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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 377TH AIR BASE WING (AFGSC)

Colonel Eric H. Froehlich
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117-5600

Mr. John Kieling, Manager
RCRA Permits Management Program
Hazardous Waste Bureau (HWB)
New Mexico Environment Department (NMED)
2905 Rodeo Park Road
Santa Fe, New Mexico 87505

Dear Mr. Kieling

Please find attached, *Facility Investigation Derived Waste Storage Area Discharge Investigation Work Plan, Bulk Fuels Facility, Kirtland Air Force Base, New Mexico*. This letter Work Plan contains the proposed investigation of an area of soil where groundwater monitoring well purge water collected during First Quarter 2014 was discharged to the soil surface in Second Quarter calendar year 2014 without having received approval of Notices of Intent from the New Mexico Environment Department Groundwater Quality Bureau. The objective is to characterize potential contamination in the soil.

If you have any questions or concerns, please contact Mr. L. Wayne Bitner at (505) 853-3484 or at ludie.bitner@us.af.mil or Ms. Victoria Branson at (505) 846-6362 or at victoria.branson@us.af.mil.

ERIC H. FROEHLICH, Colonel, USAF
Commander

cc:
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40 CFR 270.11
DOCUMENT CERTIFICATION
DECEMBER 2015

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

ERIC H. FROEHLICH, Colonel, USAF
Commander, 377th Air Base Wing

This document has been approved for public release.

KIRTLAND AIR FORCE BASE
377th Air Base Wing Public Affairs

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December 22, 2015

Subject: Kirtland Air Force Base Bulk Fuel Facility Investigation Derived Waste Storage Area Discharge Investigation Work Plan

This Kirtland Air Force Base (AFB) Bulk Fuel Facility (BFF) Investigation Derived Waste (IDW) Storage Area Discharge Investigation Work Plan has been prepared by CB&I Federal Services LLC (CB&I) for the U.S. Army Corps of Engineers (USACE), Albuquerque District, under Contract No. W912DY-10-D-0014. It describes the proposed investigation of an area of soil where groundwater monitoring (GWM) well purge water collected during First Quarter 2014 (hereby referred to as Q1 2014) was discharged to the soil surface in Second Quarter calendar year 2014 (hereby referred to as Q2 2014) without having received approval of Notices of Intent (NOIs) from the New Mexico Environment Department (NMED) Groundwater Quality Bureau (GWQB). The water was discharged within SWMU ST-106/SS-111, above the BFF plume. Depth to groundwater ranges from 475 to 500 feet bgs, as measured in wells located in close proximity to the discharge location. All water was discharged to the ground surface in a manner that ensures it does not enter any watercourse.

Objective

The objective for collection of soil samples at the Kirtland AFB IDW storage area is to characterize potential contamination in the soil related to a discharge of bulked non-hazardous "NOI" GWM well purge water collected during Q1 2014 to the soil surface in Q2 2014. "NOI" water is defined as exceeding New Mexico Groundwater Protection standards, or U. S. Environmental Protection Agency (EPA) Regional Screening Levels (RSLs, equivalent to EPA Maximum Contaminant Levels [MCLs]) if New Mexico Groundwater Protection standards do not exist for a particular constituent. Prior to Q1 2014 the GWQB had been approving the discharge of NOI water to the ground surface in the IDW storage area (provided that it did not enter a watercourse). NOI packages for Q1 2014 were submitted to Kirtland Air Force Base (AFB) for signature on May 7, 2014 (Attachment 1); however, evidence documenting submittal of the NOI packages to the GWQB, and NMED approval, could not be found.

In order to order to characterize potential contamination in the soil related to this discharge, soil samples will be collected in the discharge area at various depths. The proposed investigation methods include collection and evaluation of shallow soil samples using direct-push technology (DPT), with analysis for constituents detected above regulatory standards in this Q1 2014 NOI purge water. Soil samples will be compared to the NMED residential soil screening levels (SSLs) (NMED, 2014). Soil with concentrations exceeding the NMED residential SSLs will be excavated to a maximum depth of 20 feet below ground surface (bgs). The activities performed, methods implemented, and soil sampling results will be documented in an Investigation Report.

Discharge Location

The location of the IDW storage area is shown in Figure 1. The point of discharge and discharge "footprint" (maximum extent of discharged water on the ground surface, represented by an approximate 140 foot by 30 foot L-shaped area) are shown in Figure 2. The discharge flowed northward from the point of discharge and pooled in a slight east-west trending depression just north of the point of discharge (represented by the long arm of the L-shaped area).

Approximately 3,155 gallons of Q1 2014 NOI purge water were discharged during Q2 2014; however NMED had not issued a determination letter to permit its discharge. NOIs were prepared for 6 individual wells (KAFB-1066, KAFB-1068, KAFB-10628, KAFB-106063, KAFB-106065, and KAFB-106094) and two bulked samples containing water from multiple wells. Analytes that exceeded either the New Mexico Groundwater Protection standards or EPA MCLs in the purge water were benzene, ethylene dibromide (EDB), methylene chloride, 1,2-dichloroethane (1,2-DCE), bis(2-ethylhexyl)phthalate, iron and manganese. All other analytes were non-detect or detected below regulatory standards (Table 1).

Investigation Methodology

Six direct-push technology (DPT) borings will be installed at the proposed locations shown on Figure 2 in order to define the extent of potential contamination due to discharge of this water. Samples will be collected from depths of 0, 5, 10, 15, and 20 ft below ground surface (bgs) and submitted to an off-site laboratory for analysis the contaminants listed above that exceeded the New Mexico Groundwater Protection standards or EPA MCLs in the discharged water. Analyses will be performed by a U.S. Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)-certified laboratory, using U.S. Environmental Protection Agency (EPA) (1996 and updates) methods and in accordance with the QAPjP (USACE, 2011a). DPT sampling will be conducted in accordance with the procedures outlined in the approved Interim Measures Work Plan (USACE, 2011b). Some trimming of tree limbs may be required for access of the DPT rig.

The results for the initial set of DPT soil samples will be reviewed to determine whether the extent of shallow soil containing hazardous constituents at concentrations exceeding the NMED residential SSLs has been fully delineated. This is consistent with the approach taken during the investigation of the initial fuel release at the Former Fuel Offloading Rack (FFOR) and fuel transfer lines. Additional DPT borings will be drilled and soil samples collected in an iterative process until the full extent of soil contamination that exceeds the NMED SSLs associated with the IDW has been determined. A “step-out” location will be sampled for each location that exceeds NMED residential SSLs. Each step-out location will be situated 5 feet from the original location. Soil with constituents exceeding NMED residential SSLs will be excavated as described in Section 1.2.

