S-086010-021915-JW-B10-25	25	2/19/2015	72.4	--	--	--	--	--	< 10.4	< 10.1	< 20.5	< 20.5	--

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) GRO+DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: NMOCD 2013 Order No. R-13506-D (Pit Rule) where groundwater is > 100 ft. deep					10 mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	50 mg/kg	NA mg/kg	NA mg/kg	1,000 mg/kg	2,500 mg/kg	20,000 mg/kg
B-11	S-086010-021915-JW-B11-5	5	2/19/2015	4.4	--	--	--	--	--	< 11.2	< 11.2	< 22.4	< 22.4	--
	S-086010-021915-JW-B11-10	10	2/19/2015	2856.0	--	--	--	--	--	**132**	**248**	**380**	**380**	--
	S-086010-021915-JW-B11-15	15	2/19/2015	51.0	--	--	--	--	--	< 10.8	< 10.4	< 21.2	< 21.2	--
	S-086010-021915-JW-B11-20	20	2/19/2015	10.4	--	--	--	--	--	< 10.6	< 10.3	< 20.9	< 20.9	--
	S-086010-021915-JW-B11-24	24	2/19/2015	--	--	--	--	--	--	< 10.4	< 10.0	< 20.4	< 20.4	--
B-12	S-086010-021915-JW-B12-5	5	2/19/2015	0.7	--	--	--	--	--	< 11.0	< 10.9	< 21.9	< 21.9	--
	S-086010-021915-JW-B12-10	10	2/19/2015	1.2	--	--	--	--	--	< 11.0	< 10.9	< 21.9	< 21.9	--
	S-086010-021915-JW-B12-15	15	2/19/2015	1.6	--	--	--	--	--	< 11.2	< 10.8	< 22.0	< 22.0	--
	S-086010-021915-JW-B12-20	20	2/19/2015	--	--	--	--	--	--	< 10.6	< 10.0	< 20.6	< 20.6	--
	S-086010-021915-JW-B12-23	23	2/19/2015	--	--	--	--	--	--	< 10.4	< 10.2	< 20.6	< 20.6	--
B-13	S-086010-021815-JW-B13-5	5	2/18/2015	3.0	--	--	--	--	--	< 10.4	< 10.4	< 20.8	< 20.8	--
	S-086010-021815-JW-B13-10	10	2/18/2015	5.3	--	--	--	--	--	< 11.3	< 11.2	< 22.5	< 22.5	--
	S-086010-021815-JW-B13-15	15	2/18/2015	72.0	--	--	--	--	--	< 11.2	< 11.2	< 22.4	< 22.4	--
	S-086010-021815-JW-B13-20	20	2/18/2015	886.0	--	--	--	--	--	**89.4**	< 11.3	89.4	89.4	--
	S-086010-021815-JW-B13-25	25	2/18/2015	2085.0	--	--	--	--	--	< 10.9	< 10.5	< 21.4	< 21.4	--
	S-086010-021815-JW-B13-30	30	2/18/2015	7.0	--	--	--	--	--	< 10.5	< 10.2	< 20.7	< 20.7	--
B-14	S-086010-021815-JW-B14-5	5	2/18/2015	139.0	--	--	--	--	--	< 11.0	**74.4**	**74.4**	74.4	--
	S-086010-021815-JW-B14-10	10	2/18/2015	1055.0	--	--	--	--	--	**72.6**	**375**	**447.6**	**447.6**	--
	S-086010-021815-JW-B14-15	15	2/18/2015	2071.0	--	--	--	--	--	**16.3**	**24.2**	**40.5**	40.5	--
	S-086010-021815-JW-B14-20	20	2/18/2015	30.0	--	--	--	--	--	< 10.6	< 10.6	< 21.2	< 21.2	--
	S-086010-021815-JW-B14-25	25	2/18/2015	1417.0	--	--	--	--	--	**266**	**32.9**	**298.9**	**298.9**	--
	S-086010-021815-JW-B14-30	30	2/18/2015	63.0	--	--	--	--	--	**12.3**	< 10.0	12.3	12.3	--
	S-086010-021815-JW-B14-35	35	2/18/2015	54.0	--	--	--	--	--	< 10.5	< 10.5	< 21.0	< 21.0	--
B-15	S-086010-021815-JW-B15-10	10	2/18/2015	2.3	--	--	--	--	--	< 10.6	**45.7**	**45.7**	45.7	--
	S-086010-021815-JW-B15-15	15	2/18/2015	165.0	--	--	--	--	--	< 11.3	**224**	**224**	**224**	--
	S-086010-021815-JW-B15-20	20	2/18/2015	178.0	--	--	--	--	--	< 10.7	< 10.7	< 21.4	< 21.4	--
	S-086010-021815-JW-B15-25	25	2/18/2015	13.2	--	--	--	--	--	< 10.7	< 10.4	< 21.1	< 21.1	--

Notes:
1. BTEX analyzed by EPA Method 8021B
2. TPH analyzed by EPA Method 8015B Mod.
3. Chloride analyzed by EPA 300.0
4. '-- - Not Analyzed
5. Bold concentrations above laboratory reporting limits.
6. Highlighted cells indicated concentrations above regulatory limits.
7. bgs = below ground surface
8. NA - Not Applicable

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: NMED 2014 Risk Assessment Guidance for Site Investigations and Remediation for Industrial/Occupational Exposur Exposure													
					87.2 mg/kg	**61,300 mg/kg**	**368 mg/kg**	**4,280 mg/kg**	**NA mg/kg**	**NA mg/kg**	**NA mg/kg**	**3,800 mg/kg**	**NA mg/kg**
B-1	S-086010-080614-JW-B-1-5	5	8/6/2014	1018.0	<0.297	**2.25**	**2.94**	**52.8**	**57.99**	**790**	**1860**	**2650**	< 119
		10	8/6/2014	252.0	--	--	--	--	--	--	--	--	--
		15	8/6/2014	268.0	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-1-20	20	8/6/2014	268.0	--	--	--	--	--	**26.3**	**14.7**	**41**	**109**
	S-086010-080614-JW-B-1-25	25	8/6/2014	25.5	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0208	--	--	--	--
B-2	S-086010-080614-JW-B-2-5	5	8/6/2014	870.0	< 0.297	< 0.297	**2.48**	**42.3**	**44.78**	**301**	**3090**	**3391**	**141**
		10	8/6/2014	675.0	--	--	--	--	--	--	--	--	--
		15	8/6/2014	91.5	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-2-20	20	8/6/2014	31.7	--	--	--	--	--	**17.2**	**108**	**125.2**	< 106
	S-086010-080614-JW-B-2-25	25	8/6/2014	12.0	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0204	--	--	--	--
B-3		5	8/6/2014	31.0	--	--	--	--	--	--	--	--	--
		10	8/6/2014	42.0	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-3-15	15	8/6/2014	95.8	< 0.275	< 0.275	< 0.275	**5.89**	**5.89**	**55.8**	**246**	**301.8**	< 112
	S-086010-080614-JW-B-3-20	20	8/6/2014	3.6	--	--	--	--	--	< 10.6	< 10.7	< 21.3	< 107
	S-086010-080614-JW-B-3-25	25	8/6/2014	4.5	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	--	--	--	--
B-4		5	8/6/2014	7.0	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-10	10	8/6/2014	94.3	< 0.280	< 0.280	< 0.280	**0.668**	**0.668**	**26**	**230**	**256**	**160**
		15	8/6/2014	1.0	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-20	20	8/6/2014	3.4	--	--	--	--	--	--	--	--	< 121
	S-086010-080614-JW-B-4-25	25	8/6/2014	1.3	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0244	< 12.2	< 11.9	< 24.1	--
B-5		5	8/7/2014	0.1	--	--	--	--	--	--	--	--	--
		10	8/7/2014	10.2	--	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-15	15	8/7/2014	292.5	< 0.281	< 0.281	**0.565**	**12**	**12.565**	**126**	**1120**	**1246**	**195**
		20	8/7/2014	2.0	--	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-25	25	8/7/2014	43.3	--	--	--	--	--	--	--	--	**134**
	S-086010-080714-CB-B-5-30	30	8/7/2014	0.4	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	< 10.7	10.7	10.7	--

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: NMED 2014 Risk Assessment Guidance for Site Investigations and Remediation for Industrial/Occupational Exposure Exposure													
					87.2 mg/kg	**61,300 mg/kg**	**368 mg/kg**	**4,280 mg/kg**	**NA mg/kg**	**NA mg/kg**	**NA mg/kg**	**3,800 mg/kg**	**NA mg/kg**
B-6	S-086010-021915-JW-B6-5	5	2/19/2015	5.8	--	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-021915-JW-B6-10	10	2/19/2015	5.6	--	--	--	--	--	< 11.3	< 11.1	< 22.4	--
	S-086010-021915-JW-B6-15	15	2/19/2015	5.2	--	--	--	--	--	< 11.3	< 11.3	< 22.6	--
	S-086010-021915-JW-B6-20	20	2/19/2015	4.6	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021915-JW-B6-25	25	2/19/2015	2.5	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
B-7	S-086010-022015-JW-B7-5	5	2/20/2015	2.4	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-022015-JW-B7-10	10	2/20/2015	2.5	--	--	--	--	--	< 11.2	< 10.9	< 22.1	--
	S-086010-022015-JW-B7-15	15	2/20/2015	3.1	--	--	--	--	--	< 10.9	< 10.7	< 21.6	--
	S-086010-022015-JW-B7-20	20	2/20/2015	3.2	--	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-022015-JW-B7-25	25	2/20/2015	0.8	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
B-8	S-086010-021915-JW-B8-5	5	2/19/2015	13.1	--	--	--	--	--	< 12.0	**126**	**126**	--
	S-086010-021915-JW-B8-10	10	2/19/2015	108.0	--	--	--	--	--	< 11.7	**116**	**116**	--
	S-086010-021915-JW-B8-15	15	2/19/2015	1510.0	--	--	--	--	--	**14.1**	**238**	**252.1**	--
	S-086010-021915-JW-B8-20	20	2/19/2015	86.0	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021915-JW-B8-25	25	2/19/2015	13.2	--	--	--	--	--	< 10.4	< 10.3	< 20.7	--
B-9	S-086010-022015-JW-B9-5	5	2/20/2015	2.5	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-022015-JW-B9-10	10	2/20/2015	1915.0	--	--	--	--	--	**5530**	**16900**	**22430**	--
	S-086010-022015-JW-B9-15	15	2/20/2015	1847.0	--	--	--	--	--	**469**	**781**	**1250**	--
	S-086010-022015-JW-B9-20	20	2/20/2015	497.0	--	--	--	--	--	**15.3**	**52.3**	67.6	--
	S-086010-022015-JW-B9-25	25	2/20/2015	97.3	--	--	--	--	--	< 10.5	< 10.3	< 20.8	--
B-10	S-086010-021915-JW-B10-5	5	2/19/2015	2398.0	--	--	--	--	--	**3460**	**4040**	**7500**	--
	S-086010-021915-JW-B10-10	10	2/19/2015	1940.0	--	--	--	--	--	**73.6**	**940**	**1013.6**	--
	S-086010-021915-JW-B10-15	15	2/19/2015	79.2	--	--	--	--	--	< 10.8	< 10.2	< 21.0	--
	S-086010-021915-JW-B10-20	20	2/19/2015	--	--	--	--	--	--	< 10.6	< 10.4	< 21.0	--
	S-086010-021915-JW-B10-25	25	2/19/2015	72.4	--	--	--	--	--	< 10.4	< 10.1	< 20.5	--

Soil Data Summary and Regulatory Action Levels
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: NMED 2014 Risk Assessment Guidance for Site Investigations and Remediation for Industrial/Occupational Exposure Exposure													
					87.2 mg/kg	**61,300 mg/kg**	**368 mg/kg**	**4,280 mg/kg**	**NA mg/kg**	**NA mg/kg**	**NA mg/kg**	**3,800 mg/kg**	**NA mg/kg**
B-11	S-086010-021915-JW-B11-5	5	2/19/2015	4.4	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021915-JW-B11-10	10	2/19/2015	2856.0	--	--	--	--	--	**132**	**248**	**380**	--
	S-086010-021915-JW-B11-15	15	2/19/2015	51.0	--	--	--	--	--	< 10.8	< 10.4	< 21.2	--
	S-086010-021915-JW-B11-20	20	2/19/2015	10.4	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
	S-086010-021915-JW-B11-24	24	2/19/2015	--	--	--	--	--	--	< 10.4	< 10.0	< 20.4	--
B-12	S-086010-021915-JW-B12-5	5	2/19/2015	0.7	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-10	10	2/19/2015	1.2	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-15	15	2/19/2015	1.6	--	--	--	--	--	< 11.2	< 10.8	< 22.0	--
	S-086010-021915-JW-B12-20	20	2/19/2015	--	--	--	--	--	--	< 10.6	< 10.0	< 20.6	--
	S-086010-021915-JW-B12-23	23	2/19/2015	--	--	--	--	--	--	< 10.4	< 10.2	< 20.6	--
B-13	S-086010-021815-JW-B13-5	5	2/18/2015	3.0	--	--	--	--	--	< 10.4	< 10.4	< 20.8	--
	S-086010-021815-JW-B13-10	10	2/18/2015	5.3	--	--	--	--	--	< 11.3	< 11.2	< 22.5	--
	S-086010-021815-JW-B13-15	15	2/18/2015	72.0	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021815-JW-B13-20	20	2/18/2015	886.0	--	--	--	--	--	**89.4**	< 11.3	89.4	--
	S-086010-021815-JW-B13-25	25	2/18/2015	2085.0	--	--	--	--	--	< 10.9	< 10.5	< 21.4	--
	S-086010-021815-JW-B13-30	30	2/18/2015	7.0	--	--	--	--	--	< 10.5	< 10.2	< 20.7	--
B-14	S-086010-021815-JW-B14-5	5	2/18/2015	139.0	--	--	--	--	--	< 11.0	**74.4**	74.4	--
	S-086010-021815-JW-B14-10	10	2/18/2015	1055.0	--	--	--	--	--	**72.6**	**375**	**447.6**	--
	S-086010-021815-JW-B14-15	15	2/18/2015	2071.0	--	--	--	--	--	**16.3**	**24.2**	40.5	--
	S-086010-021815-JW-B14-20	20	2/18/2015	30.0	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021815-JW-B14-25	25	2/18/2015	1417.0	--	--	--	--	--	**266**	**32.9**	**298.9**	--
	S-086010-021815-JW-B14-30	30	2/18/2015	63.0	--	--	--	--	--	**12.3**	< 10.0	12.3	--
	S-086010-021815-JW-B14-35	35	2/18/2015	54.0	--	--	--	--	--	< 10.5	< 10.5	< 21.0	--
B-15	S-086010-021815-JW-B15-10	10	2/18/2015	2.3	--	--	--	--	--	< 10.6	**45.7**	45.7	--
	S-086010-021815-JW-B15-15	15	2/18/2015	165.0	--	--	--	--	--	< 11.3	**224**	**224**	--
	S-086010-021815-JW-B15-20	20	2/18/2015	178.0	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021815-JW-B15-25	25	2/18/2015	13.2	--	--	--	--	--	< 10.7	< 10.4	< 21.1	--

Notes:
1. BTEX analyzed by EPA Method 8021B
2. TPH analyzed by EPA Method 8015B Mod.
3. Chloride analyzed by EPA 300.0
4. -- - Not Analyzed
5. Bold concentrations above laboratory reporting limits.
6. Highlighted cells indicated concentrations above regulatory limits.
7. bgs = below ground surface
8. NA - Not Applicable

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: TRRP Protective Concentration Levels (PCLs) for soil (TotSoilComb)				**33,000 mg/kg**	**10,000 mg/kg**	**1,100 mg/kg**	**NA mg/kg**	**2,100 mg/kg**	**7,800 mg/kg**	**7,800 mg/kg**	**NA mg/kg**
B-1	S-086010-080614-JW-B-1-5	5	8/6/2014	**2.25**	**2.94**	**52.8**	**57.99**	**790**	**1860**	**2650**	< 119
		10	8/6/2014	--	--	--	--	--	--	--	--
		15	8/6/2014	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-1-20	20	8/6/2014	--	--	--	--	**26.3**	**14.7**	**41**	**109**
	S-086010-080614-JW-B-1-25	25	8/6/2014	< 0.0052	< 0.0052	< 0.0052	< 0.0208	--	--	--	--
B-2	S-086010-080614-JW-B-2-5	5	8/6/2014	< 0.297	**2.48**	**42.3**	**44.78**	**301**	**3090**	**3391**	**141**
		10	8/6/2014	--	--	--	--	--	--	--	--
		15	8/6/2014	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-2-20	20	8/6/2014	--	--	--	--	**17.2**	**108**	**125.2**	< 106
	S-086010-080614-JW-B-2-25	25	8/6/2014	< 0.0051	< 0.0051	< 0.0051	< 0.0204	--	--	--	--
B-3		5	8/6/2014	--	--	--	--	--	--	--	--
		10	8/6/2014	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-3-15	15	8/6/2014	< 0.275	< 0.275	**5.89**	**5.89**	**55.8**	**246**	**301.8**	< 112
	S-086010-080614-JW-B-3-20	20	8/6/2014	--	--	--	--	< 10.6	< 10.7	< 21.3	< 107
	S-086010-080614-JW-B-3-25	25	8/6/2014	< 0.0053	< 0.0053	< 0.0053	< 0.0212	--	--	--	--
B-4		5	8/6/2014	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-10	10	8/6/2014	< 0.280	< 0.280	**0.668**	**0.668**	**26**	**230**	**256**	**160**
		15	8/6/2014	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-20	20	8/6/2014	--	--	--	--	--	--	--	< 121
	S-086010-080614-JW-B-4-25	25	8/6/2014	< 0.0061	< 0.0061	< 0.0061	< 0.0244	< 12.2	< 11.9	< 24.1	--
B-5		5	8/7/2014	--	--	--	--	--	--	--	--
		10	8/7/2014	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-15	15	8/7/2014	< 0.281	**0.565**	**12**	**12.565**	**126**	**1120**	**1246**	**195**
		20	8/7/2014	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-25	25	8/7/2014	--	--	--	--	--	--	--	**134**
	S-086010-080714-CB-B-5-30	30	8/7/2014	< 0.0053	< 0.0053	< 0.0053	< 0.0212	< 10.7	**10.7**	**10.7**	--

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: TRRP Protective Concentration Levels (PCLs) for soil (TotSoilComb)				33,000 mg/kg	10,000 mg/kg	1,100 mg/kg	NA mg/kg	2,100 mg/kg	7,800 mg/kg	7,800 mg/kg	NA mg/kg
B-6	S-086010-021915-JW-B6-5	5	2/19/2015	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-021915-JW-B6-10	10	2/19/2015	--	--	--	--	< 11.3	< 11.1	< 22.4	--
	S-086010-021915-JW-B6-15	15	2/19/2015	--	--	--	--	< 11.3	< 11.3	< 22.6	--
	S-086010-021915-JW-B6-20	20	2/19/2015	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021915-JW-B6-25	25	2/19/2015	--	--	--	--	< 10.6	< 10.3	< 20.9	--
B-7	S-086010-022015-JW-B7-5	5	2/20/2015	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-022015-JW-B7-10	10	2/20/2015	--	--	--	--	< 11.2	< 10.9	< 22.1	--
	S-086010-022015-JW-B7-15	15	2/20/2015	--	--	--	--	< 10.9	< 10.7	< 21.6	--
	S-086010-022015-JW-B7-20	20	2/20/2015	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-022015-JW-B7-25	25	2/20/2015	--	--	--	--	< 10.6	< 10.6	< 21.2	--
B-8	S-086010-021915-JW-B8-5	5	2/19/2015	--	--	--	--	< 12.0	**126**	**126**	--
	S-086010-021915-JW-B8-10	10	2/19/2015	--	--	--	--	< 11.7	**116**	**116**	--
	S-086010-021915-JW-B8-15	15	2/19/2015	--	--	--	--	14.1	**238**	**252.1**	--
	S-086010-021915-JW-B8-20	20	2/19/2015	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021915-JW-B8-25	25	2/19/2015	--	--	--	--	< 10.4	< 10.3	< 20.7	--
B-9	S-086010-022015-JW-B9-5	5	2/20/2015	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-022015-JW-B9-10	10	2/20/2015	--	--	--	--	**5530**	**16900**	**22430**	--
	S-086010-022015-JW-B9-15	15	2/20/2015	--	--	--	--	**469**	**781**	**1250**	--
	S-086010-022015-JW-B9-20	20	2/20/2015	--	--	--	--	**15.3**	**52.3**	**67.6**	--
	S-086010-022015-JW-B9-25	25	2/20/2015	--	--	--	--	< 10.5	< 10.3	< 20.8	--
B-10	S-086010-021915-JW-B10-5	5	2/19/2015	--	--	--	--	**3460**	**4040**	**7500**	--
	S-086010-021915-JW-B10-10	10	2/19/2015	--	--	--	--	**73.6**	**940**	**1014**	--
	S-086010-021915-JW-B10-15	15	2/19/2015	--	--	--	--	< 10.8	< 10.2	< 21.0	--
	S-086010-021915-JW-B10-20	20	2/19/2015	--	--	--	--	< 10.6	< 10.4	< 21.0	--
	S-086010-021915-JW-B10-25	25	2/19/2015	--	--	--	--	< 10.4	< 10.1	< 20.5	--

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: TRRP Protective Concentration Levels (PCLs) for soil (TotSoilComb)				33,000 mg/kg	10,000 mg/kg	1,100 mg/kg	NA mg/kg	2,100 mg/kg	7,800 mg/kg	7,800 mg/kg	NA mg/kg
B-11	S-086010-021915-JW-B11-5	5	2/19/2015	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021915-JW-B11-10	10	2/19/2015	--	--	--	--	**132**	**248**	**380**	--
	S-086010-021915-JW-B11-15	15	2/19/2015	--	--	--	--	< 10.8	< 10.4	< 21.2	--
	S-086010-021915-JW-B11-20	20	2/19/2015	--	--	--	--	< 10.6	< 10.3	< 20.9	--
	S-086010-021915-JW-B11-24	24	2/19/2015	--	--	--	--	< 10.4	< 10.0	< 20.4	--
B-12	S-086010-021915-JW-B12-5	5	2/19/2015	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-10	10	2/19/2015	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-15	15	2/19/2015	--	--	--	--	< 11.2	< 10.8	< 22.0	--
	S-086010-021915-JW-B12-20	20	2/19/2015	--	--	--	--	< 10.6	< 10.0	< 20.6	--
	S-086010-021915-JW-B12-23	23	2/19/2015	--	--	--	--	< 10.4	< 10.2	< 20.6	--
B-13	S-086010-021815-JW-B13-5	5	2/18/2015	--	--	--	--	< 10.4	< 10.4	< 20.8	--
	S-086010-021815-JW-B13-10	10	2/18/2015	--	--	--	--	< 11.3	< 11.2	< 22.5	--
	S-086010-021815-JW-B13-15	15	2/18/2015	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021815-JW-B13-20	20	2/18/2015	--	--	--	--	**89.4**	< 11.3	**89.4**	--
	S-086010-021815-JW-B13-25	25	2/18/2015	--	--	--	--	< 10.9	< 10.5	< 21.4	--
	S-086010-021815-JW-B13-30	30	2/18/2015	--	--	--	--	< 10.5	< 10.2	< 20.7	--
B-14	S-086010-021815-JW-B14-5	5	2/18/2015	--	--	--	--	< 11.0	**74.4**	**74.4**	--
	S-086010-021815-JW-B14-10	10	2/18/2015	--	--	--	--	**72.6**	**375**	**447.6**	--
	S-086010-021815-JW-B14-15	15	2/18/2015	--	--	--	--	**16.3**	**24.2**	**40.5**	--
	S-086010-021815-JW-B14-20	20	2/18/2015	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021815-JW-B14-25	25	2/18/2015	--	--	--	--	**266**	**32.9**	**298.9**	--
	S-086010-021815-JW-B14-30	30	2/18/2015	--	--	--	--	**12.3**	< 10.0	**12.3**	--
	S-086010-021815-JW-B14-35	35	2/18/2015	--	--	--	--	< 10.5	< 10.5	< 21.0	--
B-15	S-086010-021815-JW-B15-10	10	2/18/2015	--	--	--	--	< 10.6	**45.7**	**45.7**	--
	S-086010-021815-JW-B15-15	15	2/18/2015	--	--	--	--	< 11.3	**224**	**224**	--
	S-086010-021815-JW-B15-20	20	2/18/2015	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021815-JW-B15-25	25	2/18/2015	--	--	--	--	< 10.7	< 10.4	< 21.1	--

Notes:
1. BTEX analyzed by EPA Method 8021B
2. TPH analyzed by EPA Method 8015B Mod.
3. Chloride analyzed by EPA 300.0
4. '-- - Not Analyzed
5. Bold concentrations above laboratory reporting limits.
6. Highlighted cells indicated concentrations above regulatory limits.
7. bgs = below ground surface
8. NA - Not Applicable

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: Texas Railroad Commission Statewide Rules 8 and 91 for Class 3 Groundwater				NA mg/kg	NA mg/kg	NA mg/kg	10,000 mg/kg	NA mg/kg
B-1	S-086010-080614-JW-B-1-5	5	8/6/2014	57.99	790	1860	2650	< 119
		10	8/6/2014	--	--	--	--	--
		15	8/6/2014	--	--	--	--	--
	S-086010-080614-JW-B-1-20	20	8/6/2014	--	26.3	14.7	41	109
	S-086010-080614-JW-B-1-25	25	8/6/2014	< 0.0208	--	--	--	--
B-2	S-086010-080614-JW-B-2-5	5	8/6/2014	44.78	301	3090	3391	141
		10	8/6/2014	--	--	--	--	--
		15	8/6/2014	--	--	--	--	--
	S-086010-080614-JW-B-2-20	20	8/6/2014	--	17.2	108	125.2	< 106
	S-086010-080614-JW-B-2-25	25	8/6/2014	< 0.0204	--	--	--	--
B-3		5	8/6/2014	--	--	--	--	--
		10	8/6/2014	--	--	--	--	--
	S-086010-080614-JW-B-3-15	15	8/6/2014	5.89	55.8	246	301.8	< 112
	S-086010-080614-JW-B-3-20	20	8/6/2014	--	< 10.6	< 10.7	< 21.3	< 107
	S-086010-080614-JW-B-3-25	25	8/6/2014	< 0.0212	--	--	--	--
B-4		5	8/6/2014	--	--	--	--	--
	S-086010-080614-JW-B-4-10	10	8/6/2014	0.668	26	230	256	160
		15	8/6/2014	--	--	--	--	--
	S-086010-080614-JW-B-4-20	20	8/6/2014	--	--	--	--	< 121
	S-086010-080614-JW-B-4-25	25	8/6/2014	< 0.0244	< 12.2	< 11.9	< 24.1	--
B-5		5	8/7/2014	--	--	--	--	--
		10	8/7/2014	--	--	--	--	--
	S-086010-080714-CB-B-5-15	15	8/7/2014	12.565	126	1120	1246	195
		20	8/7/2014	--	--	--	--	--
	S-086010-080714-CB-B-5-25	25	8/7/2014	--	--	--	--	134
	S-086010-080714-CB-B-5-30	30	8/7/2014	< 0.0212	< 10.7	10.7	10.7	--

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: Texas Railroad Commission Statewide Rules 8 and 91 for Class 3 Groundwater				NA mg/kg	NA mg/kg	NA mg/kg	10,000 mg/kg	NA mg/kg
B-6	S-086010-021915-JW-B6-5	5	2/19/2015	--	< 10.7	< 10.6	< 21.3	--
	S-086010-021915-JW-B6-10	10	2/19/2015	--	< 11.3	< 11.1	< 22.4	--
	S-086010-021915-JW-B6-15	15	2/19/2015	--	< 11.3	< 11.3	< 22.6	--
	S-086010-021915-JW-B6-20	20	2/19/2015	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021915-JW-B6-25	25	2/19/2015	--	< 10.6	< 10.3	< 20.9	--
B-7	S-086010-022015-JW-B7-5	5	2/20/2015	--	< 10.6	< 10.6	< 21.2	--
	S-086010-022015-JW-B7-10	10	2/20/2015	--	< 11.2	< 10.9	< 22.1	--
	S-086010-022015-JW-B7-15	15	2/20/2015	--	< 10.9	< 10.7	< 21.6	--
	S-086010-022015-JW-B7-20	20	2/20/2015	--	< 10.7	< 10.6	< 21.3	--
	S-086010-022015-JW-B7-25	25	2/20/2015	--	< 10.6	< 10.6	< 21.2	--
B-8	S-086010-021915-JW-B8-5	5	2/19/2015	--	< 12.0	**126**	**126**	--
	S-086010-021915-JW-B8-10	10	2/19/2015	--	< 11.7	**116**	**116**	--
	S-086010-021915-JW-B8-15	15	2/19/2015	--	14.1	**238**	**252.1**	--
	S-086010-021915-JW-B8-20	20	2/19/2015	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021915-JW-B8-25	25	2/19/2015	--	< 10.4	< 10.3	< 20.7	--
B-9	S-086010-022015-JW-B9-5	5	2/20/2015	--	< 10.7	< 10.7	< 21.4	--
	S-086010-022015-JW-B9-10	10	2/20/2015	--	**5530**	**16900**	**22430**	--
	S-086010-022015-JW-B9-15	15	2/20/2015	--	**469**	**781**	**1250**	--
	S-086010-022015-JW-B9-20	20	2/20/2015	--	**15.3**	**52.3**	**67.6**	--
	S-086010-022015-JW-B9-25	25	2/20/2015	--	< 10.5	< 10.3	< 20.8	--
B-10	S-086010-021915-JW-B10-5	5	2/19/2015	--	**3460**	**4040**	**7500**	--
	S-086010-021915-JW-B10-10	10	2/19/2015	--	**73.6**	**940**	**1014**	--
	S-086010-021915-JW-B10-15	15	2/19/2015	--	< 10.8	< 10.2	< 21.0	--
	S-086010-021915-JW-B10-20	20	2/19/2015	--	< 10.6	< 10.4	< 21.0	--
	S-086010-021915-JW-B10-25	25	2/19/2015	--	< 10.4	< 10.1	< 20.5	--

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: Texas Railroad Commission Statewide Rules 8 and 91 for Class 3 Groundwater				NA mg/kg	NA mg/kg	NA mg/kg	10,000 mg/kg	NA mg/kg
B-11	S-086010-021915-JW-B11-5	5	2/19/2015	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021915-JW-B11-10	10	2/19/2015	--	**132**	**248**	**380**	--
	S-086010-021915-JW-B11-15	15	2/19/2015	--	< 10.8	< 10.4	< 21.2	--
	S-086010-021915-JW-B11-20	20	2/19/2015	--	< 10.6	< 10.3	< 20.9	--
	S-086010-021915-JW-B11-24	24	2/19/2015	--	< 10.4	< 10.0	< 20.4	--
B-12	S-086010-021915-JW-B12-5	5	2/19/2015	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-10	10	2/19/2015	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-15	15	2/19/2015	--	< 11.2	< 10.8	< 22.0	--
	S-086010-021915-JW-B12-20	20	2/19/2015	--	< 10.6	< 10.0	< 20.6	--
	S-086010-021915-JW-B12-23	23	2/19/2015	--	< 10.4	< 10.2	< 20.6	--
B-13	S-086010-021815-JW-B13-5	5	2/18/2015	--	< 10.4	< 10.4	< 20.8	--
	S-086010-021815-JW-B13-10	10	2/18/2015	--	< 11.3	< 11.2	< 22.5	--
	S-086010-021815-JW-B13-15	15	2/18/2015	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021815-JW-B13-20	20	2/18/2015	--	**89.4**	< 11.3	**89.4**	--
	S-086010-021815-JW-B13-25	25	2/18/2015	--	< 10.9	< 10.5	< 21.4	--
	S-086010-021815-JW-B13-30	30	2/18/2015	--	< 10.5	< 10.2	< 20.7	--
B-14	S-086010-021815-JW-B14-5	5	2/18/2015	--	< 11.0	**74.4**	**74.4**	--
	S-086010-021815-JW-B14-10	10	2/18/2015	--	**72.6**	**375**	**447.6**	--
	S-086010-021815-JW-B14-15	15	2/18/2015	--	**16.3**	**24.2**	**40.5**	--
	S-086010-021815-JW-B14-20	20	2/18/2015	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021815-JW-B14-25	25	2/18/2015	--	**266**	**32.9**	**298.9**	--
	S-086010-021815-JW-B14-30	30	2/18/2015	--	**12.3**	< 10.0	**12.3**	--
	S-086010-021815-JW-B14-35	35	2/18/2015	--	< 10.5	< 10.5	< 21.0	--
B-15	S-086010-021815-JW-B15-10	10	2/18/2015	--	< 10.6	**45.7**	**45.7**	--
	S-086010-021815-JW-B15-15	15	2/18/2015	--	< 11.3	**224**	**224**	--
	S-086010-021815-JW-B15-20	20	2/18/2015	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021815-JW-B15-25	25	2/18/2015	--	< 10.7	< 10.4	< 21.1	--

Notes:
1. BTEX analyzed by EPA Method 8021B
2. TPH analyzed by EPA Method 8015B Mod.
3. Chloride analyzed by EPA 300.0
4. '-- - Not Analyzed
5. Bold concentrations above laboratory reporting limits.
6. Highlighted cells indicated concentrations above regulatory limits.
7. bgs = below ground surface
8. NA - Not Applicable

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: The Louisiana Department of Natural Resources (LDNR) Statewide Order No. 29-B					NA mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	10,000 mg/kg	NA mg/kg
B-1	S-086010-080614-JW-B-1-5	5	8/6/2014	1018.0	<0.297	**2.25**	**2.94**	**52.8**	**57.99**	**790**	**1860**	**2650**	< 119
		10	8/6/2014	252.0	--	--	--	--	--	--	--	--	--
		15	8/6/2014	268.0	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-1-20	20	8/6/2014	268.0	--	--	--	--	--	**26.3**	**14.7**	**41**	**109**
	S-086010-080614-JW-B-1-25	25	8/6/2014	25.5	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0208	--	--	--	--
B-2	S-086010-080614-JW-B-2-5	5	8/6/2014	870.0	< 0.297	< 0.297	**2.48**	**42.3**	**44.78**	**301**	**3090**	**3391**	**141**
		10	8/6/2014	675.0	--	--	--	--	--	--	--	--	--
		15	8/6/2014	91.5	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-2-20	20	8/6/2014	31.7	--	--	--	--	--	**17.2**	**108**	**125.2**	< 106
	S-086010-080614-JW-B-2-25	25	8/6/2014	12.0	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0204	--	--	--	--
B-3		5	8/6/2014	31.0	--	--	--	--	--	--	--	--	--
		10	8/6/2014	42.0	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-3-15	15	8/6/2014	95.8	< 0.275	< 0.275	< 0.275	**5.89**	**5.89**	**55.8**	**246**	**301.8**	< 112
	S-086010-080614-JW-B-3-20	20	8/6/2014	3.6	--	--	--	--	--	< 10.6	< 10.7	< 21.3	< 107
	S-086010-080614-JW-B-3-25	25	8/6/2014	4.5	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	--	--	--	--
B-4		5	8/6/2014	7.0	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-10	10	8/6/2014	94.3	< 0.280	< 0.280	< 0.280	**0.668**	**0.668**	**26**	**230**	**256**	**160**
		15	8/6/2014	1.0	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-20	20	8/6/2014	3.4	--	--	--	--	--	--	--	--	< 121
	S-086010-080614-JW-B-4-25	25	8/6/2014	1.3	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0244	< 12.2	< 11.9	< 24.1	--
B-5		5	8/7/2014	0.1	--	--	--	--	--	--	--	--	--
		10	8/7/2014	10.2	--	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-15	15	8/7/2014	292.5	< 0.281	< 0.281	**0.565**	**12**	**12.565**	**126**	**1120**	**1246**	**195**
		20	8/7/2014	2.0	--	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-25	25	8/7/2014	43.3	--	--	--	--	--	--	--	--	**134**
	S-086010-080714-CB-B-5-30	30	8/7/2014	0.4	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	< 10.7	**10.7**	**10.7**	--

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: The Louisiana Department of Natural Resources (LDNR) Statewide Order No. 29-B					NA mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	10,000 mg/kg	NA mg/kg
B-6	S-086010-021915-JW-B6-5	5	2/19/2015	5.8	--	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-021915-JW-B6-10	10	2/19/2015	5.6	--	--	--	--	--	< 11.3	< 11.1	< 22.4	--
	S-086010-021915-JW-B6-15	15	2/19/2015	5.2	--	--	--	--	--	< 11.3	< 11.3	< 22.6	--
	S-086010-021915-JW-B6-20	20	2/19/2015	4.6	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021915-JW-B6-25	25	2/19/2015	2.5	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
B-7	S-086010-022015-JW-B7-5	5	2/20/2015	2.4	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-022015-JW-B7-10	10	2/20/2015	2.5	--	--	--	--	--	< 11.2	< 10.9	< 22.1	--
	S-086010-022015-JW-B7-15	15	2/20/2015	3.1	--	--	--	--	--	< 10.9	< 10.7	< 21.6	--
	S-086010-022015-JW-B7-20	20	2/20/2015	3.2	--	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-022015-JW-B7-25	25	2/20/2015	0.8	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
B-8	S-086010-021915-JW-B8-5	5	2/19/2015	13.1	--	--	--	--	--	< 12.0	**126**	**126**	--
	S-086010-021915-JW-B8-10	10	2/19/2015	108.0	--	--	--	--	--	< 11.7	**116**	**116**	--
	S-086010-021915-JW-B8-15	15	2/19/2015	1510.0	--	--	--	--	--	14.1	**238**	**252.1**	--
	S-086010-021915-JW-B8-20	20	2/19/2015	86.0	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021915-JW-B8-25	25	2/19/2015	13.2	--	--	--	--	--	< 10.4	< 10.3	< 20.7	--
B-9	S-086010-022015-JW-B9-5	5	2/20/2015	2.5	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-022015-JW-B9-10	10	2/20/2015	1915.0	--	--	--	--	--	**5530**	**16900**	**22430**	--
	S-086010-022015-JW-B9-15	15	2/20/2015	1847.0	--	--	--	--	--	**469**	**781**	**1250**	--
	S-086010-022015-JW-B9-20	20	2/20/2015	497.0	--	--	--	--	--	**15.3**	**52.3**	**67.6**	--
	S-086010-022015-JW-B9-25	25	2/20/2015	97.3	--	--	--	--	--	< 10.5	< 10.3	< 20.8	--
B-10	S-086010-021915-JW-B10-5	5	2/19/2015	2398.0	--	--	--	--	--	**3460**	**4040**	**7500**	--
	S-086010-021915-JW-B10-10	10	2/19/2015	1940.0	--	--	--	--	--	**73.6**	**940**	**1013.6**	--
	S-086010-021915-JW-B10-15	15	2/19/2015	79.2	--	--	--	--	--	< 10.8	< 10.2	< 21.0	--
	S-086010-021915-JW-B10-20	20	2/19/2015	--	--	--	--	--	--	< 10.6	< 10.4	< 21.0	--
	S-086010-021915-JW-B10-25	25	2/19/2015	72.4	--	--	--	--	--	< 10.4	< 10.1	< 20.5	--

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: The Louisiana Department of Natural Resources (LDNR) Statewide Order No. 29-B					NA mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	NA mg/kg	10,000 mg/kg	NA mg/kg
B-11	S-086010-021915-JW-B11-5	5	2/19/2015	4.4	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021915-JW-B11-10	10	2/19/2015	2856.0	--	--	--	--	--	**132**	**248**	**380**	--
	S-086010-021915-JW-B11-15	15	2/19/2015	51.0	--	--	--	--	--	< 10.8	< 10.4	< 21.2	--
	S-086010-021915-JW-B11-20	20	2/19/2015	10.4	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
	S-086010-021915-JW-B11-24	24	2/19/2015	--	--	--	--	--	--	< 10.4	< 10.0	< 20.4	--
B-12	S-086010-021915-JW-B12-5	5	2/19/2015	0.7	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-10	10	2/19/2015	1.2	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-15	15	2/19/2015	1.6	--	--	--	--	--	< 11.2	< 10.8	< 22.0	--
	S-086010-021915-JW-B12-20	20	2/19/2015	--	--	--	--	--	--	< 10.6	< 10.0	< 20.6	--
	S-086010-021915-JW-B12-23	23	2/19/2015	--	--	--	--	--	--	< 10.4	< 10.2	< 20.6	--
B-13	S-086010-021815-JW-B13-5	5	2/18/2015	3.0	--	--	--	--	--	< 10.4	< 10.4	< 20.8	--
	S-086010-021815-JW-B13-10	10	2/18/2015	5.3	--	--	--	--	--	< 11.3	< 11.2	< 22.5	--
	S-086010-021815-JW-B13-15	15	2/18/2015	72.0	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021815-JW-B13-20	20	2/18/2015	886.0	--	--	--	--	--	**89.4**	< 11.3	**89.4**	--
	S-086010-021815-JW-B13-25	25	2/18/2015	2085.0	--	--	--	--	--	< 10.9	< 10.5	< 21.4	--
	S-086010-021815-JW-B13-30	30	2/18/2015	7.0	--	--	--	--	--	< 10.5	< 10.2	< 20.7	--
B-14	S-086010-021815-JW-B14-5	5	2/18/2015	139.0	--	--	--	--	--	< 11.0	**74.4**	**74.4**	--
	S-086010-021815-JW-B14-10	10	2/18/2015	1055.0	--	--	--	--	--	**72.6**	**375**	**447.6**	--
	S-086010-021815-JW-B14-15	15	2/18/2015	2071.0	--	--	--	--	--	**16.3**	**24.2**	**40.5**	--
	S-086010-021815-JW-B14-20	20	2/18/2015	30.0	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021815-JW-B14-25	25	2/18/2015	1417.0	--	--	--	--	--	**266**	**32.9**	**298.9**	--
	S-086010-021815-JW-B14-30	30	2/18/2015	63.0	--	--	--	--	--	**12.3**	< 10.0	**12.3**	--
	S-086010-021815-JW-B14-35	35	2/18/2015	54.0	--	--	--	--	--	< 10.5	< 10.5	< 21.0	--
B-15	S-086010-021815-JW-B15-10	10	2/18/2015	2.3	--	--	--	--	--	< 10.6	**45.7**	**45.7**	--
	S-086010-021815-JW-B15-15	15	2/18/2015	165.0	--	--	--	--	--	< 11.3	**224**	**224**	--
	S-086010-021815-JW-B15-20	20	2/18/2015	178.0	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021815-JW-B15-25	25	2/18/2015	13.2	--	--	--	--	--	< 10.7	< 10.4	< 21.1	--

Notes:
1. BTEX analyzed by EPA Method 8021B
2. TPH analyzed by EPA Method 8015B Mod.
3. Chloride analyzed by EPA 300.0
4. '-- - Not Analyzed
5. Bold concentrations above laboratory reporting limits.
6. Highlighted cells indicated concentrations above regulatory limits.
7. bgs = below ground surface
8. NA - Not Applicable

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified)			Chloride (mg/kg)
										GRO (mg/kg)	DRO (mg/kg)	Total TPH (mg/kg)	
Regulatory Limits: Louisiana Department of Environmental Quality RECAP 2014 Screening Option Soil Standards for Industrial Land use (SOIL_SSi)													
					12.0 mg/kg	**820 mg/kg**	**480 mg/kg**	**400 mg/kg**	**NA mg/kg**	**420 mg/kg**	**950 mg/kg**	**NA mg/kg**	**100,000 mg/kg**
B-1	S-086010-080614-JW-B-1-5	5	8/6/2014	1018.0	<0.297	**2.25**	**2.94**	**52.8**	**57.99**	**790**	**1860**	**2650**	< 119
		10	8/6/2014	252.0	–	–	–	–	–	–	–	–	–
		15	8/6/2014	268.0	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-1-20	20	8/6/2014	268.0	–	–	–	–	–	**26.3**	**14.7**	**41**	**109**
	S-086010-080614-JW-B-1-25	25	8/6/2014	25.5	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0208	–	–	–	–
B-2	S-086010-080614-JW-B-2-5	5	8/6/2014	870.0	< 0.297	< 0.297	**2.48**	**42.3**	**44.78**	**301**	**3090**	**3391**	**141**
		10	8/6/2014	675.0	–	–	–	–	–	–	–	–	–
		15	8/6/2014	91.5	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-2-20	20	8/6/2014	31.7	–	–	–	–	–	**17.2**	**108**	**125.2**	< 106
	S-086010-080614-JW-B-2-25	25	8/6/2014	12.0	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0204	–	–	–	–
B-3		5	8/6/2014	31.0	–	–	–	–	–	–	–	–	–
		10	8/6/2014	42.0	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-3-15	15	8/6/2014	95.8	< 0.275	< 0.275	< 0.275	**5.89**	**5.89**	**55.8**	**246**	**301.8**	< 112
	S-086010-080614-JW-B-3-20	20	8/6/2014	3.6	–	–	–	–	–	< 10.6	< 10.7	< 21.3	< 107
	S-086010-080614-JW-B-3-25	25	8/6/2014	4.5	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	–	–	–	–
B-4		5	8/6/2014	7.0	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-4-10	10	8/6/2014	94.3	< 0.280	< 0.280	< 0.280	**0.668**	**0.668**	**26**	**230**	**256**	**160**
		15	8/6/2014	1.0	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-4-20	20	8/6/2014	3.4	–	–	–	–	–	–	–	–	< 121
	S-086010-080614-JW-B-4-25	25	8/6/2014	1.3	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0244	< 12.2	< 11.9	< 24.1	–
B-5		5	8/7/2014	0.1	–	–	–	–	–	–	–	–	–
		10	8/7/2014	10.2	–	–	–	–	–	–	–	–	–
	S-086010-080714-CB-B-5-15	15	8/7/2014	292.5	< 0.281	< 0.281	**0.565**	**12**	**12.565**	**126**	**1120**	**1246**	**195**
		20	8/7/2014	2.0	–	–	–	–	–	–	–	–	–
	S-086010-080714-CB-B-5-25	25	8/7/2014	43.3	–	–	–	–	–	–	–	–	**134**
	S-086010-080714-CB-B-5-30	30	8/7/2014	0.4	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	< 10.7	**10.7**	**10.7**	–