Direct-Push Technology Soil Sample Collection and Sample Analysis

The methodology for DPT coring and soil sampling will follow industry standard practices. The DPT equipment will advance a continuous 2-inch-diameter, split-spoon core barrel lined with an acetate liner for soil sample collection. Samples will be collected from depths of 0, 5, 10, 15, and 20 ft bgs for EDB, benzene, 1,2-DCE, methylene chloride, bis(2-ethylhexyl)phthalate, iron, and manganese analyses. Sample collection and analytical methods are summarized in the following steps:

- Sampling equipment will be decontaminated prior to sampling activities at each borehole.
- Borehole drilling and sample collection will be conducted by advancing the sample barrel (with acetate liner) at 5-ft sampling intervals. Once the barrel has reached the desired sampling depth, the sample barrel will be pulled up quickly and smoothly. The acrylic liner will be removed from the sample barrel and the sample will be collected immediately.
- The field geologist will collect samples from the stated depth intervals and submit the samples to the laboratory for analysis.
- Samples for EDB, benzene, 1,2-DCE, and methylene chloride will be collected using a 5 gram Encore™ Sampler. A total of 3 Encore samplers per sample will be collected. Encore samples will be kept on ice after sample collection and during shipping and will be shipped to the DoD ELAP laboratory immediately after sample collection. Upon sample receipt and in accordance with

EPA SW 5035A preservation requirements, the Encore sample will be extruded to a vial containing distilled water and kept frozen to extend the holding time to 14 days from the sample collection date. EDB, benzene, 1,2-DCA, and methylene chloride will be analyzed in accordance with EPA SW-846 Method 5035A and 8260B (for VOCs) requirements.

- Samples for bis(2-ethylhexyl)phthalate, iron and manganese analysis will be collected in a 8 oz jar and kept on ice after sample collection and during shipping. Samples for bis(2-ethylhexyl)phthalate will be analyzed in accordance with EPA SW-846 Method 8270Dand samples for iron and manganese analysis will be analyzed in accordance with EPA SW-846 Method 6010C.

- A preprinted label and custody seal will be applied by the field geologist to each sample container.

Excavation and Disposal of Contaminated Soil

After the extent of shallow soil contamination is determined, locations where hazardous constituents were detected at concentrations exceeding NMED residential SSLs will be excavated to a maximum depth of 20 feet bgs. Prior to initiating excavation activities, a utility clearance will be performed and a dig permit will be submitted to Kirtland AFB. Excavated soil will be placed in roll-offs and sampled to determine whether the soil will be stockpiled for future backfilling or whether it will be transported for disposal. The Kirtland AFB active on-site landfill (LF-268) will be used for disposal of solid non-hazardous waste if specific waste criteria are met, if the soil is not used for backfill. Soil exceeding EPA toxicity criteria or landfill requirements will be disposed of off-site at the Valencia Regional Landfill in Los Lunas, New Mexico.

If excavation is required, confirmation soil samples will be collected from the sidewalls and floor of the excavation prior to backfilling activities and sampled only for the analyte that exceeded the NMED residential SSL. If sidewall confirmation sample results exceed NMED residential SSLs the excavation will be stepped out until subsequent confirmation samples are below NMED residential SSLs. The excavation will not go deeper than 20 feet bgs.

Upon completion of backfill operations and excavated soil disposal, site restoration will be conducted, including appropriate grading of the disturbed areas. Backfill will consist of previously excavated and sampled soil that has been determined to pose no threat to human health or the environment, as well as clean backfill soil transported to the site. Upon completion of the soil placement activities, all disturbed areas will be fine graded.

References

EPA. 1996 and updates. *Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA Publication SW- 846, Final Update V*, Available online at http://www3.epa.gov/epawaste/hazard/testmethods/sw846/

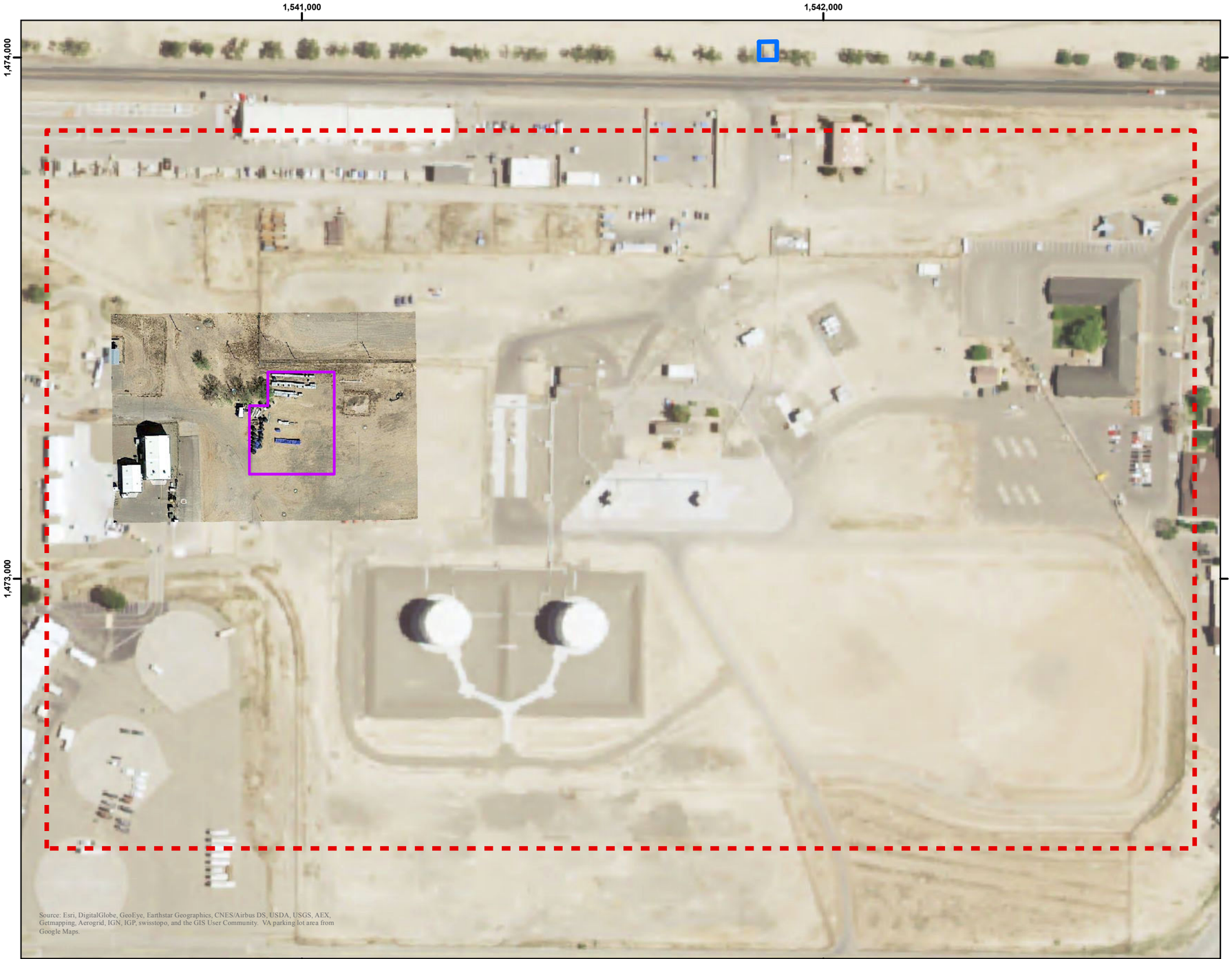
NMED. 2014. *Risk Assessment Guidance for Site Investigation and Remediation, Volume I, Tier 1: Soil Screening Guidance Technical Background Document*, Hazardous Waste Bureau and Ground Water Quality Bureau Voluntary Remediation Program, New Mexico Environment Department, Santa Fe, New Mexico, Table 6-2, TPH Screening guidelines for Potable Groundwater (GW-1), updated December 2014.