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified)			Chloride (mg/kg)
										GRO (mg/kg)	DRO (mg/kg)	Total TPH (mg/kg)	
Regulatory Limits: Louisiana Department of Environmental Quality RECAP 2014 Screening Option Soil Standards for Industrial Land use (SOIL_SSi)													
					12.0 mg/kg	**820 mg/kg**	**480 mg/kg**	**400 mg/kg**	**NA mg/kg**	**420 mg/kg**	**950 mg/kg**	**NA mg/kg**	**100,000 mg/kg**
B-6	S-086010-021915-JW-B6-5	5	2/19/2015	5.8	–	–	–	–	–	< 10.7	< 10.6	< 21.3	–
	S-086010-021915-JW-B6-10	10	2/19/2015	5.6	–	–	–	–	–	< 11.3	< 11.1	< 22.4	–
	S-086010-021915-JW-B6-15	15	2/19/2015	5.2	–	–	–	–	–	< 11.3	< 11.3	< 22.6	–
	S-086010-021915-JW-B6-20	20	2/19/2015	4.6	–	–	–	–	–	< 10.6	< 10.6	< 21.2	–
	S-086010-021915-JW-B6-25	25	2/19/2015	2.5	–	–	–	–	–	< 10.6	< 10.3	< 20.9	–
B-7	S-086010-022015-JW-B7-5	5	2/20/2015	2.4	–	–	–	–	–	< 10.6	< 10.6	< 21.2	–
	S-086010-022015-JW-B7-10	10	2/20/2015	2.5	–	–	–	–	–	< 11.2	< 10.9	< 22.1	–
	S-086010-022015-JW-B7-15	15	2/20/2015	3.1	–	–	–	–	–	< 10.9	< 10.7	< 21.6	–
	S-086010-022015-JW-B7-20	20	2/20/2015	3.2	–	–	–	–	–	< 10.7	< 10.6	< 21.3	–
	S-086010-022015-JW-B7-25	25	2/20/2015	0.8	–	–	–	–	–	< 10.6	< 10.6	< 21.2	–
B-8	S-086010-021915-JW-B8-5	5	2/19/2015	13.1	–	–	–	–	–	< 12.0	**126**	**126**	–
	S-086010-021915-JW-B8-10	10	2/19/2015	108.0	–	–	–	–	–	< 11.7	**116**	**116**	–
	S-086010-021915-JW-B8-15	15	2/19/2015	1510.0	–	–	–	–	–	14.1	**238**	**252.1**	–
	S-086010-021915-JW-B8-20	20	2/19/2015	86.0	–	–	–	–	–	< 10.7	< 10.7	< 21.4	–
	S-086010-021915-JW-B8-25	25	2/19/2015	13.2	–	–	–	–	–	< 10.4	< 10.3	< 20.7	–
B-9	S-086010-022015-JW-B9-5	5	2/20/2015	2.5	–	–	–	–	–	< 10.7	< 10.7	< 21.4	–
	S-086010-022015-JW-B9-10	10	2/20/2015	1915.0	–	–	–	–	–	**5530**	**16900**	**22430**	–
	S-086010-022015-JW-B9-15	15	2/20/2015	1847.0	–	–	–	–	–	**469**	**781**	**1250**	–
	S-086010-022015-JW-B9-20	20	2/20/2015	497.0	–	–	–	–	–	**15.3**	**52.3**	**67.6**	–
	S-086010-022015-JW-B9-25	25	2/20/2015	97.3	–	–	–	–	–	< 10.5	< 10.3	< 20.8	–
B-10	S-086010-021915-JW-B10-5	5	2/19/2015	2398.0	–	–	–	–	–	**3460**	**4040**	**7500**	–
	S-086010-021915-JW-B10-10	10	2/19/2015	1940.0	–	–	–	–	–	**73.6**	**940**	**1014**	–
	S-086010-021915-JW-B10-15	15	2/19/2015	79.2	–	–	–	–	–	< 10.8	< 10.2	< 21.0	–
	S-086010-021915-JW-B10-20	20	2/19/2015	--	–	–	–	–	–	< 10.6	< 10.4	< 21.0	–
	S-086010-021915-JW-B10-25	25	2/19/2015	72.4	–	–	–	–	–	< 10.4	< 10.1	< 20.5	–

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified)			Chloride (mg/kg)
										GRO (mg/kg)	DRO (mg/kg)	Total TPH (mg/kg)	
Regulatory Limits: Louisiana Department of Environmental Quality RECAP 2014 Screening Option Soil Standards for Industrial Land use (SOIL_SSi)													
					12.0 mg/kg	**820 mg/kg**	**480 mg/kg**	**400 mg/kg**	**NA mg/kg**	**420 mg/kg**	**950 mg/kg**	**NA mg/kg**	**100,000 mg/kg**
B-11	S-086010-021915-JW-B11-5	5	2/19/2015	4.4	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021915-JW-B11-10	10	2/19/2015	2856.0	--	--	--	--	--	**132**	**248**	**380**	--
	S-086010-021915-JW-B11-15	15	2/19/2015	51.0	--	--	--	--	--	< 10.8	< 10.4	< 21.2	--
	S-086010-021915-JW-B11-20	20	2/19/2015	10.4	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
	S-086010-021915-JW-B11-24	24	2/19/2015	--	--	--	--	--	--	< 10.4	< 10.0	< 20.4	--
B-12	S-086010-021915-JW-B12-5	5	2/19/2015	0.7	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-10	10	2/19/2015	1.2	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-15	15	2/19/2015	1.6	--	--	--	--	--	< 11.2	< 10.8	< 22.0	--
	S-086010-021915-JW-B12-20	20	2/19/2015	--	--	--	--	--	--	< 10.6	< 10.0	< 20.6	--
	S-086010-021915-JW-B12-23	23	2/19/2015	--	--	--	--	--	--	< 10.4	< 10.2	< 20.6	--
B-13	S-086010-021815-JW-B13-5	5	2/18/2015	3.0	--	--	--	--	--	< 10.4	< 10.4	< 20.8	--
	S-086010-021815-JW-B13-10	10	2/18/2015	5.3	--	--	--	--	--	< 11.3	< 11.2	< 22.5	--
	S-086010-021815-JW-B13-15	15	2/18/2015	72.0	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021815-JW-B13-20	20	2/18/2015	886.0	--	--	--	--	--	**89.4**	< 11.3	**89.4**	--
	S-086010-021815-JW-B13-25	25	2/18/2015	2085.0	--	--	--	--	--	< 10.9	< 10.5	< 21.4	--
	S-086010-021815-JW-B13-30	30	2/18/2015	7.0	--	--	--	--	--	< 10.5	< 10.2	< 20.7	--
B-14	S-086010-021815-JW-B14-5	5	2/18/2015	139.0	--	--	--	--	--	< 11.0	**74.4**	**74.4**	--
	S-086010-021815-JW-B14-10	10	2/18/2015	1055.0	--	--	--	--	--	**72.6**	**375**	**447.6**	--
	S-086010-021815-JW-B14-15	15	2/18/2015	2071.0	--	--	--	--	--	**16.3**	**24.2**	**40.5**	--
	S-086010-021815-JW-B14-20	20	2/18/2015	30.0	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021815-JW-B14-25	25	2/18/2015	1417.0	--	--	--	--	--	**266**	**32.9**	**298.9**	--
	S-086010-021815-JW-B14-30	30	2/18/2015	63.0	--	--	--	--	--	**12.3**	< 10.0	**12.3**	--
	S-086010-021815-JW-B14-35	35	2/18/2015	54.0	--	--	--	--	--	< 10.5	< 10.5	< 21.0	--
B-15	S-086010-021815-JW-B15-10	10	2/18/2015	2.3	--	--	--	--	--	< 10.6	**45.7**	**45.7**	--
	S-086010-021815-JW-B15-15	15	2/18/2015	165.0	--	--	--	--	--	< 11.3	**224**	**224**	--
	S-086010-021815-JW-B15-20	20	2/18/2015	178.0	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021815-JW-B15-25	25	2/18/2015	13.2	--	--	--	--	--	< 10.7	< 10.4	< 21.1	--

Notes:
1. BTEX analyzed by EPA Method 8021B
2. TPH analyzed by EPA Method 8015B Mod.
3. Chloride analyzed by EPA 300.0
4. '-- - Not Analyzed
5. Bold concentrations above laboratory reporting limits.
6. Highlighted cells indicated concentrations above regulatory limits.
7. bgs = below ground surface
8. NA - Not Applicable

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: Louisiana Department of Environmental Quality RECAP 2014 MO-1 Management Option Soil Standards for Industrial Land use (SOILi)													
					12.0 mg/kg	62,000 mg/kg	41,000 mg/kg	6,800 mg/kg	NA mg/kg	6,000 mg/kg	13,000 mg/kg	NA mg/kg	100,000 mg/kg
B-1	S-086010-080614-JW-B-1-5	5	8/6/2014	1018.0	<0.297	2.25	2.94	52.8	57.99	790	1860	2650	< 119
		10	8/6/2014	252.0	--	--	--	--	--	--	--	--	--
		15	8/6/2014	268.0	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-1-20	20	8/6/2014	268.0	--	--	--	--	--	26.3	14.7	41	109
	S-086010-080614-JW-B-1-25	25	8/6/2014	25.5	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0208	--	--	--	--
B-2	S-086010-080614-JW-B-2-5	5	8/6/2014	870.0	< 0.297	< 0.297	2.48	42.3	44.78	301	3090	3391	141
		10	8/6/2014	675.0	--	--	--	--	--	--	--	--	--
		15	8/6/2014	91.5	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-2-20	20	8/6/2014	31.7	--	--	--	--	--	17.2	108	125.2	< 106
	S-086010-080614-JW-B-2-25	25	8/6/2014	12.0	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0204	--	--	--	--
B-3		5	8/6/2014	31.0	--	--	--	--	--	--	--	--	--
		10	8/6/2014	42.0	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-3-15	15	8/6/2014	95.8	< 0.275	< 0.275	< 0.275	5.89	5.89	55.8	246	301.8	< 112
	S-086010-080614-JW-B-3-20	20	8/6/2014	3.6	--	--	--	--	--	< 10.6	< 10.7	< 21.3	< 107
	S-086010-080614-JW-B-3-25	25	8/6/2014	4.5	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	--	--	--	--
B-4		5	8/6/2014	7.0	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-10	10	8/6/2014	94.3	< 0.280	< 0.280	< 0.280	0.668	0.668	26	230	256	160
		15	8/6/2014	1.0	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-20	20	8/6/2014	3.4	--	--	--	--	--	--	--	--	< 121
	S-086010-080614-JW-B-4-25	25	8/6/2014	1.3	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0244	< 12.2	< 11.9	< 24.1	--
B-5		5	8/7/2014	0.1	--	--	--	--	--	--	--	--	--
		10	8/7/2014	10.2	--	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-15	15	8/7/2014	292.5	< 0.281	< 0.281	0.565	12	12.565	126	1120	1246	195
		20	8/7/2014	2.0	--	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-25	25	8/7/2014	43.3	--	--	--	--	--	--	--	--	134
	S-086010-080714-CB-B-5-30	30	8/7/2014	0.4	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	< 10.7	10.7	10.7	--

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: Louisiana Department of Environmental Quality RECAP 2014 MO-1 Management Option Soil Standards for Industrial Land use (SOILi)													
					12.0 mg/kg	62,000 mg/kg	41,000 mg/kg	6,800 mg/kg	NA mg/kg	6,000 mg/kg	13,000 mg/kg	NA mg/kg	100,000 mg/kg
B-6	S-086010-021915-JW-B6-5	5	2/19/2015	5.8	--	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-021915-JW-B6-10	10	2/19/2015	5.6	--	--	--	--	--	< 11.3	< 11.1	< 22.4	--
	S-086010-021915-JW-B6-15	15	2/19/2015	5.2	--	--	--	--	--	< 11.3	< 11.3	< 22.6	--
	S-086010-021915-JW-B6-20	20	2/19/2015	4.6	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021915-JW-B6-25	25	2/19/2015	2.5	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
B-7	S-086010-022015-JW-B7-5	5	2/20/2015	2.4	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-022015-JW-B7-10	10	2/20/2015	2.5	--	--	--	--	--	< 11.2	< 10.9	< 22.1	--
	S-086010-022015-JW-B7-15	15	2/20/2015	3.1	--	--	--	--	--	< 10.9	< 10.7	< 21.6	--
	S-086010-022015-JW-B7-20	20	2/20/2015	3.2	--	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-022015-JW-B7-25	25	2/20/2015	0.8	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
B-8	S-086010-021915-JW-B8-5	5	2/19/2015	13.1	--	--	--	--	--	< 12.0	**126**	**126**	--
	S-086010-021915-JW-B8-10	10	2/19/2015	108.0	--	--	--	--	--	< 11.7	**116**	**116**	--
	S-086010-021915-JW-B8-15	15	2/19/2015	1510.0	--	--	--	--	--	14.1	**238**	**252.1**	--
	S-086010-021915-JW-B8-20	20	2/19/2015	86.0	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021915-JW-B8-25	25	2/19/2015	13.2	--	--	--	--	--	< 10.4	< 10.3	< 20.7	--
B-9	S-086010-022015-JW-B9-5	5	2/20/2015	2.5	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-022015-JW-B9-10	10	2/20/2015	1915.0	--	--	--	--	--	**5530**	**16900**	**22430**	--
	S-086010-022015-JW-B9-15	15	2/20/2015	1847.0	--	--	--	--	--	**469**	**781**	**1250**	--
	S-086010-022015-JW-B9-20	20	2/20/2015	497.0	--	--	--	--	--	**15.3**	**52.3**	**67.6**	--
	S-086010-022015-JW-B9-25	25	2/20/2015	97.3	--	--	--	--	--	< 10.5	< 10.3	< 20.8	--
B-10	S-086010-021915-JW-B10-5	5	2/19/2015	2398.0	--	--	--	--	--	**3460**	**4040**	**7500**	--
	S-086010-021915-JW-B10-10	10	2/19/2015	1940.0	--	--	--	--	--	**73.6**	**940**	**1014**	--
	S-086010-021915-JW-B10-15	15	2/19/2015	79.2	--	--	--	--	--	< 10.8	< 10.2	< 21.0	--
	S-086010-021915-JW-B10-20	20	2/19/2015	--	--	--	--	--	--	< 10.6	< 10.4	< 21.0	--
	S-086010-021915-JW-B10-25	25	2/19/2015	72.4	--	--	--	--	--	< 10.4	< 10.1	< 20.5	--

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
Regulatory Limits: Louisiana Department of Environmental Quality RECAP 2014 MO-1 Management Option Soil Standards for Industrial Land use (SOILi)					12.0 mg/kg	62,000 mg/kg	41,000 mg/kg	6,800 mg/kg	NA mg/kg	6,000 mg/kg	13,000 mg/kg	NA mg/kg	100,000 mg/kg
B-11	S-086010-021915-JW-B11-5	5	2/19/2015	4.4	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021915-JW-B11-10	10	2/19/2015	2856.0	--	--	--	--	--	**132**	**248**	**380**	--
	S-086010-021915-JW-B11-15	15	2/19/2015	51.0	--	--	--	--	--	< 10.8	< 10.4	< 21.2	--
	S-086010-021915-JW-B11-20	20	2/19/2015	10.4	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
	S-086010-021915-JW-B11-24	24	2/19/2015	--	--	--	--	--	--	< 10.4	< 10.0	< 20.4	--
B-12	S-086010-021915-JW-B12-5	5	2/19/2015	0.7	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-10	10	2/19/2015	1.2	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-15	15	2/19/2015	1.6	--	--	--	--	--	< 11.2	< 10.8	< 22.0	--
	S-086010-021915-JW-B12-20	20	2/19/2015	--	--	--	--	--	--	< 10.6	< 10.0	< 20.6	--
	S-086010-021915-JW-B12-23	23	2/19/2015	--	--	--	--	--	--	< 10.4	< 10.2	< 20.6	--
B-13	S-086010-021815-JW-B13-5	5	2/18/2015	3.0	--	--	--	--	--	< 10.4	< 10.4	< 20.8	--
	S-086010-021815-JW-B13-10	10	2/18/2015	5.3	--	--	--	--	--	< 11.3	< 11.2	< 22.5	--
	S-086010-021815-JW-B13-15	15	2/18/2015	72.0	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021815-JW-B13-20	20	2/18/2015	886.0	--	--	--	--	--	**89.4**	< 11.3	**89.4**	--
	S-086010-021815-JW-B13-25	25	2/18/2015	2085.0	--	--	--	--	--	< 10.9	< 10.5	< 21.4	--
	S-086010-021815-JW-B13-30	30	2/18/2015	7.0	--	--	--	--	--	< 10.5	< 10.2	< 20.7	--
B-14	S-086010-021815-JW-B14-5	5	2/18/2015	139.0	--	--	--	--	--	< 11.0	**74.4**	**74.4**	--
	S-086010-021815-JW-B14-10	10	2/18/2015	1055.0	--	--	--	--	--	**72.6**	**375**	**447.6**	--
	S-086010-021815-JW-B14-15	15	2/18/2015	2071.0	--	--	--	--	--	**16.3**	**24.2**	**40.5**	--
	S-086010-021815-JW-B14-20	20	2/18/2015	30.0	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021815-JW-B14-25	25	2/18/2015	1417.0	--	--	--	--	--	**266**	**32.9**	**298.9**	--
	S-086010-021815-JW-B14-30	30	2/18/2015	63.0	--	--	--	--	--	**12.3**	< 10.0	**12.3**	--
	S-086010-021815-JW-B14-35	35	2/18/2015	54.0	--	--	--	--	--	< 10.5	< 10.5	< 21.0	--
B-15	S-086010-021815-JW-B15-10	10	2/18/2015	2.3	--	--	--	--	--	< 10.6	**45.7**	**45.7**	--
	S-086010-021815-JW-B15-15	15	2/18/2015	165.0	--	--	--	--	--	< 11.3	**224**	**224**	--
	S-086010-021815-JW-B15-20	20	2/18/2015	178.0	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021815-JW-B15-25	25	2/18/2015	13.2	--	--	--	--	--	< 10.7	< 10.4	< 21.1	--

Notes:
1. BTEX analyzed by EPA Method 8021B
2. TPH analyzed by EPA Method 8015B Mod.
3. Chloride analyzed by EPA 300.0
4. '-- - Not Analyzed
5. Bold concentrations above laboratory reporting limits.
6. Highlighted cells indicated concentrations above regulatory limits.
7. bgs = below ground surface
8. NA - Not Applicable

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	TPH (Field Screening) (PPM)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
EPA Region 6 Screening Level Risk Assessment Table (master_sl_table_run_JUNE2015_rev.xls; THQ=1)														
						5.1 mg/kg	47000 mg/kg	25 mg/kg	2800 mg/kg	NA mg/kg	2200 mg/kg	440 mg/kg	NA mg/kg	NA mg/kg
B-1	S-086010-080614-JW-B-1-5	5	8/6/2014	1018.0	--	<0.297	2.25	2.94	52.8	57.99	790	1860	2650	< 119
		10	8/6/2014	252.0	--	--	--	--	--	--	--	--	--	--
		15	8/6/2014	268.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-1-20	20	8/6/2014	268.0	--	--	--	--	--	--	26.3	14.7	41	109
	S-086010-080614-JW-B-1-25	25	8/6/2014	25.5	--	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0208	--	--	--	--
B-2	S-086010-080614-JW-B-2-5	5	8/6/2014	870.0	--	< 0.297	< 0.297	2.48	42.3	44.78	301	3090	3391	141
		10	8/6/2014	675.0	--	--	--	--	--	--	--	--	--	--
		15	8/6/2014	91.5	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-2-20	20	8/6/2014	31.7	--	--	--	--	--	--	17.2	108	125.2	< 106
	S-086010-080614-JW-B-2-25	25	8/6/2014	12.0	--	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0204	--	--	--	--
B-3		5	8/6/2014	31.0	--	--	--	--	--	--	--	--	--	--
		10	8/6/2014	42.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-3-15	15	8/6/2014	95.8	--	< 0.275	< 0.275	< 0.275	5.89	5.89	55.8	246	301.8	< 112
	S-086010-080614-JW-B-3-20	20	8/6/2014	3.6	--	--	--	--	--	--	< 10.6	< 10.7	< 21.3	< 107
	S-086010-080614-JW-B-3-25	25	8/6/2014	4.5	--	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	--	--	--	--
B-4		5	8/6/2014	7.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-10	10	8/6/2014	94.3	--	< 0.280	< 0.280	< 0.280	0.668	0.668	26	230	256	160
		15	8/6/2014	1.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-20	20	8/6/2014	3.4	--	--	--	--	--	--	--	--	--	< 121
	S-086010-080614-JW-B-4-25	25	8/6/2014	1.3	--	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0244	< 12.2	< 11.9	< 24.1	--
B-5		5	8/7/2014	0.1	--	--	--	--	--	--	--	--	--	--
		10	8/7/2014	10.2	--	--	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-15	15	8/7/2014	292.5	--	< 0.281	< 0.281	0.565	12	12.565	126	1120	1246	195
		20	8/7/2014	2.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-25	25	8/7/2014	43.3	--	--	--	--	--	--	--	--	--	134
	S-086010-080714-CB-B-5-30	30	8/7/2014	0.4	--	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	< 10.7	10.7	10.7	--

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	TPH (Field Screening) (PPM)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
EPA Region 6 Screening Level Risk Assessment Table (master_sl_table_run_JUNE2015_rev.xls; THQ=1)														
						5.1 mg/kg	47000 mg/kg	25 mg/kg	2800 mg/kg	NA mg/kg	2200 mg/kg	440 mg/kg	NA mg/kg	NA mg/kg
B-6	S-086010-021915-JW-B6-5	5	2/19/2015	5.8	--	--	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-021915-JW-B6-10	10	2/19/2015	5.6	--	--	--	--	--	--	< 11.3	< 11.1	< 22.4	--
	S-086010-021915-JW-B6-15	15	2/19/2015	5.2	--	--	--	--	--	--	< 11.3	< 11.3	< 22.6	--
	S-086010-021915-JW-B6-20	20	2/19/2015	4.6	--	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021915-JW-B6-25	25	2/19/2015	2.5	--	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
B-7	S-086010-022015-JW-B7-5	5	2/20/2015	2.4	--	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-022015-JW-B7-10	10	2/20/2015	2.5	--	--	--	--	--	--	< 11.2	< 10.9	< 22.1	--
	S-086010-022015-JW-B7-15	15	2/20/2015	3.1	--	--	--	--	--	--	< 10.9	< 10.7	< 21.6	--
	S-086010-022015-JW-B7-20	20	2/20/2015	3.2	--	--	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-022015-JW-B7-25	25	2/20/2015	0.8	--	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
B-8	S-086010-021915-JW-B8-5	5	2/19/2015	13.1	--	--	--	--	--	--	< 12.0	126	126	--
	S-086010-021915-JW-B8-10	10	2/19/2015	108.0	--	--	--	--	--	--	< 11.7	116	116	--
	S-086010-021915-JW-B8-15	15	2/19/2015	1510.0	--	--	--	--	--	--	14.1	238	252.1	--
	S-086010-021915-JW-B8-20	20	2/19/2015	86.0	--	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021915-JW-B8-25	25	2/19/2015	13.2	--	--	--	--	--	--	< 10.4	< 10.3	< 20.7	--
B-9	S-086010-022015-JW-B9-5	5	2/20/2015	2.5	--	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-022015-JW-B9-10	10	2/20/2015	1915.0	--	--	--	--	--	--	5530	16900	22430	--
	S-086010-022015-JW-B9-15	15	2/20/2015	1847.0	--	--	--	--	--	--	469	781	1250	--
	S-086010-022015-JW-B9-20	20	2/20/2015	497.0	--	--	--	--	--	--	15.3	52.3	67.6	--
	S-086010-022015-JW-B9-25	25	2/20/2015	97.3	--	--	--	--	--	--	< 10.5	< 10.3	< 20.8	--
B-10	S-086010-021915-JW-B10-5	5	2/19/2015	2398.0	--	--	--	--	--	--	3460	4040	7500	--
	S-086010-021915-JW-B10-10	10	2/19/2015	1940.0	--	--	--	--	--	--	73.6	940	1013.6	--
	S-086010-021915-JW-B10-15	15	2/19/2015	79.2	--	--	--	--	--	--	< 10.8	< 10.2	< 21.0	--
	S-086010-021915-JW-B10-20	20	2/19/2015	--	--	--	--	--	--	--	< 10.6	< 10.4	< 21.0	--
	S-086010-021915-JW-B10-25	25	2/19/2015	72.4	--	--	--	--	--	--	< 10.4	< 10.1	< 20.5	--

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (ppm)	TPH (Field Screening) (PPM)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
EPA Region 6 Screening Level Risk Assessment Table (master_sl_table_run_JUNE2015_rev.xls; THQ=1)														
						5.1 mg/kg	47000 mg/kg	25 mg/kg	2800 mg/kg	NA mg/kg	2200 mg/kg	440 mg/kg	NA mg/kg	NA mg/kg
B-11	S-086010-021915-JW-B11-5	5	2/19/2015	4.4	--	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021915-JW-B11-10	10	2/19/2015	2856.0	--	--	--	--	--	--	**132**	**248**	**380**	--
	S-086010-021915-JW-B11-15	15	2/19/2015	51.0	--	--	--	--	--	--	< 10.8	< 10.4	< 21.2	--
	S-086010-021915-JW-B11-20	20	2/19/2015	10.4	--	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
	S-086010-021915-JW-B11-24	24	2/19/2015	--	--	--	--	--	--	--	< 10.4	< 10.0	< 20.4	--
B-12	S-086010-021915-JW-B12-5	5	2/19/2015	0.7	--	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-10	10	2/19/2015	1.2	--	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-15	15	2/19/2015	1.6	--	--	--	--	--	--	< 11.2	< 10.8	< 22.0	--
	S-086010-021915-JW-B12-20	20	2/19/2015	--	--	--	--	--	--	--	< 10.6	< 10.0	< 20.6	--
	S-086010-021915-JW-B12-23	23	2/19/2015	--	--	--	--	--	--	--	< 10.4	< 10.2	< 20.6	--
B-13	S-086010-021815-JW-B13-5	5	2/18/2015	3.0	--	--	--	--	--	--	< 10.4	< 10.4	< 20.8	--
	S-086010-021815-JW-B13-10	10	2/18/2015	5.3	--	--	--	--	--	--	< 11.3	< 11.2	< 22.5	--
	S-086010-021815-JW-B13-15	15	2/18/2015	72.0	--	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021815-JW-B13-20	20	2/18/2015	886.0	--	--	--	--	--	--	**89.4**	< 11.3	**89.4**	--
	S-086010-021815-JW-B13-25	25	2/18/2015	2085.0	--	--	--	--	--	--	< 10.9	< 10.5	< 21.4	--
	S-086010-021815-JW-B13-30	30	2/18/2015	7.0	--	--	--	--	--	--	< 10.5	< 10.2	< 20.7	--
B-14	S-086010-021815-JW-B14-5	5	2/18/2015	139.0	--	--	--	--	--	--	< 11.0	**74.4**	**74.4**	--
	S-086010-021815-JW-B14-10	10	2/18/2015	1055.0	--	--	--	--	--	--	**72.6**	**375**	**447.6**	--
	S-086010-021815-JW-B14-15	15	2/18/2015	2071.0	--	--	--	--	--	--	**16.3**	**24.2**	**40.5**	--
	S-086010-021815-JW-B14-20	20	2/18/2015	30.0	--	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021815-JW-B14-25	25	2/18/2015	1417.0	--	--	--	--	--	--	**266**	**32.9**	**298.9**	--
	S-086010-021815-JW-B14-30	30	2/18/2015	63.0	--	--	--	--	--	--	**12.3**	< 10.0	**12.3**	--
	S-086010-021815-JW-B14-35	35	2/18/2015	54.0	--	--	--	--	--	--	< 10.5	< 10.5	< 21.0	--
B-15	S-086010-021815-JW-B15-10	10	2/18/2015	2.3	--	--	--	--	--	--	< 10.6	**45.7**	**45.7**	--
	S-086010-021815-JW-B15-15	15	2/18/2015	165.0	--	--	--	--	--	--	< 11.3	**224**	**224**	--
	S-086010-021815-JW-B15-20	20	2/18/2015	178.0	--	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021815-JW-B15-25	25	2/18/2015	13.2	--	--	--	--	--	--	< 10.7	< 10.4	< 21.1	--

Notes:
1. BTEX analyzed by EPA Method 8021B
2. TPH analyzed by EPA Method 8015B Mod.
3. Chloride analyzed by EPA 300.0
4. '-- - Not Analyzed
5. Bold concentrations above laboratory reporting limits.
6. Highlighted cells indicated concentrations above regulatory limits.
7. bgs = below ground surface
8. NA - Not Applicable

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (PPM)	TPH (Field Screening) (PPM)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified)			Chloride (mg/kg)
											GRO (mg/kg)	DRO (mg/kg)	Total TPH (mg/kg)	
EPA Region 6 Screening Level Risk Assessment Table (master_sl_table_01run_JUNE2015_rev.xls; THQ=0.1)														
						5.1 mg/kg	4700 mg/kg	25 mg/kg	280 mg/kg	NA mg/kg	220 mg/kg	44 mg/kg	NA mg/kg	NA mg/kg
B-1	S-086010-080614-JW-B-1-5	5	8/6/2014	1018.0	--	<0.297	2.25	2.94	52.8	57.99	790	1860	2650	< 119
		10	8/6/2014	252.0	--	--	--	--	--	--	--	--	--	--
		15	8/6/2014	268.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-1-20	20	8/6/2014	268.0	--	--	--	--	--	--	26.3	14.7	41	109
	S-086010-080614-JW-B-1-25	25	8/6/2014	25.5	--	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0208	--	--	--	--
B-2	S-086010-080614-JW-B-2-5	5	8/6/2014	870.0	--	< 0.297	< 0.297	2.48	42.3	44.78	301	3090	3391	141
		10	8/6/2014	675.0	--	--	--	--	--	--	--	--	--	--
		15	8/6/2014	91.5	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-2-20	20	8/6/2014	31.7	--	--	--	--	--	--	17.2	108	125.2	< 106
	S-086010-080614-JW-B-2-25	25	8/6/2014	12.0	--	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0204	--	--	--	--
B-3		5	8/6/2014	31.0	--	--	--	--	--	--	--	--	--	--
		10	8/6/2014	42.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-3-15	15	8/6/2014	95.8	--	< 0.275	< 0.275	< 0.275	5.89	5.89	55.8	246	301.8	< 112
	S-086010-080614-JW-B-3-20	20	8/6/2014	3.6	--	--	--	--	--	--	< 10.6	< 10.7	< 21.3	< 107
	S-086010-080614-JW-B-3-25	25	8/6/2014	4.5	--	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	--	--	--	--
B-4		5	8/6/2014	7.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-10	10	8/6/2014	94.3	--	< 0.280	< 0.280	< 0.280	0.668	0.668	26	230	256	160
		15	8/6/2014	1.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080614-JW-B-4-20	20	8/6/2014	3.4	--	--	--	--	--	--	--	--	--	< 121
	S-086010-080614-JW-B-4-25	25	8/6/2014	1.3	--	< 0.0061	< 0.0061	< 0.0061	< 0.0061	< 0.0244	< 12.2	< 11.9	< 24.1	--
B-5		5	8/7/2014	0.1	--	--	--	--	--	--	--	--	--	--
		10	8/7/2014	10.2	--	--	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-15	15	8/7/2014	292.5	--	< 0.281	< 0.281	0.565	12	12.565	126	1120	1246	195
		20	8/7/2014	2.0	--	--	--	--	--	--	--	--	--	--
	S-086010-080714-CB-B-5-25	25	8/7/2014	43.3	--	--	--	--	--	--	--	--	--	134
	S-086010-080714-CB-B-5-30	30	8/7/2014	0.4	--	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0212	< 10.7	10.7	10.7	--

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (PPM)	TPH (Field Screening) (PPM)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
EPA Region 6 Screening Level Risk Assessment Table (master_sl_table_01run_JUNE2015_rev.xls; THQ=0.1)														
						5.1 mg/kg	4700 mg/kg	25 mg/kg	280 mg/kg	NA mg/kg	220 mg/kg	44 mg/kg	NA mg/kg	NA mg/kg
B-6	S-086010-021915-JW-B6-5	5	2/19/2015	5.8	--	--	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-021915-JW-B6-10	10	2/19/2015	5.6	--	--	--	--	--	--	< 11.3	< 11.1	< 22.4	--
	S-086010-021915-JW-B6-15	15	2/19/2015	5.2	--	--	--	--	--	--	< 11.3	< 11.3	< 22.6	--
	S-086010-021915-JW-B6-20	20	2/19/2015	4.6	--	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021915-JW-B6-25	25	2/19/2015	2.5	--	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
B-7	S-086010-022015-JW-B7-5	5	2/20/2015	2.4	--	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-022015-JW-B7-10	10	2/20/2015	2.5	--	--	--	--	--	--	< 11.2	< 10.9	< 22.1	--
	S-086010-022015-JW-B7-15	15	2/20/2015	3.1	--	--	--	--	--	--	< 10.9	< 10.7	< 21.6	--
	S-086010-022015-JW-B7-20	20	2/20/2015	3.2	--	--	--	--	--	--	< 10.7	< 10.6	< 21.3	--
	S-086010-022015-JW-B7-25	25	2/20/2015	0.8	--	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
B-8	S-086010-021915-JW-B8-5	5	2/19/2015	13.1	--	--	--	--	--	--	< 12.0	**126**	**126**	--
	S-086010-021915-JW-B8-10	10	2/19/2015	108.0	--	--	--	--	--	--	< 11.7	**116**	**116**	--
	S-086010-021915-JW-B8-15	15	2/19/2015	1510.0	--	--	--	--	--	--	**14.1**	**238**	**252.1**	--
	S-086010-021915-JW-B8-20	20	2/19/2015	86.0	--	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021915-JW-B8-25	25	2/19/2015	13.2	--	--	--	--	--	--	< 10.4	< 10.3	< 20.7	--
B-9	S-086010-022015-JW-B9-5	5	2/20/2015	2.5	--	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-022015-JW-B9-10	10	2/20/2015	1915.0	--	--	--	--	--	--	**5530**	**16900**	**22430**	--
	S-086010-022015-JW-B9-15	15	2/20/2015	1847.0	--	--	--	--	--	--	**469**	**781**	**1250**	--
	S-086010-022015-JW-B9-20	20	2/20/2015	497.0	--	--	--	--	--	--	**15.3**	**52.3**	**67.6**	--
	S-086010-022015-JW-B9-25	25	2/20/2015	97.3	--	--	--	--	--	--	< 10.5	< 10.3	< 20.8	--
B-10	S-086010-021915-JW-B10-5	5	2/19/2015	2398.0	--	--	--	--	--	--	**3460**	**4040**	**7500**	--
	S-086010-021915-JW-B10-10	10	2/19/2015	1940.0	--	--	--	--	--	--	**73.6**	**940**	**1013.6**	--
	S-086010-021915-JW-B10-15	15	2/19/2015	79.2	--	--	--	--	--	--	< 10.8	< 10.2	< 21.0	--
	S-086010-021915-JW-B10-20	20	2/19/2015	--	--	--	--	--	--	--	< 10.6	< 10.4	< 21.0	--
	S-086010-021915-JW-B10-25	25	2/19/2015	72.4	--	--	--	--	--	--	< 10.4	< 10.1	< 20.5	--

Soil Data Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Boring Number	Sample ID	Depth (feet bgs)	Sample Date	OVM-PID (PPM)	TPH (Field Screening) (PPM)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (8015B Modified) GRO (mg/kg)	TPH (8015B Modified) DRO (mg/kg)	TPH (8015B Modified) Total TPH (mg/kg)	Chloride (mg/kg)
EPA Region 6 Screening Level Risk Assessment Table (master_sl_table_01run_JUNE2015_rev.xls; THQ=0.1)														
						5.1 mg/kg	4700 mg/kg	25 mg/kg	280 mg/kg	NA mg/kg	220 mg/kg	44 mg/kg	NA mg/kg	NA mg/kg
B-11	S-086010-021915-JW-B11-5	5	2/19/2015	4.4	--	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021915-JW-B11-10	10	2/19/2015	2856.0	--	--	--	--	--	--	**132**	**248**	**380**	--
	S-086010-021915-JW-B11-15	15	2/19/2015	51.0	--	--	--	--	--	--	< 10.8	< 10.4	< 21.2	--
	S-086010-021915-JW-B11-20	20	2/19/2015	10.4	--	--	--	--	--	--	< 10.6	< 10.3	< 20.9	--
	S-086010-021915-JW-B11-24	24	2/19/2015	--	--	--	--	--	--	--	< 10.4	< 10.0	< 20.4	--
B-12	S-086010-021915-JW-B12-5	5	2/19/2015	0.7	--	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-10	10	2/19/2015	1.2	--	--	--	--	--	--	< 11.0	< 10.9	< 21.9	--
	S-086010-021915-JW-B12-15	15	2/19/2015	1.6	--	--	--	--	--	--	< 11.2	< 10.8	< 22.0	--
	S-086010-021915-JW-B12-20	20	2/19/2015	--	--	--	--	--	--	--	< 10.6	< 10.0	< 20.6	--
	S-086010-021915-JW-B12-23	23	2/19/2015	--	--	--	--	--	--	--	< 10.4	< 10.2	< 20.6	--
B-13	S-086010-021815-JW-B13-5	5	2/18/2015	3.0	--	--	--	--	--	--	< 10.4	< 10.4	< 20.8	--
	S-086010-021815-JW-B13-10	10	2/18/2015	5.3	--	--	--	--	--	--	< 11.3	< 11.2	< 22.5	--
	S-086010-021815-JW-B13-15	15	2/18/2015	72.0	--	--	--	--	--	--	< 11.2	< 11.2	< 22.4	--
	S-086010-021815-JW-B13-20	20	2/18/2015	886.0	--	--	--	--	--	--	**89.4**	< 11.3	**89.4**	--
	S-086010-021815-JW-B13-25	25	2/18/2015	2085.0	--	--	--	--	--	--	< 10.9	< 10.5	< 21.4	--
	S-086010-021815-JW-B13-30	30	2/18/2015	7.0	--	--	--	--	--	--	< 10.5	< 10.2	< 20.7	--
B-14	S-086010-021815-JW-B14-5	5	2/18/2015	139.0	--	--	--	--	--	--	< 11.0	**74.4**	**74.4**	--
	S-086010-021815-JW-B14-10	10	2/18/2015	1055.0	--	--	--	--	--	--	**72.6**	**375**	**447.6**	--
	S-086010-021815-JW-B14-15	15	2/18/2015	2071.0	--	--	--	--	--	--	**16.3**	**24.2**	**40.5**	--
	S-086010-021815-JW-B14-20	20	2/18/2015	30.0	--	--	--	--	--	--	< 10.6	< 10.6	< 21.2	--
	S-086010-021815-JW-B14-25	25	2/18/2015	1417.0	--	--	--	--	--	--	**266**	**32.9**	**298.9**	--
	S-086010-021815-JW-B14-30	30	2/18/2015	63.0	--	--	--	--	--	--	**12.3**	< 10.0	**12.3**	--
	S-086010-021815-JW-B14-35	35	2/18/2015	54.0	--	--	--	--	--	--	< 10.5	< 10.5	< 21.0	--
B-15	S-086010-021815-JW-B15-10	10	2/18/2015	2.3	--	--	--	--	--	--	< 10.6	**45.7**	**45.7**	--
	S-086010-021815-JW-B15-15	15	2/18/2015	165.0	--	--	--	--	--	--	< 11.3		**224**	--
	S-086010-021815-JW-B15-20	20	2/18/2015	178.0	--	--	--	--	--	--	< 10.7	< 10.7	< 21.4	--
	S-086010-021815-JW-B15-25	25	2/18/2015	13.2	--	--	--	--	--	--	< 10.7	< 10.4	< 21.1	--

Notes:
1. BTEX analyzed by EPA Method 8021B
2. TPH analyzed by EPA Method 8015B Mod.
3. Chloride analyzed by EPA 300.0
4. '-- - Not Analyzed
5. Bold concentrations above laboratory reporting limits.
6. Highlighted cells indicated concentrations above regulatory limits.
7. bgs = below ground surface
8. NA - Not Applicable

Table 7.1

Comparative Remediation Costs Estimates

	TPH Remediation Action Levels					
	NMOCD 1993 Spill Guidelines (Initial Action Level)	NMOCD 2013 Pit Rule	NMED 2014 RAGSIR	NMOCD 1993 Spill Guidelines, LDEQ 2003 RECAP	TCEQ 1999 TRRP	TX RRC Pit Rules, LDNR 29B Pit Rules
	100 mg/kg	2,500 mg/kg	3,800 mg/kg	5,000 mg/kg	7,800 mg/kg	10,000 mg/kg
Affected Soil Volume	30,000 yd^3	2,000 yd^3	1,700 yd^3	1,600 yd^3	1,200 yd^3	1,200 yd^3
In-Situ Thermal ($60-415/$yd^3$)[3]	$(1,800 -12,450)K	$(120 - 830)K	$(102 -705)K	$(96 - 664)K	$(72 - 498)K	$(72 - 498)K
Excavation & Off-Site Disposal ($225/ yd^3)	$6,750K	$450K	$382K	$360K	$270K	$270K
In-Situ Oxidation ($62-86 /$yd^3$)[2]	$(1,860 - 2,580)K	$(124 - 172)K	$(105 - 146)K	$(99 -137)K	$(74 - 103)K	$(74 - 103)K
On-Site Landfarming ($55 /$yd^3$)	$2,035K	$160K	$126K	$121K	$96K	$96K
In-Situ Bioremediation ($18-38 /$yd^3$)[1]	$(540 -1,140)K	$(36 - 76)K	$(30 - 64)K	$(28 - 60)K	$(21 - 45)K	$(21 - 45)K
In-Situ Bioventing ($15-23 /$yd^3$)[1]	$(450 - 690)K	$(30 - 46)K	$(25 - 39)K	$(24 -36)K	$(18 - 27)K	$(18 - 27)K
Monitored Natural Attenuation	$150K	$75K	$75K	$50K	$50K	$50K
Surface Grading/Isolation	$7K	$5K	$5K	$3K	$3K	$3K

1. Los Alamos National Laboratory, (1996), A Compendium of Cost Data for Environmental Remediation Technologies, LA-UR-96-2205.
2. Interstate Technology & Regulatory Council, (2005), Technical and Regulatory Guidance for In Situ Chemical Oxidation of Contaminated Soil and Groundwater, In Situ Chemical Oxidation Team, 2nd ed.
3. Khan, F. I., Husain, T., and Hejazi, R., (2004), An overview and analysis of site remediation technologies, Journal of Environmental Management, 71, p. 95-122.

*Values adjusted for inflation

Table 8.1

Regulatory Program Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Regulatory Program					New Mexico			Louisiana			Texas		Federal	
Boring Number	Sample ID	Depth (feet bgs)	Sample Date	TPH	[1]OCD 1993 Spill Guide	[2]OCD Pit Rules	[3]NMED 2014 Risk Assessment	RECAP		[6]LDNR 29-B	[7]TRRP	[8]RRC Rule 8, 91	EPA Reg. 6 Screening Standards	
				mg/kg				[5]Soil_Ssi	[4]MO-1		[Tot]Soil$_{Comb}$		[9]THQ=1	[10]THQ=0.1
B-1	S-086010-080614-JW-B-1-5	5	8/6/2014	**2650**	B	B,T	ü	G,D	ü	ü	ü	ü	D	G, D
		10	8/6/2014	–	–	–	–	–	–	–	–	–	–	–
		15	8/6/2014	–	–	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-1-20	20	8/6/2014	**41**	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-080614-JW-B-1-25	25	8/6/2014	–	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
B-2	S-086010-080614-JW-B-2-5	5	8/6/2014	**3391**	ü	T	ü	D	ü	ü	ü	ü	D	G, D
		10	8/6/2014	–	–	–	–	–	–	–	–	–	–	–
		15	8/6/2014	–	–	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-2-20	20	8/6/2014	**125.2**	ü	ü	ü	ü	ü	ü	ü	ü	ü	D
	S-086010-080614-JW-B-2-25	25	8/6/2014	–	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
B-3		5	8/6/2014	–	–	–	–	–	–	–	–	–	–	–
		10	8/6/2014	–	–	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-3-15	15	8/6/2014	**301.8**	ü	ü	ü	ü	ü	ü	ü	ü	ü	D
	S-086010-080614-JW-B-3-20	20	8/6/2014	< 21.3	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-080614-JW-B-3-25	25	8/6/2014	–	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
B-4		5	8/6/2014	–	–	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-4-10	10	8/6/2014	**256**	ü	ü	ü	ü	ü	ü	ü	ü	ü	D
		15	8/6/2014	–	–	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-4-20	20	8/6/2014	–	–	–	–	–	–	–	–	–	–	–
	S-086010-080614-JW-B-4-25	25	8/6/2014	< 24.1	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
B-5		5	8/7/2014	–	–	–	–	–	–	–	–	–	–	–
		10	8/7/2014	–	–	–	–	–	–	–	–	–	–	–
	S-086010-080714-CB-B-5-15	15	8/7/2014	**1246**	ü	T	ü	D	ü	ü	ü	ü	D	D
		20	8/7/2014	–	–	–	–	–	–	–	–	–	–	–
	S-086010-080714-CB-B-5-25	25	8/7/2014	–	–	–	–	–	–	–	–	–	–	–
	S-086010-080714-CB-B-5-30	30	8/7/2014	**10.7**	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü

Table 8.1

Regulatory Program Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Regulatory Program					New Mexico			Louisiana			Texas		Federal	
Boring Number	Sample ID	Depth (feet bgs)	Sample Date	TPH mg/kg	[1]OCD 1993 Spill Guide	[2]OCD Pit Rules	[3]NMED 2014 Risk Assessment	RECAP [5]Soil_Ssi	RECAP [4]MO-1	[6]LDNR 29-B	[7]TRRP $^{Tot}Soil_{Comb}$	[8]RRC Rule 8, 91	EPA Reg. 6 Screening Standards [9]THQ=1	EPA Reg. 6 Screening Standards [10]THQ=0.1
B-6	S-086010-021915-JW-B6-5	5	2/19/2015	< 21.3	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B6-10	10	2/19/2015	< 22.4	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B6-15	15	2/19/2015	< 22.6	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B6-20	20	2/19/2015	< 21.2	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B6-25	25	2/19/2015	< 20.9	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
B-7	S-086010-022015-JW-B7-5	5	2/20/2015	< 21.2	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-022015-JW-B7-10	10	2/20/2015	< 22.1	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-022015-JW-B7-15	15	2/20/2015	< 21.6	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-022015-JW-B7-20	20	2/20/2015	< 21.3	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-022015-JW-B7-25	25	2/20/2015	< 21.2	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
B-8	S-086010-021915-JW-B8-5	5	2/19/2015	**126**	ü	ü	ü	ü	ü	ü	ü	ü	ü	D
	S-086010-021915-JW-B8-10	10	2/19/2015	**116**	ü	ü	ü	ü	ü	ü	ü	ü	ü	D
	S-086010-021915-JW-B8-15	15	2/19/2015	**252.1**	ü	ü	ü	ü	ü	ü	ü	ü	ü	D
	S-086010-021915-JW-B8-20	20	2/19/2015	< 21.4	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B8-25	25	2/19/2015	< 20.7	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
B-9	S-086010-022015-JW-B9-5	5	2/20/2015	< 21.4	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-022015-JW-B9-10	10	2/20/2015	**22430**	T	G+D, T	T	G,D	D	T	G, D, T	T	G, D	G, D
	S-086010-022015-JW-B9-15	15	2/20/2015	**1250**	ü	G+D	ü	G	ü	ü	ü	ü	D	G, D
	S-086010-022015-JW-B9-20	20	2/20/2015	**67.6**	ü	ü	ü	ü	ü	ü	ü	ü	ü	D
	S-086010-022015-JW-B9-25	25	2/20/2015	< 20.8	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
B-10	S-086010-021915-JW-B10-5	5	2/19/2015	**7500**	T	G+D, T	T	G, D	ü	ü	G, T	ü	G, D	G, D
	S-086010-021915-JW-B10-10	10	2/19/2015	**1013.6**	T	G+D, T	ü	ü	ü	ü	ü	ü	D	D
	S-086010-021915-JW-B10-15	15	2/19/2015	< 21.0	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B10-20	20	2/19/2015	< 21.0	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B10-25	25	2/19/2015	< 20.5	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
B-11	S-086010-021915-JW-B11-5	5	2/19/2015	< 22.4	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B11-10	10	2/19/2015	**380**	ü	ü	ü	ü	ü	ü	ü	ü	ü	D
	S-086010-021915-JW-B11-15	15	2/19/2015	< 21.2	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B11-20	20	2/19/2015	< 20.9	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B11-24	24	2/19/2015	< 20.4	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü

Table 8.1

Regulatory Program Summary
SJ 27-5 #69
Rio Arriba County, New Mexico

Regulatory Program					New Mexico			Louisiana			Texas		Federal	
Boring Number	Sample ID	Depth (feet bgs)	Sample Date	TPH	[1]OCD 1993 Spill Guide	[2]OCD Pit Rules	[3]NMED 2014 Risk Assessment	RECAP		[6]LDNR 29-B	[7]TRRP	[8]RRC Rule 8, 91	EPA Reg. 6 Screening Standards	
				mg/kg				[5]Soil_Ssi	[4]MO-1		$^{Tot}Soil_{Comb}$		[9]THQ=1	[10]THQ=0.1
B-12	S-086010-021915-JW-B12-5	5	2/19/2015	< 21.9	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B12-10	10	2/19/2015	< 21.9	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B12-15	15	2/19/2015	< 22.0	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B12-20	20	2/19/2015	< 20.6	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021915-JW-B12-23	23	2/19/2015	< 20.6	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
B-13	S-086010-021815-JW-B13-5	5	2/18/2015	< 20.8	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021815-JW-B13-10	10	2/18/2015	< 22.5	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021815-JW-B13-15	15	2/18/2015	< 22.4	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021815-JW-B13-20	20	2/18/2015	**89.4**	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021815-JW-B13-25	25	2/18/2015	< 21.4	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021815-JW-B13-30	30	2/18/2015	< 20.7	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
B-14	S-086010-021815-JW-B14-5	5	2/18/2015	**74.4**	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021815-JW-B14-10	10	2/18/2015	**447.6**	ü	ü	ü	ü	ü	ü	ü	ü	ü	D
	S-086010-021815-JW-B14-15	15	2/18/2015	**40.5**	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021815-JW-B14-20	20	2/18/2015	< 21.2	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021815-JW-B14-25	25	2/18/2015	**298.9**	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021815-JW-B14-30	30	2/18/2015	**12.3**	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021815-JW-B14-35	35	2/18/2015	< 21.0	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
B-15	S-086010-021815-JW-B15-10	10	2/18/2015	**45.7**	ü	ü	ü	ü	ü	ü	ü	ü	ü	D
	S-086010-021815-JW-B15-15	15	2/18/2015	**224**	ü	ü	ü	ü	ü	ü	ü	ü	ü	D
	S-086010-021815-JW-B15-20	20	2/18/2015	< 21.4	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü
	S-086010-021815-JW-B15-25	25	2/18/2015	< 21.1	ü	ü	ü	ü	ü	ü	ü	ü	ü	ü

Notes:

B	BTEX
G	GRO
D	DRO
T	Total TPH
–	Not Sampled
ü	Below Regulatory Limit

Regulatory Limits:

1. NMOCD 1993 Guidelines for Remediation of Leaks, Spills, and Releases (Total Ranking Score = 0).
2. NMOCD 2013 Order No. R-13506-D (Pit Rule) where groundwater is >100 ft. deep.
3. NMED 2014 Risk Assessment Guidance for Site Investigations and Remediation for Industrial/Occupational Exposure (Soili).
4. Louisiana Department of Environmental Quality RECAP 2014 MO-1 Management Option Soil Standards for Industrial Land use.
5. Louisiana Department of Environmental Quality RECAP 2014 Screening Option Soil Standards for Industrial Land use (Soil_Ssi).
6. The Louisiana Department of Natural Resources (LDNR) Statewide Order No. 29-B.
7. TRRP Protective Concentration Levels (PCLs) for soil ($^{Tot}Soil_{Comb}$).
8. Texas Railroad Commission Statewide Rules 8 and 91.
9. EPA Regulation 6 Screening Level Risk Assessment Table (master_sl_table_run_JUNE2015_rev.xls; THQ = 1).
10. EPA Regulation 6 Screening Level Risk Assessment Table (master_sl_table_run_JUNE2015_rev.xls; THQ = 0.1).

Appendix A
Groundwater Data

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
SJ 04031 POD1		RA	4	4	2	12	27N	06W	284287	4052043	1572	515	224	291
SJ 00046		RA		4	4	04	27N	05W	289133	4052788*	3336	506	260	246
SJ 00036		RA			3	28	28N	05W	288156	4056298*	4545	303	243	60
SJ 00199		SJ		1	2	03	27N	05W	290409	4053971*	4851	1840		
SJ 00047		RA				28	28N	05W	288558	4056700*	5099	465	265	200
SJ 00200		SJ		3	3	23	28N	06W	281564	4057870*	6930	1551		
SJ 04033 POD1		RA	1	2	2	27	28N	06W	281041	4057564	7036	430	179	251
SJ 03943 POD1		RA	2	2	2	23	28N	06W	282986	4058977	7162	435	230	205
SJ 01893		RA			4	18	28N	05W	285827	4059576*	7177	390	290	100
SJ 03675		RA	4	3	4	14	28N	06W	282528	4059346	7687	420	100	320
SG 81026		RA	3	4	4	27	27N	05W	290530	4046294*	7711	460	186	274

Average Depth to Water: **219 feet**

Minimum Depth: **100 feet**

Maximum Depth: **290 feet**

Record Count: 11

UTMNAD83 Radius Search (in meters):

Easting (X): 285819 **Northing (Y):** 4052399 **Radius:** 8046.7

TM location was derived from PLSS - see Help

Appendix B
Precipitation Data

Appendix B

Precipitation

Precipitation data, including rainfall and snowfall, for the last 15 years for four locations surrounding the San Juan, New Mexico Site were obtained from www.usclimatedata.com. The four locations include Bloomfield, Dulce, Lindrith, and Nageezi, New Mexico.

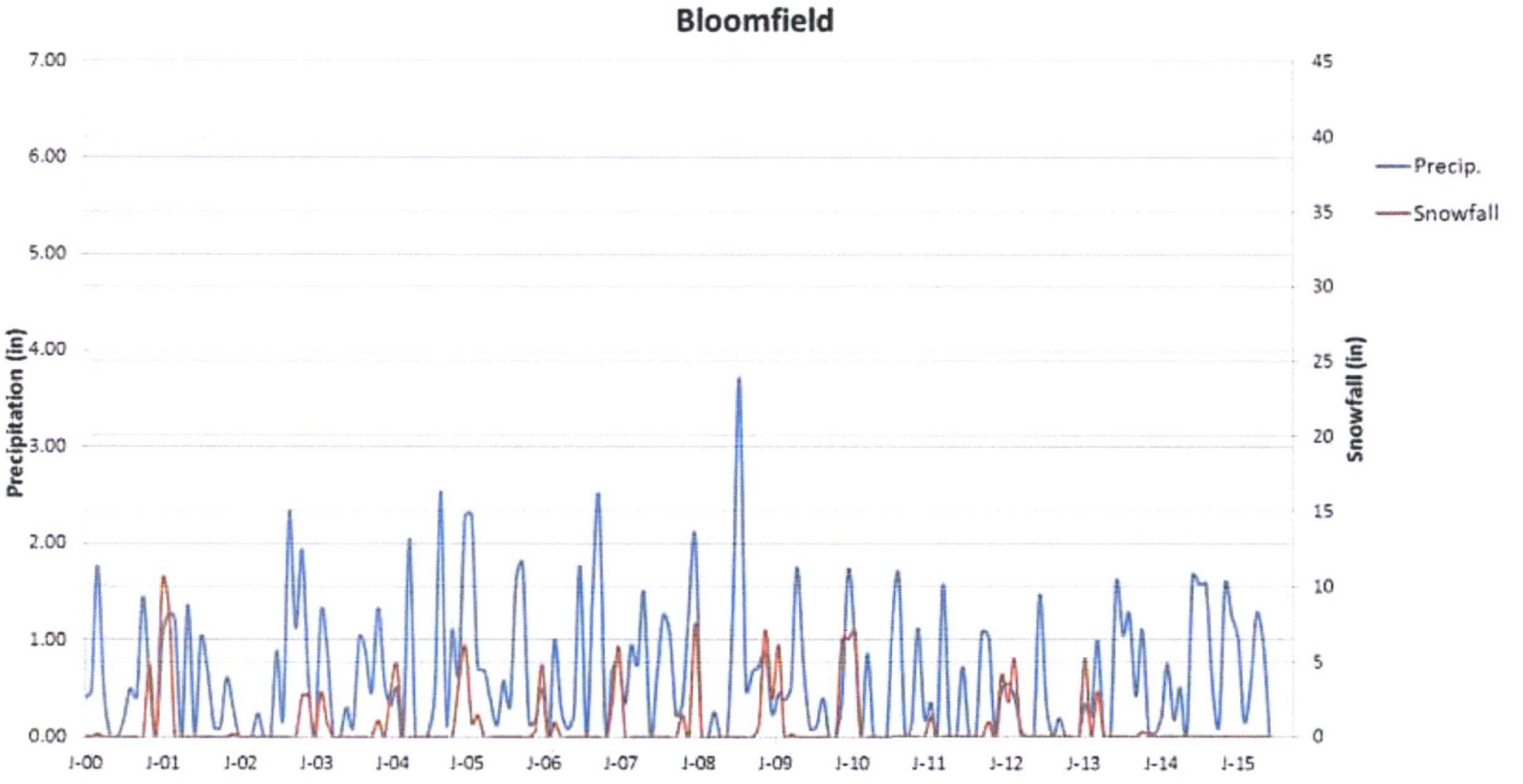


Figure B.1 Bloomfield Precipitation

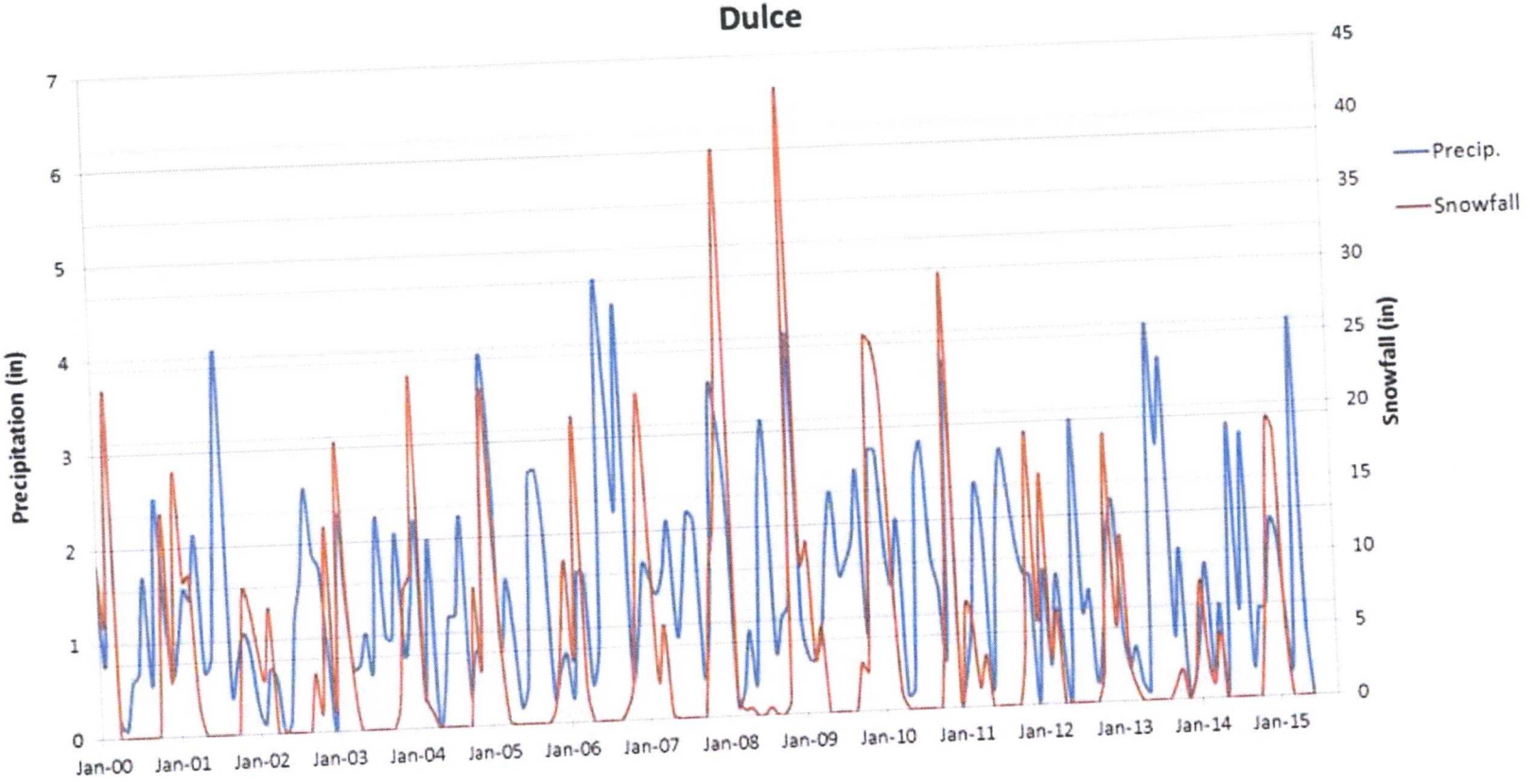


Figure B.2 **Dulce Precipitation**

086010 (2)

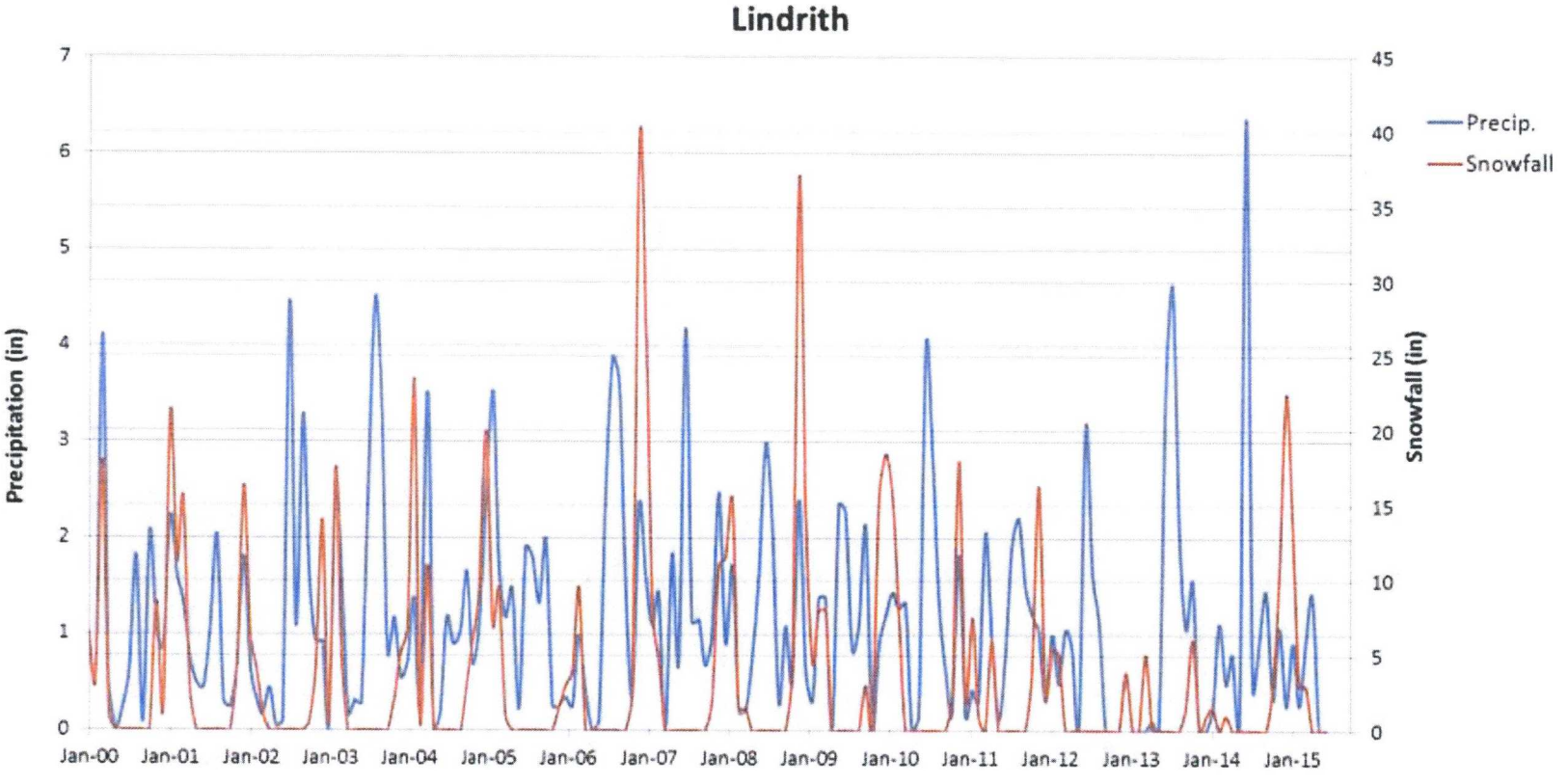


Figure B.3 Lindrith Precipitation

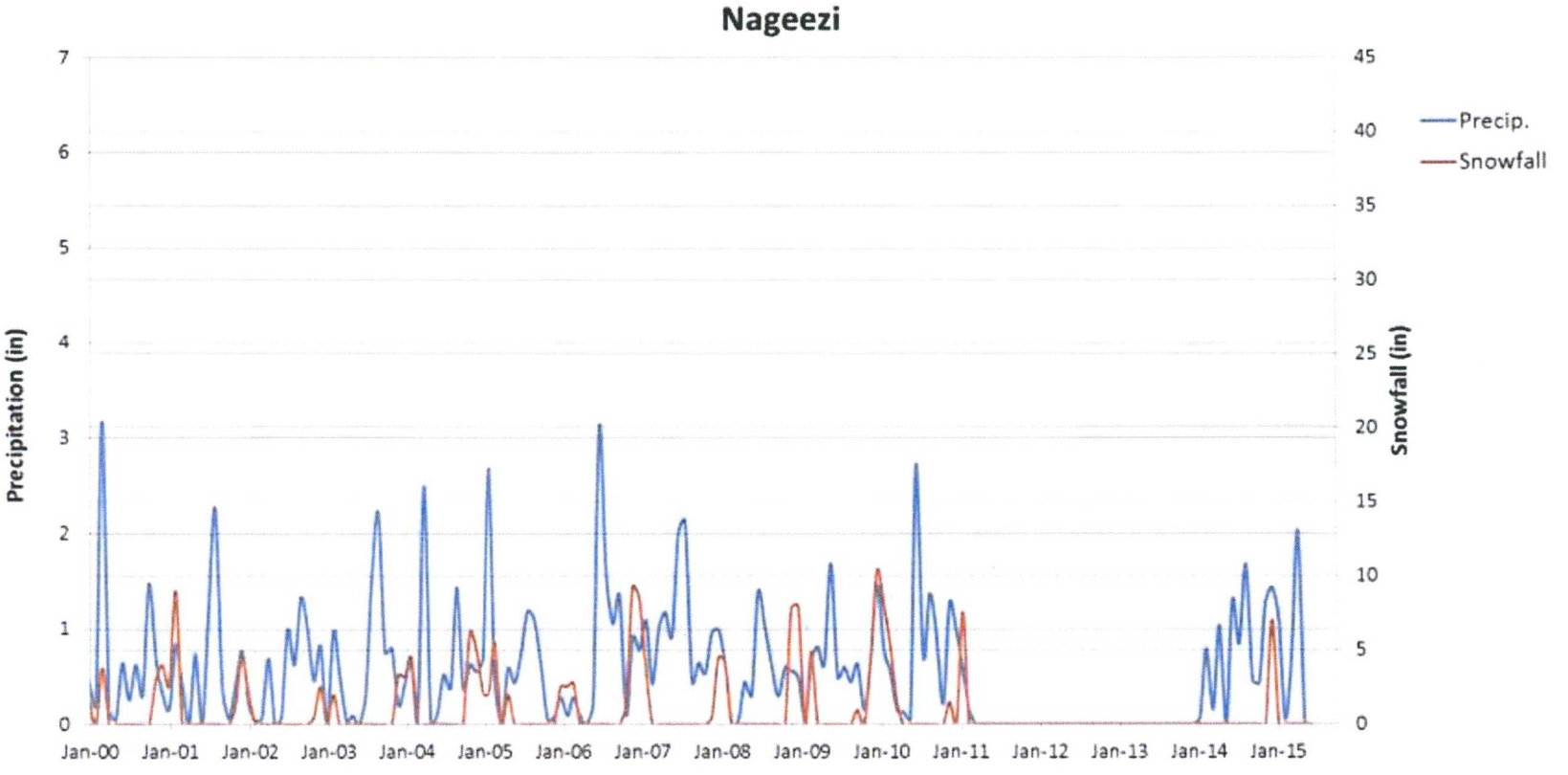


Figure B.4 Nageezi Precipitation

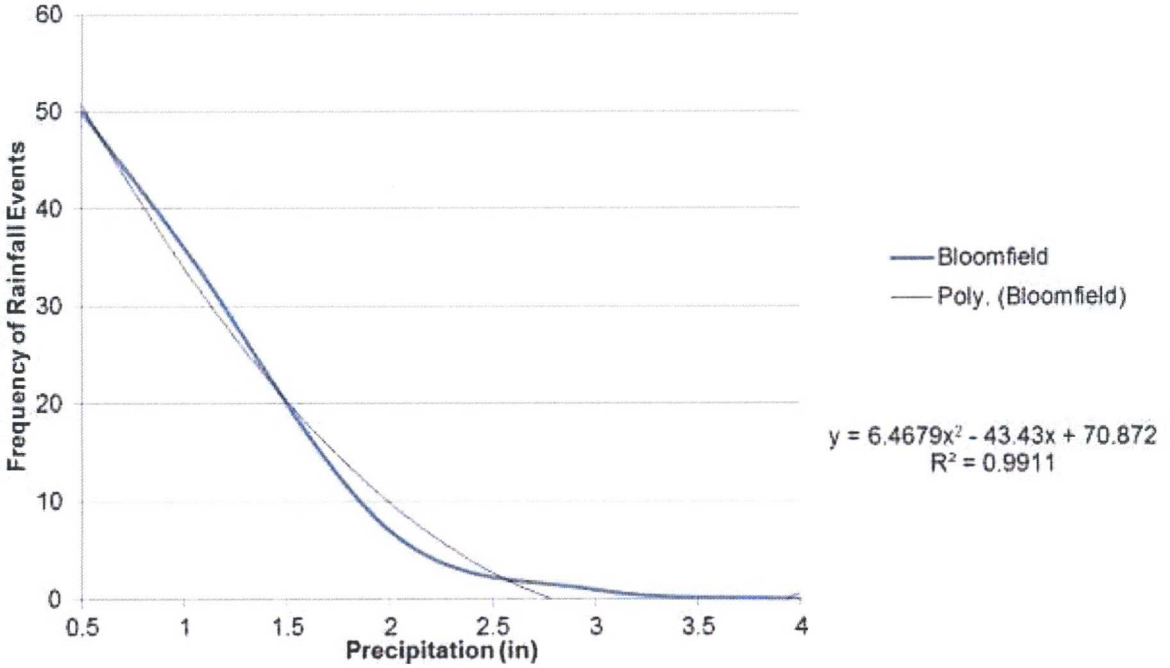


Figure B.5 Bloomfield Rainfall Event Frequency (15 Year Period)

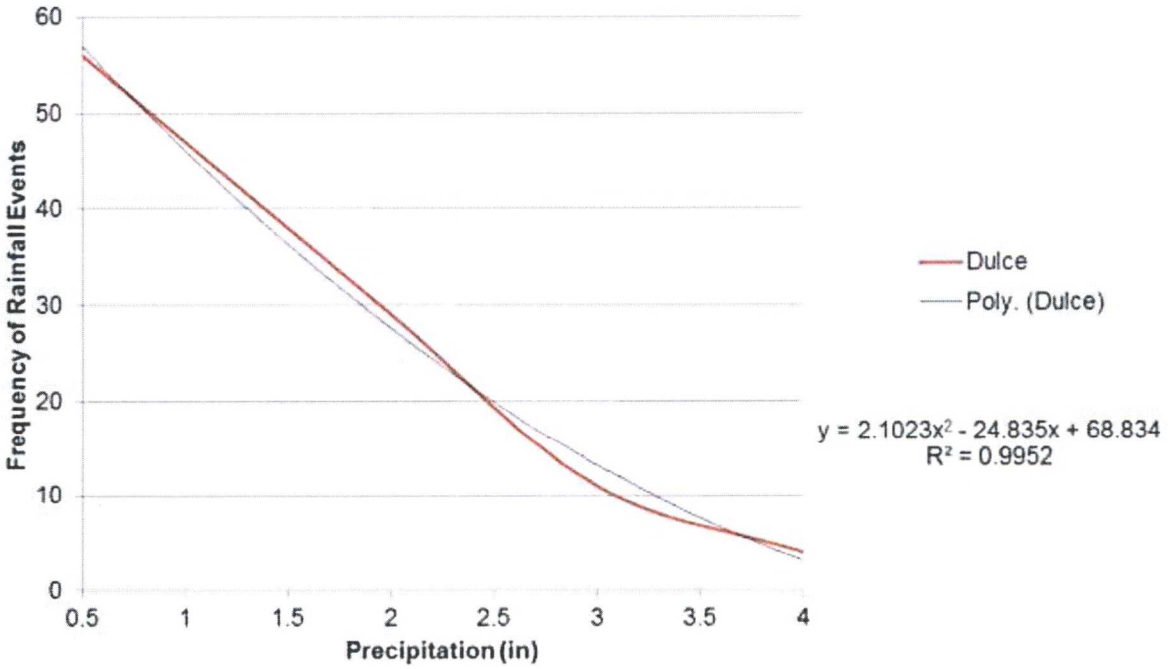


Figure B.6 Dulce Rainfall Event Frequency (15 Year Period)

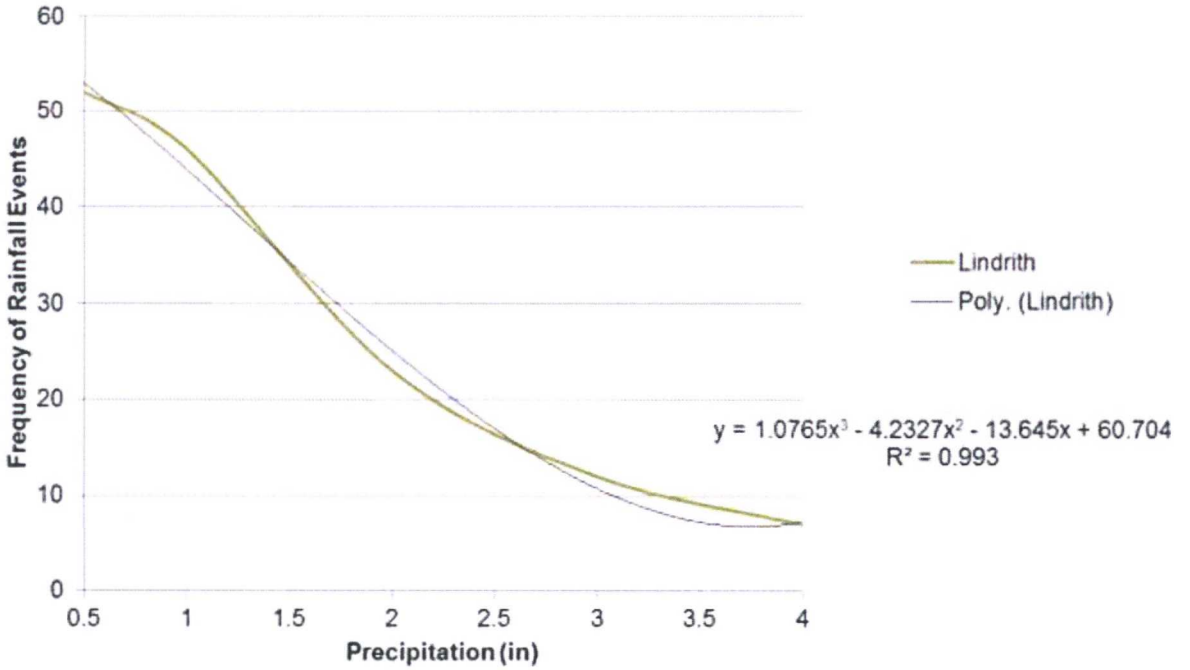


Figure B.7 Lindrith Rainfall Event Frequency (15 Year Period)

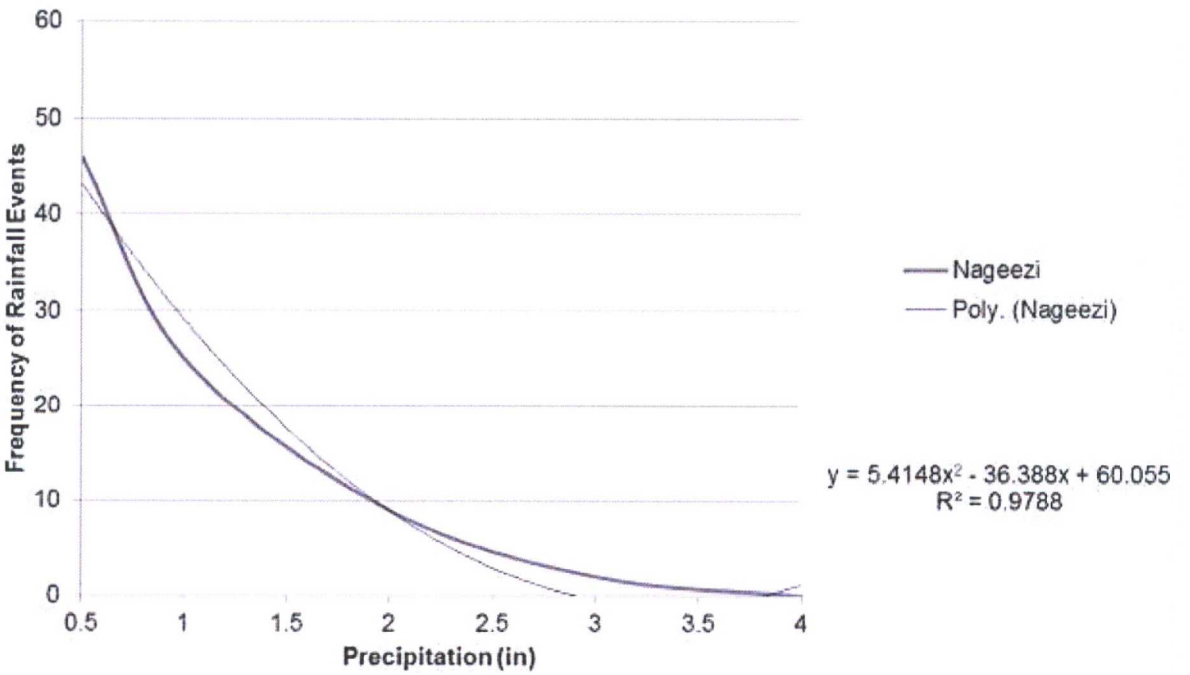


Figure B.8 Nageezi Rainfall Event Frequency (15 Year Period)

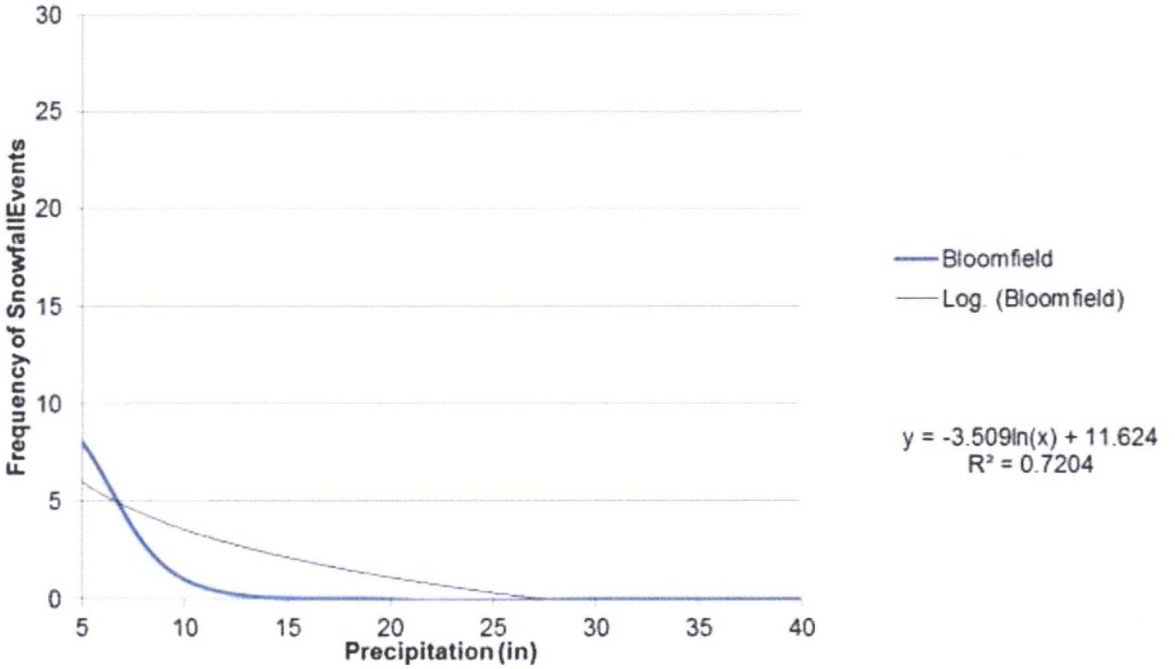


Figure B.9 Bloomfield Snowfall Event Frequency (15 Year Period)

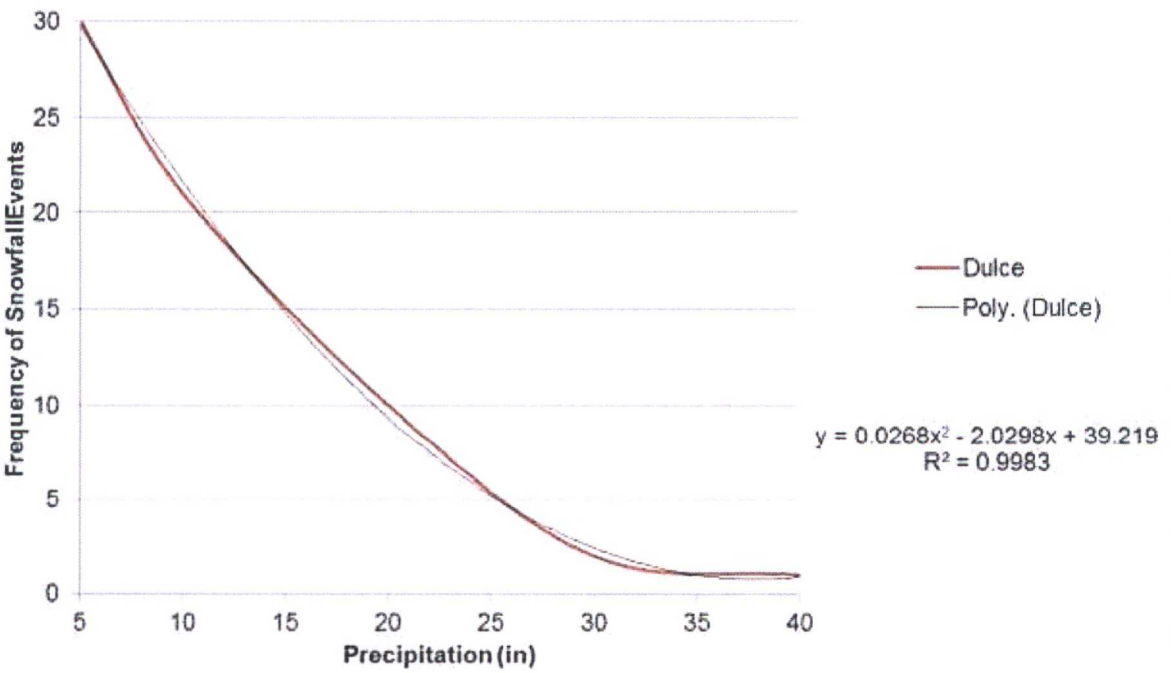


Figure B.10 Dulce Snowfall Event Frequency (15 Year Period)

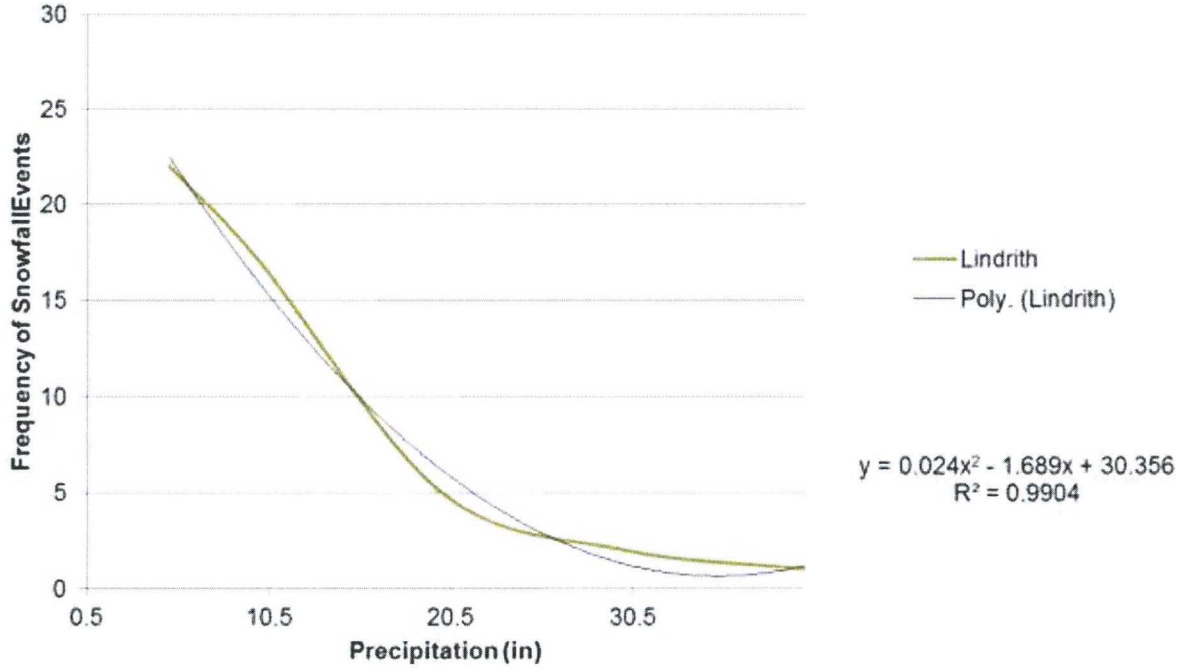


Figure B.11 Lindrith Snowfall Event Frequency (15 Year Period)

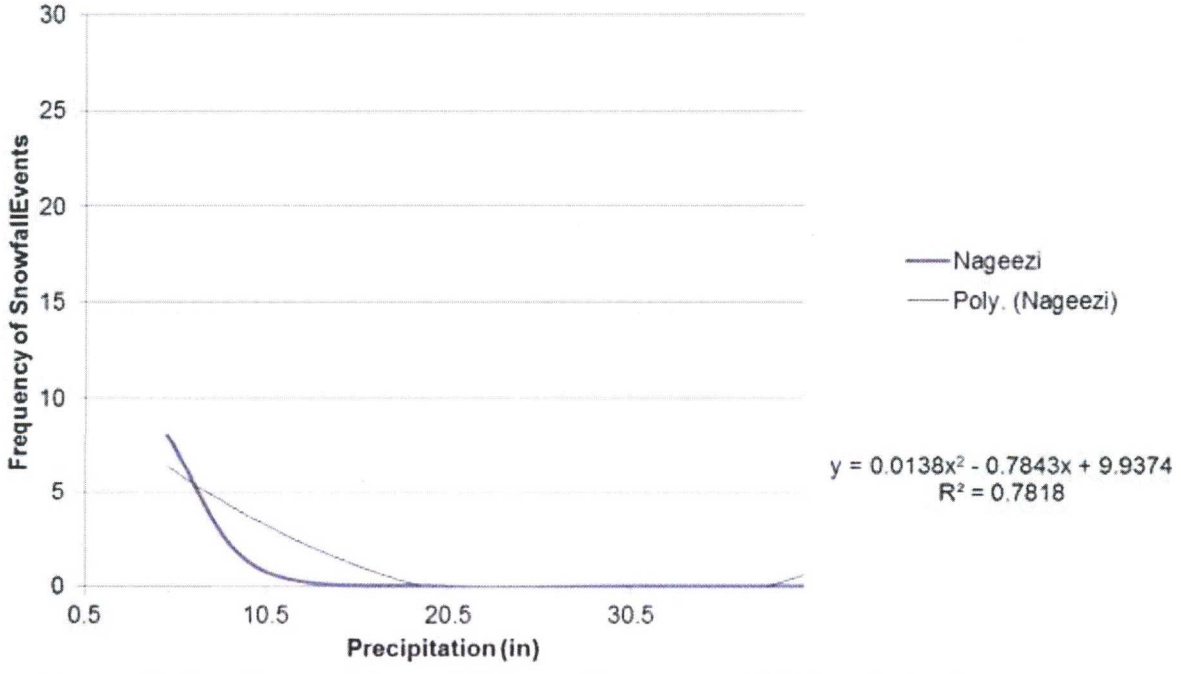


Figure B.12 Nageezi Snowfall Event Frequency (15 Year Period)

Appendix C
Evaporation Data

Appendix C

Table C.1 New Mexico Monthly Average Pan Evaporation (Inches)

	Navajo Dam	Florida	El Vado Dam	Farmington (Agri. College)	Abiquiu Dam	Shiprock	Cochiti Dam	Laguna
Dist. (mi)	19 NW	34 NW	37 E	47 W,NW	60 SE	72 W,NW	92 SE	100 S
Period of Record	1963-2005	1939-1992	1923-2005	1957-2005	1957-2005	1926-2005	1975-2005	1914-2005
Jan	0.00	3.54	0.00	3.01	0.00	0.00	0.00	0.00
Feb	0.00	4.18	0.00	4.00	0.00	0.00	4.14	0.00
Mar	0.00	8.10	3.61	7.89	6.06	0.00	6.44	0.00
April	6.58	10.94	5.43	10.2	7.43	7.48	8.48	8.47
May	9.10	13.03	7.46	8.65	9.95	10.57	11.07	9.33
June	11.07	14.80	8.84	13.99	11.39	14.44	12.95	11.98
July	11.24	11.24	11.84	8.52	10.52	13.17	12.38	10.76
Aug	9.66	9.66	10.10	6.91	9.90	10.80	10.62	8.88
Sept	7.22	7.22	8.51	5.66	7.23	9.80	8.91	6.83
Oct	4.74	4.47	6.58	3.84	5.30	6.54	6.29	5.00
Nov	0.00	0.00	4.57	1.72	3.13	0.00	3.94	1.98
Dec	0.00	0.00	3.11	0.00	2.22	0.00	2.79	0.00
Total	59.61	59.61	99.93	51.99	72.13	73.16	88.01	63.23

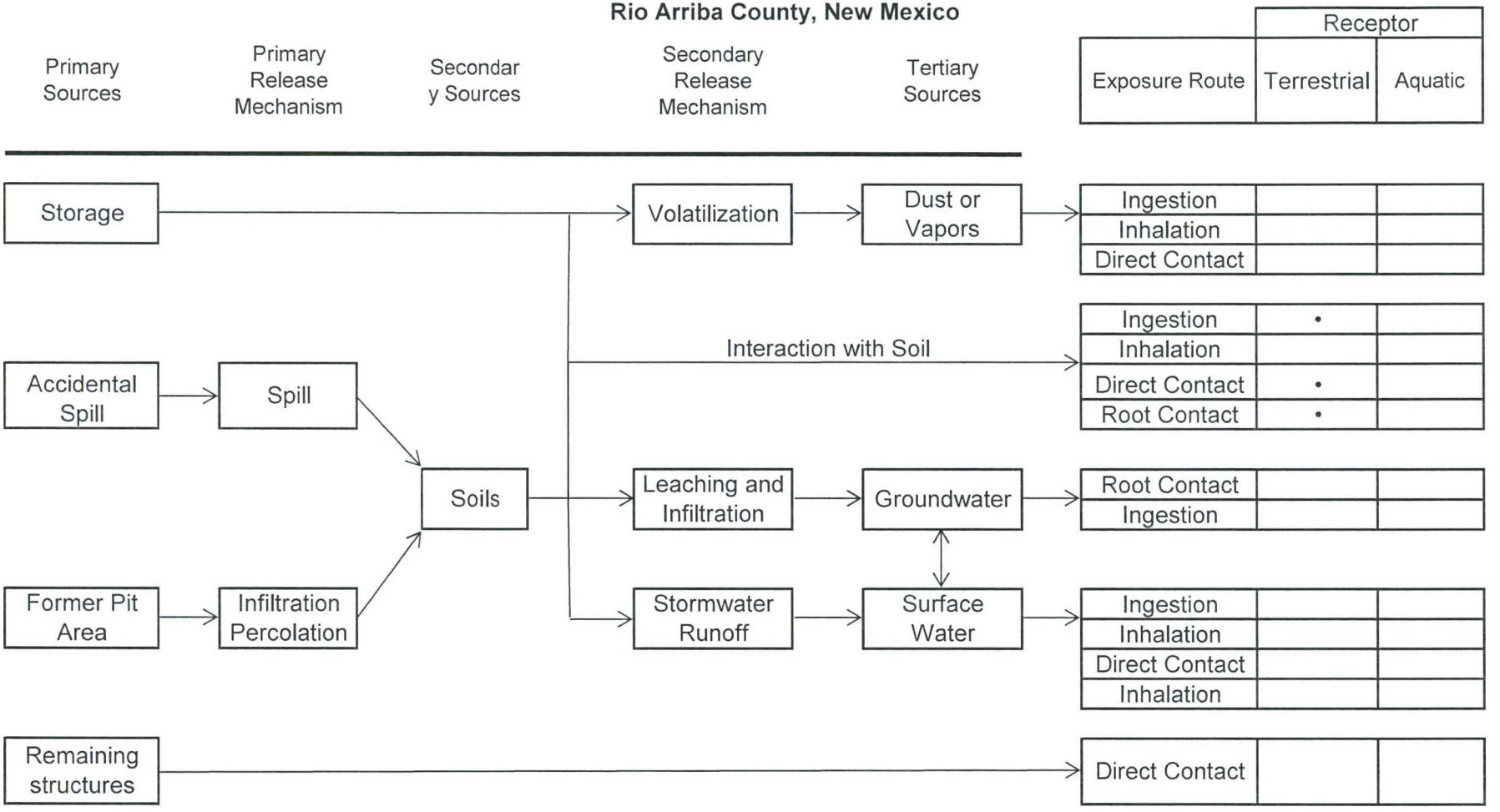
NEW MEXICO

MONTHLY AVERAGE PAN EVAPORATION (INCHES)

	PERIOD OF RECORD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
ABIQUIU DAM	1957-2005	0.00	0.00	6.06	7.43	9.95	11.39	10.52	8.90	7.23	5.30	3.13	2.22	72.13
AGRICULTURAL COLLEGE	1892-1959	3.01	4.00	7.89	10.20	8.65	13.99	12.33	11.16	8.31	6.28	4.35	2.89	93.06
ALAMOGORDO DAM	1939-1975	3.73	4.35	8.21	11.30	12.88	14.43	13.66	11.59	9.17	7.19	4.89	3.46	104.86
ANIMAS	1923-2005	3.87	4.91	8.29	10.78	12.36	14.25	11.60	11.07	8.54	6.71	4.69	3.61	100.68
ARTESIA 6 S	1914-2005	4.38	3.03	7.25	7.66	12.11	13.13	10.86	10.44	9.36	6.34	3.12	0.00	87.68
BITTER LAKES WL REFUGE	1950-2005	2.67	3.93	6.82	9.60	11.31	12.62	11.88	10.16	8.02	5.85	3.53	2.50	88.89
BOSQUE DEL APACHE	1914-2005	3.21	4.20	7.76	10.20	11.61	13.13	11.56	10.36	8.03	6.25	3.66	2.54	92.51
BRANTLEY DAM	1987-2005	4.65	0.00	8.62	11.77	14.61	15.46	14.19	12.22	9.88	7.97	5.77	4.34	109.48
CABALLO DAM	1938-2005	4.42	5.10	8.56	11.37	13.59	14.80	13.08	11.35	9.26	7.27	4.78	3.48	107.06
CAPULIN NATL MONUMENT	1966-1979	0.00	0.00	0.00	0.00	9.08	10.57	9.71	9.18	7.65	0.00	0.00	0.00	46.19
CLOVIS 13 N	1929-2005	3.83	4.12	6.63	8.72	10.15	11.45	11.65	9.55	7.64	5.78	3.95	3.21	86.68
COCHITI DAM	1975-2005	0.00	4.14	6.44	8.48	11.07	12.95	12.38	10.62	8.91	6.29	3.94	2.79	88.01
CONCHAS DAM	1938-2005	0.00	0.00	7.35	8.88	10.29	11.69	11.37	10.06	8.24	6.18	4.04	2.79	80.89
EAGLE NEST	1937-2005	0.00	0.00	0.00	4.91	7.67	7.83	7.07	5.87	5.30	4.31	0.00	0.00	42.96
EL VADO DAM	1923-2005	0.00	0.00	3.61	5.43	7.46	8.84	8.52	6.91	5.66	3.84	1.72	0.00	51.99
ELEPHANT BUTTE DAM	1917-2005	3.47	4.87	8.61	12.22	14.94	16.37	14.15	12.05	9.78	7.70	4.91	3.34	112.41
ESTANCIA	1914-2005	0.00	0.00	3.26	6.79	8.56	9.27	8.61	7.10	5.60	3.82	2.62	0.00	55.63
FARMINGTON AG SCIENCE C	1978-2005	0.00	0.00	0.00	7.97	10.06	12.00	12.52	10.70	8.15	5.41	0.00	0.00	66.81
FLORIDA	1939-1992	3.54	4.81	8.10	10.94	13.03	14.80	11.84	10.10	8.51	6.58	4.57	3.11	99.93
GALLUP RANGER STN	1966-1975	0.00	0.00	0.00	6.61	9.31	12.12	10.50	8.70	7.95	5.07	2.20	0.00	62.46
JEMEZ DAM	1953-2005	0.00	0.00	0.00	9.91	12.27	13.95	14.29	11.45	9.80	6.72	3.65	0.00	82.04
JORNADA EXP RANGE	1925-2005	2.50	4.18	7.24	10.06	11.94	12.85	10.88	9.53	7.82	5.71	3.61	2.50	88.82
LAGUNA	1914-2005	0.00	0.00	0.00	8.47	9.33	11.98	10.76	8.88	6.83	5.00	1.98	0.00	63.23
LAKE AVALON	1914-1979	4.49	5.33	9.42	12.36	14.31	15.16	14.14	12.33	9.25	7.26	4.68	4.20	112.93
LAKE MC MILLAN	1941-1949	0.00	0.00	0.00	13.78	8.14	14.26	13.38	13.45	10.35	6.15	0.00	0.00	79.51
LOS LUNAS 3 SSW	1923-2005	1.87	2.81	5.27	7.77	9.74	10.49	10.06	8.67	6.58	4.64	2.75	2.45	73.10
NARROWS	1948-1964	3.09	5.67	7.62	11.07	13.37	15.44	13.07	11.42	9.97	7.20	4.32	2.64	104.88
NAVAJO DAM	1963-2005	0.00	0.00	0.00	6.58	9.10	11.07	11.24	9.66	7.22	4.74	0.00	0.00	59.61
PORTALES 7 WNW	1934-1960	3.26	4.57	8.24	8.85	10.72	12.16	10.44	9.28	7.95	5.98	4.15	3.53	89.13
HOOD RANGER STN	1954-2005	0.00	0.00	0.00	7.84	9.02	10.81	8.25	6.87	6.12	5.14	2.65	0.00	56.70
ROSWELL WSO AIRPORT	1893-1972	0.00	0.00	0.00	11.29	0.00	15.87	12.11	12.63	7.92	6.97	4.66	4.51	75.96
SANTA FE	1867-1972	0.00	0.00	3.00	7.28	8.73	10.93	9.95	8.26	7.15	5.10	2.50	0.00	62.90
SANTA FE 2	1972-2005	0.00	0.00	0.00	7.10	9.76	11.31	10.36	9.20	7.41	5.08	0.00	0.00	60.22
SHIPROCK	1926-2005	0.00	0.00	0.00	7.84	10.57	14.44	13.17	10.80	9.80	6.54	0.00	0.00	73.16
SOCORRO	1914-2005	0.00	0.00	4.83	7.09	9.17	9.35	8.56	7.57	5.73	4.14	0.00	0.00	56.44
STATE UNIVERSITY	1959-2005	3.00	4.33	7.40	9.90	12.03	12.91	12.05	10.34	8.14	6.17	3.85	2.79	92.91
SUMNER LAKE	1921-2005	0.00	0.00	7.33	10.22	12.35	13.54	13.36	11.16	9.02	6.97	4.92	3.17	92.04
TUCUMCARI 4 NE	1904-2005	0.00	0.00	0.00	9.83	11.53	13.11	13.00	11.13	8.96	6.74	0.00	0.00	74.30
UTE DAM	1965-2005	4.38	4.91	7.53	8.78	10.75	10.49	10.92	9.42	7.56	6.68	4.98	3.04	89.44

Appendix D
NMED Ecological Site Assessment

Preliminary Conceptual Site Exposure Model
San Juan 27-5 No. 69 Well Site
Rio Arriba County, New Mexico



ATTACHMENT A
SCREENING-LEVEL ECOLOGICAL RISK ASSESSMENT
SCOPING ASSESSMENT
SITE ASSESSMENT CHECKLIST

INTRODUCTION

This checklist has been developed as a tool for gathering information about the facility property and surrounding areas, as part of the scoping assessment. Specifically, the checklist assists in the compilation of information on the physical and biological aspects of the site including the site environmental setting, usage of the site, releases at the site, contaminant fate and transport mechanisms, and the area's habitats, receptors, and exposure pathways. The completed checklist can then be used to construct the preliminary conceptual site exposure model (PCSEM) for the site. In addition, the checklist and PCSEM will serve as the basis for the scoping assessment report. Section III of this document provides further information on using the completed checklist to develop the PCSEM.