USACE. 2014. *Former Fuel Offloading Rack Excavation Work Plan, Bulk Fuels Facility (BFF) Spill, Solid Waste Management Units ST-106 and SS-111, Kirtland Air Force Base, Albuquerque, New Mexico.* Prepared by CB&I Federal Services LLC for the USACE Albuquerque District under USACE Contract No. W912DY-10-D-0014, Delivery Order 0002. June.

USACE. 2011a. *Quality Assurance Project Plan, Bulk Fuels Facility (BFF) Spill, Solid Waste Management Units ST-106 and SS-111, Kirtland Air Force Base, Albuquerque, New Mexico.* Prepared by Shaw Environmental & Infrastructure, Inc. for the USACE Albuquerque District under USACE Contract No. W912DY-10-D-0014, Delivery Order 0002. April.

USACE. 2011b. *Interim Measures Work Plan, Bulk Fuels Facility (BFF) Spill, Solid Waste Management Units ST-106 and SS-111, Kirtland Air Force Base, Albuquerque, New Mexico.* Prepared by Shaw Environmental & Infrastructure, Inc. for the USACE Albuquerque District under USACE Contract No. W912DY-10-D-0014, Delivery Order 0002. March.

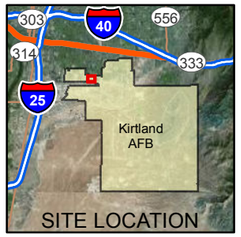
FIGURES



Legend

- IDW Storage Area
- 90-day Hazardous Waste Storage Area
- Bulk Fuels Facility

Satellite image showing detail of the storage yard is from maps.google.com (accessed December 9, 2015).



Revision Date: 12/09/15

N

0 100 200 400

Feet
1 inch = 200 feet

Projection : NAD83 State Plane New Mexico Central FIPS3002 Feet

BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 1

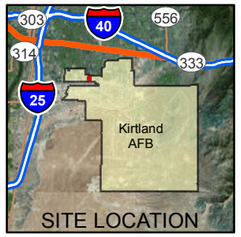
IDW STORAGE YARD

H:\Kirtland_AFB\GIS_Documents\Project_Maps\IDW_Storage_Yard_WP\KAFB_001_IDW_storage_yard.mxd 12/09/15

Legend

- DPT Soil Boring Location
- Q1 2014 Discharge Footprint
- IDW Storage Area

Satellite photo date March 7, 2014.



Revision Date: 12/22/15

N

0 20 40 80

Feet
1 inch = 40 feet

Projection : NAD83 State Plane New Mexico Central FIPS3002 Feet

BULK FUELS FACILITY
KIRTLAND AIR FORCE BASE, NEW MEXICO

FIGURE 2

Q1 2014 DISCHARGE FOOTPRINT
AND SOIL BORING LOCATIONS

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TABLE

Table 1. Discharged NOI Water Analyses, Q1 2014

			LOCATION CODE	Poly Tank[a]				Poly Tank[a]				KAFB-106006[a]				KAFB-106008				KAFB-106028-510				KAFB-106063				KAFB-106065				KAFB-106094			
			SAMPLE NO	Q1-2014PW01				Q1-2014PW02				GW1426				GW1428				GW1487				GW1485				GW1488				GW1520			
			SAMPLE DATE	18-Mar-14				18-Mar-14				6-Mar-14				10-Mar-14				20-Feb-14				23-Jan-14				20-Feb-14				11-Feb-14			
			SAMPLE PURPOSE	REG				REG				REG				REG				REG				FD				REG				REG			
			GALLONS PURGED	1897				976				36				47				45				51				57				46			
Test Group	Parameter	EPA MCL	NMED GWPS	Result	VALQUAL	LOQ	DL	Result	VAL QUAL	LOQ	DL	Result	VALQUAL	LOQ	DL	Result	VALQUAL	LOQ	DL	Result	VALQUAL	LOQ	DL	Result	VALQUAL	LOQ	DL	Result	VALQUAL	LOQ	DL	Result	VALQUAL	LOQ	DL
EDB (µg/L) Method SW8011	1,2-DIBROMOETHANE	0.05	0.1	0.0644		0.0284	0.00948	0.044		0.0281	0.00937	0.0536		0.0282	0.00939	**0.214**	J	0.0284	0.00947	**4.2**		0.283	0.0944	**0.106**	J	0.0286	0.00953	ND	--	--	--	**0.328**		0.0284	0.00946
General Chemistry (mg/L) EPA 300	BROMIDE	NE	NE	ND	--	--	--	NS	--	--	--	0.12	NJ	0.25	0.042	0.18	NJ	0.25	0.042	0.404	NJ	0.25	0.042	0.141	NJ	0.25	0.042	1.1	NJ	0.25	0.042	0.668	NJ	0.25	0.042
	CHLORIDE	NE	250	ND	--	--	--	NS	--	--	--	13		0.5	0.17	13.6		0.5	0.17	33.5		0.5	0.17	11.7		0.5	0.17	82.5		0.5	0.17	42.1		0.5	0.17
	SULFATE	NE	600	ND	--	--	--	NS	--	--	--	32		2	0.33	14.6		2	0.33	42.6		2	0.33	24.8		2	0.33	35.4		2	0.33	55.3		2	0.33
	NITROGEN, NITRATE-NITRITE	10	10	0.259		1.5	0.25	ND	--	--	--	0.44	J	1.5	0.25	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	ALKALINITY, BICARBONATE (AS CACO3)	NE	NE	ND	--	--	--	NS	--	--	--	111		1	1	152		1	1	279		1	1	153		1	1	253		1	1	196		1	1
	AMMONIA (AS N)	NE	NE	ND	--	--	--	NS	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	SULFIDE, TOTAL	NE	NE	ND	--	--	--	NS	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
Metals (mg/L) Method SW6010B	CALCIUM	NE	NE	49.5		5	1	51.9		5	1	40.1		5	1	42.1		5	1	89.3		5	1	42.3		5	1	95.8		5	1	74		5	1
	LEAD	0.015	0.05	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	MAGNESIUM	NE	NE	7.18		5	1	7.32		5	1	5.98		5	1	6.5		5	1	13.7		5	1	5.78		5	1	14.9		5	1	11.4		5	1
	POTASSIUM	NE	NE	2.6		5	1	3.06	J	5	1	2.43	J	5	1	2.25	J	5	1	3.04	J	5	1	2.09	J	5	1	3.33	J	5	1	3.13	J	5	1
	SODIUM	NE	NE	26.9		5	1	30.4		5	1	26.9	J+	5	1	25.2		5	1	34.1		5	1	22.7		5	1	39.5		5	1	31.5		5	1
Dissolved Metals (mg/L) Method SW6010B-DISS	IRON, DISSOLVED	NE	1	ND	--	--	--	0.0575	J	0.1	0.03	0.0865	J	0.1	0.03	0.207		0.1	0.03	**1.32**		0.1	0.03	ND	--	--	--	**1.58**		0.1	0.03	0.935		0.1	0.03
	MANGANESE, DISSOLVED	NE	0.2	0.0153		0.015	0.003	0.106		0.015	0.003	0.025		0.015	0.003	**0.641**		0.015	0.003	**2.29**		0.015	0.003	0.0346		0.015	0.003	**1.99**		0.015	0.003	**1.15**		0.015	0.003
SVOCs (µg/L) Method SW8270D	1,1-BIPHENYL	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	4.96		4.9	1.23	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	1,2-DIPHENYLHYDRAZINE	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	1-METHYL NAPHTHALENE	NE	30[d]	ND	--	--	--	ND	--	--	--	ND	--	--	--	7.94		4.9	1.23	ND	--	--	--	ND	--	--	--	12.5	J	48.1	12	ND	--	--	--
	2,4-DIMETHYLPHENOL	NE	5[e]	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	2-METHYLNAPHTHALENE	NE	30[d]	ND	--	--	--	ND	--	--	--	ND	--	--	--	7.17		4.9	1.23	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	2-METHYLPHENOL	NE	5[e]	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	ACETOPHENONE	NE	NE	ND	--	--	--	ND	--	--	--	2.91	J	5	1.25	46.2		4.9	1.23	119		49	12.3	ND	--	--	--	ND	--	--	--	ND	--	--	--
	BIS(2-ETHYLHEXYL)PHTHALATE	6	NE	3.26		4.72	1.18	3.17		4.81	1.2	ND	--	--	--	**11.1**		4.9	1.23	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	BUTYL BENZYL PHTHALATE	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	CAPROLACTAM	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	DIBENZOFURAN	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	1.25	J	4.9	1.23	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	DIETHYL PHTHALATE	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	4.39	J	4.9	1.23	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	FLUORENE	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	ISOPHORONE	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	NAPHTHALENE	NE	30[e]	ND	--	--	--	ND	--	--	--	ND	--	--	--	3.28	J	4.9	1.23	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
TPH (µg/L) Method SW8015B	DIESEL RANGE ORGANICS	NE	NE	ND	--	--	--	NS	--	--	--	139	J	400	100	14200		4080	1020	9290		3920	980	871		400	100	7030		2000	500	5440		2000	500
	GASOLINE RANGE ORGANICS	NE	NE	ND	--	--	--	NS	--	--	--	482		150	50	2650		1500	500	3380		1500	500	ND	--	--	--	2320		1500	500	1350		150	50