In general, the checklist is designed for applicability to all sites; however, there may be unusual circumstances which require professional judgment in order to determine the need for further ecological evaluation (*e.g.,* cave-dwelling receptors). In addition, some of the questions in the checklist may not be relevant to all sites. Some facilities may have large amounts of data available regarding contaminant concentrations and hydrogeologic conditions at the site, while other may have only limited data. In either case, the questions on the checklist should be addressed as completely as possible with the information available.

Habitats and receptors, which may be present at the site, can be identified by direct or indirect[36] observations and by contacting local and regional natural resource agencies. Habitat types may be determined by reviewing land use and land cover maps (LULC), which are available via the Internet at http://www.nationalatlas.gov/mapit.html. With regard to receptors, it should be noted that receptors are often present at a site even when they are not observed. Therefore, for the purposes of this checklist, it should be assumed that receptors are present if viable habitat is present. The presence of receptors should be confirmed by contacting one or several of the organizations listed below.

Sources of general information available for the identification of ecological receptors and habitats include:

- U.S. Fish and Wildlife Service (http://www.fws.gov)
- Biota Information System of New Mexico (BISON-M) maintained by the New Mexico Department of Game and Fish (NMGF) (http://151.199.74.229/states/nm.htm)
- U.S. Forest Service (USFS) (http://www.fs.fed.us/)
- New Mexico Forestry Division (NMFD) of the Energy, Minerals and Natural Resources Department (http://www.emnrd.state.nm.us/forestry/index.htm)
- U.S. Bureau of Land Management (USBLM) (http://www.blm.gov/nhp/index.htm) or (http://www.nm.blm.gov/www/new_home_2.html)
- United States Geological Service (USGS) (http://www.usgs.gov)

---

36 Examples of indirect observations that indicate the presence of receptors include: tracks, feathers, burrows, scat

- National Wetland Inventory Maps (http://wetlands.fws.gov)
- National Audubon Society (http://www.audobon.com)
- National Biological Information Infrastructure (http://biology.usgs.gov)
- Sierra Club (http://www.sierraclub.org)
- National Geographic Society (http://www.nationalgeographic.com)
- New Mexico Natural Heritage Program (http://nmnhp.unm.edu/)
- State and National Parks System
- Local universities
- Tribal organizations

INSTRUCTIONS FOR COMPLETING THE CHECKLIST

The checklist consists of four sections: Site Location, Site Characterization, Habitat Evaluation, and Exposure Pathway Evaluation. Answers to the checklist should reflect existing conditions and should not consider future remedial actions at the site. Completion of the checklist should provide sufficient information for the preparation of a PCSEM and scoping report and allow for the identification of any data gaps.

Section I - Site Location, provides general site information, which identifies the facility being evaluated, and gives specific location information. Site maps and diagrams, which should be attached to the completed checklist, are an important part of this section. The following elements should be clearly illustrated: 1) the location and boundaries of the site relative to the surrounding area, 2) any buildings, structures or important features of the facility or site, and 3) all ecological areas or habitats identified during completion of the checklist. It is possible that several maps will be needed to clearly and adequately illustrate the required elements. Although topographical information should be illustrated on at least one map, it is not required for every map. Simplified diagrams (preferably to scale) of the site and surrounding areas will usually suffice.

Section II - Site Characterization, is intended to provide additional temporal and contextual information about the site, which may have an impact on determining whether a certain area should be characterized as ecologically viable habitat or contains receptors. Answers to the questions in Section II will help the reviewer develop a broader and more complete evaluation of the ecological aspects of a site.

Section III - Habitat Evaluation, provides information regarding the physical and biological characteristics of the different habitat types present at or in the locality of the site. Aquatic features such as lakes, ponds, streams, arroyos and ephemeral waters can be identified by reviewing aerial photographs, LULC and topographic maps and during site reconnaissance visits. In New Mexico, there are several well-defined terrestrial communities, which occur naturally. Typical communities include wetlands, forest (e.g., mixed conifer, ponderosa pine and pinyon juniper), scrub/shrub, grassland, and desert. Specific types of vegetation characterize each of these communities and can be used to identify them. Field guides are often useful for identifying vegetation types. A number of sites may be in areas that have been disturbed by human activities and may no longer match any of the naturally occurring communities typical of the southwest.

Particularly at heavily used areas at facilities, the two most common of these areas are usually described as "weed fields" and "lawn grass". Vegetation at "weed fields" should be examined to determine whether the weeds consist primarily of species native to the southwest or introduced species such as Kochia. Fields of native weeds and lawn grass are best evaluated using the short grass prairie habitat guides.

The applicable portions of Section III of the checklist should be completed for each individual habitat identified. For example, the questions in Section III.A of the checklist should be answered for each wetland area identified at or in the locality of the site and the individual areas must be identified on a map or maps.

Section IV- Exposure Pathway Evaluation is used to determine if contaminants at the site have the potential to impact habitat identified in Section III. An exposure pathway is the course a chemical or physical agent takes from a source to an exposed organism. Each exposure pathway includes a source (or release from a source), an environmental transport mechanism, an exposure point, and an exposure route. A complete exposure pathway is one in which each of these components, as well as a receptor to be exposed, is present. Essentially, this section addresses the fate and transport of contaminants that are known or suspected to have been released at the site. In most cases, without a complete exposure pathway between contaminants and receptors, additional ecological evaluation is not warranted.

Potential transport pathways addressed in this checklist include migration of contaminants via air dispersion, leaching into groundwater, soil erosion/runoff, groundwater discharge to surface water, and irradiation. Due to New Mexico's semi-arid climate, vegetation is generally sparse. The sparse vegetation, combined with the intense nature of summer storms in New Mexico, results in soil erosion that occurs sporadically over a very brief time frame. Soil erosion may be of particular concern for sites located in steeply sloped areas. Several questions within Section IV of this checklist have been developed to aid in the identification of those sites where soil erosion/runoff would be an important transport mechanism.

USING THE CHECKLIST TO DEVELOP THE PRELIMINARY CONCEPTUAL SITE EXPOSURE MODEL

The completed Site Assessment Checklist can be used to construct the PCSEM. An example PCSEM diagram is presented in Figure 1. The CSM illustrates actual and potential contaminant migration and exposure pathways to associated receptors. The components of a complete exposure pathway are simplified and grouped into three main categories: sources, release mechanisms, and potential receptors. As a contaminant migrates and/or is transformed in the environment, sources and release mechanisms may expand into primary, secondary, and tertiary levels. For example, Figure 1 illustrates releases from inactive lagoons (primary sources) through spills (primary release mechanism), which migrate to surface and subsurface soils (secondary sources), which are then leached (secondary release mechanism) to groundwater (tertiary source). Similarly, exposures of various trophic levels to the contaminant(s) and consequent exposures via the food chain may lead to multiple groups of receptors. For example, Figure 1 illustrates groups of both aquatic and terrestrial receptors which may be exposed and subsequently serve as tertiary release mechanisms to receptors which prey on them.

Although completing the checklist will not provide the user with a readymade PCSEM, a majority of the components of the PCSEM can be found in the answers to the checklist. It is then up to the user to put the pieces together into a comprehensive whole. The answers from Section II of the checklist, Site Characterization, can be used to identify sources of releases. The answers to Section IV, Exposure Pathway Evaluation, will assist users in tracing the migration pathways of releases in the environment, thus helping to identify release mechanisms and sources. The results of Section III, Habitat Evaluation, can be used to both identify secondary and tertiary sources and to identify the types of receptors which may be exposed. Appendix B of the NMED's *Guidance for Assessing Ecological Risks Posed by Chemicals: Screening-Level Ecological Assessment* also contains sample food webs which may be used to develop the PCSEM.

Once all of the components have been identified, one can begin tracing the steps between the primary releases and the potential receptors. For each potential receptor, the user should consider all possible exposure points (e.g., prey items, direct contact with contaminated soil or water, etc.) then begin eliminating pathways, which are not expected to result in exposure to the contaminant at the site. Gradually, the links between the releases and receptors can be filled in, resulting in potential complete exposure pathways.

For further guidance on constructing a PCSEM, consult the NMED's *Guidance for Assessing Ecological Risks Posed by Chemicals: Screening-Level Ecological Assessment* (2000), and EPA's Office of Solid Waste and Emergency *Response's Soil Screening Guidance: User's Guide* (1996).

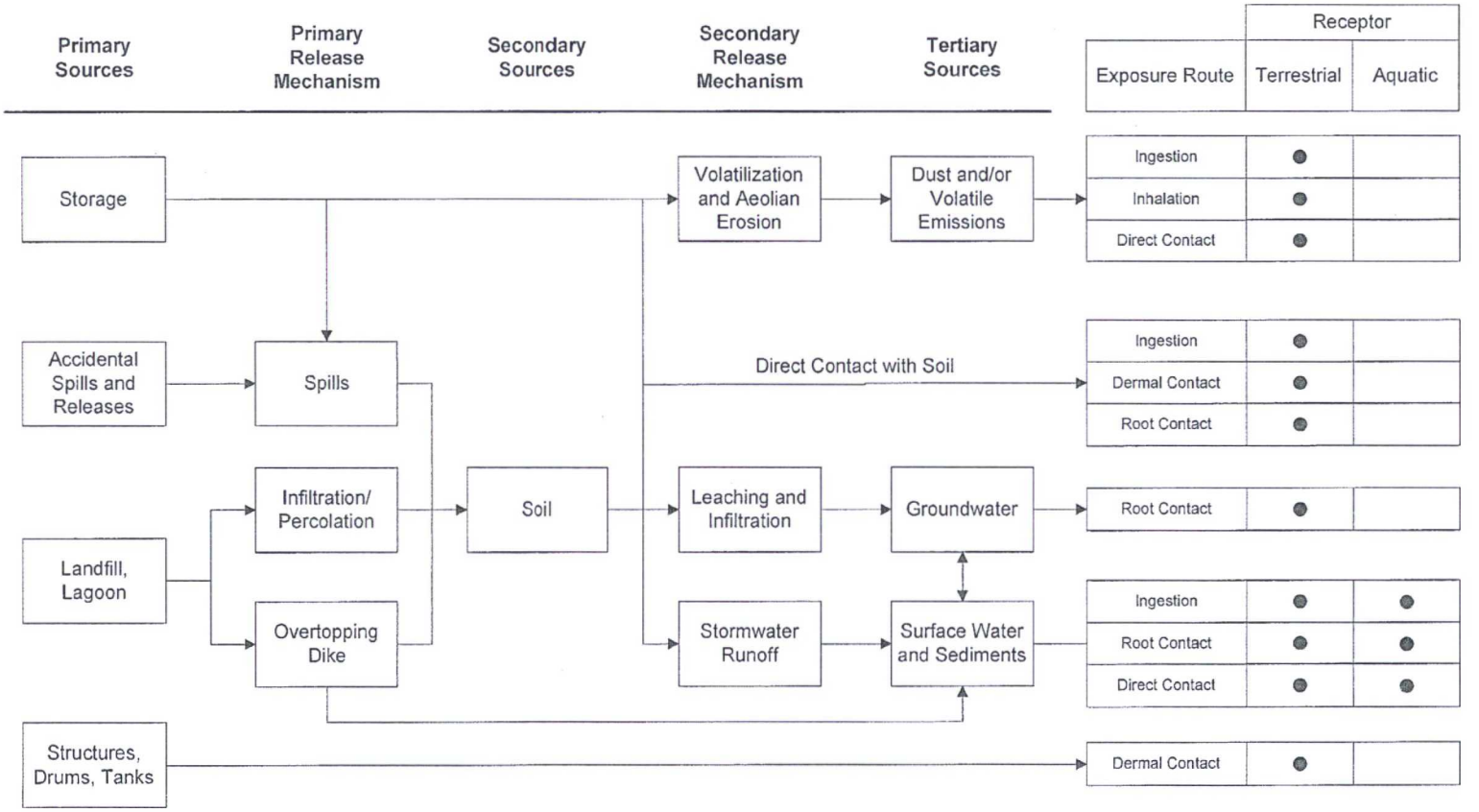


Figure 1. Example Preliminary Conceptual Site Exposure Model Diagram

NEW MEXICO ENVIRONMENT DEPARTMENT
SITE ASSESSMENT CHECKLIST

I. SITE LOCATION

1. Site
   Name:_____
   US EPA I.D.
   Number:_____
   Location:_____
   County:_____
   City:_____State:_____

2. Latitude:_____ Longitude:_____

3. Attach site maps, including a topographical map, a diagram which illustrates the layout of the facility (e.g., site boundaries, structures, etc.), and maps showing all habitat areas identified in Section III of the checklist. Also, include maps which illustrate known release areas, sampling locations, and any other important features, if available.

II. SITE CHARACTERIZATION

1. Indicate the approximate area of the site (i.e., acres or sq. ft)

   _____

2. Provide an approximate breakdown of the land uses on the site:

_____% Heavy Industrial	_____% Light Industrial	_____% Urban
_____% Residential	_____% Rural	_____% Agricultural[b]
_____% Recreational[a]	_____% Undisturbed	_____% Other[c]

[a]For recreational areas, please describe the usage of the area (e.g., park, playing field, etc.):

_____

[b]For agricultural areas, please list the crops and/or livestock which are present:

_____

[c]For areas designated as "other", please describe the usage of the area:

_____

3. Provide an approximate breakdown of the land uses in the area surrounding the site. Indicate the radius (in miles) of the area described: _____

_____% Heavy Industrial	_____% Light Industrial	_____% Urban
_____% Residential	_____% Rural	_____% Agricultural[b]
_____% Recreational[a]	_____% Undisturbed	_____% Other [c]

[a]For recreational areas, please describe the usage of the area (e.g., park, playing field, golf course, etc.):

_____

[b]For agricultural areas, please list the crops and/or livestock which are present:

_____

[c]For areas designated as "other", please describe the usage of the area:

_____
_____

4. Describe reasonable and likely future land and/or water use(s) at the site.

_____
_____
_____
_____
_____
_____

5. Describe the historical uses of the site. Include information on chemical releases that may have occurred as a result of previous land uses. For each chemical release, provide information on the form of the chemical released (i.e., solid, liquid, vapor) and the known or suspected causes or mechanism of the release (i.e., spills, leaks, material disposal, dumping, explosion, etc.).

_____
_____
_____
_____
_____

6. If any movement of soil has taken place at the site, describe the degree of the disturbance. Indicate the likely source of any disturbances (e.g., erosion, agricultural, mining, industrial activities, removals, etc.) and estimate when these events occurred.

_____
_____
_____

7. Describe the current uses of the site. Include information on recent (previous 5 years) disturbances or chemical releases that have occurred. For each chemical release, provide information on the form of the chemical released and the causes or mechanism of the release.

8. Identify the location or suspected location of chemical releases at the site. Provide an estimate of the distance between these locations and the areas identified in Section III.

9. Identify the suspected contaminants of concern (COCs) at the site. If known, include the maximum contaminant levels. Please indicate the source of data cited (e.g., RFI, confirmatory sampling, etc.).

10. Identify the media (e.g., soil (surface or subsurface), surface water, air, groundwater) which are known or suspected to contain COCs.

11. Indicate the approximate depth to groundwater (in feet below ground surface [(bgs)].

12. Indicate the direction of groundwater flow (e.g., north, southeast, etc.)

III. HABITAT EVALUATION

III.A Wetland Habitats

Are any wetland[37] areas such as marshes or swamps on or adjacent to the site?

☐ Yes ☐ No

If yes, indicate the wetland area on the attached site map and answer the following questions regarding the wetland area. If more than one wetland area is present on or adjacent to the site, make additional copies of the following questions and fill out for each individual wetland area. Distinguish between wetland areas by using names or other designations (such as location), and clearly identify each area on the site map. Also, obtain and attach a National Wetlands Inventory Map (or maps) to illustrate each wetland area.

Identify the sources of the observations and information (e.g., National Wetland Inventory, Federal or State Agency, USGS topographic maps) used to make the determination that wetland areas are or are not present.

_____

_____

_____

_____

If no wetland areas are present, proceed to Section III.B.

Wetland Area Questions

☐ Onsite ☐ Offsite

Name or
Designation:_____

1. Indicate the approximate area of the wetland (acres or ft^2)_____

2. Identify the type(s) of vegetation present in the wetland.

   - ❑ Submergent (i.e., underwater) vegetation
   - ❑ Emergent (i.e., rooted in the water, but rising above it) vegetation
   - ❑ Floating vegetation
   - ❑ Scrub/shrub

37Wetlands are defined in 40 CFR §232.2 as " Areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Examples of typical wetlands plants include: cattails, cordgrass, willows and cypress trees. National wetland inventory maps may be available at http:\\nwi.fws.gov. Additional information on wetland delineation criteria is also available from the Army Corps of Engineers.

- ❑ Wooded
- ❑ Other (Please describe):_____

3. Estimate the vegetation density of the wetland area.

   - ❑ Dense (i.e., greater than 75% vegetation)
   - ❑ Moderate (i.e., 25% to 75% vegetation)
   - ❑ Sparse (i.e., less than 25% vegetation)

4. Is standing water present? ☐ Yes ☐ No

   If yes, is the water primarily: ☐ Fresh or ☐ Brackish
   Indicate the approximate area of the standing water (ft^2):

   _____
   Indicate the approximate depth of the standing water, if known (ft. or in.)_____

5. If known, indicate the source of the water in the wetland.

   - ❑ Stream/River/Creek/Lake/Pond
   - ❑ Flooding
   - ❑ Groundwater
   - ❑ Surface runoff

6. Is there a discharge from the facility to the wetland? ☐ Yes ☐ No
   If yes, please describe:_____
   _____
   _____
   _____
   _____
   _

Wetland Area Questions (Continued)

7. Is there a discharge from the wetland? ☐ Yes ☐ No
If yes, indicate the type of aquatic feature the wetland discharges into:

- ❑ Surface stream/River (Name:_____)
- ❑ Lake/Pond (Name:_____)
- ❑ Groundwater
- ❑ Not sure

8. Does the area show evidence of flooding? ☐ Yes ☐ No
If yes, indicate which of the following are present (mark all that apply):

- ❑ Standing water
- ❑ Water-saturated soils
- ❑ Water marks
- ❑ Buttressing
- ❑ Debris lines
- ❑ Mud cracks
- ❑ Other (Please describe):_____

9. Animals observed in the wetland area or suspected to be present based on indirect evidence or file material:

- ❑ Birds
- ❑ Fish
- ❑ Mammals
- ❑ Reptiles (e.g., snakes, turtles)
- ❑ Amphibians (e.g., frogs, salamanders)
- ❑ Sediment-dwelling invertebrates (e.g., mussels, crayfish, insect nymphs)

Specify species, if known:

_____
_____
_____
_____

III.B Aquatic Habitats
III.B.1 Non-Flowing Aquatic Features

Are any non-flowing aquatic features (such as ponds or lakes) located at or adjacent to the site?

☐ Yes ☐ No

If yes, indicate the aquatic feature on the attached site map and answer the following questions regarding the non-flowing aquatic features. If more than one non-flowing aquatic feature is present on or adjacent to the site, make additional copies of the following questions and fill out for each individual aquatic feature. Distinguish between aquatic features by using names or other designations, and clearly identify each area on the site map.

If no, proceed to Section III.B.2.

Non-Flowing Aquatic Feature Questions

☐ Onsite ☐ Offsite

Name or Designation:_____

1. Indicate the type of aquatic feature present:

   - ❑ Natural (e.g., pond or lake)
   - ❑ Man-made (e.g., impoundment, lagoon, canal, etc.)

2. Estimate the approximate size of the water body (in acres or sq. ft.)_____

3. If known, indicate the depth of the water body (in ft. or in.)._____

Non-Flowing Aquatic Feature Questions (Continued)

4. Indicate the general composition of the bottom substrate. Mark all sources that apply from the following list.

☐ Bedrock	☐ Sand	☐ Concrete
☐ Boulder (>10 in.)	☐ Silt	☐ Debris
☐ Cobble (2.5 - 10 in.)	☐ Clay	☐ Detritus
☐ Gravel (0.1 - 2.5 in.)	☐ Muck (fine/black)	

☐ Other (please specify):_____

5. Indicate the source(s) of the water in the aquatic feature. Mark all sources that apply from the following list.

- ☐ River/Stream/Creek
- ☐ Groundwater
- ☐ Industrial Discharge
- ☐ Surface Runoff
- ☐ Other (please specify):_____

6. Is there a discharge from the facility to the aquatic feature? ☐ Yes ☐ No
If yes, describe the origin of each discharge and its migration path:

_____
_____
_____
_____

7. Does the aquatic feature discharge to the surrounding environment? ☐ Yes ☐ No
If yes, indicate the features from the following list into which the aquatic feature discharges, and indicate whether the discharge occurs onsite or offsite:

- ☐ River/Stream/Creek ☐ onsite ☐ offsite
- ☐ Groundwater ☐ onsite ☐ offsite
- ☐ Wetland ☐ onsite ☐ offsite
- ☐ Impoundment ☐ onsite ☐ offsite
- ☐ Other (please describe)_____

Non-Flowing Aquatic Feature Questions (Continued)

8. Animals observed in the vicinity of the aquatic feature or suspected to be present based on indirect evidence or file material:

- ❑ Birds
- ❑ Fish
- ❑ Mammals
- ❑ Reptiles (e.g., snakes, turtles)
- ❑ Amphibians (e.g., frogs, salamanders)
- ❑ Sediment-dwelling invertebrates (e.g., mussels, crayfish, insect nymphs)

Specify species, if known:

_____
_____
_____
_____

III.B.2 Flowing Aquatic Features

Are any flowing aquatic features (such as streams or rivers) located at or adjacent to the site?

☐ Yes ☐ No

If yes, indicate the aquatic feature on the attached site map and answer the following questions regarding the flowing aquatic features. If more than one flowing aquatic feature is present on or adjacent to the site, make additional copies of the following questions and fill out for each individual aquatic feature. Distinguish between aquatic features by using names or other designations, and clearly identify each area on the site map

If no, proceed to Section III.C.

Flowing Aquatic Feature Questions

☐ Onsite ☐ Offsite

Name or Designation:_____

1. Indicate the type of flowing aquatic feature present.

   - ❑ River
   - ❑ Stream
   - ❑ Creek
   - ❑ Brook
   - ❑ Dry wash
   - ❑ Arroyo
   - ❑ Intermittent stream
   - ❑ Artificially created (ditch, etc.)
   - ❑ Other (specify)
   - ❑

2. Indicate the general composition of the bottom substrate.

☐ Bedrock	☐ Sand	☐ Concrete
☐ Boulder (>10 in.)	☐ Silt	☐ Debris
☐ Cobble (2.5 - 10 in.)	☐ Clay	☐ Detritus
☐ Gravel (0.1 - 2.5 in.)	☐ Muck (fine/black)	

   ☐ Other (please specify):_____

3. Describe the condition of the bank (e.g., height, slope, extent of vegetative cover) of the aquatic feature.

   _____
   _____
   _____
   _____

4. Is there a discharge from the facility to the aquatic feature? ☐ Yes ☐ No
   If yes, describe the origin of each discharge and its migration path:

   _____
   _____
   _____
   _____

5. Indicate the discharge point of the water body. Specify name, if known.

Flowing Aquatic Feature Questions (Continued)

6. If the flowing aquatic feature is a dry wash or arroyo, answer the following questions.
   - ❑Check here if feature is not a dry wash or arroyo

   If known, specify the average number of days in a year in which flowing water is present in the feature: _____

   Is standing water or mud present? Check all that apply.
   - ❑Standing water
   - ❑Mud
   - ❑Neither standing water or mud

   Does the area show evidence of recent flow (e.g., flood debris clinging to vegetation)?
   - ❑Yes
   - ❑No
   - ❑Not sure

7. Animals observed in the vicinity of the aquatic feature or suspected to be present based on indirect evidence or file material:

   - ❑ Birds
   - ❑ Fish
   - ❑ Mammals
   - ❑ Reptiles (e.g., snakes, turtles)
   - ❑ Amphibians (e.g., frogs, salamanders)
   - ❑ Sediment-dwelling invertebrates (e.g., mussels, crayfish, insect nymphs)

   Specify species, if known:

   _____
   _____
   _____
   _____

III.C Terrestrial Habitats
III.C.1 Wooded

Are any wooded areas on or adjacent to the site? ☐ Yes ☐ No

If yes, indicate the wooded area on the attached site map and answer the following questions. If more than one wooded area is present on or adjacent to the site, make additional copies of the following questions and fill out for each individual wooded area. Distinguish between wooded areas by using names or other designations, and clearly identify each area on the site map.

If no, proceed to Section III.C.2.

Wooded Area Questions

☐ On-site ☐ Off-site

Name or Designation:_____

1. Estimate the approximate size of the wooded area (in acres or sq. ft.)_____

2. Indicate the dominant type of vegetation in the wooded area.

   - ❑ Evergreen
   - ❑ Deciduous
   - ❑ Mixed

   Dominant plant species, if known:_____

3. Estimate the vegetation density of the wooded area.

   ❑Dense (i.e., greater than 75% vegetation)
   ❑Moderate (i.e., 25% to 75% vegetation)
   ❑Sparse (i.e., less than 25% vegetation)

4. Indicate the predominant size of the trees at the site. Use diameter at chest height.

   - ❑ 0-6 inches
   - ❑ 6-12 inches
   - ❑ >12 inches
   - ❑ No single size range is predominant

5. Animals observed in the wooded area or suspected to be present based on indirect evidence or file material:

   - ❑ Birds
   - ❑ Mammals
   - ❑ Reptiles (e.g., snakes, lizards)
   - ❑ Amphibians (e.g., toads, salamanders)

   Specify species, if known:

   _____
   _____
   _____
   _____

III.C.2 Shrub/Scrub

Are any shrub/scrub areas on or adjacent to the site? ☐ Yes ☐ No

If yes, indicate the shrub/scrub area on the attached site map and answer the following questions. If more than one shrub/scrub area is present on or adjacent to the site, make additional copies of the following questions and fill out for each individual shrub/scrub area. Distinguish between shrub/scrub areas, using names or other designations, and clearly identify each area on the site map.

If no, proceed to Section III.C.3.

Shrub/Scrub Area Questions

☐ Onsite ☐ Offsite

Name or Designation:_____

1. Estimate the approximate size of the shrub/scrub area (in acres or sq. ft.)._____

2. Indicate the dominant type of shrub/scrub vegetation present, if known.

_____
_____
_____
_____

3. Estimate the vegetation density of the shrub/scrub area.

- ❑ Dense (i.e., greater than 75% vegetation)
- ❑ Moderate (i.e., 25% to 75% vegetation)
- ❑ Sparse (i.e., less than 25% vegetation)

4. Indicate the approximate average height of the scrub/shrub vegetation.

- ❑ 0-2 feet
- ❑ 2-5 feet
- ❑ >5 feet

5. Animals observed in the shrub/scrub area or suspected to be present based on indirect evidence or file material:

❑Birds
❑Mammals
❑Reptiles (e.g., snakes, lizards)
❑Amphibians (e.g., toads, salamanders)

Specify species, if known:

_____
_____
_____
_____

III.C.3 Grassland

Are any grassland areas on or adjacent to the site? ☐ Yes ☐ No

If yes, indicate the grassland area on the attached site map and answer the following questions. If more than one grassland area is present on or adjacent to the site, make additional copies of the following questions and fill out for each individual grassland area. Distinguish between grassland areas by using names or other designations, and clearly identify each area on the site map.

If no, proceed to Section III.C.4.

Grassland Area Questions

☐ Onsite ☐ Offsite

Name or Designation:_____

1. Estimate the approximate size of the grassland area (in acres or sq. ft.)._____

2. Indicate the dominant plant type, if known.

_____
_____
_____
_____

3. Estimate the vegetation density of the grassland area.

   - ❑ Dense (i.e., greater than 75% vegetation)
   - ❑ Moderate (i.e., 25% to 75% vegetation)
   - ❑ Sparse (i.e., less than 25% vegetation)

4. Indicate the approximate average height of the dominant plant type (in ft. or in.)_

5. Animals observed in the grassland area or suspected to be present based on indirect evidence or file material:

   ❑Birds
   ❑Mammals
   ❑Reptiles (e.g., snakes, lizards)
   ❑Amphibians (e.g., toads, salamanders)

   Specify species, if known:

III.C.4 Desert

Are any desert areas on or adjacent to the site? ☐ Yes ☐ No

If yes, indicate the desert area on the attached site map and answer the following questions. If more than one desert area is present on or adjacent to the site, make additional copies of the following questions and fill out for each individual desert area. Distinguish between desert areas by using names or other designations, and clearly identify each area on the site map.

If no, proceed to Section III.C.5.

Desert Area Questions

☐ Onsite ☐ Offsite

Name or Designation:_____

1. Estimate the approximate size of the desert area (in acres or sq. ft.)._____

2. Describe the desert area (e.g., presence or absence of vegetation, vegetation types, presence/size of rocks, sand, etc.)

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

3. Animals observed in the desert area or suspected to be present based on indirect evidence or file material:

❑Birds
❑Mammals
❑Reptiles (e.g., snakes, lizards)
❑Amphibians (e.g., toads, salamanders)

Specify species, if known:

_____

III.C.5 Other

1. Are there any other terrestrial communities or habitats on or adjacent to the site which were not previously described?

☐ Yes ☐ No

If yes, indicate the "other" area(s) on the attached site map and describe the area(s) below. Distinguish between onsite and offsite areas. If no, proceed to Section III.D.

III.D Sensitive Environments and Receptors

1. Do any other potentially sensitive environmental areas[38] exist adjacent to or within 0.5 miles of the site? If yes, list these areas and provide the source(s) of information used to identify sensitive areas. *Do not answer "no" without confirmation from the U.S. Fish and Wildlife Service and appropriate State of New Mexico division.*

3 Areas that provide unique and often protected habitat for wildlife species. These areas are typically used during critical life stages such as breeding, hatching, rearing of young and overwintering. Refer to **Table 1** at the end of this document for examples of sensitive environments.

2. Are any areas on or near (i.e., within 0.5 miles) the site which are owned or used by local tribes? If yes, describe. *Contact the Tribal Liaison in the Office of the Secretary (505)827-2855 to obtain this information.*

4. Does the site serve or potentially serve as a habitat, foraging area, or refuge by rare, threatened, endangered, candidate and/or proposed species (plants or animals), or any otherwise protected species? If yes, identify species. *This information should be obtained from the U.S. Fish and Wildlife Service and appropriate State of New Mexico division.*

5. Is the site potentially used as a breeding, roosting or feeding area by migratory bird species? If yes, identify which species.

6. Is the site used by any ecologically[39], recreationally, or commercially important

39 Ecologically important species include populations of species which provide a critical (i.e., not replaceable) food resource for higher organisms and whose function as such would not be replaced by more tolerant species; or perform a critical ecological function (such as organic matter decomposition) and whose functions will not be replaced by other species. Ecologically important species include pest and opportunistic species that populate an area if they serve as a food source for other species, but do not include domesticated animals (e.g., pets and livestock) or plants/animals whose existence is maintained by continuous human interventions (e.g., fish hatcheries, agricultural crops, etc.,)

species? If yes, explain.

_____

_____

_____

_____

_____

IV. EXPOSURE PATHWAY EVALUATION

1. Do existing data provide sufficient information on the nature, rate, and extent of contamination at the site?

   - ❑ Yes
   - ❑ No
   - ❑ Uncertain

   Please provide an explanation for your answer:_____

_____

_____

_____

_____

2. Do existing data provide sufficient information on the nature, rate, and extent of contamination in offsite affected areas?

   - ❑ Yes
   - ❑ No
   - ❑ Uncertain
   - ❑ No offsite contamination

   Please provide an explanation for your answer:_____

_____

_____

_____

_____

3. Do existing data address potential migration pathways of contaminants at the site?

   - ❑ Yes
   - ❑ No
   - ❑ Uncertain

Please provide an explanation for your answer:_____

_

_____

_____

_____

_____

4. Do existing data address potential migration pathways of contaminants in offsite affected areas?

   - ❑ Yes
   - ❑ No
   - ❑ Uncertain
   - ❑ No offsite contamination

   Please provide an explanation for your answer:_____

5. Are there visible indications of stressed habitats or receptors on or near (i.e., within 0.5 miles) the site that may be the result of a chemical release? If yes, explain. Attach photographs if available.

6. Is the location of the contamination such that receptors might be reasonably expected to come into contact with it? For soil, this means contamination in the soil 0 to 5 feet below ground surface (bgs). If yes, explain.

7. Are receptors located in or using habitats where chemicals exist in air, soil, sediment or surface water? If yes, explain.

8. Could chemicals reach receptors via groundwater? Can chemicals leach or dissolve to groundwater? Are chemicals mobile in groundwater? Does groundwater discharge into receptor habitats? If yes, explain.

_____

_____

_____

_____

_____

_____

_____

9. Could chemicals reach receptors through runoff or erosion? Answer the following questions:

What is the approximate distance from the contaminated area to the nearest watercourse or arroyo?

- ❑ 0 feet (i.e., contamination has reached a watercourse or arroyo)
- ❑ 1-10 feet
- ❑ 11-20 feet
- ❑ 21-50 feet
- ❑ 51-100 feet
- ❑ 101-200 feet
- ❑ > 200 feet
- ❑ > 500 feet
- ❑ > 1000 feet

What is the slope of the ground in the contaminated area?

- ❑ 0-10%
- ❑ 10-30%
- ❑ > 30%

What is the approximate amount of ground and canopy vegetative cover in the contaminated area?

- ❑ < 25%
- ❑ 25-75%
- ❑ > 75%

Is there visible evidence of erosion (e.g., a rill or gully) in or near the contaminated area?

- ❑ Yes
- ❑ No
- ❑ Do not know

Do any structures, pavement, or natural drainage features direct run-on flow (i.e., surface flows originating upstream or uphill from the area of concern) into the contaminated area?

- ❑ Yes
- ❑ No
- ❑ Do not know

10. Could chemicals reach receptors through the dispersion of contaminants in air (e.g., volatilization, vapors, fugitive dust)? If yes, explain.

11. Could chemicals reach receptors through migration of non-aqueous phase liquids (NAPLs)? Is a NAPL present at the site that might be migrating towards receptors or habitats? Could NAPL discharge contact receptors or their habitat?

12. Could receptors be impacted by external irradiation at the site? Are gamma emitting radionuclides present at the site? Is the radionuclide contamination buried or at the surface?

PHOTOGRAPHIC DOCUMENTATION

During the site visit(s), photographs should be taken to document the current conditions at the site and to support the information entered in the checklist. For example, photographs may be used to document the following:

- The nature, quality, and distribution of vegetation at the site
- Receptors or evidence of receptors
- Potentially important ecological features, such as ponds and drainage ditches
- Potential exposure pathways
- Any evidence of contamination or impact

The following space may be used to record photo subjects.

SUMMARY OF OBSERVATIONS AND SITE SETTING

Include information on significant source areas and migration pathways that are likely to constitute complete exposure pathways.

Checklist Completed by_____

Affiliation_____

Author Assisted by_____

Date_____

TABLE 1
EXAMPLES OF SENSITIVE ENVIRONMENTS

National Parks and National Monuments

Designated or Administratively Proposed Federal Wilderness Areas

National Preserves

National or State Wildlife Refuges

National Lakeshore Recreational Areas

Federal land designated for protection of natural ecosystems

State land designated for wildlife or game management

State designated Natural Areas

Federal or state designated Scenic or Wild River

All areas that provide or could potentially provide critical habitat[1] for state and federally listed Threatened or Endangered Species, those species that are currently petitioned for listing, and species designated by other agencies as sensitive or species of concern

All areas that provide or could potentially provide habitat for state protected species as defined in the Wildlife Code, Chapter 17 of the New Mexico Statutes

All areas that provide or could potentially provide habitat for migratory birds as protected by the Migratory Bird Treaty Act (16 U.S.C. §§ 703-712)

All areas that provide or could potentially provide habitat for bald eagles and golden eagles as protected by the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d)

All areas that provide or could potentially provide habitat for song birds as protected by the State of New Mexico statute (New Mexico Statute, 1978, Chapter 17, Game and Fish, 17-2-13)

---

1 Critical habitats are defined by the Endangered Species Act (50 CFR §424.02(d)) as:

> 1) Specific areas within the geographical area currently occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (ii) that may require special management considerations or protection, and 2) Specific areas outside the geographical area occupied by a species at the time it is listed upon a determination by the Secretary [of Interior] that such areas are essential for the conservation of the species.

All areas that provide or could potentially provide habitat for hawks, vultures and owls as protected by the State of New Mexico statute (New Mexico Statute, 1978, Chapter 17, Game and Fish, 17-2-14)

All areas that provide or could potentially provide habitat for horned toads and Bullfrogs as protected by the State of New Mexico statute (New Mexico Statute, 1978, Chapter 17, Game and Fish, 17-2-15 and 16, resp.)

All perennial waters (e.g., rivers, lakes, playas, sloughs, ponds, etc)

All ephemeral drainage (e.g., arroyos, puddles/pools, intermittent streams, etc) that provide significant wildlife habitat or that could potentially transport contaminants off site to areas that provide wildlife habitat

All riparian habitats

All perennial and ephemeral wetlands (not limited to jurisdictional wetlands)

All areas that are potentially important breeding, staging, and overwintering habitats as well as other habitats important for the survival of animals during critical periods of their life cycle.

ATTACHMENT B
ECOLOGICAL SITE EXCLUSION CRITERIA CHECKLIST AND DECISION TREE

NEW MEXICO ECOLOGICAL EXCLUSION CRITERIA CHECKLIST

The following questions are designed to be used in conjunction with the Ecological Exclusion Criteria Decision Tree (Figure 1). After answering each question, refer to the Decision Tree to determine the appropriate next step. In some cases, questions will be omitted as the user is directed to another section as indicated by the flow diagram in the Decision Tree. For example, if the user answers "yes" to Question 1 of Section I, he or she is directed to proceed to Section II.

I. Habitat

In the following questions, "affected property" refers to all property on which a release has occurred or is believed to have occurred, including off-site areas where contamination may have occurred or migrated.

1. Are any of the below-listed sensitive environments at, adjacent to, or in the locality[1] of the affected property?

   - National Park or National Monument
   - Designated or administratively proposed Federal Wilderness Area
   - National Preserve
   - National or State Wildlife Refuge
   - Federal or State land designated for wildlife or game management
   - State designated Natural Areas
   - All areas that are owned or used by local tribes
   - All areas that are potentially important breeding, staging, and overwintering habitats as well as other habitats important for the survival of animals during critical periods of their life cycle
   - All areas that provide or could potentially provide habitat for state and federally listed Threatened or Endangered Species, those species that are currently petitioned for listing, and species designated by other agencies as sensitive or species of concern
   - All areas that provide or could potentially provide habitat for state protected species as defined in the Wildlife Code, Chapter 17 of the New Mexico Statutes
   - All areas that provide or could potentially provide habitat for migratory birds as protected by the Migratory Bird Treaty Act (16 U.S.C. §§ 703-712)
   - All areas that provide or could potentially provide habitat for bald eagles and golden eagles as protected by the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d)
   - All areas that provide or could potentially provide habitat for song birds as protected by the state of New Mexico statute (New Mexico Statute, 1978, Chapter

---

1 *Locality* of the site refers to any area where an ecological receptor is likely to contact site-related chemicals. The locality of the site considers the likelihood of contamination migrating over time and places the site in the context of its general surrounding. Therefore, the locality is typically larger than the site and the areas adjacent to the site.

17, Game and Fish, 17-2-13)
- All areas that provide or could potentially provide habitat for hawks, vultures and owls as protected by the state of New Mexico statute (New Mexico Statute, 1978, Chapter 17, Game and Fish, 17-2-14)
- All areas that provide or could potentially provide habitat for horned toads and bullfrogs as protected by the state of New Mexico statute (New Mexico Statute, 1978, Chapter 17, Game and Fish, 17-2-15 and 16, respectively)

2. Does the affected property contain land areas which were not listed in Question 1, but could be considered viable ecological habitat? The following are examples (but not a complete listing) of viable ecological habitats:

- Wooded areas
- Shrub/scrub vegetated areas
- Open fields (prairie)
- Other grassy areas
- Desert areas
- Any other areas which support wildlife and/or vegetation, excluding areas which support only opportunistic species (such as house mice, Norway rats, pigeons, etc.) that do not serve as prey to species in adjacent habitats.

The following features are <u>not</u> considered ecologically viable:

- Pavement
- Buildings
- Paved areas of roadways
- Paved/concrete equipment storage pads
- Paved manufacturing or process areas
- Other non-natural surface cover or structure

3. Does the affected property contain any perennial or ephemeral aquatic features which were not listed in Question 1?

II. Receptors

1. Is any part of the affected property used for habitat, foraging area, or refuge by any rare, threatened, or endangered species (plant *or* animal), or otherwise protected species (e.g., raptors, migratory birds)?

2. Is any part of the affected property used for habitat, foraging area, or refuge by any species used as a recreational (e.g., game animals) and/or commercial resource?

3. Is any part of the affected property used for habitat, foraging area, or refuge by any plant or animal species? This includes plants considered "weeds" and opportunistic insect and animal species (such as cockroaches and rats) if they are used as a food source for other species in the area.

III. Exposure Pathways

1. Could receptors be impacted by contaminants via direct contact?
   Is a receptor located in or using an area where it could contact contaminated air, soil[3], or surface water?

For Questions 2 and 3, note that one must answer "yes" to all three bullets in order to be directed to the "exclusion denied" box of the decision tree. This is because answering "no" to one of the questions in the bullet list indicates that a complete exposure pathway is not present. For example, in Question 2, if the chemical cannot leach or dissolve to groundwater (bullet 1), there is no chance of ecological receptors being exposed to the chemical through contact with contaminated groundwater. Similarly, the responses to the questions in Question 4 determine whether a complete pathway exists for exposure to NAPL.

2. Could receptors contact contaminants via groundwater?
   - Can the chemical leach or dissolve to groundwater[4]?
   - Can groundwater mobilize the chemical?
   - Could (does) contaminated groundwater discharge into known or potential receptor habitats?

3. Could receptors contact contaminants via runoff (i.e., surface water and/or suspended sediment) or erosion by water or wind?
   - Are chemicals present in surface soils?
   - Can the chemical be leached from or eroded with surface soils?
   - Is there a receptor habitat located downgradient of the leached/eroded surface soil?