Table 1. Discharged NOI Water Analyses, Q1 2014

	LOCATION CODE			Poly Tank[a]				Poly Tank[a]				KAFB-106006[a]				KAFB-106008				KAFB-106028-510				KAFB-106063				KAFB-106065				KAFB-106094			
	SAMPLE NO			Q1-2014PW01				Q1-2014PW02				GW1426				GW1428				GW1487				GW1485				GW1488				GW1520			
	SAMPLE DATE			18-Mar-14				18-Mar-14				6-Mar-14				10-Mar-14				20-Feb-14				23-Jan-14				20-Feb-14				11-Feb-14			
	SAMPLE PURPOSE			REG				REG				REG				REG				REG				FD				REG				REG			
	GALLONS PURGED			1897				976				36				47				45				51				57				46			
VOCs (µg/L) Method SW8260B	1,1,2-TRICHLOROETHANE	5	10	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	1,1,2,2-TETRACHLOROETHANE	NE	10	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	1,1-DICHLOROETHANE	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	1,2-DICHLOROETHANE	5	10	ND	--	--	--	0.251	J	1	0.25	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	1,2,4-TRIMETHYLBENZENE	NE	NE	ND	--	--	--	ND	--	--	--	5.41		2	0.5	18.9		2	0.5	23		5	1.25	ND	--	--	--	62.8		5	1.25	ND	--	--	--
	1,2-DIBROMOETHANE	0.05	0.1	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	**2.8**	J	5	1.25	ND	--	--	--	ND	--	--	--	ND	--	--	--
	1,2-DICHLOROETHANE	5	10	ND	--	--	--	ND	--	--	--	ND	--	--	--	0.893	J	2	0.5	3.5	J	5	1.25	0.86	J	2	0.5	5.75		5	1.25	3.94		2	0.5
	1,3,5-TRIMETHYLBENZENE	NE	NE	ND	--	--	--	ND	--	--	--	2.55		2	0.5	6.13		2	0.5	10.8		5	1.25	ND	--	--	--	ND	--	--	--	0.56	J	2	0.5
	2-BUTANONE	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	16.4	J	50	12.5	ND	--	--	--	ND	--	--	--	ND	--	--	--
	2-HEXANONE	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	4-METHYL-2-PENTANONE	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	14.3		10	2.5	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	ACETONE	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	85.1		50	12.5	ND	--	--	--	ND	--	--	--	ND	--	--	--
	BENZENE	5	10	ND	--	--	--	ND	--	--	--	2.91		2	0.5	**244**		2	0.5	**111**		5	1.25	ND	--	--	--	8.35		5	1.25	0.62	J	2	0.5
	CARBON DISULFIDE	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	1.18	J	2	0.5
	ETHYLBENZENE	700	750	ND	--	--	--	ND	--	--	--	5.26		2	0.5	31.2		2	0.5	129		5	1.25	ND	--	--	--	46.6		5	1.25	3.6		2	0.5
	HEXACHLOROBUTADIENE	NE	NE	ND	--	--	--	0.259	J	2	0.25	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	ISOPROPYLBENZENE	NE	NE	ND	--	--	--	ND	--	--	--	1.59	J	2	0.5	15.4		2	0.5	27.8		5	1.25	4.08		2	0.5	46		5	1.25	22.8		2	0.5
	METHYL TERT-BUTYL ETHER	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	1.95	J	5	1.25	ND	--	--	--	2.05	J	5	1.25	ND	--	--	--
	METHYLENE CHLORIDE	5	100	2.04		2	0.5	7.57		2	0.5	17.6		4	1	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--	ND	--	--	--
	NAPHTHALENE	NE	30[d]	ND	--	--	--	ND	--	--	--	1.1	J	4	0.5	4.66		4	0.5	12		10	1.25	ND	--	--	--	2.05	J	10	1.25	0.68	J	4	0.5
	N-BUTYLBENZENE	NE	NE	ND	--	--	--	ND	--	--	--	0.725	J	2	0.5	3.24		2	0.5	3.6	J	5	1.25	ND	--	--	--	2.8	J	5	1.25	0.78	J	2	0.5
	N-PROPYLBENZENE	NE	NE	ND	--	--	--	ND	--	--	--	2.61		2	0.5	7.99		2	0.5	19.6		5	1.25	1	J	2	0.5	12.6		5	1.25	6.96		2	0.5
	P-ISOPROPYLTOLUENE	NE	NE	ND	--	--	--	ND	--	--	--	ND	--	--	--	21.7		2	0.5	3.9	J	5	1.25	ND	--	--	--	6.2		5	1.25	1	J	2	0.5
	SEC-BUTYLBENZENE	NE	NE	ND	--	--	--	ND	--	--	--	1.25	J	2	0.5	5.13		2	0.5	4.65	J	5	1.25	ND	--	--	--	4.4	J	5	1.25	1.58	J	2	0.5
	TOLUENE	1000	750	ND	--	--	--	ND	--	--	--	14.4		2	0.5	46.2		2	0.5	194		5	1.25	ND	--	--	--	ND	--	--	--	ND	--	--	--
	XYLENES	10000	620	ND	--	--	--	ND	--	--	--	20.9		6	1.5	38		6	1.5	110		15	3.75	ND	--	--	--	ND	--	--	--	ND	--	--	--

Notes:

First Quarter Calendar Year 2014 NOIs were submitted to Kirtland AFB on May 7, 2014.

Sample results are compared to the NMED Groundwater Protection Standards. If there is no standard established for a particular analyte, results are compared to EPA MCLs.

Shading indicates the analyte was detected.

Concentration exceeded NMED GWPS and requires NOI for discharge.

Concentration exceeded EPA MCL and requires NOI for discharge.

[a] NOIs were originally submitted; however, when analytical results were compared to NMED GWPS only, it was determined that NOIs were not required for disposal.

[b] EPA MCLs are from the EPA RSL Table, dated May 2014.

[c] New Mexico Water Quality Control Commission Regulations (NMAC 20.6.2.3103).

[d] The NMED requirement for naphthalene of 30 ug/L is a total concentration of naphthalene, 1-methylnaphthalene and 2-methylnaphthalene.

[e] The NMED requirement for phenols of 5 ug/L is a total concentration of 2,4,5-trichlorophenol, 2,4,6-trichlorophenol, 2,4-dichlorophenol, 2,4-dimethylphenol, 2,4-dinitrophenol, 2-chlorophenol, 2-methylphenol, 2-nitrophenol, 3 and 4-methylphenol, 2,6-dinitro-2-methylphenol, 4-chloro-3-methylphenol, 4-nitrophenol, and pentachlorophenol.

DL = Detection limit.

EPA = Environmental Protection Agency.

FT = Feet.

GWPS = Groundwater Protection Standards.

J = Estimated value, concentration is less than LOQ but greater than laboratory method detection limit (DL).

KAFB = Kirtland Air Force Base.

LOQ = Limit of Quantitation limit.

MCL = Maximum contaminant level.

NA = Not applicable.

ND = Not detected.

NE = Not established.

NMAC = New Mexico Administrative Code.

NMED = New Mexico Environment Department.

REG = Regular sample.

SVOC = Semivolatile organic compound.

TPH = Total petroleum hydrocarbon.

VAL QUAL = Validation qualifier.

VOC = Volatile organic compound.

ATTACHMENT 1

1. Name and mailing address of person proposing to discharge:

Victoria Branson
2050 WYOMING BLVD SE
KIRTLAND AFB, NM 87117

Work Phone: 505 846-6362

Cell/Home Phone: N/A

Email: VICTORIA.BRANSON@KIRTLAND.AF.MIL

Fax: 505 853-1647

2. Name of facility:

KIRTLAND AFB, New Mexico

3. Physical location of discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):

Bulk Fuels Facility (BFF) Spill Solid Waste Management Units ST-106 and SS-111, located in Section 36, Township 10 North, Range 3 East.

4. Type of operation generating the discharge (e.g., truck wash, food processing plant, restaurant, etc.):

Sampling of groundwater well KAFB-106006 (Sample ID GW1426) at the BFF Site.

5. Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed:

Water generated from the purging prior to sampling the well and containerized and stored at the BFF site.

6. Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.) Include estimated concentration if known, and copies of results of laboratory analyses, if available:

Exceedance of the EPA MCL or NMWQCC standard noted below. Analytical data report attached.

Methylene chloride **(17.6 µg/L)** – exceedance of the EPA MCL 5.0 µg/L
EDB **(0.0536 µg/L) –** exceedance of the EPA MCL of 0.05 µg/L

7. Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., grease interceptor, lagoon, septic tank/leachfield, etc.) Include sizes, site layout map, plans and specifications, etc. if available:

Water collected from the well purging prior to sampling the well.

8. Estimated maximum daily discharge volume in gallons per day (or other units):

Approximately 36 gallons stored in a polyethylene tank.

9. Estimated depth to ground water (ft):

Depth to groundwater is approximately 500 feet bgs at BFF site.

Signature: _____ **Date:** _____

Printed name: _____ **Title:** _____

Please return this form to:
NMED Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

Telephone: 505-827-2900
Fax: 505-827-2965

ANALYSIS DATA SHEET

GW1426

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_115
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403047-01	File ID:	0304701D.D
Sampled:	03/06/14 14:17	Prepared:	03/11/14 18:14	Analyzed:	03/11/14 18:14
Solids:		Preparation:	5030B	Dilution:	2

Batch: 4C11014 Sequence: 4C07109 Calibration: 4069001 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone		5.00	10.0	20.0	UX
71-43-2	Benzene	**2.91**	0.500	1.00	2.00	D
108-86-1	Bromobenzene		0.500	1.00	2.00	U
74-97-5	Bromochloromethane		0.500	1.00	2.00	U
75-27-4	Bromodichloromethane		0.500	1.00	2.00	U
75-25-2	Bromoform		0.500	1.00	2.00	U
74-83-9	Bromomethane		1.00	2.00	4.00	U
104-51-8	n-Butylbenzene	**0.725**	0.500	1.00	2.00	JD
78-93-3	2-Butanone		5.00	10.0	20.0	U
135-98-8	sec-Butylbenzene	**1.25**	0.500	1.00	2.00	JD
98-06-6	tert-Butylbenzene		0.500	1.00	2.00	U
75-15-0	Carbon disulfide		0.500	1.00	2.00	U
56-23-5	Carbon tetrachloride		0.500	1.00	2.00	UX
108-90-7	Chlorobenzene		0.500	1.00	2.00	U
75-00-3	Chloroethane		1.00	2.00	4.00	U
67-66-3	Chloroform	**0.816**	0.500	1.00	2.00	JBD
74-87-3	Chloromethane		0.500	1.00	2.00	U
95-49-8	2-Chlorotoluene		0.500	1.00	2.00	U
106-43-4	4-Chlorotoluene		0.500	1.00	2.00	U
124-48-1	Dibromochloromethane		0.500	1.00	2.00	U
96-12-8	1,2-Dibromo-3-chloropropane		1.00	2.00	4.00	U
106-93-4	1,2-Dibromoethane (EDB)		0.500	1.00	2.00	U
74-95-3	Dibromomethane		0.500	1.00	2.00	U
95-50-1	1,2-Dichlorobenzene		0.500	1.00	2.00	U
541-73-1	1,3-Dichlorobenzene		0.500	1.00	2.00	U
106-46-7	1,4-Dichlorobenzene		0.500	1.00	2.00	U
75-71-8	Dichlorodifluoromethane		1.00	2.00	4.00	U
75-34-3	1,1-Dichloroethane		0.500	1.00	2.00	U
107-06-2	1,2-Dichloroethane		0.500	1.00	2.00	U
75-35-4	1,1-Dichloroethene		0.500	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene		0.500	1.00	2.00	U
156-60-5	trans-1,2-Dichloroethene		0.500	1.00	2.00	U
78-87-5	1,2-Dichloropropane		0.500	1.00	2.00	U
142-28-9	1,3-Dichloropropane		0.500	1.00	2.00	U
594-20-7	2,2-Dichloropropane		0.500	1.00	2.00	U
563-58-6	1,1-Dichloropropene		0.500	1.00	2.00	U
10061-01-5	cis-1,3-Dichloropropene		0.500	1.00	2.00	U
10061-02-6	trans-1,3-Dichloropropene		0.500	1.00	2.00	U
100-41-4	Ethylbenzene	**5.26**	0.500	1.00	2.00	D
87-68-3	Hexachlorobutadiene		0.500	1.00	4.00	U

ANALYSIS DATA SHEET

GW1426

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_115
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403047-01	File ID:	0304701D.D
Sampled:	03/06/14 14:17	Prepared:	03/11/14 18:14	Analyzed:	03/11/14 18:14
Solids:		Preparation:	5030B	Dilution:	2

Batch: 4C11014 Sequence: 4C07109 Calibration: 4069001 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone		2.50	5.00	10.0	U
98-82-8	Isopropylbenzene	**1.59**	0.500	1.00	2.00	JD
99-87-6	p-Isopropyltoluene		0.500	1.00	2.00	U
75-09-2	Methylene chloride	**17.6**	1.00	2.00	4.00	D
91-20-3	Naphthalene	**1.10**	0.500	1.00	4.00	JD
108-10-1	4-Methyl-2-pentanone		2.50	5.00	10.0	U
1634-04-4	Methyl t-Butyl Ether		0.500	1.00	2.00	U
103-65-1	n-Propylbenzene	**2.61**	0.500	1.00	2.00	D
100-42-5	Styrene		0.500	1.00	2.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.500	1.00	2.00	U
630-20-6	1,1,1,2-Tetrachloroethane		0.500	1.00	2.00	U
127-18-4	Tetrachloroethene		0.500	1.00	2.00	U
108-88-3	Toluene	**14.4**	0.500	1.00	2.00	D
87-61-6	1,2,3-Trichlorobenzene		0.500	1.00	4.00	U
120-82-1	1,2,4-Trichlorobenzene		0.500	1.00	4.00	U
79-00-5	1,1,2-Trichloroethane		0.500	1.00	2.00	U
71-55-6	1,1,1-Trichloroethane		0.500	1.00	2.00	U
79-01-6	Trichloroethene		0.500	1.00	2.00	U
75-69-4	Trichlorofluoromethane		1.00	2.00	4.00	U
96-18-4	1,2,3-Trichloropropane		1.00	2.00	4.00	U
108-67-8	1,3,5-Trimethylbenzene	**2.55**	0.500	1.00	2.00	D
95-63-6	1,2,4-Trimethylbenzene	**5.41**	0.500	1.00	2.00	D
75-01-4	Vinyl chloride		0.500	1.00	2.00	U
1330-20-7	Xylenes (total)	**20.9**	1.50	3.00	6.00	D