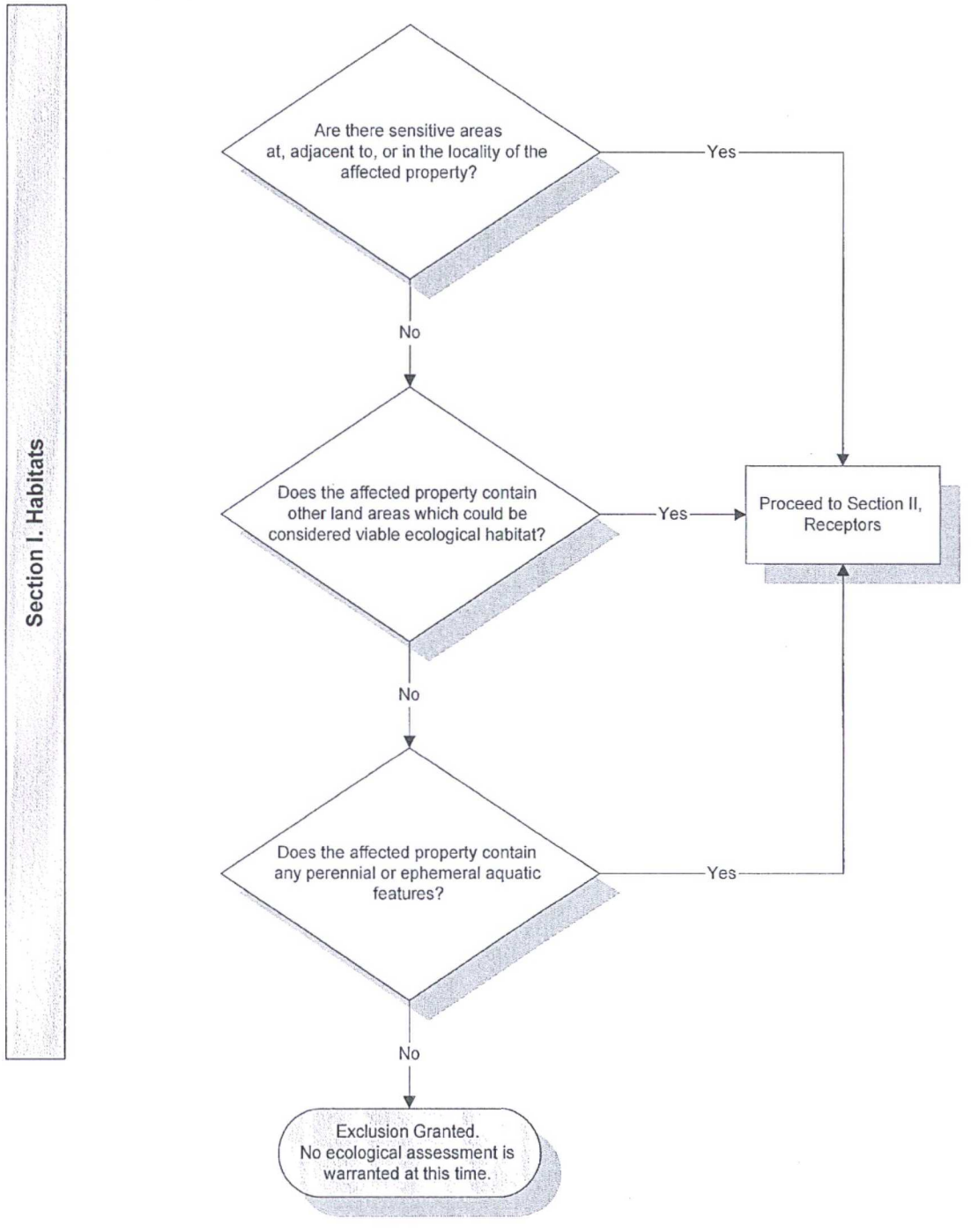
4. Could receptors contact contaminants via migration of non-aqueous phase liquids (NAPL)?
   - Is NAPL present at the site?
   - Is NAPL migrating toward potential receptors or habitats?
   - Could NAPL discharge impact receptors or habitats?

3 For soil, this means contamination less than 5 feet below ground surface (bgs).

4 Information on the environmental fate of specific chemicals can be found on the Internet at http://www.epa.gov/opptintr/chemfact/ or at a local library in published copies of the *Hazardous Substances Data Bank*.

Figure 1 -Ecological Exclusion Criteria Decision Tree
(Refer to corresponding checklist for the full text of each question)

Figure 1 - Exclusion Criteria Decision Tree (continued)



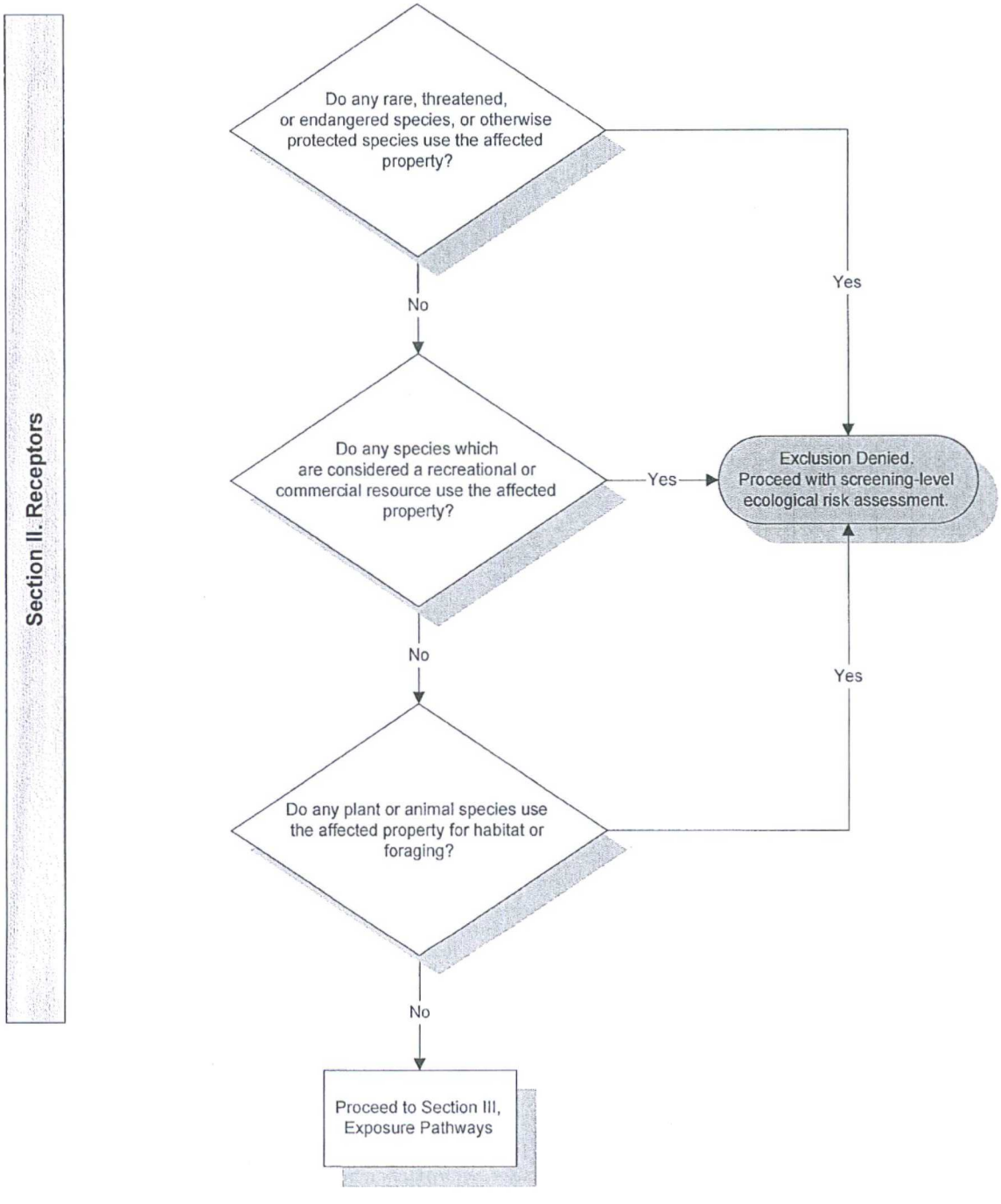
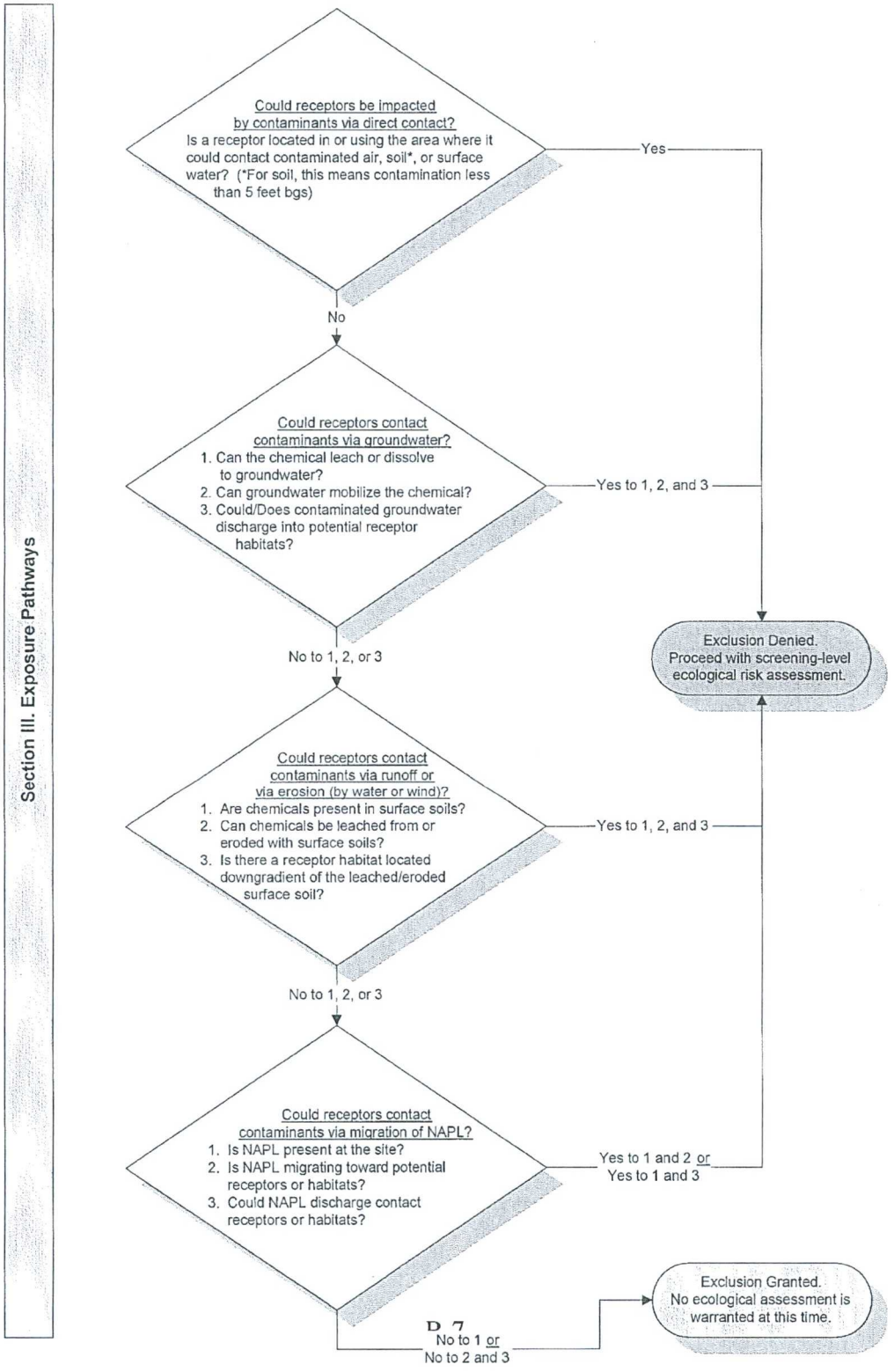

Section II: Receptors
Do any rare, threatened, or endangered species, or otherwise protected species use the affected property?
Yes
No
Do any species which are considered a recreational or commercial resource use the affected property?
Yes
Exclusion Denied. Proceed with screening-level ecological risk assessment.
No
Yes
Do any plant or animal species use the affected property for habitat or foraging?
No
Proceed to Section III, Exposure Pathways

Figure 1 - Exclusion Criteria Decision Tree (continued)



Appendix E
Analytical Data

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

August 14, 2014

Bernie Bockisch
COP Conestoga-Rovers & Associa
6121 Indian School Rd NE
Ste 200
Albuquerque, NM 87110

RE: Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Dear Bernie Bockisch:
Enclosed are the analytical results for sample(s) received by the laboratory on August 08, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Flanagan

Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Cale Canack, COP Conestoga-Rovers & Associa

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021

Dallas Certification IDs:
400 West Bethany Dr Suite 190 75013 Allen TX 75013
Texas Certification #: T104704232-13-5
Kansas Certification #: E-10388
Arkansas Certification #: 88-0647
Oklahoma Certification #: 2012-080
Louisiana Certification #: 02007

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60175350001	S.086010-080614-JW-B-1-5	Solid	08/06/14 08:00	08/08/14 08:40
60175350002	S.086010-080614-JW-B-1-20	Solid	08/06/14 08:00	08/08/14 08:40
60175350003	S.086010-080614-JW-B-1-25	Solid	08/06/14 08:00	08/08/14 08:40
60175350004	S.086010-080614-JW-B-2-5	Solid	08/06/14 11:50	08/08/14 08:40
60175350005	S.086010-080614-JW-B-2-20	Solid	08/06/14 12:20	08/08/14 08:40
60175350006	S.086010-080614-JW-B-2-25	Solid	08/06/14 12:35	08/08/14 08:40
60175350007	S.086010-080614-JW-B-3-15	Solid	08/06/14 14:15	08/08/14 08:40
60175350008	S.086010-080614-JW-B-3-20	Solid	08/06/14 14:20	08/08/14 08:40
60175350009	S.086010-080614-JW-B-3-25	Solid	08/06/14 14:30	08/08/14 08:40
60175350010	S.086010-080614-JW-B-4-10	Solid	08/06/14 15:20	08/08/14 08:40
60175350011	S.086010-080614-JW-B-4-20	Solid	08/06/14 15:40	08/08/14 08:40
60175350012	S.086010-080614-JW-B-4-25	Solid	08/06/14 15:50	08/08/14 08:40
60175350013	S.086010-080714-CB-B-5-15	Solid	08/07/14 10:07	08/08/14 08:40
60175350014	S.086010-080714-CB-B-5-25	Solid	08/07/14 10:25	08/08/14 08:40
60175350015	S.086010-080714-CB-B-5-30	Solid	08/07/14 10:44	08/08/14 08:40
`175350016	S.086010-080714-CB-WASTE	Solid	08/07/14 13:00	08/08/14 08:40
J175350017	TRIP BLANK	Solid	08/07/14 13:00	08/08/14 08:40

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60175350001	S.086010-080614-JW-B-1-5	EPA 8015B	JDE	3	PASI-K
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	TJT	7	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 300.0	OL	1	PASI-K
60175350002	S.086010-080614-JW-B-1-20	EPA 8015B	JDE	3	PASI-K
		EPA 8015B	JTK	2	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 300.0	OL	1	PASI-K
60175350003	S.086010-080614-JW-B-1-25	EPA 8260	TJT	7	PASI-K
		ASTM D2974	DWC	1	PASI-K
60175350004	S.086010-080614-JW-B-2-5	EPA 8015B	JDE	3	PASI-K
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	TJT	7	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 300.0	OL	1	PASI-K
60175350005	S.086010-080614-JW-B-2-20	EPA 8015B	JDE	3	PASI-K
		EPA 8015B	JTK	2	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 300.0	OL	1	PASI-K
60175350006	S.086010-080614-JW-B-2-25	EPA 8260	TJT	7	PASI-K
		ASTM D2974	DWC	1	PASI-K
60175350007	S.086010-080614-JW-B-3-15	EPA 8015B	JDE	3	PASI-K
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	TJT	7	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 300.0	OL	1	PASI-K
60175350008	S.086010-080614-JW-B-3-20	EPA 8015B	JDE	3	PASI-K
		EPA 8015B	JTK	2	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 300.0	OL	1	PASI-K
60175350009	S.086010-080614-JW-B-3-25	EPA 8260	TJT	7	PASI-K
		ASTM D2974	DWC	1	PASI-K
60175350010	S.086010-080614-JW-B-4-10	EPA 8015B	JDE	3	PASI-K
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	TJT	7	PASI-K
		ASTM D2974	DWC	1	PASI-K

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0	OL	1	PASI-K
60175350011	S.086010-080614-JW-B-4-20	ASTM D2974	DWC	1	PASI-K
		EPA 300.0	OL	1	PASI-K
60175350012	S.086010-080614-JW-B-4-25	EPA 8015B	JDE	3	PASI-K
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	TJT	7	PASI-K
		ASTM D2974	DWC	1	PASI-K
60175350013	S.086010-080714-CB-B-5-15	EPA 8015B	JDE	3	PASI-K
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	TJT	7	PASI-K
		ASTM D2974	DWC	1	PASI-K
		EPA 300.0	OL	1	PASI-K
60175350014	S.086010-080714-CB-B-5-25	ASTM D2974	DWC	1	PASI-K
		EPA 300.0	OL	1	PASI-K
60175350015	S.086010-080714-CB-B-5-30	EPA 8015B	JDE	3	PASI-K
		EPA 8015B	JTK	2	PASI-K
		EPA 8260	TJT	7	PASI-K
		ASTM D2974	DWC	1	PASI-K
60175350016	S.086010-080714-CB-WASTE	EPA 6010	NDJ	7	PASI-K
		EPA 7470	TDS	1	PASI-K
		EPA 8260	PRG	4	PASI-K
		ASTM D2974	DWC	1	PASI-K
		SW-846 7.3.4.2	MRU	1	PASI-D
		EPA 9045	JML	1	PASI-K
		ASTM D92	NDL	1	PASI-K
		SW-846 7.3.3.2	MRU	1	PASI-D
60175350017	TRIP BLANK	EPA 8260	TJT	7	PASI-K

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SUMMARY OF DETECTION

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
60175350001	**S.086010-080614-JW-B-1-5**					
EPA 8015B	TPH-DRO	1860	mg/kg	58.9	08/11/14 13:24	M1
EPA 8015B	TPH-GRO	790	mg/kg	58.9	08/12/14 17:19	
EPA 8260	Ethylbenzene	2940	ug/kg	297	08/12/14 10:24	
EPA 8260	Toluene	2250	ug/kg	297	08/12/14 10:24	
EPA 8260	Xylene (Total)	52800	ug/kg	297	08/12/14 10:24	
ASTM D2974	Percent Moisture	15.9	%	0.50	08/08/14 00:00	
60175350002	**S.086010-080614-JW-B-1-20**					
EPA 8015B	TPH-DRO	14.7	mg/kg	10.5	08/11/14 11:37	
EPA 8015B	TPH-GRO	26.3	mg/kg	10.8	08/12/14 14:16	
ASTM D2974	Percent Moisture	7.6	%	0.50	08/08/14 00:00	
EPA 300.0	Chloride	109	mg/kg	108	08/12/14 14:57	
60175350003	**S.086010-080614-JW-B-1-25**					
ASTM D2974	Percent Moisture	3.9	%	0.50	08/08/14 00:00	
60175350004	**S.086010-080614-JW-B-2-5**					
EPA 8015B	TPH-DRO	3090	mg/kg	117	08/11/14 13:38	
EPA 8015B	TPH-GRO	301	mg/kg	12.0	08/12/14 14:33	
EPA 8260	Ethylbenzene	2480	ug/kg	297	08/12/14 11:25	
EPA 8260	Xylene (Total)	42300	ug/kg	593	08/12/14 15:48	
ASTM D2974	Percent Moisture	16.2	%	0.50	08/08/14 00:00	
EPA 300.0	Chloride	141	mg/kg	119	08/12/14 15:26	
60175350005	**S.086010-080614-JW-B-2-20**					
EPA 8015B	TPH-DRO	108	mg/kg	10.4	08/11/14 12:05	
EPA 8015B	TPH-GRO	17.2	mg/kg	10.5	08/12/14 14:49	
ASTM D2974	Percent Moisture	5.4	%	0.50	08/08/14 00:00	
60175350006	**S.086010-080614-JW-B-2-25**					
ASTM D2974	Percent Moisture	2.4	%	0.50	08/08/14 00:00	
60175350007	**S.086010-080614-JW-B-3-15**					
EPA 8015B	TPH-DRO	246	mg/kg	10.9	08/11/14 12:12	
EPA 8015B	TPH-GRO	55.8	mg/kg	11.2	08/12/14 15:06	
EPA 8260	Xylene (Total)	5890	ug/kg	275	08/12/14 11:41	
ASTM D2974	Percent Moisture	10.3	%	0.50	08/08/14 00:00	
60175350008	**S.086010-080614-JW-B-3-20**					
ASTM D2974	Percent Moisture	6.4	%	0.50	08/08/14 00:00	
60175350009	**S.086010-080614-JW-B-3-25**					
ASTM D2974	Percent Moisture	5.8	%	0.50	08/08/14 00:00	
60175350010	**S.086010-080614-JW-B-4-10**					
EPA 8015B	TPH-DRO	230	mg/kg	11.2	08/11/14 12:27	
EPA 8015B	TPH-GRO	26.0	mg/kg	11.3	08/12/14 16:12	
EPA 8260	Xylene (Total)	668	ug/kg	280	08/12/14 11:56	
ASTM D2974	Percent Moisture	11.6	%	0.50	08/08/14 00:00	
EPA 300.0	Chloride	160	mg/kg	113	08/12/14 16:24	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SUMMARY OF DETECTION

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
60175350011	**S.086010-080614-JW-B-4-20**					
ASTM D2974	Percent Moisture	17.1	%	0.50	08/08/14 00:00	
60175350012	**S.086010-080614-JW-B-4-25**					
ASTM D2974	Percent Moisture	18.3	%	0.50	08/08/14 00:00	
60175350013	**S.086010-080714-CB-B-5-15**					
EPA 8015B	TPH-DRO	1120	mg/kg	55.6	08/11/14 13:45	
EPA 8015B	TPH-GRO	126	mg/kg	11.3	08/12/14 16:46	
EPA 8260	Ethylbenzene	565	ug/kg	281	08/12/14 12:12	
EPA 8260	Xylene (Total)	12000	ug/kg	281	08/12/14 12:12	
ASTM D2974	Percent Moisture	10.8	%	0.50	08/08/14 00:00	
EPA 300.0	Chloride	195	mg/kg	112	08/12/14 17:21	
60175350014	**S.086010-080714-CB-B-5-25**					
ASTM D2974	Percent Moisture	5.5	%	0.50	08/08/14 00:00	
EPA 300.0	Chloride	134	mg/kg	106	08/12/14 17:36	
60175350015	**S.086010-080714-CB-B-5-30**					
EPA 8015B	TPH-DRO	10.7	mg/kg	10.6	08/11/14 12:48	
ASTM D2974	Percent Moisture	6.9	%	0.50	08/08/14 00:00	
60175350016	**S.086010-080714-CB-WASTE**					
ASTM D2974	Percent Moisture	3.0	%	0.50	08/08/14 00:00	
EPA 9045	pH at 25 Degrees C	10.3	Std. Units	0.10	08/13/14 10:00	H1
ASTM D92	Flashpoint	>210	deg F		08/13/14 11:00	

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Method: **EPA 8015B**
Description: 8015B Diesel Range Organics
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: August 14, 2014

General Information:
10 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: OEXT/45506

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- MS (Lab ID: 1422670)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- MSD (Lab ID: 1422671)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- S.086010-080614-JW-B-1-5 (Lab ID: 60175350001)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- S.086010-080614-JW-B-2-5 (Lab ID: 60175350004)
  - n-Tetracosane (S)
  - p-Terphenyl (S)
- S.086010-080714-CB-B-5-15 (Lab ID: 60175350013)
  - n-Tetracosane (S)
  - p-Terphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Method: **EPA 8015B**
Description: 8015B Diesel Range Organics
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: August 14, 2014

QC Batch: OEXT/45506

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60175350001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1422670)
  - TPH-DRO
- MSD (Lab ID: 1422671)
  - TPH-DRO

Additional Comments:

Pace Analytical
www.pacelabs.com

Pace Analytical vices, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Method: **EPA 8015B**
Description: Gasoline Range Organics
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: August 14, 2014

General Information:
10 samples were analyzed for EPA 8015B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 5035A/5030B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Method: **EPA 6010**
Description: 6010 MET ICP, TCLP
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: August 14, 2014

General Information:
1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Method: **EPA 7470**
Description: 7470 Mercury, TCLP
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: August 14, 2014

General Information:
1 sample was analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Method: **EPA 8260**
Description: 8260 MSV TCLP
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: August 14, 2014

General Information:
1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

ırrogates:
ı surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Method: **EPA 8260**
Description: 8260 MSV 5035A VOA
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: August 14, 2014

General Information:
11 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Method: **SW-846 7.3.4.2**
Description: Reactive Sulfide
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: August 14, 2014

General Information:
1 sample was analyzed for SW-846 7.3.4.2. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.4.2 with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Method: **EPA 9045**
Description: 9045 pH Soil
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: August 14, 2014

General Information:
1 sample was analyzed for EPA 9045. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H1: Analysis conducted outside the EPA method holding time.
- S.086010-080714-CB-WASTE (Lab ID: 60175350016)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Method: **ASTM D92**
Description: Flashpoint, Open Cup
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: August 14, 2014

General Information:
1 sample was analyzed for ASTM D92. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: August 14, 2014

General Information:
10 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 300.0 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

PROJECT NARRATIVE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Method: **SW-846 7.3.3.2**
Description: 733C S Reactive Cyanide
Client: COP Conestoga-Rovers & Associates, Inc. NM
Date: August 14, 2014

General Information:
1 sample was analyzed for SW-846 7.3.3.2. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SW-846 7.3.3.2 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

ɪthod Blank:
.ıl analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080614-JW-B-1-5 **Lab ID: 60175350001** Collected: 08/06/14 08:00 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**1860**	mg/kg	58.9	5	08/08/14 00:00	08/11/14 13:24		M1
Surrogates								
n-Tetracosane (S)	0	%	35-147	5	08/08/14 00:00	08/11/14 13:24	646-31-1	S4
p-Terphenyl (S)	0	%	37-138	5	08/08/14 00:00	08/11/14 13:24	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**790**	mg/kg	58.9	5	08/12/14 00:00	08/12/14 17:19		
Surrogates								
4-Bromofluorobenzene (S)	96	%	52-153	5	08/12/14 00:00	08/12/14 17:19	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	297	50		08/12/14 10:24	71-43-2	
Ethylbenzene	**2940**	ug/kg	297	50		08/12/14 10:24	100-41-4	
Toluene	**2250**	ug/kg	297	50		08/12/14 10:24	108-88-3	
Xylene (Total)	**52800**	ug/kg	297	50		08/12/14 10:24	1330-20-7	
Surrogates								
Toluene-d8 (S)	103	%	80-120	50		08/12/14 10:24	2037-26-5	
4-Bromofluorobenzene (S)	102	%	76-123	50		08/12/14 10:24	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	75-129	50		08/12/14 10:24	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**15.9**	%	0.50	1		08/08/14 00:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	119	10	08/12/14 08:00	08/12/14 14:14	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080614-JW-B-1-20 **Lab ID: 60175350002** Collected: 08/06/14 08:00 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**14.7**	mg/kg	10.5	1	08/08/14 00:00	08/11/14 11:37		
Surrogates								
n-Tetracosane (S)	92	%	35-147	1	08/08/14 00:00	08/11/14 11:37	646-31-1	
p-Terphenyl (S)	91	%	37-138	1	08/08/14 00:00	08/11/14 11:37	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**26.3**	mg/kg	10.8	1	08/12/14 00:00	08/12/14 14:16		
Surrogates								
4-Bromofluorobenzene (S)	94	%	52-153	1	08/12/14 00:00	08/12/14 14:16	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**7.6**	%	0.50	1		08/08/14 00:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**109**	mg/kg	108	10	08/12/14 08:00	08/12/14 14:57	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080614-JW-B-1-25 **Lab ID: 60175350003** Collected: 08/06/14 08:00 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.2	1		08/12/14 15:32	71-43-2	
Ethylbenzene	ND	ug/kg	5.2	1		08/12/14 15:32	100-41-4	
Toluene	ND	ug/kg	5.2	1		08/12/14 15:32	108-88-3	
Xylene (Total)	ND	ug/kg	5.2	1		08/12/14 15:32	1330-20-7	
Surrogates								
Toluene-d8 (S)	103	%	80-120	1		08/12/14 15:32	2037-26-5	
4-Bromofluorobenzene (S)	101	%	76-123	1		08/12/14 15:32	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	75-129	1		08/12/14 15:32	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**3.9**	%	0.50	1		08/08/14 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080614-JW-B-2-5 **Lab ID: 60175350004** Collected: 08/06/14 11:50 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**3090**	mg/kg	117	10	08/08/14 00:00	08/11/14 13:38		
Surrogates								
n-Tetracosane (S)	0	%	35-147	10	08/08/14 00:00	08/11/14 13:38	646-31-1	S4
p-Terphenyl (S)	0	%	37-138	10	08/08/14 00:00	08/11/14 13:38	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**301**	mg/kg	12.0	1	08/12/14 00:00	08/12/14 14:33		
Surrogates								
4-Bromofluorobenzene (S)	103	%	52-153	1	08/12/14 00:00	08/12/14 14:33	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	297	50		08/12/14 11:25	71-43-2	
Ethylbenzene	**2480**	ug/kg	297	50		08/12/14 11:25	100-41-4	
Toluene	ND	ug/kg	297	50		08/12/14 11:25	108-88-3	
Xylene (Total)	**42300**	ug/kg	593	100		08/12/14 15:48	1330-20-7	
Surrogates								
'uene-d8 (S)	102	%	80-120	50		08/12/14 11:25	2037-26-5	
,romofluorobenzene (S)	105	%	76-123	50		08/12/14 11:25	460-00-4	
,,2-Dichloroethane-d4 (S)	97	%	75-129	50		08/12/14 11:25	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**16.2**	%	0.50	1		08/08/14 00:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**141**	mg/kg	119	10	08/12/14 08:00	08/12/14 15:26	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080614-JW-B-2-20 **Lab ID: 60175350005** Collected: 08/06/14 12:20 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**108**	mg/kg	10.4	1	08/08/14 00:00	08/11/14 12:05		
Surrogates								
n-Tetracosane (S)	99	%	35-147	1	08/08/14 00:00	08/11/14 12:05	646-31-1	
p-Terphenyl (S)	100	%	37-138	1	08/08/14 00:00	08/11/14 12:05	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**17.2**	mg/kg	10.5	1	08/12/14 00:00	08/12/14 14:49		
Surrogates								
4-Bromofluorobenzene (S)	92	%	52-153	1	08/12/14 00:00	08/12/14 14:49	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.4**	%	0.50	1		08/08/14 00:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	106	10	08/12/14 08:00	08/12/14 15:40	16887-00-6	

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080614-JW-B-2-25 **Lab ID: 60175350006** Collected: 08/06/14 12:35 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.1	1		08/11/14 17:54	71-43-2	
Ethylbenzene	ND	ug/kg	5.1	1		08/11/14 17:54	100-41-4	
Toluene	ND	ug/kg	5.1	1		08/11/14 17:54	108-88-3	
Xylene (Total)	ND	ug/kg	5.1	1		08/11/14 17:54	1330-20-7	
Surrogates								
Toluene-d8 (S)	101	%	80-120	1		08/11/14 17:54	2037-26-5	
4-Bromofluorobenzene (S)	100	%	76-123	1		08/11/14 17:54	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	75-129	1		08/11/14 17:54	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**2.4**	%	0.50	1		08/08/14 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080614-JW-B-3-15 **Lab ID: 60175350007** Collected: 08/06/14 14:15 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**246**	mg/kg	10.9	1	08/08/14 00:00	08/11/14 12:12		
Surrogates								
n-Tetracosane (S)	94	%	35-147	1	08/08/14 00:00	08/11/14 12:12	646-31-1	
p-Terphenyl (S)	98	%	37-138	1	08/08/14 00:00	08/11/14 12:12	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**55.8**	mg/kg	11.2	1	08/12/14 00:00	08/12/14 15:06		
Surrogates								
4-Bromofluorobenzene (S)	96	%	52-153	1	08/12/14 00:00	08/12/14 15:06	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	275	50		08/12/14 11:41	71-43-2	
Ethylbenzene	ND	ug/kg	275	50		08/12/14 11:41	100-41-4	
Toluene	ND	ug/kg	275	50		08/12/14 11:41	108-88-3	
Xylene (Total)	**5890**	ug/kg	275	50		08/12/14 11:41	1330-20-7	
Surrogates								
Toluene-d8 (S)	101	%	80-120	50		08/12/14 11:41	2037-26-5	
4-Bromofluorobenzene (S)	100	%	76-123	50		08/12/14 11:41	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	75-129	50		08/12/14 11:41	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**10.3**	%	0.50	1		08/08/14 00:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	112	10	08/12/14 08:00	08/12/14 15:55	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080614-JW-B-3-20 **Lab ID: 60175350008** Collected: 08/06/14 14:20 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.7	1	08/08/14 00:00	08/11/14 12:20		
Surrogates								
n-Tetracosane (S)	97	%	35-147	1	08/08/14 00:00	08/11/14 12:20	646-31-1	
p-Terphenyl (S)	99	%	37-138	1	08/08/14 00:00	08/11/14 12:20	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.6	1	08/12/14 00:00	08/12/14 15:23		
Surrogates								
4-Bromofluorobenzene (S)	93	%	52-153	1	08/12/14 00:00	08/12/14 15:23	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**6.4**	%	0.50	1		08/08/14 00:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	107	10	08/12/14 08:00	08/12/14 16:09	16887-00-6	

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080614-JW-B-3-25 **Lab ID: 60175350009** Collected: 08/06/14 14:30 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.3	1		08/11/14 18:40	71-43-2	
Ethylbenzene	ND	ug/kg	5.3	1		08/11/14 18:40	100-41-4	
Toluene	ND	ug/kg	5.3	1		08/11/14 18:40	108-88-3	
Xylene (Total)	ND	ug/kg	5.3	1		08/11/14 18:40	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	80-120	1		08/11/14 18:40	2037-26-5	
4-Bromofluorobenzene (S)	95	%	76-123	1		08/11/14 18:40	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	75-129	1		08/11/14 18:40	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.8**	%	0.50	1		08/08/14 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080614-JW-B-4-10 **Lab ID: 60175350010** Collected: 08/06/14 15:20 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**230**	mg/kg	11.2	1	08/08/14 00:00	08/11/14 12:27		
Surrogates								
n-Tetracosane (S)	97	%	35-147	1	08/08/14 00:00	08/11/14 12:27	646-31-1	
p-Terphenyl (S)	101	%	37-138	1	08/08/14 00:00	08/11/14 12:27	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**26.0**	mg/kg	11.3	1	08/12/14 00:00	08/12/14 16:12		
Surrogates								
4-Bromofluorobenzene (S)	93	%	52-153	1	08/12/14 00:00	08/12/14 16:12	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	280	50		08/12/14 11:56	71-43-2	
Ethylbenzene	ND	ug/kg	280	50		08/12/14 11:56	100-41-4	
Toluene	ND	ug/kg	280	50		08/12/14 11:56	108-88-3	
Xylene (Total)	**668**	ug/kg	280	50		08/12/14 11:56	1330-20-7	
Surrogates								
uene-d8 (S)	101	%	80-120	50		08/12/14 11:56	2037-26-5	
Bromofluorobenzene (S)	104	%	76-123	50		08/12/14 11:56	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	75-129	50		08/12/14 11:56	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.6**	%	0.50	1		08/08/14 00:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**160**	mg/kg	113	10	08/12/14 08:00	08/12/14 16:24	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080614-JW-B-4-20 **Lab ID: 60175350011** Collected: 08/06/14 15:40 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**17.1**	%	0.50	1		08/08/14 00:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	ND	mg/kg	121	10	08/12/14 08:00	08/12/14 17:07	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Analytical Ser Inc.
Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080614-JW-B-4-25 **Lab ID: 60175350012** Collected: 08/06/14 15:50 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	11.9	1	08/08/14 00:00	08/11/14 12:34		
Surrogates								
n-Tetracosane (S)	84	%	35-147	1	08/08/14 00:00	08/11/14 12:34	646-31-1	
p-Terphenyl (S)	96	%	37-138	1	08/08/14 00:00	08/11/14 12:34	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.2	1	08/12/14 00:00	08/12/14 16:29		
Surrogates								
4-Bromofluorobenzene (S)	92	%	52-153	1	08/12/14 00:00	08/12/14 16:29	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	6.1	1		08/11/14 18:56	71-43-2	
Ethylbenzene	ND	ug/kg	6.1	1		08/11/14 18:56	100-41-4	
Toluene	ND	ug/kg	6.1	1		08/11/14 18:56	108-88-3	
Xylene (Total)	ND	ug/kg	6.1	1		08/11/14 18:56	1330-20-7	
Surrogates								
Toluene-d8 (S)	100	%	80-120	1		08/11/14 18:56	2037-26-5	
4-Bromofluorobenzene (S)	98	%	76-123	1		08/11/14 18:56	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	75-129	1		08/11/14 18:56	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**18.3**	%	0.50	1		08/08/14 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080714-CB-B-5-15 **Lab ID: 60175350013** Collected: 08/07/14 10:07 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**1120**	mg/kg	55.6	5	08/08/14 00:00	08/11/14 13:45		
Surrogates								
n-Tetracosane (S)	0	%	35-147	5	08/08/14 00:00	08/11/14 13:45	646-31-1	S4
p-Terphenyl (S)	0	%	37-138	5	08/08/14 00:00	08/11/14 13:45	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**126**	mg/kg	11.3	1	08/12/14 00:00	08/12/14 16:46		
Surrogates								
4-Bromofluorobenzene (S)	98	%	52-153	1	08/12/14 00:00	08/12/14 16:46	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	281	50		08/12/14 12:12	71-43-2	
Ethylbenzene	**565**	ug/kg	281	50		08/12/14 12:12	100-41-4	
Toluene	ND	ug/kg	281	50		08/12/14 12:12	108-88-3	
Xylene (Total)	**12000**	ug/kg	281	50		08/12/14 12:12	1330-20-7	
Surrogates								
Toluene-d8 (S)	102	%	80-120	50		08/12/14 12:12	2037-26-5	
4-Bromofluorobenzene (S)	99	%	76-123	50		08/12/14 12:12	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	75-129	50		08/12/14 12:12	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**10.8**	%	0.50	1		08/08/14 00:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**195**	mg/kg	112	10	08/12/14 08:00	08/12/14 17:21	16887-00-6	

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080714-CB-B-5-25 **Lab ID: 60175350014** Collected: 08/07/14 10:25 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.5**	%	0.50	1		08/08/14 00:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Preparation Method: EPA 300.0							
Chloride	**134**	mg/kg	106	10	08/12/14 08:00	08/12/14 17:36	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080714-CB-B-5-30 **Lab ID: 60175350015** Collected: 08/07/14 10:44 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 3546					
TPH-DRO	**10.7**	mg/kg	10.6	1	08/08/14 00:00	08/11/14 12:48		
Surrogates								
n-Tetracosane (S)	88	%	35-147	1	08/08/14 00:00	08/11/14 12:48	646-31-1	
p-Terphenyl (S)	92	%	37-138	1	08/08/14 00:00	08/11/14 12:48	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 5035A/5030B					
TPH-GRO	ND	mg/kg	10.7	1	08/12/14 00:00	08/12/14 17:02		
Surrogates								
4-Bromofluorobenzene (S)	94	%	52-153	1	08/12/14 00:00	08/12/14 17:02	460-00-4	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.3	1		08/11/14 19:11	71-43-2	
Ethylbenzene	ND	ug/kg	5.3	1		08/11/14 19:11	100-41-4	
Toluene	ND	ug/kg	5.3	1		08/11/14 19:11	108-88-3	
Xylene (Total)	ND	ug/kg	5.3	1		08/11/14 19:11	1330-20-7	
Surrogates								
Toluene-d8 (S)	99	%	80-120	1		08/11/14 19:11	2037-26-5	
4-Bromofluorobenzene (S)	99	%	76-123	1		08/11/14 19:11	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	75-129	1		08/11/14 19:11	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**6.9**	%	0.50	1		08/08/14 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: S.086010-080714-CB-WASTE **Lab ID: 60175350016** Collected: 08/07/14 13:00 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Leachate Method/Date: EPA 1311; 08/11/14 00:00							
Arsenic	ND	mg/L	0.50	1	08/12/14 16:55	08/13/14 12:37	7440-38-2	
Barium	ND	mg/L	2.5	1	08/12/14 16:55	08/13/14 12:37	7440-39-3	
Cadmium	ND	mg/L	0.050	1	08/12/14 16:55	08/13/14 12:37	7440-43-9	
Chromium	ND	mg/L	0.10	1	08/12/14 16:55	08/13/14 12:37	7440-47-3	
Lead	ND	mg/L	0.50	1	08/12/14 16:55	08/13/14 12:37	7439-92-1	
Selenium	ND	mg/L	0.50	1	08/12/14 16:55	08/13/14 12:37	7782-49-2	
Silver	ND	mg/L	0.10	1	08/12/14 16:55	08/13/14 12:37	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470 Leachate Method/Date: EPA 1311; 08/11/14 00:00							
Mercury	ND	mg/L	0.0020	1	08/12/14 16:15	08/13/14 10:02	7439-97-6	
8260 MSV TCLP	Analytical Method: EPA 8260 Leachate Method/Date: EPA 1311; 08/09/14 00:00							
Benzene	ND	ug/L	50.0	1		08/12/14 04:56	71-43-2	
rrogates								
-Dichloroethane-d4 (S)	97	%	80-120	1		08/12/14 04:56	17060-07-0	
oluene-d8 (S)	106	%	80-120	1		08/12/14 04:56	2037-26-5	
4-Bromofluorobenzene (S)	91	%	80-120	1		08/12/14 04:56	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**3.0**	%	0.50	1		08/08/14 00:00		
Reactive Sulfide	Analytical Method: SW-846 7.3.4.2 Preparation Method: SW-846 7.3.4.2							
Sulfide, Reactive	ND	mg/kg	60.0	1	08/13/14 09:38	08/13/14 11:44		
9045 pH Soil	Analytical Method: EPA 9045							
pH at 25 Degrees C	**10.3**	Std. Units	0.10	1		08/13/14 10:00		H1
Flashpoint, Open Cup	Analytical Method: ASTM D92							
Flashpoint	**>210**	deg F		1		08/13/14 11:00		
733C S Reactive Cyanide	Analytical Method: SW-846 7.3.3.2 Preparation Method: SW-846 7.3.3.2							
Cyanide, Reactive	ND	mg/kg	3.0	1	08/13/14 09:38	08/13/14 11:31		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Sample: TRIP BLANK **Lab ID: 60175350017** Collected: 08/07/14 13:00 Received: 08/08/14 08:40 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	ug/kg	5.0	1		08/12/14 09:53	71-43-2	
Ethylbenzene	ND	ug/kg	5.0	1		08/12/14 09:53	100-41-4	
Toluene	ND	ug/kg	5.0	1		08/12/14 09:53	108-88-3	
Xylene (Total)	ND	ug/kg	5.0	1		08/12/14 09:53	1330-20-7	
Surrogates								
Toluene-d8 (S)	98	%	80-120	1		08/12/14 09:53	2037-26-5	
4-Bromofluorobenzene (S)	99	%	76-123	1		08/12/14 09:53	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	75-129	1		08/12/14 09:53	17060-07-0	

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: GCV/4848 Analysis Method: EPA 8015B
QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics
Associated Lab Samples: 60175350001, 60175350002, 60175350004, 60175350005, 60175350007, 60175350008, 60175350010, 60175350012, 60175350013, 60175350015

METHOD BLANK: 1424158 Matrix: Solid
Associated Lab Samples: 60175350001, 60175350002, 60175350004, 60175350005, 60175350007, 60175350008, 60175350010, 60175350012, 60175350013, 60175350015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	08/12/14 12:06	
4-Bromofluorobenzene (S)	%	96	52-153	08/12/14 12:06	

LABORATORY CONTROL SAMPLE: 1424159

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	40.1	80	58-139	
4-Bromofluorobenzene (S)	%			97	52-153	

ATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1424160 1424161

Parameter	Units	60175350001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-GRO	mg/kg	790	295	295	1120	1100	113	105	33-144	2	32	
4-Bromofluorobenzene (S)	%						100	100	52-153			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: MERP/8689
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 60175350016

METHOD BLANK: 1424421 Matrix: Water
Associated Lab Samples: 60175350016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/L	ND	0.0020	08/13/14 09:46	

LABORATORY CONTROL SAMPLE: 1424422

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.005	0.0045	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1424423 1424424

Parameter	Units	60175350016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.015	.015	0.013	0.014	85	91	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: MPRP/28473
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET TCLP
Associated Lab Samples: 60175350016

METHOD BLANK: 1424532 Matrix: Water
Associated Lab Samples: 60175350016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.50	08/13/14 12:35	
Barium	mg/L	ND	2.5	08/13/14 12:35	
Cadmium	mg/L	ND	0.050	08/13/14 12:35	
Chromium	mg/L	ND	0.10	08/13/14 12:35	
Lead	mg/L	ND	0.50	08/13/14 12:35	
Selenium	mg/L	ND	0.50	08/13/14 12:35	
Silver	mg/L	ND	0.10	08/13/14 12:35	

LABORATORY CONTROL SAMPLE: 1424533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	1	0.93	93	80-120	
Barium	mg/L	1	0.98	98	80-120	
Cadmium	mg/L	1	0.94	94	80-120	
Chromium	mg/L	1	0.94	94	80-120	
Lead	mg/L	1	0.97	97	80-120	
Selenium	mg/L	1	0.90	90	80-120	
Silver	mg/L	.5	0.47	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1424534 1424535

Parameter	Units	60175350016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	10	10	9.9	10.0	99	100	75-125	1	20	
Barium	mg/L	ND	10	10	10.9	10.9	100	100	75-125	0	20	
Cadmium	mg/L	ND	10	10	9.8	9.9	98	99	75-125	1	20	
Chromium	mg/L	ND	10	10	9.5	9.5	95	95	75-125	0	20	
Lead	mg/L	ND	10	10	9.6	9.7	96	97	75-125	1	20	
Selenium	mg/L	ND	10	10	9.7	9.8	97	98	75-125	1	20	
Silver	mg/L	ND	5	5	4.9	4.9	97	97	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: MSV/63482
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV TCLP
Associated Lab Samples: 60175350016

METHOD BLANK: 1423737 Matrix: Water
Associated Lab Samples: 60175350016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	50.0	08/12/14 03:17	
1,2-Dichloroethane-d4 (S)	%	99	80-120	08/12/14 03:17	
4-Bromofluorobenzene (S)	%	95	80-120	08/12/14 03:17	
Toluene-d8 (S)	%	109	80-120	08/12/14 03:17	

LABORATORY CONTROL SAMPLE: 1423738

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	200	182	91	80-120	
1,2-Dichloroethane-d4 (S)	%			97	80-120	
4-Bromofluorobenzene (S)	%			98	80-120	
Toluene-d8 (S)	%			109	80-120	

MATRIX SPIKE SAMPLE: 1423739

Parameter	Units	60175239005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	ND	200	167	83	37-157	
1,2-Dichloroethane-d4 (S)	%				96	80-120	
4-Bromofluorobenzene (S)	%				97	80-120	
Toluene-d8 (S)	%				105	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: MSV/63488 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 60175350006, 60175350009, 60175350012, 60175350015