Total Target Analytes Reported: 64

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	28.50	95.0	75 - 120	
Dibromofluoromethane	30.00	31.12	104	85 - 115	
1,2-Dichloroethane-d4	30.00	30.61	102	70 - 120	
Toluene-d8	30.00	27.66	92.2	85 - 120	

ANALYSIS DATA SHEET

GW1426

Laboratory:	Empirical Laboratories, LLC		SDG:	Kirtland_115	
Client:	Shaw Environmental, Inc.		Project:	Kirtland AFB 2011	
Matrix:	Water	Laboratory ID:	1403047-01	File ID:	0304701.D
Sampled:	03/06/14 14:17	Prepared:	03/11/14 11:05	Analyzed:	03/18/14 11:28
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 4C11008 Sequence: 4C07809 Calibration: 4066006 Instrument: MS-BNA5

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
83-32-9	Acenaphthene		1.25	2.50	5.00	U
208-96-8	Acenaphthylene		1.25	2.50	5.00	U
98-86-2	Acetophenone	**2.91**	1.25	2.50	5.00	J
120-12-7	Anthracene		1.25	2.50	5.00	U
1912-24-9	Atrazine		1.25	2.50	5.00	U
100-52-7	Benzaldehyde		1.25	2.50	5.00	U
92-87-5	Benzidine		12.5	50.0	100	U
56-55-3	Benzo(a)anthracene		1.25	2.50	5.00	U
50-32-8	Benzo(a)pyrene		1.25	2.50	5.00	U
205-99-2	Benzo(b)fluoranthene		1.25	2.50	5.00	U
191-24-2	Benzo(g,h,i)perylene		1.25	2.50	5.00	U
65-85-0	Benzoic acid		12.5	50.0	100	U
207-08-9	Benzo(k)fluoranthene		1.25	2.50	5.00	U
92-52-4	1,1-Biphenyl		1.25	2.50	5.00	U
101-55-3	4-Bromophenyl-phenylether		1.25	2.50	5.00	U
85-68-7	Butylbenzylphthalate		1.25	2.50	5.00	U
105-60-2	Caprolactam		1.25	2.50	5.00	U
86-74-8	Carbazole		1.25	2.50	5.00	U
59-50-7	4-Chloro-3-methylphenol		1.25	2.50	5.00	U
106-47-8	4-Chloroaniline		1.25	2.50	5.00	U
111-91-1	Bis(2-chloroethoxy)methane		1.25	2.50	5.00	U
111-44-4	Bis(2-chloroethyl)ether		1.25	2.50	5.00	U
108-60-1	2,2'-Oxybis-1-chloropropane		1.25	2.50	5.00	U
91-58-7	2-Chloronaphthalene		1.25	2.50	5.00	U
95-57-8	2-Chlorophenol		1.25	2.50	5.00	U
7005-72-3	4-Chlorophenyl phenyl ether		1.25	2.50	5.00	U
218-01-9	Chrysene		1.25	2.50	5.00	U
53-70-3	Dibenz(a,h)anthracene		1.25	2.50	5.00	U
132-64-9	Dibenzofuran		1.25	2.50	5.00	U
84-74-2	Di-n-butylphthalate		1.25	2.50	5.00	U
91-94-1	3,3'-Dichlorobenzidine		1.25	2.50	5.00	U
120-83-2	2,4-Dichlorophenol		1.25	2.50	5.00	U
84-66-2	Diethylphthalate		1.25	2.50	5.00	U
105-67-9	2,4-Dimethylphenol		5.00	10.0	20.0	U
131-11-3	Dimethyl phthalate		1.25	2.50	5.00	U
534-52-1	4,6-Dinitro-2-methylphenol		5.00	10.0	20.0	UX
51-28-5	2,4-Dinitrophenol		8.33	25.0	50.0	UXQ
121-14-2	2,4-Dinitrotoluene		1.25	2.50	5.00	U
606-20-2	2,6-Dinitrotoluene		1.25	2.50	5.00	U
117-84-0	Di-n-octylphthalate		1.25	2.50	5.00	U

ANALYSIS DATA SHEET

GW1426

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_115
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403047-01	File ID:	0304701.D
Sampled:	03/06/14 14:17	Prepared:	03/11/14 11:05	Analyzed:	03/18/14 11:28
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 4C11008 Sequence: 4C07809 Calibration: 4066006 Instrument: MS-BNA5

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
122-66-7	1,2-Diphenylhydrazine		1.25	2.50	5.00	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.25	2.50	5.00	U
206-44-0	Fluoranthene		1.25	2.50	5.00	U
86-73-7	Fluorene		1.25	2.50	5.00	U
118-74-1	Hexachlorobenzene		1.25	2.50	5.00	U
87-68-3	Hexachlorobutadiene		1.25	2.50	5.00	U
77-47-4	Hexachlorocyclopentadiene		1.25	5.00	10.0	UX
67-72-1	Hexachloroethane		1.25	2.50	5.00	U
193-39-5	Indeno(1,2,3-cd)pyrene		1.25	2.50	5.00	U
78-59-1	Isophorone		1.25	2.50	5.00	U
90-12-0	1-Methylnaphthalene		1.25	2.50	5.00	U
91-57-6	2-Methylnaphthalene		1.25	2.50	5.00	U
95-48-7	2-Methylphenol		1.25	2.50	5.00	U
108-39-4/106	3-Methylphenol/4-Methylphenol		1.25	2.50	5.00	U
91-20-3	Naphthalene		1.25	2.50	5.00	U
100-01-6	4-Nitroaniline		5.00	10.0	20.0	U
99-09-2	3-Nitroaniline		5.00	10.0	20.0	U
88-74-4	2-Nitroaniline		5.00	10.0	20.0	U
98-95-3	Nitrobenzene		1.25	2.50	5.00	U
100-02-7	4-Nitrophenol		5.00	10.0	20.0	U
88-75-5	2-Nitrophenol		1.25	2.50	5.00	U
86-30-6	N-Nitrosodiphenylamine		1.25	2.50	5.00	U
621-64-7	N-Nitroso-di-n-propylamine		1.25	2.50	5.00	U
87-86-5	Pentachlorophenol		5.00	10.0	20.0	U
85-01-8	Phenanthrene		1.25	2.50	5.00	U
108-95-2	Phenol		1.25	2.50	5.00	U
129-00-0	Pyrene		1.25	2.50	5.00	U
88-06-2	2,4,6-Trichlorophenol		1.25	2.50	5.00	U
95-95-4	2,4,5-Trichlorophenol		1.25	2.50	5.00	U