METHOD BLANK: 1423834 Matrix: Solid
Associated Lab Samples: 60175350006, 60175350009, 60175350012, 60175350015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	08/11/14 15:19	
Ethylbenzene	ug/kg	ND	5.0	08/11/14 15:19	
Toluene	ug/kg	ND	5.0	08/11/14 15:19	
Xylene (Total)	ug/kg	ND	5.0	08/11/14 15:19	
1,2-Dichloroethane-d4 (S)	%	99	75-129	08/11/14 15:19	
4-Bromofluorobenzene (S)	%	100	76-123	08/11/14 15:19	
Toluene-d8 (S)	%	100	80-120	08/11/14 15:19	

LABORATORY CONTROL SAMPLE: 1423835

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	100	88.9	89	80-120	
Ethylbenzene	ug/kg	100	88.6	89	80-120	
Toluene	ug/kg	100	91.6	92	79-120	
Xylene (Total)	ug/kg	300	266	89	79-120	
1,2-Dichloroethane-d4 (S)	%			96	75-129	
4-Bromofluorobenzene (S)	%			96	76-123	
Toluene-d8 (S)	%			101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1423836 1423837

Parameter	Units	60175350006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/kg	ND	101	101	75.3	75.2	74	74	22-144	0	38	
Ethylbenzene	ug/kg	ND	101	101	79.2	79.2	78	78	10-154	0	42	
Toluene	ug/kg	ND	101	101	77.3	77.2	76	76	11-150	0	40	
Xylene (Total)	ug/kg	ND	303	303	224	223	74	74	10-154	0	41	
1,2-Dichloroethane-d4 (S)	%						100	100	75-129			
4-Bromofluorobenzene (S)	%						98	98	76-123			
Toluene-d8 (S)	%						100	101	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: MSV/63498 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 60175350001, 60175350004, 60175350007, 60175350010, 60175350013, 60175350017

METHOD BLANK: 1424041 Matrix: Solid
Associated Lab Samples: 60175350001, 60175350004, 60175350007, 60175350010, 60175350013, 60175350017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	08/12/14 09:37	
Ethylbenzene	ug/kg	ND	5.0	08/12/14 09:37	
Toluene	ug/kg	ND	5.0	08/12/14 09:37	
Xylene (Total)	ug/kg	ND	5.0	08/12/14 09:37	
1,2-Dichloroethane-d4 (S)	%	95	75-129	08/12/14 09:37	
4-Bromofluorobenzene (S)	%	98	76-123	08/12/14 09:37	
Toluene-d8 (S)	%	101	80-120	08/12/14 09:37	

LABORATORY CONTROL SAMPLE: 1424042

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	100	85.4	85	80-120	
Ethylbenzene	ug/kg	100	88.2	88	80-120	
Toluene	ug/kg	100	84.7	85	79-120	
Xylene (Total)	ug/kg	300	264	88	79-120	
1,2-Dichloroethane-d4 (S)	%			91	75-129	
4-Bromofluorobenzene (S)	%			97	76-123	
Toluene-d8 (S)	%			100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1424051 1424052

Parameter	Units	60175350001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/kg	ND	5950	5950	5710	5440	94	90	22-144	5	38	
Ethylbenzene	ug/kg	2940	5950	5950	8760	8350	98	91	10-154	5	42	
Toluene	ug/kg	2250	5950	5950	7970	7760	96	93	11-150	3	40	
Xylene (Total)	ug/kg	52800	17800	17800	69800	67600	95	83	10-154	3	41	
1,2-Dichloroethane-d4 (S)	%						95	98	75-129			
4-Bromofluorobenzene (S)	%						102	100	76-123			
Toluene-d8 (S)	%						104	105	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: MSV/63516
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 60175350003, 60175350004

METHOD BLANK: 1424314
Matrix: Solid
Associated Lab Samples: 60175350003, 60175350004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	08/12/14 15:17	
Ethylbenzene	ug/kg	ND	5.0	08/12/14 15:17	
Toluene	ug/kg	ND	5.0	08/12/14 15:17	
Xylene (Total)	ug/kg	ND	5.0	08/12/14 15:17	
1,2-Dichloroethane-d4 (S)	%	100	75-129	08/12/14 15:17	
4-Bromofluorobenzene (S)	%	97	76-123	08/12/14 15:17	
Toluene-d8 (S)	%	101	80-120	08/12/14 15:17	

LABORATORY CONTROL SAMPLE: 1424315

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	100	88.1	88	80-120	
Ethylbenzene	ug/kg	100	92.3	92	80-120	
Toluene	ug/kg	100	90.4	90	79-120	
Xylene (Total)	ug/kg	300	267	89	79-120	
1,2-Dichloroethane-d4 (S)	%			99	75-129	
4-Bromofluorobenzene (S)	%			97	76-123	
Toluene-d8 (S)	%			100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1424316 1424317

Parameter	Units	60175488001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/kg	ND	139	138	62.7	72.5	45	52	22-144	14	38	
Ethylbenzene	ug/kg	ND	139	138	64.9	73.9	46	53	10-154	13	42	
Toluene	ug/kg	ND	139	138	64.0	72.1	46	52	11-150	12	40	
Xylene (Total)	ug/kg	ND	420	416	179	207	43	50	10-154	14	41	
1,2-Dichloroethane-d4 (S)	%						113	108	75-129			
4-Bromofluorobenzene (S)	%						104	99	76-123			
Toluene-d8 (S)	%						101	101	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: OEXT/45506 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B
Associated Lab Samples: 60175350001, 60175350002, 60175350004, 60175350005, 60175350007, 60175350008, 60175350010, 60175350012, 60175350013, 60175350015

METHOD BLANK: 1422668 Matrix: Solid
Associated Lab Samples: 60175350001, 60175350002, 60175350004, 60175350005, 60175350007, 60175350008, 60175350010, 60175350012, 60175350013, 60175350015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO	mg/kg	ND	10	08/11/14 11:01	
n-Tetracosane (S)	%	94	35-147	08/11/14 11:01	
p-Terphenyl (S)	%	105	37-138	08/11/14 11:01	

LABORATORY CONTROL SAMPLE: 1422669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO	mg/kg	82.4	74.2	90	66-120	
n-Tetracosane (S)	%			87	35-147	
p-Terphenyl (S)	%			100	37-138	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1422670 1422671

Parameter	Units	60175350001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-DRO	mg/kg	1860	99	96.9	2920	3210	1071	1398	22-152	10	43	M1
n-Tetracosane (S)	%						0	0	35-147			S4
p-Terphenyl (S)	%						0	0	37-138			S4

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: PMST/9896 Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 60175350001, 60175350002, 60175350003, 60175350004, 60175350005, 60175350006, 60175350007, 60175350008, 60175350009, 60175350010, 60175350011, 60175350012, 60175350013, 60175350014, 60175350015, 60175350016

METHOD BLANK: 1422678 Matrix: Solid
Associated Lab Samples: 60175350001, 60175350002, 60175350003, 60175350004, 60175350005, 60175350006, 60175350007, 60175350008, 60175350009, 60175350010, 60175350011, 60175350012, 60175350013, 60175350014, 60175350015, 60175350016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	08/08/14 00:00	

SAMPLE DUPLICATE: 1422679

Parameter	Units	60175350001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.9	16.1	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: WET/4760
QC Batch Method: SW-846 7.3.4.2
Analysis Method: SW-846 7.3.4.2
Analysis Description: Reactive Sulfide
Associated Lab Samples: 60175350016

METHOD BLANK: 90830 Matrix: Solid
Associated Lab Samples: 60175350016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide, Reactive	mg/kg	ND	60.0	08/13/14 11:44	

SAMPLE DUPLICATE: 90831

Parameter	Units	60175171001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide, Reactive	mg/kg	ND	ND		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: WET/49578
QC Batch Method: EPA 9045
Analysis Method: EPA 9045
Analysis Description: 9045 pH
Associated Lab Samples: 60175350016

SAMPLE DUPLICATE: 1424748

Parameter	Units	60175350016 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	10.3	10.3	0	3	H1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: WETA/30572 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 60175350001, 60175350002, 60175350004, 60175350005, 60175350007, 60175350008, 60175350010, 60175350011, 60175350013, 60175350014

METHOD BLANK: 1423891 Matrix: Solid
Associated Lab Samples: 60175350001, 60175350002, 60175350004, 60175350005, 60175350007, 60175350008, 60175350010, 60175350011, 60175350013, 60175350014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/kg	ND	100	08/12/14 13:16	

LABORATORY CONTROL SAMPLE: 1423892

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	500	480	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1423893 1423894

Parameter	Units	60175350001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/kg	ND	595	595	604	608	82	83	80-120	1	15	

MATRIX SPIKE SAMPLE: 1423895

Parameter	Units	60175350002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/kg	109	541	557	83	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

QC Batch: WETA/5712
QC Batch Method: SW-846 7.3.3.2
Analysis Method: SW-846 7.3.3.2
Analysis Description: 733C Reactive Cyanide
Associated Lab Samples: 60175350016

METHOD BLANK: 90828
Matrix: Solid
Associated Lab Samples: 60175350016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide, Reactive	mg/kg	ND	3.0	08/13/14 11:29	

SAMPLE DUPLICATE: 90829

Parameter	Units	60175171001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide, Reactive	mg/kg	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-D	Pace Analytical Services - Dallas
PASI-K	Pace Analytical Services - Kansas City

ANALYTE QUALIFIERS

H1	Analysis conducted outside the EPA method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60175350001	S.086010-080614-JW-B-1-5	EPA 3546	OEXT/45506	EPA 8015B	GCSV/17371
60175350002	S.086010-080614-JW-B-1-20	EPA 3546	OEXT/45506	EPA 8015B	GCSV/17371
60175350004	S.086010-080614-JW-B-2-5	EPA 3546	OEXT/45506	EPA 8015B	GCSV/17371
60175350005	S.086010-080614-JW-B-2-20	EPA 3546	OEXT/45506	EPA 8015B	GCSV/17371
60175350007	S.086010-080614-JW-B-3-15	EPA 3546	OEXT/45506	EPA 8015B	GCSV/17371
60175350008	S.086010-080614-JW-B-3-20	EPA 3546	OEXT/45506	EPA 8015B	GCSV/17371
60175350010	S.086010-080614-JW-B-4-10	EPA 3546	OEXT/45506	EPA 8015B	GCSV/17371
60175350012	S.086010-080614-JW-B-4-25	EPA 3546	OEXT/45506	EPA 8015B	GCSV/17371
60175350013	S.086010-080714-CB-B-5-15	EPA 3546	OEXT/45506	EPA 8015B	GCSV/17371
60175350015	S.086010-080714-CB-B-5-30	EPA 3546	OEXT/45506	EPA 8015B	GCSV/17371
60175350001	S.086010-080614-JW-B-1-5	EPA 5035A/5030B	GCV/4848	EPA 8015B	GCV/4849
60175350002	S.086010-080614-JW-B-1-20	EPA 5035A/5030B	GCV/4848	EPA 8015B	GCV/4849
60175350004	S.086010-080614-JW-B-2-5	EPA 5035A/5030B	GCV/4848	EPA 8015B	GCV/4849
60175350005	S.086010-080614-JW-B-2-20	EPA 5035A/5030B	GCV/4848	EPA 8015B	GCV/4849
60175350007	S.086010-080614-JW-B-3-15	EPA 5035A/5030B	GCV/4848	EPA 8015B	GCV/4849
60175350008	S.086010-080614-JW-B-3-20	EPA 5035A/5030B	GCV/4848	EPA 8015B	GCV/4849
60175350010	S.086010-080614-JW-B-4-10	EPA 5035A/5030B	GCV/4848	EPA 8015B	GCV/4849
60175350012	S.086010-080614-JW-B-4-25	EPA 5035A/5030B	GCV/4848	EPA 8015B	GCV/4849
60175350013	S.086010-080714-CB-B-5-15	EPA 5035A/5030B	GCV/4848	EPA 8015B	GCV/4849
175350015	S.086010-080714-CB-B-5-30	EPA 5035A/5030B	GCV/4848	EPA 8015B	GCV/4849
60175350016	S.086010-080714-CB-WASTE	EPA 3010	MPRP/28473	EPA 6010	ICP/21472
60175350016	S.086010-080714-CB-WASTE	EPA 7470	MERP/8689	EPA 7470	MERC/8641
60175350016	S.086010-080714-CB-WASTE	EPA 8260	MSV/63482		
60175350001	S.086010-080614-JW-B-1-5	EPA 8260	MSV/63498		
60175350003	S.086010-080614-JW-B-1-25	EPA 8260	MSV/63516		
60175350004	S.086010-080614-JW-B-2-5	EPA 8260	MSV/63498		
60175350004	S.086010-080614-JW-B-2-5	EPA 8260	MSV/63516		
60175350006	S.086010-080614-JW-B-2-25	EPA 8260	MSV/63488		
60175350007	S.086010-080614-JW-B-3-15	EPA 8260	MSV/63498		
60175350009	S.086010-080614-JW-B-3-25	EPA 8260	MSV/63488		
60175350010	S.086010-080614-JW-B-4-10	EPA 8260	MSV/63498		
60175350012	S.086010-080614-JW-B-4-25	EPA 8260	MSV/63488		
60175350013	S.086010-080714-CB-B-5-15	EPA 8260	MSV/63498		
60175350015	S.086010-080714-CB-B-5-30	EPA 8260	MSV/63488		
60175350017	TRIP BLANK	EPA 8260	MSV/63498		
60175350001	S.086010-080614-JW-B-1-5	ASTM D2974	PMST/9896		
60175350002	S.086010-080614-JW-B-1-20	ASTM D2974	PMST/9896		
60175350003	S.086010-080614-JW-B-1-25	ASTM D2974	PMST/9896		
60175350004	S.086010-080614-JW-B-2-5	ASTM D2974	PMST/9896		
60175350005	S.086010-080614-JW-B-2-20	ASTM D2974	PMST/9896		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 086010 SAN JUAN 27-5 NO.69
Pace Project No.: 60175350

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60175350006	S.086010-080614-JW-B-2-25	ASTM D2974	PMST/9896		
60175350007	S.086010-080614-JW-B-3-15	ASTM D2974	PMST/9896		
60175350008	S.086010-080614-JW-B-3-20	ASTM D2974	PMST/9896		
60175350009	S.086010-080614-JW-B-3-25	ASTM D2974	PMST/9896		
60175350010	S.086010-080614-JW-B-4-10	ASTM D2974	PMST/9896		
60175350011	S.086010-080614-JW-B-4-20	ASTM D2974	PMST/9896		
60175350012	S.086010-080614-JW-B-4-25	ASTM D2974	PMST/9896		
60175350013	S.086010-080714-CB-B-5-15	ASTM D2974	PMST/9896		
60175350014	S.086010-080714-CB-B-5-25	ASTM D2974	PMST/9896		
60175350015	S.086010-080714-CB-B-5-30	ASTM D2974	PMST/9896		
60175350016	S.086010-080714-CB-WASTE	ASTM D2974	PMST/9896		
60175350016	S.086010-080714-CB-WASTE	SW-846 7.3.4.2	WET/4760	SW-846 7.3.4.2	WET/4765
60175350016	S.086010-080714-CB-WASTE	EPA 9045	WET/49578		
60175350016	S.086010-080714-CB-WASTE	ASTM D92	WET/49577		
60175350001	S.086010-080614-JW-B-1-5	EPA 300.0	WETA/30572	EPA 300.0	WETA/30573
60175350002	S.086010-080614-JW-B-1-20	EPA 300.0	WETA/30572	EPA 300.0	WETA/30573
60175350004	S.086010-080614-JW-B-2-5	EPA 300.0	WETA/30572	EPA 300.0	WETA/30573
60175350005	S.086010-080614-JW-B-2-20	EPA 300.0	WETA/30572	EPA 300.0	WETA/30573
60175350007	S.086010-080614-JW-B-3-15	EPA 300.0	WETA/30572	EPA 300.0	WETA/30573
60175350008	S.086010-080614-JW-B-3-20	EPA 300.0	WETA/30572	EPA 300.0	WETA/30573
60175350010	S.086010-080614-JW-B-4-10	EPA 300.0	WETA/30572	EPA 300.0	WETA/30573
60175350011	S.086010-080614-JW-B-4-20	EPA 300.0	WETA/30572	EPA 300.0	WETA/30573
60175350013	S.086010-080714-CB-B-5-15	EPA 300.0	WETA/30572	EPA 300.0	WETA/30573
60175350014	S.086010-080714-CB-B-5-25	EPA 300.0	WETA/30572	EPA 300.0	WETA/30573
60175350016	S.086010-080714-CB-WASTE	SW-846 7.3.3.2	WETA/5712	SW-846 7.3.3.2	WETA/5716

WO#:60175350

60175350

Pace Analytical® www.pacelabs.com

Sample Condition Upon Receipt ESI Tech Spec Client

Optional	
Proj Due Date:	
Proj Name:	

Client Name: COP CRA NM

Courier: Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 8059 3303 5586 Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: (T-239) / T-194 **Type of Ice:** (Wet) Blue None (circle one) ☐ Samples received on ice, cooling process has begun.

Cooler Temperature: 5.6

Temperature should be above freezing to 6°C

Date and initials of person examining contents: AH 8/8

Chain of Custody present:	☑Yes	☐No	☐N/A	1.
Chain of Custody filled out:	☑Yes	☐No	☐N/A	2.
Chain of Custody relinquished:	☑Yes	☐No	☐N/A	3.
Sampler name & signature on COC:	☑Yes	☐No	☐N/A	4.
Samples arrived within holding time:	☑Yes	☐No	☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time requested:	☑Yes	☐No	☐N/A	7. 3 day
Sufficient volume:	☑Yes	☐No	☐N/A	8.
Correct containers used:	☑Yes	☐No	☐N/A	
Pace containers used:	☑Yes	☐No	☐N/A	9.
Containers intact:	☑Yes	☐No	☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes	☐No	☑N/A	11.
Filtered volume received for dissolved tests?	☐Yes	☐No	☑N/A	12.
Sample labels match COC:	☑Yes	☐No	☐N/A	Sample JW-B-2-20 ft missing 1 container AH 8/8 Sample CB-B-5-30 missing 1 container
Includes date/time/ID/analyses Matrix: SL				13.
All containers needing preservation have been checked.	☐Yes	☐No	☑N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☑N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☐Yes	☑No		Initial when completed / Lot # of added preservative
Trip Blank present:	☐Yes	☐No	☑N/A	
Pace Trip Blank lot # (if purchased):				15.
Headspace in VOA vials (>6mm):	☐Yes	☐No	☑N/A	16.
Project sampled in USDA Regulated Area:	☐Yes	☑No	☐N/A	17. List State: NM

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: ________ Date/Time: ________

Comments/ Resolution: ________

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.	
Start: 10:25	Start:
End: 9:45	End:
Temp:	Temp:

Project Manager Review: ELW & AAF Date: 8/11/14

F-KS-C-004-Rev 2, 04December2012

Pace Analytical
www.pacelabs.com

Chain-of-Custody / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	COP CRA NM	Report To:	Bernie Bockisch	Attention:	ePayables
Address:	6121 Indian School Rd NE, Ste 200	Copy To:	Cale Canack	Company Name:	
	Albequerque, NM 87110		Angela Bown	Address:	
Email To:	bbockisch@craworld.com	Purchase Order No.:		Pace Quote Reference:	
Phone:	505-884-0672 Fax:	Project Name:	San Juan 27-5 No. 69	Pace Project Manager:	Alice Flanagan
Requested Due Date/TAT:	standard	Project Number:	86010	Pace Profile #:	7275

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NM

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260 BTEX	8015 TPH GRO	8015 TPH DRO	300.0 Chloride	RCRA 8 Metals	TCLP Benzene	Reactivity	Ignitability	Corrosivity/pH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	S:080010-080014-JW-B-1-5	SL	G			8/6/14			4	X									X	X	X	X						4(UGFU) 001
2	S:080010-080014-JW-B-1-20	SL	G			8/6/14			2	X										X	X	X						2(UGFU) 002
3	S:080010-080014-JW-B-1-25	SL	G			8/6/14			1	X									X									1(UGFU) 003
4	S:080010-080014-JW-B-2-5	SL	G			8/6/14	1150		4	X									X	X	X	X						4(UGFU) 004
5	S:080010-080014-JW-B-2-20	SL	G			8/6/14	1220		2	X										X	X	X						2(UGFU) 005
6	S:080010-080014-JW-B-2-25	SL	G			8/6/14	1235		1	X									X									1(UGFU) 006
7	S:080010-080014-JW-B-3-15	SL	G			8/6/14	1415		4	X									X	X	X	X						4(UGFU) 007
8	S:080010-080014-JW-B-3-20	SL	G			8/6/14	1420		2	X										X	X	X						2(UGFU) 008
9	S:080010-080014-JW-B-3-25	SL	G			8/6/14	1430		1	X									X									1(UGFU) 009
10	S:080010-080014-JW-B-4-10	SL	G			8/6/14	1520		4	X									X	X	X	X						4(UGFU) 010
11	S:080010-080014-JW-B-4-20	SL	G			8/6/14	1540		1	X												X						1(UGFU) 011
12	S:080010-080014-JW-B-4-25	SL	G			8/6/14	1550		2	X									X	X	X							2(UGFU) 012

Cal 33.50

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Cassie Brown	8/7/14	1400	Anathameda/PAS	8/8	8:40	5-6	Y	Y	Y
Please rush - 3-Day										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cassie Brown

SIGNATURE of SAMPLER: Cassie Brown DATE Signed (MM/DD/YY): 8/7/14

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

CONESTOGA-ROVERS & ASSOCIATES

CHAIN OF CUSTODY RECORD

Address: 6121 Indian School Rd NE #200

Phone: (505) 884-0672 Fax:

COC NO.: 32884

PAGE 2 OF 2

(See Reverse Side for Instructions)

60175350

Project No/ Phase/Task Code: 086010	Laboratory Name: Pace Analytical	Lab Location:	SSOW ID:
Project Name: San Juan 27-5 #69	Lab Contact: Alice Flanagan	Lab Quote No:	Cooler No:
Project Location: Rio Arriba County, NM			Carrier:
Chemistry Contact: Angie Brown			Airbill No: Fedex
Sampler(s): Jeff Walker, Cassie Brown			Date Shipped: 8/7/14

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Sample Type: Matrix Code (see back of COC)	Sample Type: Grab (G) or Comp (C)	Container Quantity & Preservation: Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	Analysis Requested (See Back of COC for Definitions): 8260 BTEX	8015 TPH GRO	8015 TPH DRO	300.0 Chloride	RCRA 8 Metals	TCLP Benzene	Reactivity	ignitability	corrosivity/pH		MS/MSD Request	Comments/ Special Instructions:
1	S.086010.080714.CB.B-5-15	8/7/14	1007	SL	G	X								4	X	X	X	X								4(WGFU) 013
2	S.086010.080714.CB-B-5-25	8/7/14	1025	SL	G	X								1				X								1(WGFU) 014
3	S.086010.080714.CB-B-5-30	8/7/14	1044	SL	G	X								3	X	X	X									2(WGFU) 015
4	W.086010.080714.CB-Waste	8/7/14	1140	W	C	X								4					X	X	X	X	X			1(WGFU) 3(WGFU) act 8/8 016
5	trip blank	8/7/14	1300	WT		X								2	X											017
6																										
7																										
8																										
9																										
10																										
11																										
12																										
13																										
14																										
15																										

TAT Required in business days (use separate COCs for different TATs):

☐ 1 Day ☐ 2 Days ☒ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:

Total Number of Containers: 16

All Samples in Cooler must be on COC

Notes/ Special Requirements:

	Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1.	Cassie Brown	CRA	8/7/14	1400	1. [signature] /PASI	PASI	8/8	8:40
2.					2.			
3.					3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA ...OC-10B (20110804)

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

March 09, 2015

Jeff Walker
CRA
6121 Indian School Rd NE
Ste 200
Albuquerque, NM 87110

RE: Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Dear Jeff Walker:
Enclosed are the analytical results for sample(s) received by the laboratory on February 21, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Emily Webb for
Alice Flanagan
alice.flanagan@pacelabs.com
Project Manager

Enclosures

cc: Angela Bown, Conestoga Rovers & Associates
Cale Kanack, CRA

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60188423001	S-086010-021815-SW-B14-5	Solid	02/18/15 13:45	02/21/15 10:10
60188423002	S-086010-021815-SW-B14-10	Solid	02/18/15 14:05	02/21/15 10:10
60188423003	S-086010-021815-SW-B14-15	Solid	02/18/15 14:15	02/21/15 10:10
60188423004	S-086010-021815-SW-B14-20	Solid	02/18/15 14:25	02/21/15 10:10
60188423005	S-086010-021815-SW-B14-25	Solid	02/18/15 14:30	02/21/15 10:10
60188423006	S-086010-021815-SW-B14-30	Solid	02/18/15 14:50	02/21/15 10:10
60188423007	S-086010-021815-SW-B14-35	Solid	02/18/15 15:05	02/21/15 10:10
60188423008	S-086010-021815-SW-B14-10	Solid	02/18/15 15:50	02/21/15 10:10
60188423009	S-086010-021815-SW-B14-15	Solid	02/18/15 16:05	02/21/15 10:10
60188423010	S-086010-021815-SW-B14-20	Solid	02/18/15 16:10	02/21/15 10:10
60188423011	S-086010-021815-SW-B14-25	Solid	02/18/15 16:20	02/21/15 10:10
60188423012	TRIP BLANK	Solid	02/18/15 08:00	02/21/15 10:10
60188423013	S-086010-021915-SWB12-5	Solid	02/19/15 08:40	02/21/15 10:10
60188423014	S-086010-021915-SWB12-10	Solid	02/19/15 08:50	02/21/15 10:10
60188423015	S-086010-021915-SWB12-15	Solid	02/19/15 09:00	02/21/15 10:10
60188423016	S-086010-021915-SWB12-20	Solid	02/19/15 09:30	02/21/15 10:10
60188423017	S-086010-021915-SWB12-23	Solid	02/19/15 09:35	02/21/15 10:10
60188423018	S-086010-021815-SW-B13-5	Solid	02/18/15 10:45	02/21/15 10:10
60188423019	S-086010-021815-SW-B13-10	Solid	02/18/15 10:50	02/21/15 10:10
60188423020	S-086010-021815-SW-B13-15	Solid	02/18/15 10:55	02/21/15 10:10
60188423021	S-086010-021815-SW-B13-20	Solid	02/18/15 11:05	02/21/15 10:10
60188423022	S-086010-021815-SW-B13-25	Solid	02/18/15 11:15	02/21/15 10:10
60188423023	S-086010-021815-SW-B13-30	Solid	02/18/15 12:15	02/21/15 10:10
60188423024	TRIP BLANK	Solid	02/18/15 08:00	02/21/15 10:10
60188423025	S-086010-021915-SW-B10-5	Solid	02/19/15 11:20	02/21/15 10:10
60188423026	S-086010-021915-SW-B10-10	Solid	02/19/15 11:30	02/21/15 10:10
60188423027	S-086010-021915-SW-B10-15	Solid	02/19/15 11:40	02/21/15 10:10
60188423028	S-086010-021915-SW-B10-20	Solid	02/19/15 11:50	02/21/15 10:10
60188423029	S-086010-021915-SW-B10-25	Solid	02/19/15 11:55	02/21/15 10:10
60188423030	S-086010-021915-SW-B11-5	Solid	02/19/15 10:10	02/21/15 10:10
60188423031	S-086010-021915-SW-B11-10	Solid	02/19/15 10:20	02/21/15 10:10
60188423032	S-086010-021915-SW-B11-15	Solid	02/19/15 10:30	02/21/15 10:10
60188423033	S-086010-021915-SW-B11-20	Solid	02/19/15 10:35	02/21/15 10:10
60188423034	S-086010-021915-SW-B11-24	Solid	02/19/15 10:40	02/21/15 10:10
60188423035	TRIP BLANK	Solid	02/19/15 08:00	02/21/15 10:10
60188423036	S-086010-021915-SW-B8-5	Solid	02/19/15 12:55	02/21/15 10:10
60188423037	S-086010-021915-SW-B8-10	Solid	02/19/15 13:00	02/21/15 10:10

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60188423038	S-086010-021915-SW-B8-15	Solid	02/19/15 13:05	02/21/15 10:10
60188423039	S-086010-021915-SW-B8-20	Solid	02/19/15 13:10	02/21/15 10:10
60188423040	S-086010-021915-SW-B8-25	Solid	02/19/15 13:20	02/21/15 10:10
60188423041	S-086010-022015-SW-B9-5	Solid	02/20/15 09:15	02/21/15 10:10
60188423042	S-086010-022015-SW-B9-10	Solid	02/20/15 09:20	02/21/15 10:10
60188423043	S-086010-022015-SW-B9-15	Solid	02/20/15 09:30	02/21/15 10:10
60188423044	S-086010-022015-SW-B9-20	Solid	02/20/15 09:40	02/21/15 10:10
60188423045	S-086010-022015-SW-B9-25	Solid	02/20/15 09:50	02/21/15 10:10
60188423046	S-086010-022015-JW-DUP	Solid	02/20/15 08:00	02/21/15 10:10
60188423048	S-086010-021915-SW-B6-5	Solid	02/19/15 14:10	02/21/15 10:10
60188423049	S-086010-021915-SW-B6-10	Solid	02/19/15 14:15	02/21/15 10:10
60188423050	S-086010-021915-SW-B6-15	Solid	02/19/15 14:20	02/21/15 10:10
60188423051	S-086010-021915-SW-B6-20	Solid	02/19/15 14:30	02/21/15 10:10
60188423052	S-086010-021915-SW-B6-25	Solid	02/19/15 14:35	02/21/15 10:10
60188423053	S-086010-022015-SW-B7-5	Solid	02/20/15 08:15	02/21/15 10:10
60188423054	S-086010-022015-SW-B7-10	Solid	02/20/15 08:20	02/21/15 10:10
60188423055	S-086010-022015-SW-B7-15	Solid	02/20/15 08:25	02/21/15 10:10
60188423056	S-086010-022015-SW-B7-20	Solid	02/20/15 08:35	02/21/15 10:10
60188423057	S-086010-022015-SW-B7-25	Solid	02/20/15 08:40	02/21/15 10:10

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60188423001	S-086010-021815-SW-B14-5	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423002	S-086010-021815-SW-B14-10	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423003	S-086010-021815-SW-B14-15	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423004	S-086010-021815-SW-B14-20	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423005	S-086010-021815-SW-B14-25	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
188423006	S-086010-021815-SW-B14-30	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423007	S-086010-021815-SW-B14-35	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423008	S-086010-021815-SW-B14-10	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423009	S-086010-021815-SW-B14-15	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423010	S-086010-021815-SW-B14-20	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423011	S-086010-021815-SW-B14-25	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423012	TRIP BLANK	EPA 8015B	JTK	2
60188423013	S-086010-021915-SWB12-5	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60188423014	S-086010-021915-SWB12-10	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423015	S-086010-021915-SWB12-15	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423016	S-086010-021915-SWB12-20	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423017	S-086010-021915-SWB12-23	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423018	S-086010-021815-SW-B13-5	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423019	S-086010-021815-SW-B13-10	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423020	S-086010-021815-SW-B13-15	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423021	S-086010-021815-SW-B13-20	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423022	S-086010-021815-SW-B13-25	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423023	S-086010-021815-SW-B13-30	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423024	TRIP BLANK	EPA 8015B	JTK	2
60188423025	S-086010-021915-SW-B10-5	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423026	S-086010-021915-SW-B10-10	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60188423027	S-086010-021915-SW-B10-15	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423028	S-086010-021915-SW-B10-20	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423029	S-086010-021915-SW-B10-25	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423030	S-086010-021915-SW-B11-5	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423031	S-086010-021915-SW-B11-10	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
188423032	S-086010-021915-SW-B11-15	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423033	S-086010-021915-SW-B11-20	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423034	S-086010-021915-SW-B11-24	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423035	TRIP BLANK	EPA 8015B	JTK	2
60188423036	S-086010-021915-SW-B8-5	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423037	S-086010-021915-SW-B8-10	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423038	S-086010-021915-SW-B8-15	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1
60188423039	S-086010-021915-SW-B8-20	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	CEM	1

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60188423040	S-086010-021915-SW-B8-25	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423041	S-086010-022015-SW-B9-5	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423042	S-086010-022015-SW-B9-10	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423043	S-086010-022015-SW-B9-15	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423044	S-086010-022015-SW-B9-20	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423045	S-086010-022015-SW-B9-25	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423046	S-086010-022015-JW-DUP	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423048	S-086010-021915-SW-B6-5	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423049	S-086010-021915-SW-B6-10	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423050	S-086010-021915-SW-B6-15	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423051	S-086010-021915-SW-B6-20	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423052	S-086010-021915-SW-B6-25	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423053	S-086010-022015-SW-B7-5	EPA 8015B	JDE	3

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423054	**S-086010-022015-SW-B7-10**	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423055	**S-086010-022015-SW-B7-15**	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423056	**S-086010-022015-SW-B7-20**	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1
60188423057	**S-086010-022015-SW-B7-25**	EPA 8015B	JDE	3
		EPA 8015B	JTK	2
		ASTM D2974	DWC	1

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B14-5 **Lab ID: 60188423001** Collected: 02/18/15 13:45 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**74.4**	mg/kg	10.9	1	02/24/15 00:00	02/25/15 13:07		
Surrogates								
n-Tetracosane (S)	87	%	18-139	1	02/24/15 00:00	02/25/15 13:07	646-31-1	
p-Terphenyl (S)	88	%	51-120	1	02/24/15 00:00	02/25/15 13:07	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.0	1	02/24/15 00:00	02/26/15 17:24		
Surrogates								
4-Bromofluorobenzene (S)	97	%	68-144	1	02/24/15 00:00	02/26/15 17:24	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**9.6**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B14-10 **Lab ID: 60188423002** Collected: 02/18/15 14:05 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**375**	mg/kg	11.2	1	02/24/15 00:00	02/25/15 13:15		
Surrogates								
n-Tetracosane (S)	101	%	18-139	1	02/24/15 00:00	02/25/15 13:15	646-31-1	
p-Terphenyl (S)	92	%	51-120	1	02/24/15 00:00	02/25/15 13:15	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**72.6**	mg/kg	11.5	1	02/24/15 00:00	02/26/15 18:55		
Surrogates								
4-Bromofluorobenzene (S)	97	%	68-144	1	02/24/15 00:00	02/26/15 18:55	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**12.9**	%	0.50	1		02/25/15 00:00		

Pace Analytical®
www.pacelabs.com

Pace Analytical √ Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B14-15 **Lab ID: 60188423003** Collected: 02/18/15 14:15 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**24.2**	mg/kg	10.9	1	02/24/15 00:00	02/25/15 13:23		
Surrogates								
n-Tetracosane (S)	95	%	18-139	1	02/24/15 00:00	02/25/15 13:23	646-31-1	
p-Terphenyl (S)	91	%	51-120	1	02/24/15 00:00	02/25/15 13:23	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**16.3**	mg/kg	11.2	1	02/24/15 00:00	02/26/15 19:12		
Surrogates								
4-Bromofluorobenzene (S)	97	%	68-144	1	02/24/15 00:00	02/26/15 19:12	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.4**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B14-20 **Lab ID: 60188423004** Collected: 02/18/15 14:25 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.6	1	02/24/15 00:00	02/25/15 13:30		
Surrogates								
n-Tetracosane (S)	84	%	18-139	1	02/24/15 00:00	02/25/15 13:30	646-31-1	
p-Terphenyl (S)	85	%	51-120	1	02/24/15 00:00	02/25/15 13:30	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.6	1	02/24/15 00:00	02/26/15 19:28		
Surrogates								
4-Bromofluorobenzene (S)	96	%	68-144	1	02/24/15 00:00	02/26/15 19:28	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**6.3**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B14-25 **Lab ID: 60188423005** Collected: 02/18/15 14:30 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**32.9**	mg/kg	10.8	1	02/24/15 00:00	02/25/15 13:53		
Surrogates								
n-Tetracosane (S)	89	%	18-139	1	02/24/15 00:00	02/25/15 13:53	646-31-1	
p-Terphenyl (S)	91	%	51-120	1	02/24/15 00:00	02/25/15 13:53	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**266**	mg/kg	10.8	1	02/24/15 00:00	02/26/15 19:45		
Surrogates								
4-Bromofluorobenzene (S)	96	%	68-144	1	02/24/15 00:00	02/26/15 19:45	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**7.6**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B14-30 **Lab ID: 60188423006** Collected: 02/18/15 14:50 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.0	1	02/24/15 00:00	02/25/15 14:01		
Surrogates								
n-Tetracosane (S)	89	%	18-139	1	02/24/15 00:00	02/25/15 14:01	646-31-1	
p-Terphenyl (S)	87	%	51-120	1	02/24/15 00:00	02/25/15 14:01	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**12.3**	mg/kg	10.4	1	02/24/15 00:00	02/26/15 20:02		
Surrogates								
4-Bromofluorobenzene (S)	96	%	68-144	1	02/24/15 00:00	02/26/15 20:02	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**4.7**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B14-35 **Lab ID: 60188423007** Collected: 02/18/15 15:05 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.5	1	02/24/15 00:00	02/25/15 14:08		
Surrogates								
n-Tetracosane (S)	93	%	18-139	1	02/24/15 00:00	02/25/15 14:08	646-31-1	
p-Terphenyl (S)	85	%	51-120	1	02/24/15 00:00	02/25/15 14:08	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.5	1	02/24/15 00:00	02/26/15 20:51		
Surrogates								
4-Bromofluorobenzene (S)	98	%	68-144	1	02/24/15 00:00	02/26/15 20:51	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.3**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B14-10 **Lab ID: 60188423008** Collected: 02/18/15 15:50 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**45.7**	mg/kg	10.4	1	02/24/15 00:00	02/25/15 14:16		
Surrogates								
n-Tetracosane (S)	103	%	18-139	1	02/24/15 00:00	02/25/15 14:16	646-31-1	
p-Terphenyl (S)	89	%	51-120	1	02/24/15 00:00	02/25/15 14:16	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.6	1	02/24/15 00:00	02/26/15 21:08		
Surrogates								
4-Bromofluorobenzene (S)	96	%	68-144	1	02/24/15 00:00	02/26/15 21:08	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**6.7**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B14-15 **Lab ID: 60188423009** Collected: 02/18/15 16:05 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 3546					
TPH-DRO	**224**	mg/kg	10.8	1	02/24/15 00:00	02/25/15 14:24		
Surrogates								
n-Tetracosane (S)	117	%	18-139	1	02/24/15 00:00	02/25/15 14:24	646-31-1	
p-Terphenyl (S)	88	%	51-120	1	02/24/15 00:00	02/25/15 14:24	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 5035A/5030B					
TPH-GRO	ND	mg/kg	11.3	1	02/24/15 00:00	02/26/15 21:24		
Surrogates								
4-Bromofluorobenzene (S)	91	%	68-144	1	02/24/15 00:00	02/26/15 21:24	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**12.6**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B14-20 **Lab ID: 60188423010** Collected: 02/18/15 16:10 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 3546					
TPH-DRO	ND	mg/kg	10.7	1	02/24/15 00:00	02/25/15 14:31		
Surrogates								
n-Tetracosane (S)	103	%	18-139	1	02/24/15 00:00	02/25/15 14:31	646-31-1	
p-Terphenyl (S)	87	%	51-120	1	02/24/15 00:00	02/25/15 14:31	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 5035A/5030B					
TPH-GRO	ND	mg/kg	10.7	1	02/24/15 00:00	02/26/15 21:41		
Surrogates								
4-Bromofluorobenzene (S)	97	%	68-144	1	02/24/15 00:00	02/26/15 21:41	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**6.5**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B14-25 **Lab ID: 60188423011** Collected: 02/18/15 16:20 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.4	1	02/24/15 00:00	02/25/15 14:39		
Surrogates								
n-Tetracosane (S)	109	%	18-139	1	02/24/15 00:00	02/25/15 14:39	646-31-1	
p-Terphenyl (S)	83	%	51-120	1	02/24/15 00:00	02/25/15 14:39	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.7	1	02/24/15 00:00	02/26/15 21:58		
Surrogates								
4-Bromofluorobenzene (S)	96	%	68-144	1	02/24/15 00:00	02/26/15 21:58	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**7.0**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: TRIP BLANK **Lab ID: 60188423012** Collected: 02/18/15 08:00 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.0	1	02/24/15 00:00	02/26/15 22:14		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	02/24/15 00:00	02/26/15 22:14	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SWB12-5 **Lab ID: 60188423013** Collected: 02/19/15 08:40 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 3546					
TPH-DRO	ND	mg/kg	10.9	1	02/27/15 00:00	03/02/15 15:58		
Surrogates								
n-Tetracosane (S)	89	%	18-139	1	02/27/15 00:00	03/02/15 15:58	646-31-1	
p-Terphenyl (S)	88	%	51-120	1	02/27/15 00:00	03/02/15 15:58	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 5035A/5030B					
TPH-GRO	ND	mg/kg	11.0	1	02/24/15 00:00	02/26/15 22:31		
Surrogates								
4-Bromofluorobenzene (S)	96	%	68-144	1	02/24/15 00:00	02/26/15 22:31	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**9.6**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SWB12-10 **Lab ID: 60188423014** Collected: 02/19/15 08:50 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.9	1	02/24/15 00:00	02/25/15 15:09		
Surrogates								
n-Tetracosane (S)	114	%	18-139	1	02/24/15 00:00	02/25/15 15:09	646-31-1	
p-Terphenyl (S)	86	%	51-120	1	02/24/15 00:00	02/25/15 15:09	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.0	1	02/24/15 00:00	02/27/15 01:50		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	02/24/15 00:00	02/27/15 01:50	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**10.2**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SWB12-15 **Lab ID: 60188423015** Collected: 02/19/15 09:00 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.8	1	02/24/15 00:00	02/25/15 15:16		
Surrogates								
n-Tetracosane (S)	127	%	18-139	1	02/24/15 00:00	02/25/15 15:16	646-31-1	
p-Terphenyl (S)	88	%	51-120	1	02/24/15 00:00	02/25/15 15:16	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.2	1	02/24/15 00:00	02/27/15 02:39		
Surrogates								
4-Bromofluorobenzene (S)	98	%	68-144	1	02/24/15 00:00	02/27/15 02:39	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**10.4**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SWB12-20 **Lab ID: 60188423016** Collected: 02/19/15 09:30 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.0	1	02/24/15 00:00	02/25/15 15:24		
Surrogates								
n-Tetracosane (S)	124	%	18-139	1	02/24/15 00:00	02/25/15 15:24	646-31-1	
p-Terphenyl (S)	89	%	51-120	1	02/24/15 00:00	02/25/15 15:24	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.6	1	02/24/15 00:00	02/27/15 03:29		
Surrogates								
4-Bromofluorobenzene (S)	98	%	68-144	1	02/24/15 00:00	02/27/15 03:29	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**6.1**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SWB12-23 **Lab ID: 60188423017** Collected: 02/19/15 09:35 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.2	1	02/24/15 00:00	02/25/15 15:32		
Surrogates								
n-Tetracosane (S)	128	%	18-139	1	02/24/15 00:00	02/25/15 15:32	646-31-1	
p-Terphenyl (S)	89	%	51-120	1	02/24/15 00:00	02/25/15 15:32	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.4	1	02/24/15 00:00	02/27/15 03:46		
Surrogates								
4-Bromofluorobenzene (S)	100	%	68-144	1	02/24/15 00:00	02/27/15 03:46	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**4.4**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B13-5 **Lab ID: 60188423018** Collected: 02/18/15 10:45 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.4	1	02/24/15 00:00	02/25/15 15:39		
Surrogates								
n-Tetracosane (S)	124	%	18-139	1	02/24/15 00:00	02/25/15 15:39	646-31-1	
p-Terphenyl (S)	83	%	51-120	1	02/24/15 00:00	02/25/15 15:39	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.4	1	02/24/15 00:00	02/26/15 22:47		
Surrogates								
4-Bromofluorobenzene (S)	97	%	68-144	1	02/24/15 00:00	02/26/15 22:47	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**4.8**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B13-10 **Lab ID: 60188423019** Collected: 02/18/15 10:50 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	11.2	1	02/24/15 00:00	02/25/15 15:47		
Surrogates								
n-Tetracosane (S)	135	%	18-139	1	02/24/15 00:00	02/25/15 15:47	646-31-1	
p-Terphenyl (S)	83	%	51-120	1	02/24/15 00:00	02/25/15 15:47	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.3	1	02/24/15 00:00	02/26/15 23:04		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	02/24/15 00:00	02/26/15 23:04	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.5**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B13-15 **Lab ID: 60188423020** Collected: 02/18/15 10:55 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 3546					
TPH-DRO	ND	mg/kg	11.2	1	02/24/15 00:00	02/25/15 15:55		
Surrogates								
n-Tetracosane (S)	148	%	18-139	1	02/24/15 00:00	02/25/15 15:55	646-31-1	S3
p-Terphenyl (S)	87	%	51-120	1	02/24/15 00:00	02/25/15 15:55	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 5035A/5030B					
TPH-GRO	ND	mg/kg	11.2	1	02/24/15 00:00	02/26/15 23:21		
Surrogates								
4-Bromofluorobenzene (S)	94	%	68-144	1	02/24/15 00:00	02/26/15 23:21	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.5**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B13-20 **Lab ID: 60188423021** Collected: 02/18/15 11:05 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	11.3	1	02/24/15 00:00	02/25/15 16:02		
Surrogates								
n-Tetracosane (S)	137	%	18-139	1	02/24/15 00:00	02/25/15 16:02	646-31-1	
p-Terphenyl (S)	82	%	51-120	1	02/24/15 00:00	02/25/15 16:02	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**89.4**	mg/kg	11.2	1	02/24/15 00:00	02/27/15 00:10		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	02/24/15 00:00	02/27/15 00:10	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.3**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B13-25 **Lab ID: 60188423022** Collected: 02/18/15 11:15 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.5	1	02/24/15 00:00	02/25/15 16:55		
Surrogates								
n-Tetracosane (S)	84	%	18-139	1	02/24/15 00:00	02/25/15 16:55	646-31-1	
p-Terphenyl (S)	86	%	51-120	1	02/24/15 00:00	02/25/15 16:55	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.9	1	02/24/15 00:00	02/27/15 00:27		
Surrogates								
4-Bromofluorobenzene (S)	97	%	68-144	1	02/24/15 00:00	02/27/15 00:27	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**8.4**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021815-SW-B13-30 **Lab ID: 60188423023** Collected: 02/18/15 12:15 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.2	1	02/24/15 00:00	02/25/15 17:03		
Surrogates								
n-Tetracosane (S)	86	%	18-139	1	02/24/15 00:00	02/25/15 17:03	646-31-1	
p-Terphenyl (S)	88	%	51-120	1	02/24/15 00:00	02/25/15 17:03	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.5	1	02/24/15 00:00	02/27/15 00:43		
Surrogates								
4-Bromofluorobenzene (S)	100	%	68-144	1	02/24/15 00:00	02/27/15 00:43	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.4**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: TRIP BLANK **Lab ID: 60188423024** Collected: 02/18/15 08:00 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.0	1	02/24/15 00:00	02/27/15 01:00		
Surrogates								
4-Bromofluorobenzene (S)	100	%	68-144	1	02/24/15 00:00	02/27/15 01:00	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B10-5 **Lab ID: 60188423025** Collected: 02/19/15 11:20 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**4040**	mg/kg	125	10	02/24/15 00:00	02/26/15 10:43		
Surrogates								
n-Tetracosane (S)	0	%	18-139	10	02/24/15 00:00	02/26/15 10:43	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	10	02/24/15 00:00	02/26/15 10:43	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**3460**	mg/kg	125	10	02/24/15 00:00	02/27/15 04:02		
Surrogates								
4-Bromofluorobenzene (S)	106	%	68-144	10	02/24/15 00:00	02/27/15 04:02	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**20.3**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B10-10 **Lab ID: 60188423026** Collected: 02/19/15 11:30 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**940**	mg/kg	11.6	1	02/24/15 00:00	02/25/15 17:18		
Surrogates								
n-Tetracosane (S)	92	%	18-139	1	02/24/15 00:00	02/25/15 17:18	646-31-1	
p-Terphenyl (S)	95	%	51-120	1	02/24/15 00:00	02/25/15 17:18	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**73.6**	mg/kg	11.7	1	02/24/15 00:00	02/27/15 04:19		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	02/24/15 00:00	02/27/15 04:19	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**14.5**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B10-15 **Lab ID: 60188423027** Collected: 02/19/15 11:40 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.2	1	02/24/15 00:00	02/25/15 17:41		
Surrogates								
n-Tetracosane (S)	84	%	18-139	1	02/24/15 00:00	02/25/15 17:41	646-31-1	
p-Terphenyl (S)	87	%	51-120	1	02/24/15 00:00	02/25/15 17:41	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.8	1	02/24/15 00:00	02/27/15 04:35		
Surrogates								
4-Bromofluorobenzene (S)	100	%	68-144	1	02/24/15 00:00	02/27/15 04:35	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**7.2**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B10-20 **Lab ID: 60188423028** Collected: 02/19/15 11:50 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.4	1	02/24/15 00:00	02/25/15 17:48		
Surrogates								
n-Tetracosane (S)	88	%	18-139	1	02/24/15 00:00	02/25/15 17:48	646-31-1	
p-Terphenyl (S)	89	%	51-120	1	02/24/15 00:00	02/25/15 17:48	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.6	1	02/24/15 00:00	02/27/15 04:52		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	02/24/15 00:00	02/27/15 04:52	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.2**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B10-25 **Lab ID: 60188423029** Collected: 02/19/15 11:55 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.1	1	02/24/15 00:00	02/25/15 17:56		
Surrogates								
n-Tetracosane (S)	36	%	18-139	1	02/24/15 00:00	02/25/15 17:56	646-31-1	
p-Terphenyl (S)	85	%	51-120	1	02/24/15 00:00	02/25/15 17:56	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.4	1	02/24/15 00:00	02/27/15 05:08		
Surrogates								
4-Bromofluorobenzene (S)	102	%	68-144	1	02/24/15 00:00	02/27/15 05:08	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**4.2**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B11-5 **Lab ID: 60188423030** Collected: 02/19/15 10:10 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	11.2	1	02/24/15 00:00	02/25/15 18:04		
Surrogates								
n-Tetracosane (S)	31	%	18-139	1	02/24/15 00:00	02/25/15 18:04	646-31-1	
p-Terphenyl (S)	84	%	51-120	1	02/24/15 00:00	02/25/15 18:04	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.2	1	02/24/15 00:00	02/27/15 05:25		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	02/24/15 00:00	02/27/15 05:25	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.6**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B11-10 **Lab ID: 60188423031** Collected: 02/19/15 10:20 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**248**	mg/kg	11.4	1	02/24/15 00:00	02/25/15 18:11		
Surrogates								
n-Tetracosane (S)	48	%	18-139	1	02/24/15 00:00	02/25/15 18:11	646-31-1	
p-Terphenyl (S)	96	%	51-120	1	02/24/15 00:00	02/25/15 18:11	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**132**	mg/kg	11.3	1	02/24/15 00:00	02/27/15 05:42		
Surrogates								
4-Bromofluorobenzene (S)	105	%	68-144	1	02/24/15 00:00	02/27/15 05:42	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**12.4**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B11-15 **Lab ID: 60188423032** Collected: 02/19/15 10:30 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.4	1	02/24/15 00:00	02/25/15 18:19		
Surrogates								
n-Tetracosane (S)	36	%	18-139	1	02/24/15 00:00	02/25/15 18:19	646-31-1	
p-Terphenyl (S)	92	%	51-120	1	02/24/15 00:00	02/25/15 18:19	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.8	1	02/24/15 00:00	02/27/15 05:58		
Surrogates								
4-Bromofluorobenzene (S)	105	%	68-144	1	02/24/15 00:00	02/27/15 05:58	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**7.1**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B11-20 **Lab ID: 60188423033** Collected: 02/19/15 10:35 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.3	1	02/24/15 00:00	02/25/15 18:26		
Surrogates								
n-Tetracosane (S)	31	%	18-139	1	02/24/15 00:00	02/25/15 18:26	646-31-1	
p-Terphenyl (S)	86	%	51-120	1	02/24/15 00:00	02/25/15 18:26	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.6	1	02/24/15 00:00	02/27/15 06:48		
Surrogates								
4-Bromofluorobenzene (S)	102	%	68-144	1	02/24/15 00:00	02/27/15 06:48	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.6**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B11-24 **Lab ID: 60188423034** Collected: 02/19/15 10:40 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 3546					
TPH-DRO	ND	mg/kg	10.0	1	02/24/15 00:00	02/25/15 18:34		
Surrogates								
n-Tetracosane (S)	43	%	18-139	1	02/24/15 00:00	02/25/15 18:34	646-31-1	
p-Terphenyl (S)	90	%	51-120	1	02/24/15 00:00	02/25/15 18:34	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 5035A/5030B					
TPH-GRO	ND	mg/kg	10.4	1	02/24/15 00:00	02/27/15 07:04		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	02/24/15 00:00	02/27/15 07:04	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**4.1**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: TRIP BLANK **Lab ID: 60188423035** Collected: 02/19/15 08:00 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.0	1	02/24/15 00:00	02/27/15 07:21		
Surrogates								
4-Bromofluorobenzene (S)	106	%	68-144	1	02/24/15 00:00	02/27/15 07:21	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B8-5 **Lab ID: 60188423036** Collected: 02/19/15 12:55 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**126**	mg/kg	11.4	1	02/24/15 00:00	02/25/15 18:56		
Surrogates								
n-Tetracosane (S)	45	%	18-139	1	02/24/15 00:00	02/25/15 18:56	646-31-1	
p-Terphenyl (S)	89	%	51-120	1	02/24/15 00:00	02/25/15 18:56	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	12.0	1	02/24/15 00:00	02/27/15 07:38		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	02/24/15 00:00	02/27/15 07:38	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**17.3**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B8-10 **Lab ID: 60188423037** Collected: 02/19/15 13:00 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 3546					
TPH-DRO	**116**	mg/kg	11.5	1	02/24/15 00:00	02/25/15 19:04		
Surrogates								
n-Tetracosane (S)	52	%	18-139	1	02/24/15 00:00	02/25/15 19:04	646-31-1	
p-Terphenyl (S)	90	%	51-120	1	02/24/15 00:00	02/25/15 19:04	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 5035A/5030B					
TPH-GRO	ND	mg/kg	11.7	1	02/24/15 00:00	02/27/15 07:54		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	02/24/15 00:00	02/27/15 07:54	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**14.5**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B8-15 **Lab ID: 60188423038** Collected: 02/19/15 13:05 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**238**	mg/kg	10.9	1	02/24/15 00:00	02/25/15 19:12		
Surrogates								
n-Tetracosane (S)	47	%	18-139	1	02/24/15 00:00	02/25/15 19:12	646-31-1	
p-Terphenyl (S)	89	%	51-120	1	02/24/15 00:00	02/25/15 19:12	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**14.1**	mg/kg	10.9	1	02/24/15 00:00	02/27/15 11:06		
Surrogates								
4-Bromofluorobenzene (S)	108	%	68-144	1	02/24/15 00:00	02/27/15 11:06	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**8.2**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B8-20 **Lab ID: 60188423039** Collected: 02/19/15 13:10 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.7	1	02/24/15 00:00	02/25/15 19:19		
Surrogates								
n-Tetracosane (S)	40	%	18-139	1	02/24/15 00:00	02/25/15 19:19	646-31-1	
p-Terphenyl (S)	86	%	51-120	1	02/24/15 00:00	02/25/15 19:19	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.7	1	02/24/15 00:00	02/27/15 11:22		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	02/24/15 00:00	02/27/15 11:22	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**6.3**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B8-25 **Lab ID: 60188423040** Collected: 02/19/15 13:20 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.3	1	02/24/15 00:00	02/25/15 19:27		
Surrogates								
n-Tetracosane (S)	44	%	18-139	1	02/24/15 00:00	02/25/15 19:27	646-31-1	
p-Terphenyl (S)	89	%	51-120	1	02/24/15 00:00	02/25/15 19:27	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.4	1	02/24/15 00:00	02/27/15 11:39		
Surrogates								
4-Bromofluorobenzene (S)	104	%	68-144	1	02/24/15 00:00	02/27/15 11:39	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**4.0**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-022015-SW-B9-5 **Lab ID: 60188423041** Collected: 02/20/15 09:15 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 3546					
TPH-DRO	ND	mg/kg	10.7	1	02/24/15 00:00	02/25/15 19:34		
Surrogates								
n-Tetracosane (S)	44	%	18-139	1	02/24/15 00:00	02/25/15 19:34	646-31-1	
p-Terphenyl (S)	88	%	51-120	1	02/24/15 00:00	02/25/15 19:34	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 5035A/5030B					
TPH-GRO	ND	mg/kg	10.7	1	02/25/15 00:00	03/02/15 15:29		M1
Surrogates								
4-Bromofluorobenzene (S)	98	%	68-144	1	02/25/15 00:00	03/02/15 15:29	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**7.1**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-022015-SW-B9-10 **Lab ID: 60188423042** Collected: 02/20/15 09:20 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 3546					
TPH-DRO	**16900**	mg/kg	550	50	02/24/15 00:00	02/26/15 10:51		
Surrogates								
n-Tetracosane (S)	0	%	18-139	50	02/24/15 00:00	02/26/15 10:51	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	50	02/24/15 00:00	02/26/15 10:51	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 5035A/5030B					
TPH-GRO	**5530**	mg/kg	226	20	02/25/15 00:00	03/02/15 16:18		
Surrogates								
4-Bromofluorobenzene (S)	104	%	68-144	20	02/25/15 00:00	03/02/15 16:18	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.4**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-022015-SW-B9-15 **Lab ID: 60188423043** Collected: 02/20/15 09:30 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**781**	mg/kg	10.4	1	02/24/15 00:00	02/25/15 19:49		
Surrogates								
n-Tetracosane (S)	60	%	18-139	1	02/24/15 00:00	02/25/15 19:49	646-31-1	
p-Terphenyl (S)	91	%	51-120	1	02/24/15 00:00	02/25/15 19:49	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**469**	mg/kg	53.6	5	02/25/15 00:00	03/02/15 16:35		
Surrogates								
4-Bromofluorobenzene (S)	102	%	68-144	5	02/25/15 00:00	03/02/15 16:35	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**6.6**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-022015-SW-B9-20 **Lab ID: 60188423044** Collected: 02/20/15 09:40 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**52.3**	mg/kg	10.6	1	02/24/15 00:00	02/25/15 20:42		
Surrogates								
n-Tetracosane (S)	88	%	18-139	1	02/24/15 00:00	02/25/15 20:42	646-31-1	
p-Terphenyl (S)	91	%	51-120	1	02/24/15 00:00	02/25/15 20:42	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**15.3**	mg/kg	10.6	1	02/25/15 00:00	03/02/15 16:51		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	02/25/15 00:00	03/02/15 16:51	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.8**	%	0.50	1		02/25/15 00:00		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-022015-SW-B9-25 **Lab ID: 60188423045** Collected: 02/20/15 09:50 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.3	1	02/24/15 00:00	02/25/15 20:50		
Surrogates								
n-Tetracosane (S)	91	%	18-139	1	02/24/15 00:00	02/25/15 20:50	646-31-1	
p-Terphenyl (S)	93	%	51-120	1	02/24/15 00:00	02/25/15 20:50	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.5	1	02/25/15 00:00	03/02/15 17:08		
Surrogates								
4-Bromofluorobenzene (S)	102	%	68-144	1	02/25/15 00:00	03/02/15 17:08	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**4.3**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-022015-JW-DUP **Lab ID: 60188423046** Collected: 02/20/15 08:00 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	**1280**	mg/kg	52.7	5	02/24/15 00:00	02/26/15 10:58		
Surrogates								
n-Tetracosane (S)	0	%	18-139	5	02/24/15 00:00	02/26/15 10:58	646-31-1	S4
p-Terphenyl (S)	0	%	51-120	5	02/24/15 00:00	02/26/15 10:58	92-94-4	S4
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	**333**	mg/kg	53.0	5	02/25/15 00:00	03/02/15 17:25		
Surrogates								
4-Bromofluorobenzene (S)	105	%	68-144	5	02/25/15 00:00	03/02/15 17:25	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.6**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B6-5 **Lab ID: 60188423048** Collected: 02/19/15 14:10 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 3546					
TPH-DRO	ND	mg/kg	10.6	1	02/24/15 00:00	02/25/15 21:05		
Surrogates								
n-Tetracosane (S)	92	%	18-139	1	02/24/15 00:00	02/25/15 21:05	646-31-1	
p-Terphenyl (S)	94	%	51-120	1	02/24/15 00:00	02/25/15 21:05	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B		Preparation Method: EPA 5035A/5030B					
TPH-GRO	ND	mg/kg	10.7	1	02/25/15 00:00	03/02/15 18:14		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	02/25/15 00:00	03/02/15 18:14	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**6.9**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B6-10 **Lab ID: 60188423049** Collected: 02/19/15 14:15 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	11.1	1	02/24/15 00:00	02/25/15 21:12		
Surrogates								
n-Tetracosane (S)	90	%	18-139	1	02/24/15 00:00	02/25/15 21:12	646-31-1	
p-Terphenyl (S)	91	%	51-120	1	02/24/15 00:00	02/25/15 21:12	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.3	1	02/25/15 00:00	03/02/15 18:31		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	02/25/15 00:00	03/02/15 18:31	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.5**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B6-15 **Lab ID: 60188423050** Collected: 02/19/15 14:20 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	11.3	1	02/24/15 00:00	02/25/15 21:35		
Surrogates								
n-Tetracosane (S)	86	%	18-139	1	02/24/15 00:00	02/25/15 21:35	646-31-1	
p-Terphenyl (S)	88	%	51-120	1	02/24/15 00:00	02/25/15 21:35	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.3	1	02/25/15 00:00	03/02/15 18:48		
Surrogates								
4-Bromofluorobenzene (S)	104	%	68-144	1	02/25/15 00:00	03/02/15 18:48	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**11.3**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B6-20 **Lab ID: 60188423051** Collected: 02/19/15 14:30 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.6	1	02/24/15 00:00	02/25/15 21:43		
Surrogates								
n-Tetracosane (S)	88	%	18-139	1	02/24/15 00:00	02/25/15 21:43	646-31-1	
p-Terphenyl (S)	90	%	51-120	1	02/24/15 00:00	02/25/15 21:43	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.6	1	02/27/15 00:00	03/05/15 13:32		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	02/27/15 00:00	03/05/15 13:32	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**6.2**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-021915-SW-B6-25 **Lab ID: 60188423052** Collected: 02/19/15 14:35 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.3	1	02/24/15 00:00	02/25/15 21:50		
Surrogates								
n-Tetracosane (S)	86	%	18-139	1	02/24/15 00:00	02/25/15 21:50	646-31-1	
p-Terphenyl (S)	87	%	51-120	1	02/24/15 00:00	02/25/15 21:50	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.6	1	02/25/15 00:00	03/04/15 10:47		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	02/25/15 00:00	03/04/15 10:47	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**4.8**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-022015-SW-B7-5 **Lab ID: 60188423053** Collected: 02/20/15 08:15 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.6	1	02/24/15 00:00	02/25/15 21:58		
Surrogates								
n-Tetracosane (S)	95	%	18-139	1	02/24/15 00:00	02/25/15 21:58	646-31-1	
p-Terphenyl (S)	91	%	51-120	1	02/24/15 00:00	02/25/15 21:58	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.6	1	02/25/15 00:00	03/04/15 11:03		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	02/25/15 00:00	03/04/15 11:03	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**6.1**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-022015-SW-B7-10 **Lab ID: 60188423054** Collected: 02/20/15 08:20 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.9	1	02/24/15 00:00	02/25/15 22:05		
Surrogates								
n-Tetracosane (S)	89	%	18-139	1	02/24/15 00:00	02/25/15 22:05	646-31-1	
p-Terphenyl (S)	90	%	51-120	1	02/24/15 00:00	02/25/15 22:05	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	11.2	1	02/25/15 00:00	03/04/15 11:20		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	02/25/15 00:00	03/04/15 11:20	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**10.6**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-022015-SW-B7-15 **Lab ID: 60188423055** Collected: 02/20/15 08:25 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.7	1	02/24/15 00:00	02/25/15 22:13		
Surrogates								
n-Tetracosane (S)	86	%	18-139	1	02/24/15 00:00	02/25/15 22:13	646-31-1	
p-Terphenyl (S)	89	%	51-120	1	02/24/15 00:00	02/25/15 22:13	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.9	1	02/25/15 00:00	03/04/15 11:36		
Surrogates								
4-Bromofluorobenzene (S)	101	%	68-144	1	02/25/15 00:00	03/04/15 11:36	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**7.8**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-022015-SW-B7-20 **Lab ID: 60188423056** Collected: 02/20/15 08:35 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.6	1	02/24/15 00:00	02/25/15 22:20		
Surrogates								
n-Tetracosane (S)	87	%	18-139	1	02/24/15 00:00	02/25/15 22:20	646-31-1	
p-Terphenyl (S)	88	%	51-120	1	02/24/15 00:00	02/25/15 22:20	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.7	1	02/25/15 00:00	03/04/15 11:53		
Surrogates								
4-Bromofluorobenzene (S)	99	%	68-144	1	02/25/15 00:00	03/04/15 11:53	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.8**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Sample: S-086010-022015-SW-B7-25 **Lab ID: 60188423057** Collected: 02/20/15 08:40 Received: 02/21/15 10:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B Diesel Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 3546							
TPH-DRO	ND	mg/kg	10.6	1	02/24/15 00:00	02/25/15 22:28		
Surrogates								
n-Tetracosane (S)	85	%	18-139	1	02/24/15 00:00	02/25/15 22:28	646-31-1	
p-Terphenyl (S)	86	%	51-120	1	02/24/15 00:00	02/25/15 22:28	92-94-4	
Gasoline Range Organics	Analytical Method: EPA 8015B Preparation Method: EPA 5035A/5030B							
TPH-GRO	ND	mg/kg	10.6	1	02/25/15 00:00	03/04/15 12:10		
Surrogates								
4-Bromofluorobenzene (S)	103	%	68-144	1	02/25/15 00:00	03/04/15 12:10	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974							
Percent Moisture	**5.5**	%	0.50	1		02/25/15 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

QC Batch: GCV/5008 Analysis Method: EPA 8015B
QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics
Associated Lab Samples: 60188423001, 60188423002, 60188423003, 60188423004, 60188423005, 60188423006, 60188423007, 60188423008, 60188423009, 60188423010, 60188423011, 60188423012, 60188423013, 60188423018, 60188423019, 60188423020, 60188423021, 60188423022, 60188423023, 60188423024

METHOD BLANK: 1524882 Matrix: Solid
Associated Lab Samples: 60188423001, 60188423002, 60188423003, 60188423004, 60188423005, 60188423006, 60188423007, 60188423008, 60188423009, 60188423010, 60188423011, 60188423012, 60188423013, 60188423018, 60188423019, 60188423020, 60188423021, 60188423022, 60188423023, 60188423024

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	02/26/15 14:40	
4-Bromofluorobenzene (S)	%	100	68-144	02/26/15 14:40	

LABORATORY CONTROL SAMPLE: 1524883

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	43.0	86	67-115	
4-Bromofluorobenzene (S)	%			105	68-144	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1524884 1524885

Parameter	Units	60188423001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-GRO	mg/kg	ND	54.8	54.8	52.5	52.3	81	80	49-122	1	14	
4-Bromofluorobenzene (S)	%						99	98	68-144			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

QC Batch: GCV/5009 Analysis Method: EPA 8015B
QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics
Associated Lab Samples: 60188423014, 60188423015, 60188423016, 60188423017, 60188423025, 60188423026, 60188423027, 60188423028, 60188423029, 60188423030, 60188423031, 60188423032, 60188423033, 60188423034, 60188423035, 60188423036, 60188423037, 60188423038, 60188423039, 60188423040

METHOD BLANK: 1525023 Matrix: Solid
Associated Lab Samples: 60188423014, 60188423015, 60188423016, 60188423017, 60188423025, 60188423026, 60188423027, 60188423028, 60188423029, 60188423030, 60188423031, 60188423032, 60188423033, 60188423034, 60188423035, 60188423036, 60188423037, 60188423038, 60188423039, 60188423040

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	02/27/15 01:33	
4-Bromofluorobenzene (S)	%	104	68-144	02/27/15 01:33	

LABORATORY CONTROL SAMPLE: 1525024

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	39.6	79	67-115	
4-Bromofluorobenzene (S)	%			101	68-144	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1525025 1525026

Parameter	Units	60188423014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-GRO	mg/kg	ND	55.1	55.1	41.8	41.1	74	73	49-122	2	14	
4-Bromofluorobenzene (S)	%						101	100	68-144			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

QC Batch: GCV/5010 Analysis Method: EPA 8015B
QC Batch Method: EPA 5035A/5030B Analysis Description: Gasoline Range Organics
Associated Lab Samples: 60188423041, 60188423042, 60188423043, 60188423044, 60188423045, 60188423046, 60188423048, 60188423049, 60188423050, 60188423052, 60188423053, 60188423054, 60188423055, 60188423056, 60188423057

METHOD BLANK: 1525588 Matrix: Solid
Associated Lab Samples: 60188423041, 60188423042, 60188423043, 60188423044, 60188423045, 60188423046, 60188423048, 60188423049, 60188423050, 60188423052, 60188423053, 60188423054, 60188423055, 60188423056, 60188423057

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	03/02/15 12:59	
4-Bromofluorobenzene (S)	%	106	68-144	03/02/15 12:59	

LABORATORY CONTROL SAMPLE: 1525589

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	47.5	95	67-115	
4-Bromofluorobenzene (S)	%			106	68-144	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1525590 1525591

Parameter	Units	60188423041 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-GRO	mg/kg	ND	53.3	53.3	81.8	81.5	149	148	49-122	0	14	M1
4-Bromofluorobenzene (S)	%						107	108	68-144			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

QC Batch: GCV/5013
QC Batch Method: EPA 5035A/5030B
Analysis Method: EPA 8015B
Analysis Description: Gasoline Range Organics
Associated Lab Samples: 60188423051

METHOD BLANK: 1526860 Matrix: Solid
Associated Lab Samples: 60188423051

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-GRO	mg/kg	ND	10.0	03/05/15 12:06	
4-Bromofluorobenzene (S)	%	103	68-144	03/05/15 12:06	

LABORATORY CONTROL SAMPLE: 1526861

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-GRO	mg/kg	50	43.1	86	67-115	
4-Bromofluorobenzene (S)	%			109	68-144	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1529251 1529252

Parameter	Units	60188485001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-GRO	mg/kg	ND	59.9	59.9	52.0	53.1	85	87	49-122	2	14	
4-Bromofluorobenzene (S)	%						106	105	68-144			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

QC Batch: OEXT/48266 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B
Associated Lab Samples: 60188423001, 60188423002, 60188423003, 60188423004, 60188423005, 60188423006, 60188423007, 60188423008, 60188423009, 60188423010, 60188423011, 60188423014, 60188423015, 60188423016, 60188423017, 60188423018, 60188423019, 60188423020, 60188423021

METHOD BLANK: 1524634 Matrix: Solid
Associated Lab Samples: 60188423001, 60188423002, 60188423003, 60188423004, 60188423005, 60188423006, 60188423007, 60188423008, 60188423009, 60188423010, 60188423011, 60188423014, 60188423015, 60188423016, 60188423017, 60188423018, 60188423019, 60188423020, 60188423021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO	mg/kg	ND	10	02/25/15 12:37	
n-Tetracosane (S)	%	55	18-139	02/25/15 12:37	
p-Terphenyl (S)	%	88	51-120	02/25/15 12:37	

LABORATORY CONTROL SAMPLE: 1524635

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO	mg/kg	81.1	78.8	97	76-115	
n-Tetracosane (S)	%			59	18-139	
p-Terphenyl (S)	%			96	51-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1524636 1524637

Parameter	Units	60188423001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-DRO	mg/kg	74.4	91.9	90.8	220	215	158	155	12-159	2	37	
n-Tetracosane (S)	%						76	64	18-139			
p-Terphenyl (S)	%						93	97	51-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

QC Batch: OEXT/48267 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B
Associated Lab Samples: 60188423022, 60188423023, 60188423025, 60188423026, 60188423027, 60188423028, 60188423029, 60188423030, 60188423031, 60188423032, 60188423033, 60188423034, 60188423036, 60188423037, 60188423038, 60188423039, 60188423040, 60188423041, 60188423042, 60188423043

METHOD BLANK: 1524642 Matrix: Solid
Associated Lab Samples: 60188423022, 60188423023, 60188423025, 60188423026, 60188423027, 60188423028, 60188423029, 60188423030, 60188423031, 60188423032, 60188423033, 60188423034, 60188423036, 60188423037, 60188423038, 60188423039, 60188423040, 60188423041, 60188423042, 60188423043

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO	mg/kg	ND	9.4	02/25/15 16:25	
n-Tetracosane (S)	%	87	18-139	02/25/15 16:25	
p-Terphenyl (S)	%	89	51-120	02/25/15 16:25	

LABORATORY CONTROL SAMPLE: 1524643

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO	mg/kg	79.2	76.3	96	76-115	
Tetracosane (S)	%			95	18-139	
Terphenyl (S)	%			96	51-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1524644 1524645

Parameter	Units	60188423022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-DRO	mg/kg	ND	90.9	90.1	84.7	83.3	91	90	12-159	2	37	
n-Tetracosane (S)	%						88	92	18-139			
p-Terphenyl (S)	%						92	94	51-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

QC Batch: OEXT/48268 Analysis Method: EPA 8015B
QC Batch Method: EPA 3546 Analysis Description: EPA 8015B
Associated Lab Samples: 60188423044, 60188423045, 60188423046, 60188423048, 60188423049, 60188423050, 60188423051, 60188423052, 60188423053, 60188423054, 60188423055, 60188423056, 60188423057

METHOD BLANK: 1524646 Matrix: Solid
Associated Lab Samples: 60188423044, 60188423045, 60188423046, 60188423048, 60188423049, 60188423050, 60188423051, 60188423052, 60188423053, 60188423054, 60188423055, 60188423056, 60188423057

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO	mg/kg	ND	9.9	02/25/15 20:12	
n-Tetracosane (S)	%	91	18-139	02/25/15 20:12	
p-Terphenyl (S)	%	92	51-120	02/25/15 20:12	

LABORATORY CONTROL SAMPLE: 1524647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO	mg/kg	80.9	77.7	96	76-115	
n-Tetracosane (S)	%			95	18-139	
p-Terphenyl (S)	%			98	51-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1524648 1524649

Parameter	Units	60188423044 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-DRO	mg/kg	52.3	88.1	88.1	159	141	121	100	12-159	12	37	
n-Tetracosane (S)	%						93	95	18-139			
p-Terphenyl (S)	%						97	97	51-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

QC Batch: OEXT/48329
QC Batch Method: EPA 3546
Analysis Method: EPA 8015B
Analysis Description: EPA 8015B
Associated Lab Samples: 60188423013

METHOD BLANK: 1526710
Matrix: Solid
Associated Lab Samples: 60188423013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO	mg/kg	ND	9.6	03/02/15 15:28	
n-Tetracosane (S)	%	88	18-139	03/02/15 15:28	
p-Terphenyl (S)	%	86	51-120	03/02/15 15:28	

LABORATORY CONTROL SAMPLE: 1526711

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO	mg/kg	82.3	76.7	93	76-115	
n-Tetracosane (S)	%			91	18-139	
p-Terphenyl (S)	%			91	51-120	

ATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1526712 1526713

Parameter	Units	60188707004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH-DRO	mg/kg	ND	103	102	99.8	92.7	95	88	12-159	7	37	
n-Tetracosane (S)	%						88	83	18-139			
p-Terphenyl (S)	%						92	85	51-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

QC Batch: PMST/10501 Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 60188423001, 60188423002, 60188423003, 60188423004, 60188423005, 60188423006, 60188423007, 60188423008, 60188423009, 60188423010, 60188423011, 60188423013, 60188423014, 60188423015, 60188423016, 60188423017

METHOD BLANK: 1525082 Matrix: Solid
Associated Lab Samples: 60188423001, 60188423002, 60188423003, 60188423004, 60188423005, 60188423006, 60188423007, 60188423008, 60188423009, 60188423010, 60188423011, 60188423013, 60188423014, 60188423015, 60188423016, 60188423017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	02/25/15 00:00	

SAMPLE DUPLICATE: 1525083

Parameter	Units	60188507001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.6	15.9	8	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

QC Batch: PMST/10502 Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 60188423018, 60188423019, 60188423020, 60188423021, 60188423022, 60188423023, 60188423025, 60188423026, 60188423027, 60188423028, 60188423029, 60188423030, 60188423031, 60188423032, 60188423033, 60188423034, 60188423036, 60188423037, 60188423038, 60188423039

METHOD BLANK: 1525086 Matrix: Solid
Associated Lab Samples: 60188423018, 60188423019, 60188423020, 60188423021, 60188423022, 60188423023, 60188423025, 60188423026, 60188423027, 60188423028, 60188423029, 60188423030, 60188423031, 60188423032, 60188423033, 60188423034, 60188423036, 60188423037, 60188423038, 60188423039

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	02/25/15 00:00	

SAMPLE DUPLICATE: 1525087

Parameter	Units	60188423018 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.8	5.2	8	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

QC Batch: PMST/10503 Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 60188423040, 60188423041, 60188423042, 60188423043, 60188423044, 60188423045, 60188423046, 60188423048, 60188423049, 60188423050, 60188423051, 60188423052, 60188423053, 60188423054, 60188423055, 60188423056, 60188423057

METHOD BLANK: 1525088 Matrix: Solid
Associated Lab Samples: 60188423040, 60188423041, 60188423042, 60188423043, 60188423044, 60188423045, 60188423046, 60188423048, 60188423049, 60188423050, 60188423051, 60188423052, 60188423053, 60188423054, 60188423055, 60188423056, 60188423057

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	02/25/15 00:00	

SAMPLE DUPLICATE: 1525089

Parameter	Units	60188423040 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.0	4.2	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60188423001	S-086010-021815-SW-B14-5	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423002	S-086010-021815-SW-B14-10	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423003	S-086010-021815-SW-B14-15	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423004	S-086010-021815-SW-B14-20	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423005	S-086010-021815-SW-B14-25	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423006	S-086010-021815-SW-B14-30	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423007	S-086010-021815-SW-B14-35	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423008	S-086010-021815-SW-B14-10	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423009	S-086010-021815-SW-B14-15	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423010	S-086010-021815-SW-B14-20	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423011	S-086010-021815-SW-B14-25	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423013	S-086010-021915-SWB12-5	EPA 3546	OEXT/48329	EPA 8015B	GCSV/18489
60188423014	S-086010-021915-SWB12-10	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423015	S-086010-021915-SWB12-15	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423016	S-086010-021915-SWB12-20	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423017	S-086010-021915-SWB12-23	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423018	S-086010-021815-SW-B13-5	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423019	S-086010-021815-SW-B13-10	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423020	S-086010-021815-SW-B13-15	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423021	S-086010-021815-SW-B13-20	EPA 3546	OEXT/48266	EPA 8015B	GCSV/18465
60188423022	S-086010-021815-SW-B13-25	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423023	S-086010-021815-SW-B13-30	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423025	S-086010-021915-SW-B10-5	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423026	S-086010-021915-SW-B10-10	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423027	S-086010-021915-SW-B10-15	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423028	S-086010-021915-SW-B10-20	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423029	S-086010-021915-SW-B10-25	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423030	S-086010-021915-SW-B11-5	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423031	S-086010-021915-SW-B11-10	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423032	S-086010-021915-SW-B11-15	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423033	S-086010-021915-SW-B11-20	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423034	S-086010-021915-SW-B11-24	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423036	S-086010-021915-SW-B8-5	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423037	S-086010-021915-SW-B8-10	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423038	S-086010-021915-SW-B8-15	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423039	S-086010-021915-SW-B8-20	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423040	S-086010-021915-SW-B8-25	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423041	S-086010-022015-SW-B9-5	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423042	S-086010-022015-SW-B9-10	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423043	S-086010-022015-SW-B9-15	EPA 3546	OEXT/48267	EPA 8015B	GCSV/18466
60188423044	S-086010-022015-SW-B9-20	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467
60188423045	S-086010-022015-SW-B9-25	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467
60188423046	S-086010-022015-JW-DUP	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467
60188423048	S-086010-021915-SW-B6-5	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467
60188423049	S-086010-021915-SW-B6-10	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467
60188423050	S-086010-021915-SW-B6-15	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467
60188423051	S-086010-021915-SW-B6-20	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60188423052	S-086010-021915-SW-B6-25	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467
60188423053	S-086010-022015-SW-B7-5	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467
60188423054	S-086010-022015-SW-B7-10	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467
60188423055	S-086010-022015-SW-B7-15	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467
60188423056	S-086010-022015-SW-B7-20	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467
60188423057	S-086010-022015-SW-B7-25	EPA 3546	OEXT/48268	EPA 8015B	GCSV/18467
60188423001	S-086010-021815-SW-B14-5	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423002	S-086010-021815-SW-B14-10	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423003	S-086010-021815-SW-B14-15	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423004	S-086010-021815-SW-B14-20	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423005	S-086010-021815-SW-B14-25	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423006	S-086010-021815-SW-B14-30	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423007	S-086010-021815-SW-B14-35	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423008	S-086010-021815-SW-B14-10	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423009	S-086010-021815-SW-B14-15	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423010	S-086010-021815-SW-B14-20	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423011	S-086010-021815-SW-B14-25	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423012	TRIP BLANK	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423013	S-086010-021915-SWB12-5	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
188423014	S-086010-021915-SWB12-10	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423015	S-086010-021915-SWB12-15	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423016	S-086010-021915-SWB12-20	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423017	S-086010-021915-SWB12-23	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423018	S-086010-021815-SW-B13-5	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423019	S-086010-021815-SW-B13-10	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423020	S-086010-021815-SW-B13-15	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423021	S-086010-021815-SW-B13-20	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423022	S-086010-021815-SW-B13-25	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423023	S-086010-021815-SW-B13-30	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423024	TRIP BLANK	EPA 5035A/5030B	GCV/5008	EPA 8015B	GCV/5011
60188423025	S-086010-021915-SW-B10-5	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423026	S-086010-021915-SW-B10-10	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423027	S-086010-021915-SW-B10-15	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423028	S-086010-021915-SW-B10-20	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423029	S-086010-021915-SW-B10-25	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423030	S-086010-021915-SW-B11-5	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423031	S-086010-021915-SW-B11-10	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423032	S-086010-021915-SW-B11-15	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423033	S-086010-021915-SW-B11-20	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423034	S-086010-021915-SW-B11-24	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423035	TRIP BLANK	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423036	S-086010-021915-SW-B8-5	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423037	S-086010-021915-SW-B8-10	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423038	S-086010-021915-SW-B8-15	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423039	S-086010-021915-SW-B8-20	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012
60188423040	S-086010-021915-SW-B8-25	EPA 5035A/5030B	GCV/5009	EPA 8015B	GCV/5012

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60188423041	S-086010-022015-SW-B9-5	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423042	S-086010-022015-SW-B9-10	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423043	S-086010-022015-SW-B9-15	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423044	S-086010-022015-SW-B9-20	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423045	S-086010-022015-SW-B9-25	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423046	S-086010-022015-JW-DUP	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423048	S-086010-021915-SW-B6-5	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423049	S-086010-021915-SW-B6-10	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423050	S-086010-021915-SW-B6-15	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423051	S-086010-021915-SW-B6-20	EPA 5035A/5030B	GCV/5013	EPA 8015B	GCV/5019
60188423052	S-086010-021915-SW-B6-25	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423053	S-086010-022015-SW-B7-5	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423054	S-086010-022015-SW-B7-10	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423055	S-086010-022015-SW-B7-15	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423056	S-086010-022015-SW-B7-20	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423057	S-086010-022015-SW-B7-25	EPA 5035A/5030B	GCV/5010	EPA 8015B	GCV/5017
60188423001	S-086010-021815-SW-B14-5	ASTM D2974	PMST/10501		
60188423002	S-086010-021815-SW-B14-10	ASTM D2974	PMST/10501		
60188423003	S-086010-021815-SW-B14-15	ASTM D2974	PMST/10501		
60188423004	S-086010-021815-SW-B14-20	ASTM D2974	PMST/10501		
60188423005	S-086010-021815-SW-B14-25	ASTM D2974	PMST/10501		
60188423006	S-086010-021815-SW-B14-30	ASTM D2974	PMST/10501		
60188423007	S-086010-021815-SW-B14-35	ASTM D2974	PMST/10501		
60188423008	S-086010-021815-SW-B14-10	ASTM D2974	PMST/10501		
60188423009	S-086010-021815-SW-B14-15	ASTM D2974	PMST/10501		
60188423010	S-086010-021815-SW-B14-20	ASTM D2974	PMST/10501		
60188423011	S-086010-021815-SW-B14-25	ASTM D2974	PMST/10501		
60188423013	S-086010-021915-SWB12-5	ASTM D2974	PMST/10501		
60188423014	S-086010-021915-SWB12-10	ASTM D2974	PMST/10501		
60188423015	S-086010-021915-SWB12-15	ASTM D2974	PMST/10501		
60188423016	S-086010-021915-SWB12-20	ASTM D2974	PMST/10501		
60188423017	S-086010-021915-SWB12-23	ASTM D2974	PMST/10501		
60188423018	S-086010-021815-SW-B13-5	ASTM D2974	PMST/10502		
60188423019	S-086010-021815-SW-B13-10	ASTM D2974	PMST/10502		
60188423020	S-086010-021815-SW-B13-15	ASTM D2974	PMST/10502		
60188423021	S-086010-021815-SW-B13-20	ASTM D2974	PMST/10502		
60188423022	S-086010-021815-SW-B13-25	ASTM D2974	PMST/10502		
60188423023	S-086010-021815-SW-B13-30	ASTM D2974	PMST/10502		
60188423025	S-086010-021915-SW-B10-5	ASTM D2974	PMST/10502		
60188423026	S-086010-021915-SW-B10-10	ASTM D2974	PMST/10502		
60188423027	S-086010-021915-SW-B10-15	ASTM D2974	PMST/10502		
60188423028	S-086010-021915-SW-B10-20	ASTM D2974	PMST/10502		
60188423029	S-086010-021915-SW-B10-25	ASTM D2974	PMST/10502		
60188423030	S-086010-021915-SW-B11-5	ASTM D2974	PMST/10502		
60188423031	S-086010-021915-SW-B11-10	ASTM D2974	PMST/10502		
60188423032	S-086010-021915-SW-B11-15	ASTM D2974	PMST/10502		
60188423033	S-086010-021915-SW-B11-20	ASTM D2974	PMST/10502		

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 086010 SAN JUAN 27-5 NO. 69
Pace Project No.: 60188423

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60188423034	S-086010-021915-SW-B11-24	ASTM D2974	PMST/10502		
60188423036	S-086010-021915-SW-B8-5	ASTM D2974	PMST/10502		
60188423037	S-086010-021915-SW-B8-10	ASTM D2974	PMST/10502		
60188423038	S-086010-021915-SW-B8-15	ASTM D2974	PMST/10502		
60188423039	S-086010-021915-SW-B8-20	ASTM D2974	PMST/10502		
60188423040	S-086010-021915-SW-B8-25	ASTM D2974	PMST/10503		
60188423041	S-086010-022015-SW-B9-5	ASTM D2974	PMST/10503		
60188423042	S-086010-022015-SW-B9-10	ASTM D2974	PMST/10503		
60188423043	S-086010-022015-SW-B9-15	ASTM D2974	PMST/10503		
60188423044	S-086010-022015-SW-B9-20	ASTM D2974	PMST/10503		
60188423045	S-086010-022015-SW-B9-25	ASTM D2974	PMST/10503		
60188423046	S-086010-022015-JW-DUP	ASTM D2974	PMST/10503		
60188423048	S-086010-021915-SW-B6-5	ASTM D2974	PMST/10503		
60188423049	S-086010-021915-SW-B6-10	ASTM D2974	PMST/10503		
60188423050	S-086010-021915-SW-B6-15	ASTM D2974	PMST/10503		
60188423051	S-086010-021915-SW-B6-20	ASTM D2974	PMST/10503		
60188423052	S-086010-021915-SW-B6-25	ASTM D2974	PMST/10503		
60188423053	S-086010-022015-SW-B7-5	ASTM D2974	PMST/10503		
60188423054	S-086010-022015-SW-B7-10	ASTM D2974	PMST/10503		
)188423055	S-086010-022015-SW-B7-15	ASTM D2974	PMST/10503		
,0188423056	S-086010-022015-SW-B7-20	ASTM D2974	PMST/10503		
60188423057	S-086010-022015-SW-B7-25	ASTM D2974	PMST/10503		

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60188423

60188423

Client Name: CRA COP NM

Optional
Proj Due Date:
Proj Name:

Courier: Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 8070 3789 5770 Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☒ ZPLC

Thermometer Used: (T-239) / T-194 Type of Ice: (Wet) Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 1.7 4.7 3.5 0.1 0.1

Date and initials of person examining contents: JD 2/21

Temperature should be above freezing to 6°C

Chain of Custody present:	☒Yes ☐No ☐N/A	1.
Chain of Custody filled out:	☒Yes ☐No ☐N/A	2. B14-10 at 1550 through B14-25 at 1620
Chain of Custody relinquished:	☒Yes ☐No ☐N/A	3. are labeled as 015 on jars
Sampler name & signature on COC:	☒Yes ☐No ☐N/A	4.
Samples arrived within holding time:	☒Yes ☐No ☐N/A	5.
Short Hold Time analyses (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time requested:	☐Yes ☒No ☐N/A	7.
Sufficient volume:	☒Yes ☐No ☐N/A	8.
Correct containers used:	☒Yes ☐No ☐N/A	
Pace containers used:	☒Yes ☐No ☐N/A	9.
Containers intact:	☒Yes ☐No ☐N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐Yes ☐No ☒N/A	11.
Filtered volume received for dissolved tests?	☐Yes ☐No ☒N/A	12.
Sample labels match COC:	☒Yes ☐No ☐N/A	
Includes date/time/ID/analyses Matrix:	SL WT	13.
All containers needing preservation have been checked	☐Yes ☐No ☒N/A	
All containers needing preservation are found to be in compliance with EPA recommendation	☐Yes ☐No ☒N/A	14.
Exceptions (VOA), coliform, TOC, O&G, WI-DRO (water), Phenolics	☒Yes ☐No	Initial when completed / Lot # of added preservative
Trip Blank present:	☒Yes ☐No ☐N/A	
Pace Trip Blank lot # (if purchased): 101314-3		15.
Headspace in VOA vials (>6mm):	☒Yes ☐No ☐N/A	4 of 4 60mL TB
		16.
Project sampled in USDA Regulated Area:	☐Yes ☒No ☐N/A	17. List State: NM

AFT

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps	
Start: 1055	Start:
End: 1115	End:
Temp:	Temp:

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUST[illegible]Y / Analytical Req[illegible]t Docum[illegible]nt

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	CRA COP CM	Report To:	Jeff Walker	Attention:	CRA
Address:	6121 Indian School Rd NE, Ste 200	Copy To:	Cale Canack	Company Name:	
	Albequerque, NM 87110		Angela Bown	Address:	
To:		Purchase Order No.:		Pace Quote Reference:	
Phone:	505-884-0672 Fax:	Project Name:	San Juan 27-5 No. 69	Pace Project Manager:	Alice Flanagan
Requested Due Date/TAT:		Project Number:	86010	Pace Profile #:	8219

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NM

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

#	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8015 TPH GRO	8015 TPH DRO									Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	SS 6W-86010-021815-JW-B14-5	G	SL			2/18/15	1345		2	X									X	X		(2) WAFM						001
2	SS 6W-86010-021815-JW-B14-10						1405																					SAMPLE NAMES 002
3	SS 6W-86010-021815-JW-B14-15						1415																					START WITH 003
4	SS 6W-86010-021815-JW-B14-20						1425																					"SS" NOT "GW" 004
5	SS 6W-86010-021815-JW-B14-25						1430																					005
6	SS 6W-86010-021815-JW-B14-30						1450																					006
7	SS 6W-86010-021815-JW-B14-35						1505																					007
8	SS 6W-86010-021815-JW-B14-10						1550																					008
9	SS 6W-86010-021815-JW-B14-15						1605																					009
10	SS 6W-86010-021815-JW-B14-20						1610																					010
11	SS 6W-86010-021815-JW-B14-25						1620																					011
12	TRIP BLANK		WT				—															(2) VOA						012

60188423
Pace Project No./ Lab I.D.

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	CRA	2-20-15	1630		2/21	1010	1.7	Y	Y	Y
							4.7 2/21			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: CALE KANACK

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 2-20-15

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Req t Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	CRA COP CM
Address:	6121 Indian School Rd NE, Ste 200
	Albequerque, NM 87110
Email To:	
Phone: 505-884-0672	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Jeff Walker
Copy To:	Cale Canack
	Angela Bown
Purchase Order No.:	
Project Name:	San Juan 27-5 No. 69
Project Number:	86010

Section C Invoice Information:

Attention:	CRA
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Alice Flanagan
Pace Profile #:	8219

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NM

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8015 TPH GRO	8015 TPH DRO							Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Requested Analysis Filtered (Y/N)										
1	S GW-086010-021915-JW-B12-5	SL	G			2/19/15	0840		2	X									X	X	(2) WGFH							60188423 SAMPLE NAMES 013
2	S GW-086010-021915-JW-B12-10	"	"			"	0850		"	"									"	"	"							START WITH 014
3	S GW-086010-021915-JW-B12-15	"	"			"	0900		"										"	"								"S" NOT "GW" 015
4	S GW-086010-021915-JW-B12-20	"	"			"	0930		"										"	"								016
5	S GW-086010-021915-JW-B12-23	"	"			↓	0935		"										"	"								017
6	S GW-086010-021815-JW-B13-5	"	"			2/18/15	1045		"										"	"								018
7	S GW-086010-021815-JW-B13-10	"	"			"	1050		"										"	"								019
8	S GW-086010-021815-JW-B13-15	"	"			"	1055		"										"	"								Rec'd 020
9	S GW-086010-021815-JW-B13-20	"	"			"	1105		"										"	"								021
10	S GW-086010-021815-JW-B13-25	"	"			"	1115		"										"	"								022
11	S GW-086010-021815-JW-B13-30	"	"			↓	1215		"										"	"								023
12	TRIP BLANK	WT	"			"	—		"	"									"	"	(2) VGFH							024

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	CRA	2-20-15	1630		2/21	1010	4.7	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: CALE KANACK

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 2-20-15

Important signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any ir paid within 30 days

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	CRA COP CM	Report To:	Jeff Walker	Attention:	CRA
Address:	6121 Indian School Rd NE, Ste 200	Copy To:	Cale Canack	Company Name:	
	Albequerque, NM 87110		Angela Bown	Address:	
Email To:		Purchase Order No.:		Pace Quote Reference:	
Phone:	505-884-0672 Fax:	Project Name:	San Juan 27-5 No. 69	Pace Project Manager:	Alice Flanagan
Requested Due Date/TAT:		Project Number:	86010	Pace Profile #:	8219

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NM

Requested Analysis Filtered (Y/N)

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8015 TPH GRO	8015 TPH DRO							Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 60188423
1	~~SW~~-086010-021915-JW-B10-5	SL	G			2/19/15	1120		2	X									X	X		(2)	WGFU				SAMPLE NAMES START WITH "S" NOT "GW" 025
2	~~SW~~-086010-021915-JW-B10-10						1130																				026
3	~~SW~~-086010-021915-JW-B10-15						1140																				027
4	~~SW~~-086010-021915-JW-B10-20						1150																				028
5	~~SW~~-086010-021915-JW-B10-25						1155																				029
6	~~SW~~-086010-021915-JW-B11-5						1010																				030
7	~~SW~~-086010-021915-JW-B11-10						1020																				031
8	S-086010-021915-JW-B11-15						1030																				032
9	S-086010-021915-JW-B11-20						1035																				033
10	S-086010-021915-JW-B11-24						1040																				034
11	TRIP BLANK	WT																					(2)	VOAH			035
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	CKA	2-20-15	1630		2/21	1010	3.5

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: CALE KANACK

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 4 of 5

Section A Required Client Information:		**Section B** Required Project Information:		**Section C** Invoice Information:	
Company:	CRA COP CM	Report To:	Jeff Walker	Attention:	CRA
Address:	6121 Indian School Rd NE, Ste 200	Copy To:	Cale Canack	Company Name:	
	Albequerque, NM 87110		Angela Bown	Address:	
Email To:		Purchase Order No.:		Pace Quote Reference:	
Phone: 505-884-0672	Fax:	Project Name:	San Juan 27-5 No. 69	Pace Project Manager:	Alice Flanagan
Requested Due Date/TAT:		Project Number:	86010	Pace Profile #:	8219

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER ________

Site Location STATE: NM

Section D Required Client Information

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	TIME	COLLECTED COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8015 TPH GRO	8015 TPH DRO		Residual Chlorine (Y/N)	60188423 Pace Project No./ Lab I.D.
1	S-086010-021915-JW-B8-5	SL	G			2/19/15	1255		2	X									X	X	(2) WGFU		036
2	S-086010-021915-JW-B8-10						1300																DUP ONLY 037
3	S-086010-021915-JW-B8-15						1305																1 JAR, SAMPLE 038
4	S-086010-021915-JW-B8-20						1310																FOR GRO + 039
5	S-086010-021915-JW-B8-25						1320																DRO 040
6	S-086010-022015-JW-B9-5					2/20/15	0915																041
7	S-086010-022015-JW-B9-10						0920																042
8	S-086010-022015-JW-B9-15						0930																043
9	S-086010-022015-JW-B9-20						0940																044
10	S-086010-022015-JW-B9-25						0950																045
11	S-086010-022015-JW-DUP						—		1												WGFU		~~WGFU~~ 046
12	TRIP BLANK	WT	—			—	—		[illegible]				X								~~(2) WG4U~~ JB 2/21 (2) DG4H		JB 2/21 047

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	[signature] / CRA	2-20-15	1630	[signature] Pace	2/21	1010	0.1	Y	Y	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: CALE KANACK

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 2-20-15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUST[illegible] / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	CRA COP CM	Report To:	Jeff Walker	Attention:	CRA
Address:	6121 Indian School Rd NE, Ste 200	Copy To:	Cale Canack	Company Name:	
	Albequerque, NM 87110		Angela Bown	Address:	
Email To:		Purchase Order No.:		Pace Quote Reference:	
Phone: 505-884-0672	Fax:	Project Name:	San Juan 27-5 No. 69	Pace Project Manager:	Alice Flanagan
Requested Due Date/TAT:		Project Number:	86010	Pace Profile #:	8219

REGULATORY AGE
☐ NPDES ☐ GR
☐ UST ☐ RC
Site Location
STATE:

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COLLECTED: COMPOSITE START TIME	COLLECTED: COMPOSITE END/GRAB DATE	COLLECTED: COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8015 TPH GRO	8015 TPH DRO						
1	S-086010-021915-JW-B6-5	SL	G			2/19/15	1410		2	X									X	X		(2)	WGFH			
2	S-086010-021915-JW-B6-10	"	"			"	1415		"	"									"	"						
3	S-086010-021915-JW-B6-15	"	"			"	1420		"	"									"	"						
4	S-086010-021915-JW-B6-20	"	"			"	1430		"	"									"	"						
5	S-086010-021915-JW-B6-25	"	"			"	1435		"	"									"	"						
6	S-086010-022015-JW-B7-5	"	"			2/20/15	0815		"	"									"	"						
7	S-086010-022015-JW-B7-10	"	"			"	0820		"	"									"	"						
8	S-086010-022015-JW-B7-15	"	"			"	0825		"	"									"	"						
9	S-086010-022015-JW-B7-20	"	"			"	0835		"	"									"	"						
10	S-086010-022015-JW-B7-25	"	"			"	0840		"	"									"	"						
11	TRIP BLANK	WT	—			—	—		"				X						"	"		(2)	DGOH			
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	CRA	2-20-15	1630		2/21	1010

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: CALE KANACK

SIGNATURE of SAMPLER:

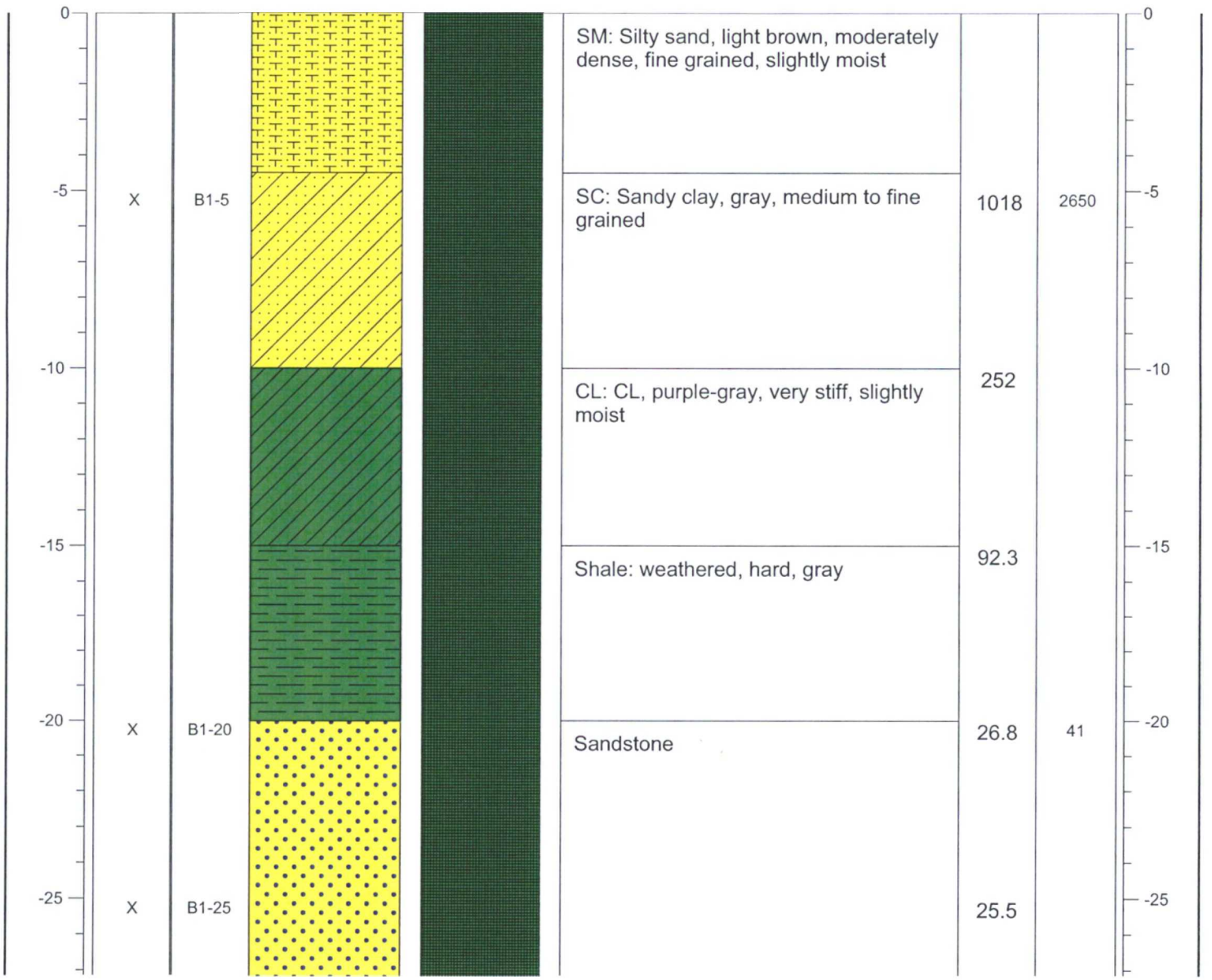
DATE Signed (MM/DD/YY): 2-20-15

*Important Note By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Appendix F
Soil Boring Logs

PROJECT NAME: San Juan 27-5 # 69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Jeff Walker
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encounted
REMARKS: Center of waste tank location
COORDINATES: 36.5928, -107.39419

SOIL BORING NO: B-1
DRILL TYPE: CME-85
Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 8/6/2014 @ 0940
DATE/TIME HOLE COMPLETED: 8/6/2014 @ 1050



TD = 31.5 feet bgs

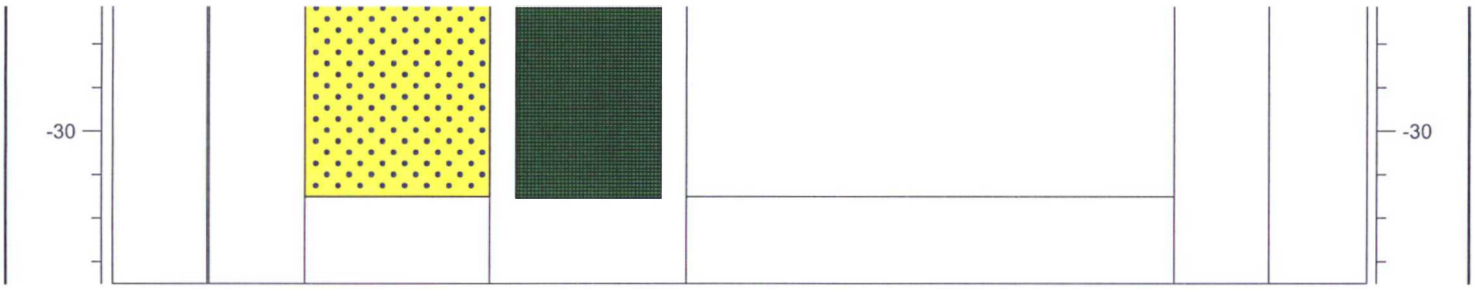
CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: San Juan 27-5 # 69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Jeff Walker
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encounted
REMARKS: Center of waste tank location
COORDINATES: 36.5928, -107.39419

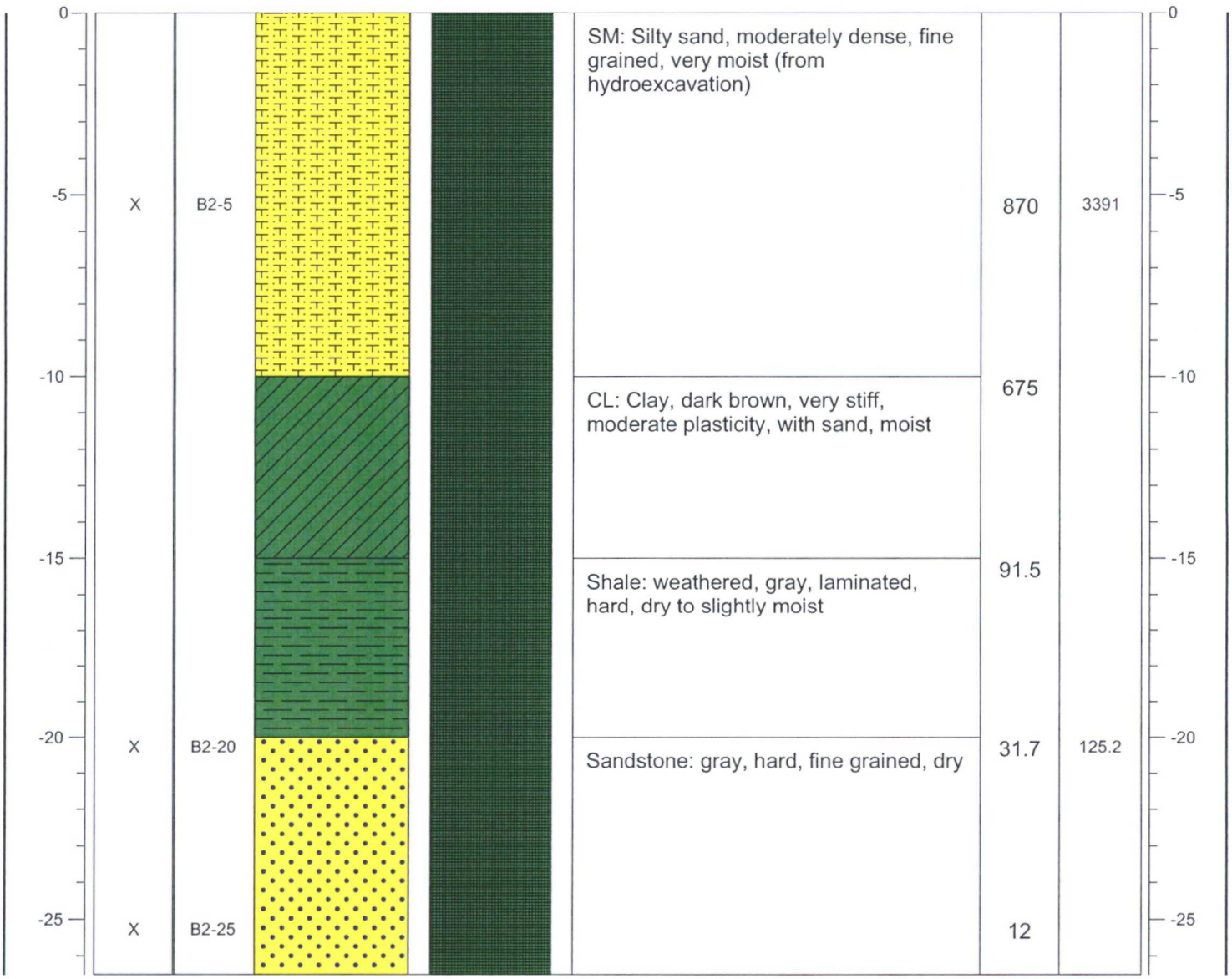
SOIL BORING NO: B-1
DRILL TYPE: CME-85
Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 8/6/2014 @ 0940
DATE/TIME HOLE COMPLETED: 8/6/2014 @ 1050

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft



PROJECT NAME: San Juan 27-5 # 69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Jeff Walker
ACE ELEVATION (msl): No Survey Data Available
JNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.5928, -107.39419

SOIL BORING NO: B-2
DRILL TYPE: CME-85
Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 8/6/2014 @ 1145
DATE/TIME HOLE COMPLETED: 8/6/2014 @ 1315



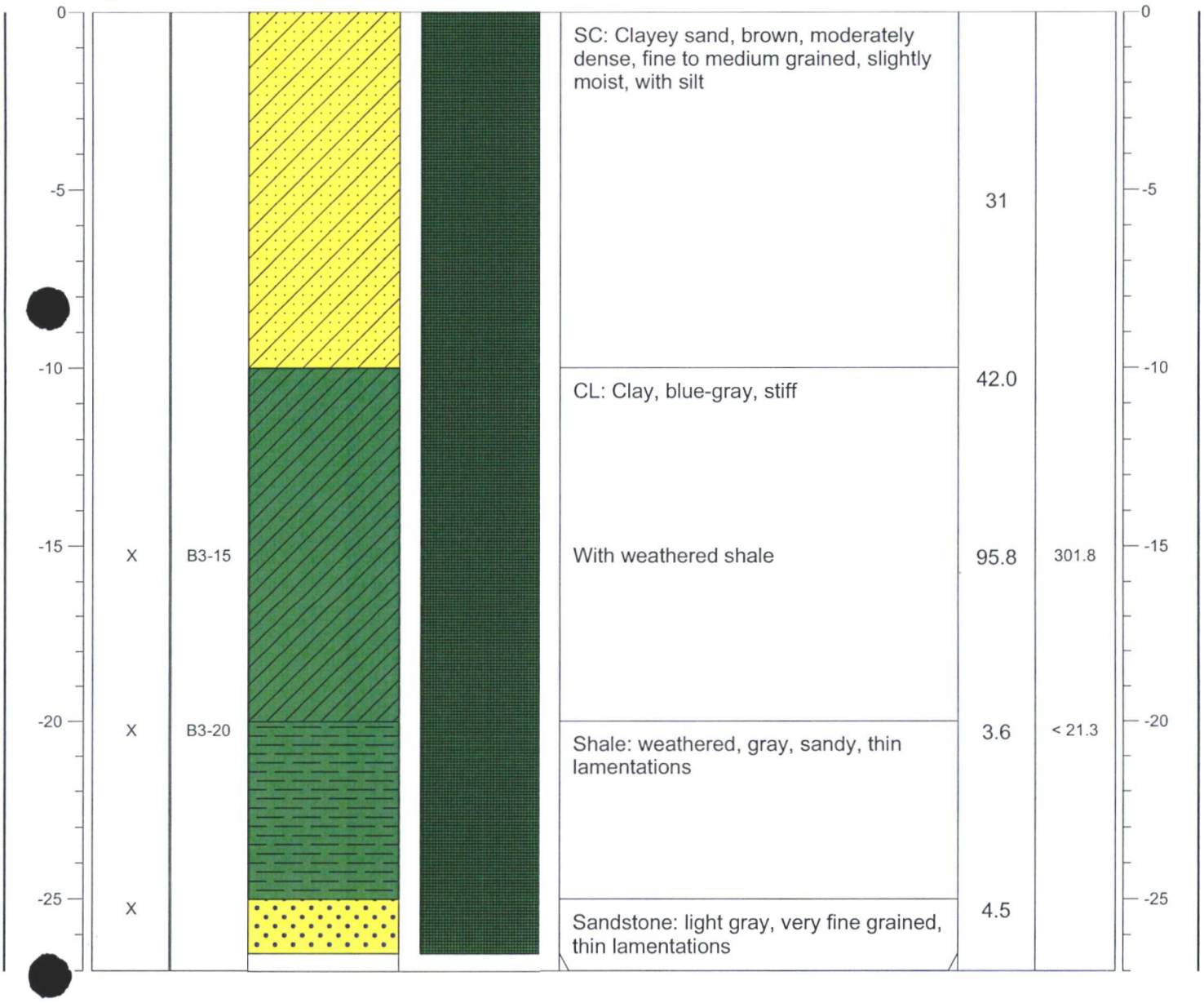
TD = 26.5 feet bgs

CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: San 27-5 # 69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Jeff Walker
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59284, -107.39384

SOIL BORING NO: B-3
DRILL TYPE: CME-85
Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 8/6/2014 @ 1335
DATE/TIME HOLE COMPLETED: 8/6/2014 @ 1430



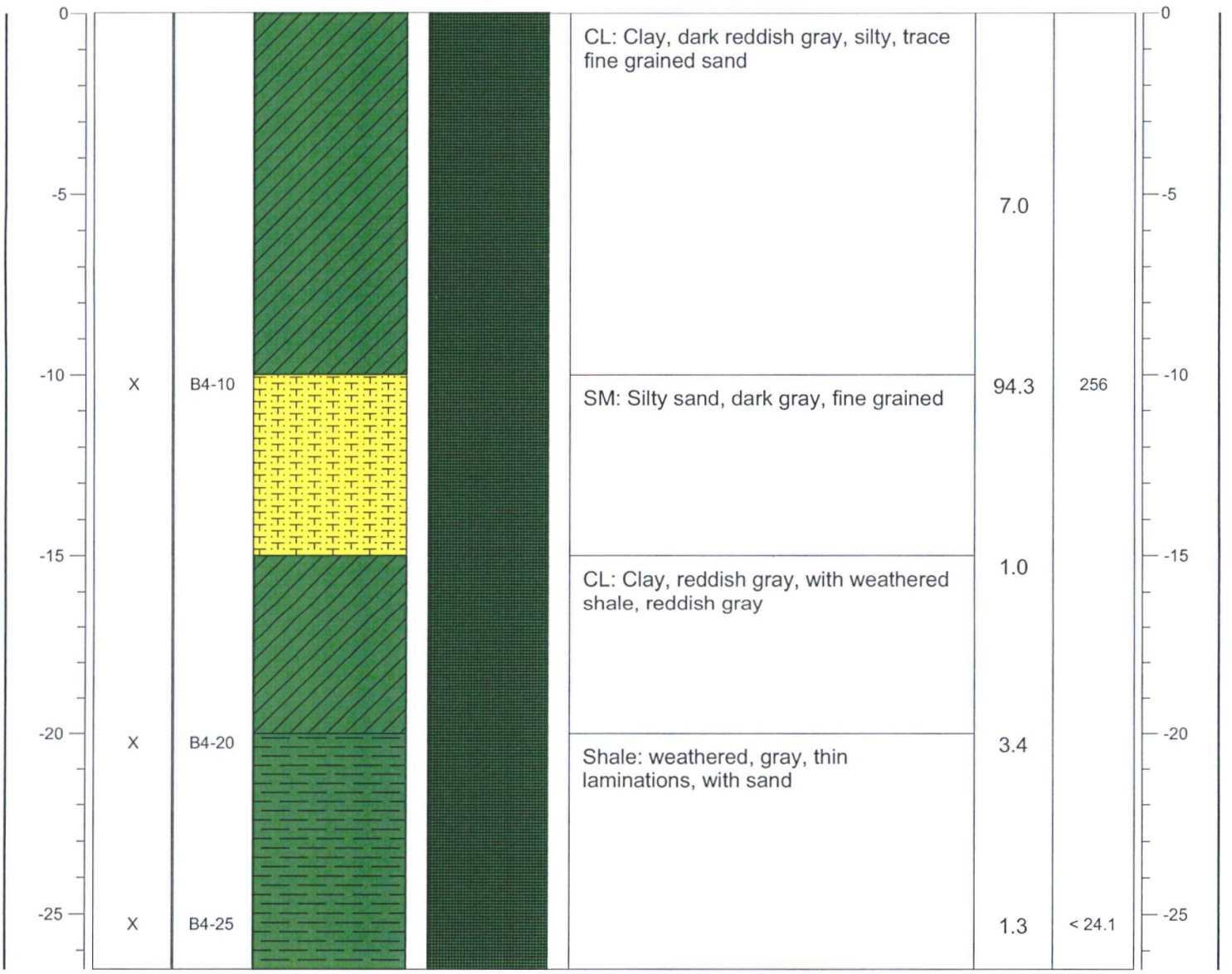
TD = 26.5 feet bgs

CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: San Juan 27-5 # 69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Jeff Walker
SURFACE ELEVATION (msl):
GROUNDWATER ELEVATION (msl):
REMARKS:
COORDINATES: 36.59318, -107.39384

SOIL BORING NO: B-4
DRILL TYPE: CME-85
Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 8/6/2014 @ 1500
DATE/TIME HOLE COMPLETED: 8/6/2014 @ 1550



DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft
0					CL: Clay, dark reddish gray, silty, trace fine grained sand	7.0		0
-5								-5
-10	X	B4-10			SM: Silty sand, dark gray, fine grained	94.3	256	-10
-15					CL: Clay, reddish gray, with weathered shale, reddish gray	1.0		-15
-20	X	B4-20			Shale: weathered, gray, thin laminations, with sand	3.4		-20
-25	X	B4-25				1.3	< 24.1	-25

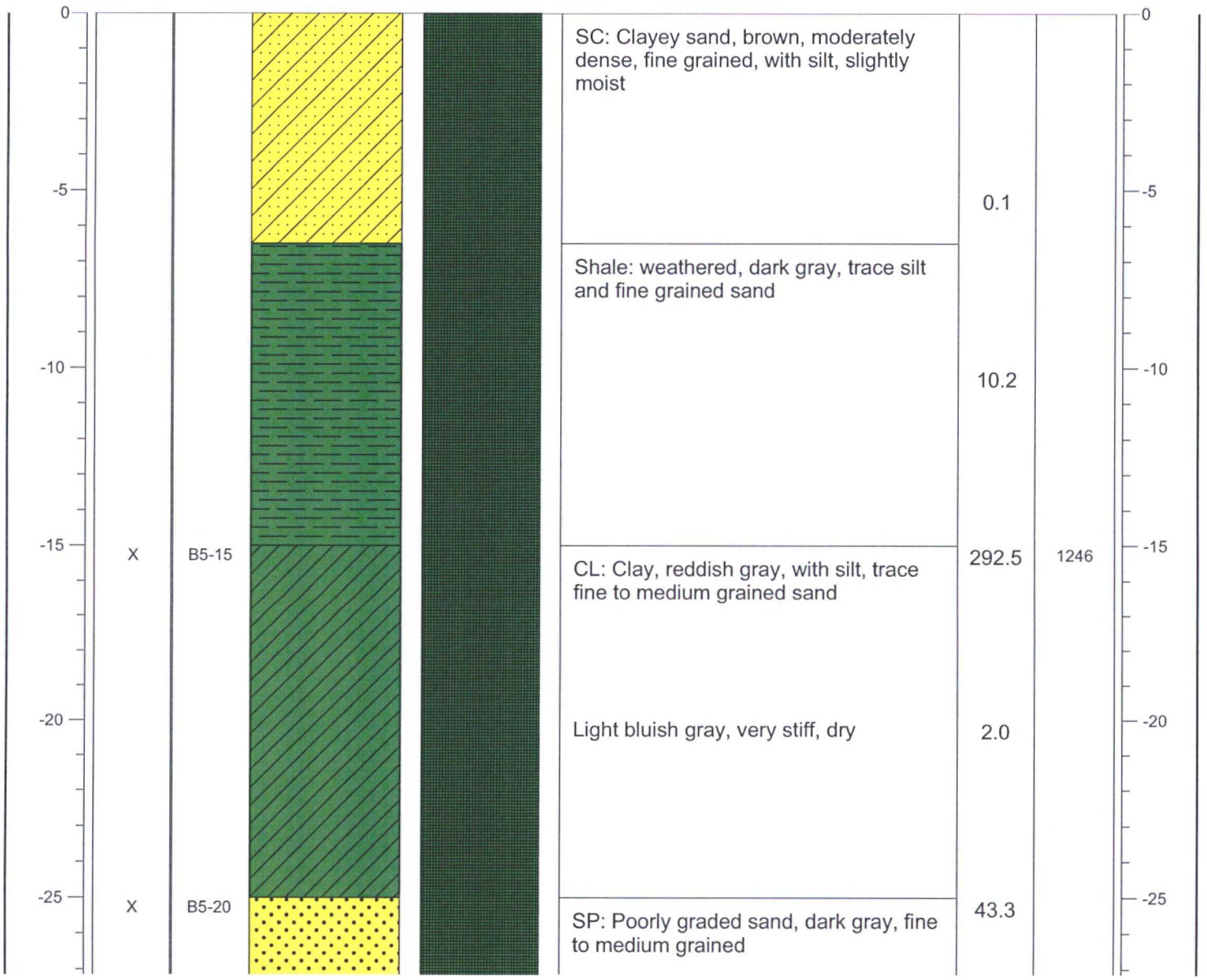
TD = 26.5 feet

CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: San Juan 27-5 # 69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Jeff Walker
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59332, -107.39418

SOIL BORING NO: B-5
DRILL TYPE: CME-85
Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 8/7/2014 @ 0950
DATE/TIME HOLE COMPLETED: 8/7/2014 @ 1050



DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft
0					SC: Clayey sand, brown, moderately dense, fine grained, with silt, slightly moist	0.1		0
-5					Shale: weathered, dark gray, trace silt and fine grained sand	10.2		-5
-10								-10
-15	X	B5-15			CL: Clay, reddish gray, with silt, trace fine to medium grained sand	292.5	1246	-15
-20					Light bluish gray, very stiff, dry	2.0		-20
-25	X	B5-20			SP: Poorly graded sand, dark gray, fine to medium grained	43.3		-25

TD = 32.5 feet bgs

CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: San Juan 27-5 # 69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Jeff Walker
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59332, -107.39418

SOIL BORING NO: B-5
DRILL TYPE: CME-85
Hollow Stem Auger
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 8/7/2014 @ 0950
DATE/TIME HOLE COMPLETED: 8/7/2014 @ 1050

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft
-30	X	B5-25			Tan, medium grained	0.4	10.7	-30

PROJECT NAME: San Juan 27-5 #69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Cale Kanack
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59275, -107.39375

SOIL BORING NO: B-6
DRILL TYPE: Hollow Stem Auger
CME-85
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 2/19/2015 @ 1405
DATE/TIME HOLE COMPLETED: 2/19/2015 @ 1435

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE / COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft
0				No Sample			0
-5	X	B6-5		CL: Clay, gray, hard, non-cohesive, dry Gray-brown	5.8	< 21.3	-5
-10	X	B6-10		Purple-gray, moderately cohesive, dry	5.6	< 22.4	-10
-15	X	B6-15			5.2	< 22.6	-15
-20	X	B6-20		SC: Clayey sand, gray-brown, fissile, hard, dry	4.6	< 21.2	-20
-25	X	B6-25			2.5	< 20.9	-25

TD = 25 feet bgs

CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: San Juan 27-5 #69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Cale Kanack
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59292, -107.39399

SOIL BORING NO: B-7
DRILL TYPE: Hollow Stem Auger
CME-85
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 2/20/2015 @ 0815
DATE/TIME HOLE COMPLETED: 2/20/2015 @ 0840

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE / COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft
0				No Sample			0
-5	X	B7-5		SP: Poorly graded sand, brown, non-cemented, fine grained, slightly moist	2.4	< 21.2	-5
-10	X	B7-10		CL: Clay, purple-gray, hard, moderately cohesive, with silt, dry Trace cobbles and gravel	2.5	< 22.1	-10
-15	X	B7-15		Sandstone/Shale: light gray, fissile hard, dry	3.1	< 21.6	-15
-20	X	B7-20		With cobbles and more sand	3.2	< 21.3	-20
-25	X	B7-25			0.8	< 21.2	-25

TD = 25 feet bgs

CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: San Juan 27-5 #69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Cale Kanack
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59279, -107.39414

SOIL BORING NO: B-8
DRILL TYPE: Hollow Stem Auger
CME-85
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 2/19/2015 @ 1245
DATE/TIME HOLE COMPLETED: 2/19/2015 @ 1320

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft
0					No Sample			0
-5	X	B8-5			CL: Clay, purple-gray, soft, moist	13.1	126	-5
-10	X	B8-10			Moderately hard Dry	108	116	-10
-15	X	B8-15			With gray, sub-angular cobbles Light gray-brown, silty, non-cohesive, silty	1510	252.1	-15
-20	X	B8-20			SM: Silty sand, tan, weakly cemented, fine grained, some clay, gravel, and cobbles	86	< 21.4	-20
-25	X	B8-25				13.2	< 20.7	-25

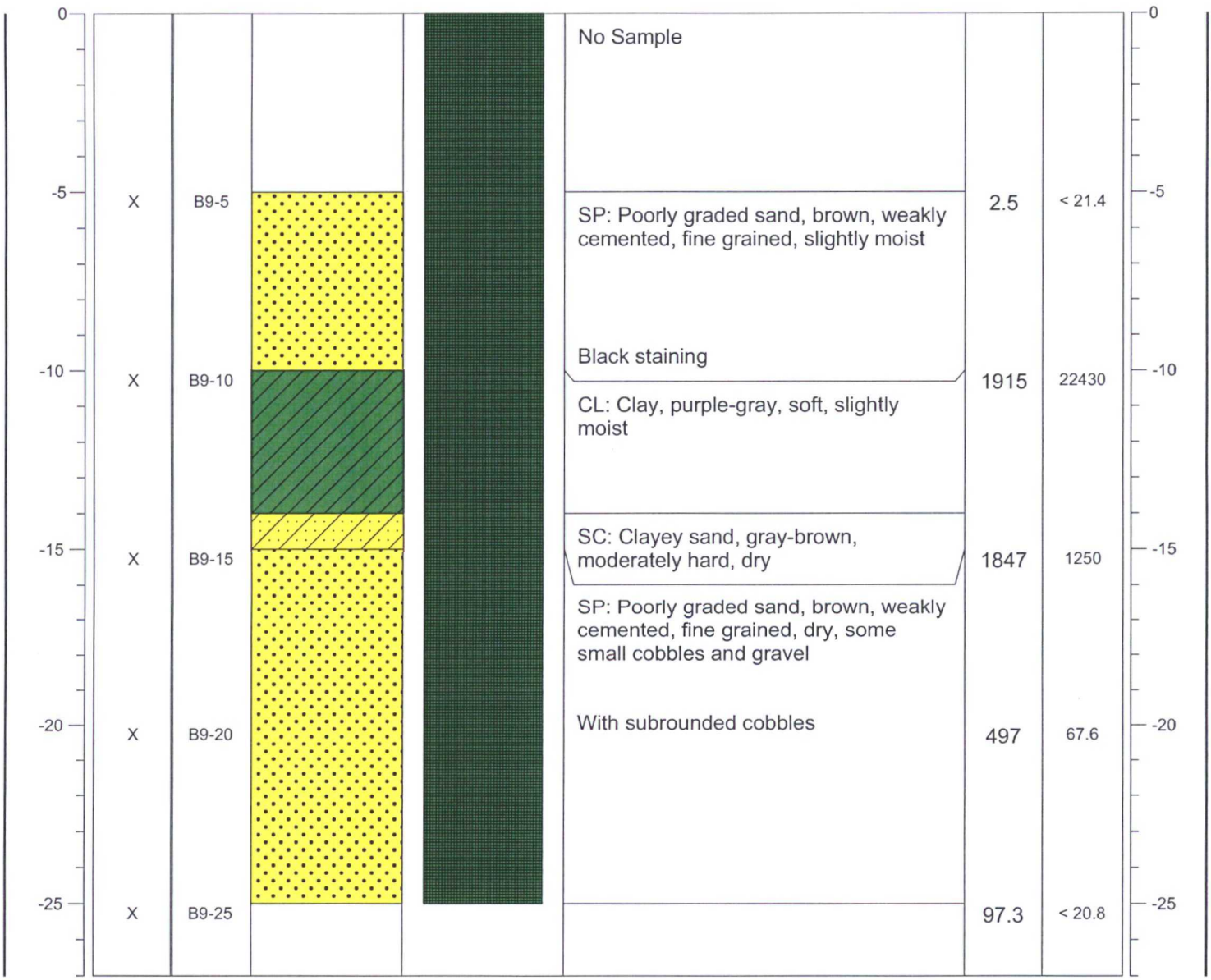
TD = 25 feet bgs

CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: San Juan 27-5 #69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Cale Kanack
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59291, -107.39428

SOIL BORING NO: B-9
DRILL TYPE: Hollow Stem Auger
CME-85
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 2/20/2015 @ 0915
DATE/TIME HOLE COMPLETED: 2/20/2015 @ 0950



TD = 25 feet bgs

CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: San Juan 27-5 #69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Cale Kanack
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59294, -107.39422

SOIL BORING NO: B-10
DRILL TYPE: Hollow Stem Auger
CME-85
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 2/19/2015 @ 1120
DATE/TIME HOLE COMPLETED: 2/19/2015 @ 1155

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft
0					No Sample			0
-5	X	B10-5			SP: Poorly graded sand, brown, non-cemented, fine grained, wet	2398	7500	-5
-10	X	B10-10			CL: Clay, brown, moist, with sand, black staining from 8.5' to 9' Purple-gray, soft, moist	1940	1013.6	-10
-15	X	B10-15			Brown-gray, moderately hard, dry	79.2	< 21.0	-15
-20	X	B10-20			SC: Clayey sand, tan, moderately cemented, fine grained, fissile, with cobbles, dry		< 21.0	-20
-25	X	B10-25				72.4	< 20.5	-25

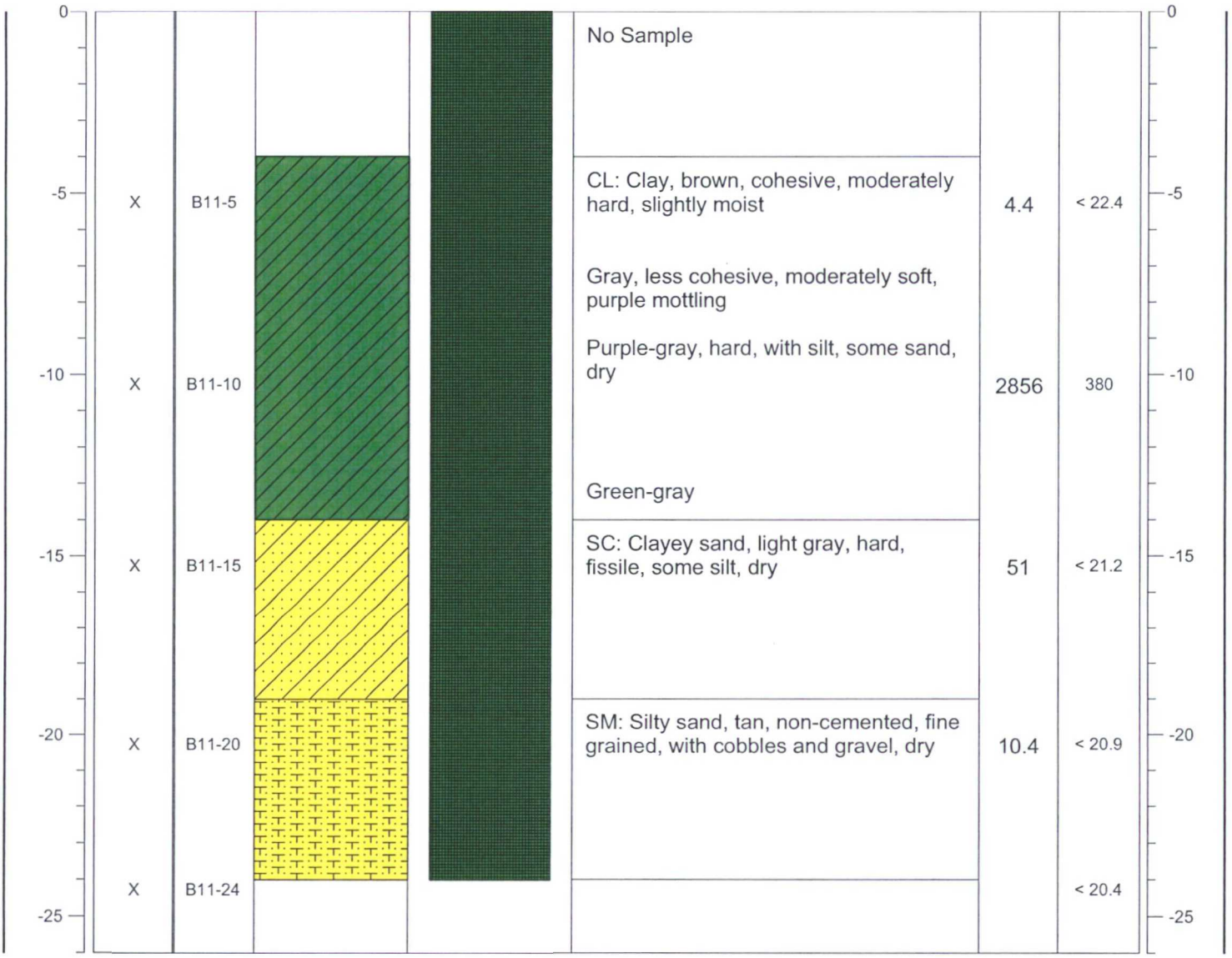
TD = 25 feet bgs

CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: San Juan 27-5 #69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Cale Kanack
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59309, -107.39438

SOIL BORING NO: B-11
DRILL TYPE: Hollow Stem Auger
CME-85
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 2/19/2015 @ 1000
DATE/TIME HOLE COMPLETED: 2/19/2015 @ 1040



TD = 24 feet bgs

CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: San Juan 27-5 #69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Cale Kanack
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59329, -107.39423

SOIL BORING NO: B-12
DRILL TYPE: Hollow Stem Auger
CME-85
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 2/19/2015 @ 0840
DATE/TIME HOLE COMPLETED: 2/19/2015 @ 0935

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft
0					No Sample			0
-5	X	B12-5			Shale: competent to weathered, gray with purple-brown stringer from 3.5' to 4', hard, some clay, dry Weathered, brown, greasy luster	0.7	< 21.9	-5
-10	X	B12-10			CL: Clay, gray, moderately cohesive, moderately hard, dry Purple-gray, less cohesive	1.2	< 21.9	-10
-15	X	B12-15			Gray, trace silt and sand	1.6	< 22.0	-15
-20	X	B12-20			Sandstone/Shale: gray, very hard, fissile, dry		< 20.6	-20
-25	X	B12-23					< 20.6	-25

TD = 23 feet bgs

CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM

PROJECT NAME: San Juan 27-5 #69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Cale Kanack
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59342, -107.39441

SOIL BORING NO: B-13
DRILL TYPE: Hollow Stem Auger
CME-85
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 2/18/2015 @ 1045
DATE/TIME HOLE COMPLETED: 2/18/2015 @ 1215

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft
0					No Sample			0
-5	X	B13-5			SM: Silty sand, tan-light brown, weakly to moderately cemented, fine grained, dry	3.0	< 20.8	-5
-10	X	B13-10			CL: Clay, purple-gray, hard, dry Gray, very hard	5.3	< 22.5	-10
-15	X	B13-15			Purple-gray, hard Gray stringers	72	< 22.4	-15
-20	X	B13-20				886	89.4	-20
-25	X	B13-25			Sandstone: weathered, gray-brown, very well cemented, laminated, dry	2085	< 21.4	-25

PROJECT NAME: San Juan 27-5 #69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Cale Kanack
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59342, -107.39441

SOIL BORING NO: B-13
DRILL TYPE: Hollow Stem Auger
CME-85
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 2/18/2015 @ 1045
DATE/TIME HOLE COMPLETED: 2/18/2015 @ 1215

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft
-30	X	B13-30			SP: Poorly graded sand, gray-brown, with cobbles and coarse gravel	7.0	< 20.7	-30

PROJECT NAME: San Juan 27-5 #69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Cale Kanack
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.5934, -107.39398

SOIL BORING NO: B-14
DRILL TYPE: Hollow Stem Auger
CME-85
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 2/18/2015 @ 1345
DATE/TIME HOLE COMPLETED: 2/18/2015 @ 1505

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft
0					No Sample			0
-5	X	B14-5			CL: Clay, gray, hard, dry Purple-gray	139	74.4	-5
-10	X	B14-10				1055	447.6	-10
-15	X	B14-15			With cobbles and sand	2071	40.5	-15
-20	X	B14-20			Sandstone: gray, fine to very fine grained, gray, dry Light brown, medium to coarse grained	30	< 21.2	-20
-25	X	B14-25			SP: Poorly graded sand, brown, medium grained, moderately cemented, dry	1417	298.9	-25

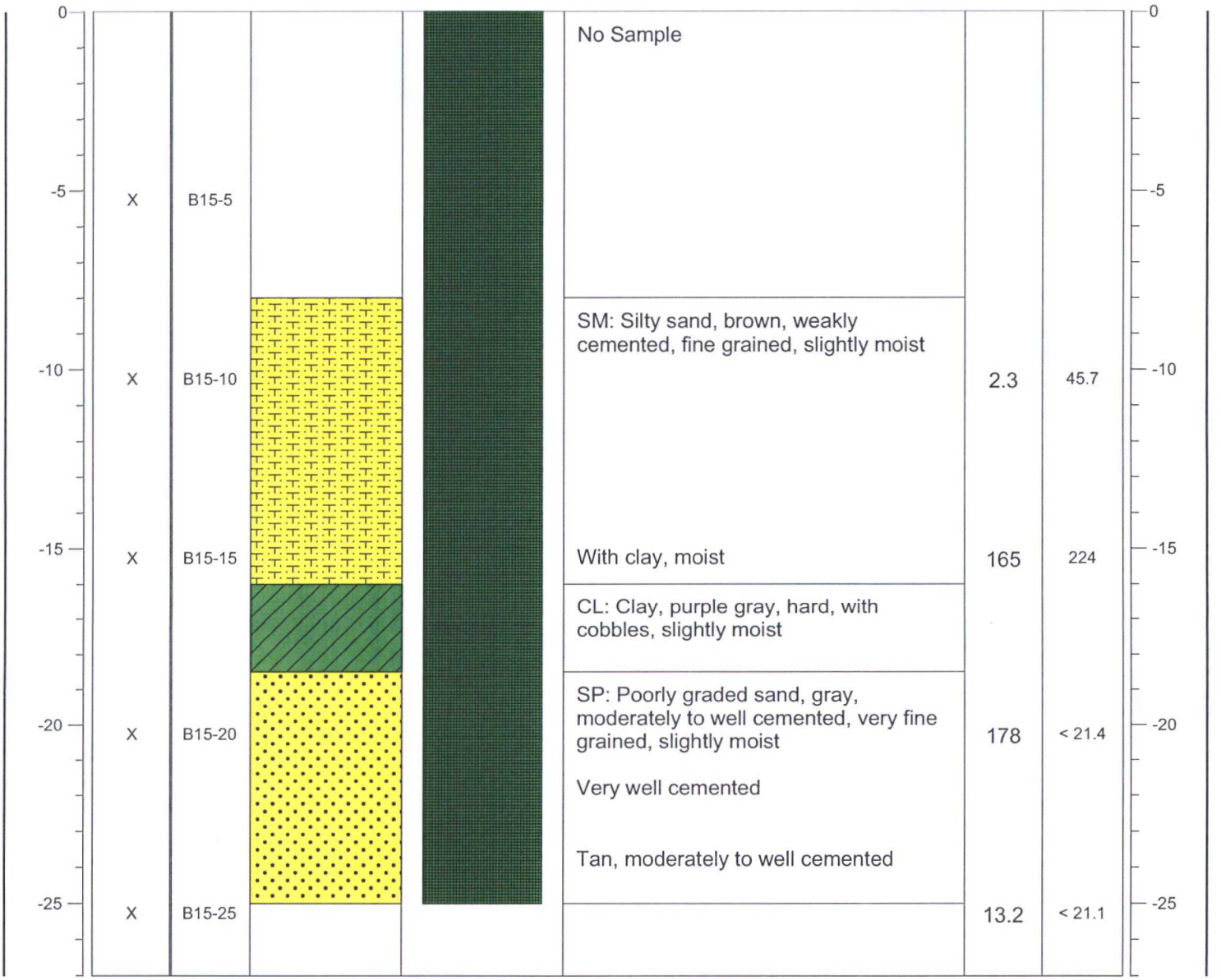
PROJECT NAME: San Juan 27-5 #69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Cale Kanack
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.5934, -107.39398

SOIL BORING NO: B-14
DRILL TYPE: Hollow Stem Auger
CME-85
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 2/18/2015 @ 1345
DATE/TIME HOLE COMPLETED: 2/18/2015 @ 1505

DEPTH (bgs) - ft	SAMPLE TO LAB	SAMPLE ID	STRATAGRAPHIC SEQUENCE	COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	PID (ppm)	TPH (mg/kg)	DEPTH (bgs) - ft
-30	X	B14-30			Fine grained, weakly to moderately cemented	63	12.3	-30
	X	B14-35				54	< 21.0	-35

PROJECT NAME: San Juan 27-5 #69
LOCATION: Rio Arriba County, New Mexico
FIELD LOGGED BY: Cale Kanack
SURFACE ELEVATION (msl): No Survey Data Available
GROUNDWATER ELEVATION (msl): Not Encountered
REMARKS:
COORDINATES: 36.59325, -107.39378

SOIL BORING NO: B-15
DRILL TYPE: Hollow Stem Auger
CME-85
BORE HOLE DIAMETER: 7 7/8"
DRILLED BY: National EWP
DATE/TIME HOLE STARTED: 2/18/2015 @ 1545
DATE/TIME HOLE COMPLETED: 2/18/2015 @ 1620



TD = 25 feet bgs

CONESTOGA-ROVERS & ASSOCIATES

BORING LOG AND WELL COMPLETION FORM