Total Target Analytes Reported: 69

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	50.00	43.97	87.9	50 - 110	
2-Fluorophenol	100.0	36.51	36.5	20 - 110	
Nitrobenzene-d5	50.00	47.00	94.0	40 - 110	
Phenol-d6	100.0	21.10	21.1	0 - 110	
Terphenyl-d14	50.00	53.97	108	50 - 135	
2,4,6-Tribromophenol	100.0	109.7	110	40 - 125	

ANALYSIS DATA SHEET

GW1426

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_115
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403047-01	File ID:	011F0101.D
Sampled:	03/06/14 14:17	Prepared:	03/12/14 09:59	Analyzed:	03/12/14 15:43
Solids:		Preparation:	EDB	Dilution:	1

Batch: 4C12017 Sequence: 4C07205 Calibration: 4029001 Instrument: GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane	0.0536	0.00939	0.0188	0.0282	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane	1.868	1.309	70.1	55 - 160	
1,3-Dibromopropane [2C]	1.868	1.293	69.2	55 - 160	

ANALYSIS DATA SHEET

GW1426

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_115
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403047-01	File ID:	010F1001.D
Sampled:	03/06/14 14:17	Prepared:	03/10/14 11:10	Analyzed:	03/13/14 13:38
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 4C10008 Sequence: 4C07302 Calibration: 4064002 Instrument: GL-GCFID2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
11-84-7	Diesel Range Organics (C10-C28)	**0.139**	0.100	0.200	0.400	J

Total Target Analytes Reported: 1

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.02000	0.02051	103	30 - 140	

ANALYSIS DATA SHEET

GW1426

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_115
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403047-01	File ID:	011F1101.D
Sampled:	03/06/14 14:17	Prepared:	03/11/14 15:42	Analyzed:	03/11/14 15:42
Solids:		Preparation:	8015GRO	Dilution:	1

Batch: 4C11001 Sequence: 4C07204 Calibration: 3305003 Instrument: GL-GCVOA2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
8006-61-9	Gasoline Range Organics (C6-C10)	**0.482**	0.0500	0.100	0.150	

Total Target Analytes Reported: 1

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	0.05000	0.05889	118	50 - 150	

ANALYSIS DATA SHEET

GW1426

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_115
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403047-01
Sampled:	03/06/14 14:17	Received:	03/07/14 08:40

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7440-70-2	Calcium	**40100**	**1000**	2000	5000	1		SW6010B	4C12012	03/13/14 17:21
7439-92-1	Lead		1.50	3.00	3.00	1	U	SW6010B	4C12012	03/13/14 17:21
7439-95-4	Magnesium	**5980**	**1000**	3000	5000	1		SW6010B	4C12012	03/13/14 17:21
7440-09-7	Potassium	**2430**	**1000**	3000	5000	1	J	SW6010B	4C12012	03/13/14 17:21
7440-23-5	Sodium	**26900**	**1000**	3000	5000	1	X	SW6010B	4C12012	03/13/14 17:21

ANALYSIS DATA SHEET

GW1426

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_115
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403047-02
Sampled:	03/06/14 14:17	Received:	03/07/14 08:40

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7439-89-6	Iron (dissolved)	**86.5**	**30.0**	60.0	100	1	J	SW6010B	4C17022	03/17/14 20:00
7439-96-5	Manganese (dissolved)	**25.0**	**3.00**	6.00	15.0	1		SW6010B	4C17022	03/17/14 20:00

ANALYSIS DATA SHEET

GW1426

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_115
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403047-01
Sampled:	03/06/14 14:17	Received:	03/07/14 08:40

CAS NO.	Analyte	Conc. (mg/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7664-41-7	Ammonia as N		0.110	0.150	0.300	1	U	SM4500NH3BG	4C18012	03/19/14 10:59
18496-25-8	Sulfide		0.755	1.89	3.77	1	U	SM4500S2CF	4C11005	03/11/14 16:27
71-52-3	Alkalinity, Bicarbonate (as CACO3)	**111**	**1.00**	1.00	1.00	1		SM2320B	4C11004	03/11/14 14:05
16887-00-6	Chloride	**13.0**	**0.170**	0.330	0.500	1		E300.0	4C12018	03/12/14 14:24
NA	Nitrate/Nitrite as N	**0.440**	**0.250**	0.750	1.50	1	J	E353.2	4C12027	03/12/14 13:52
3812-32-6	Alkalinity, Carbonate (as CACO3)		1.00	1.00	1.00	1	U	SM2320B	4C11004	03/11/14 14:05
14808-79-8	Sulfate as SO4	**32.0**	**0.330**	1.00	2.00	1		E300.0	4C12018	03/12/14 14:24

1. Name and mailing address of person proposing to discharge:

Victoria Branson
2050 WYOMING BLVD SE
KIRTLAND AFB, NM 87117

Work Phone: 505 846-6362

Cell/Home Phone: N/A

Email: VICTORIA.BRANSON@KIRTLAND.AF.MIL

Fax: 505 853-1647

2. Name of facility:

KIRTLAND AFB, New Mexico

3. Physical location of discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):

Bulk Fuels Facility (BFF) Spill Solid Waste Management Units ST-106 and SS-111, located in Section 36, Township 10 North, Range 3 East.

4. Type of operation generating the discharge (e.g., truck wash, food processing plant, restaurant, etc.):

Sampling of groundwater well KAFB-106008 (Sample ID GW1428) at the BFF Site.

5. Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed:

Water generated from the purging prior to sampling the well and containerized and stored at the BFF site.

6. Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.) Include estimated concentration if known, and copies of results of laboratory analyses, if available:

Exceedance of the EPA MCL or NMWQCC standard noted below. Analytical data report attached.

Benzene **(244 µg/L)** – exceedance of the EPA MCL 5.0 µg/L
EDB **(0.214 µg/L) –** exceedance of the EPA MCL of 0.05 µg/L
Bis(2-ethylhexyl)phthalate **(11.1 µg/L)** – exceedance of the EPA MCL of 6.0 µg/L

7. Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., grease interceptor, lagoon, septic tank/leachfield, etc.) Include sizes, site layout map, plans and specifications, etc. if available:

Water collected from the well purging prior to sampling the well.

8. Estimated maximum daily discharge volume in gallons per day (or other units):

Approximately 47 gallons stored in a polyethylene tank.

9. Estimated depth to ground water (ft):

Depth to groundwater is approximately 500 feet bgs at BFF site.

Signature: _____ **Date:** _____

Printed name: _____ **Title:** _____

Please return this form to:
NMED Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

Telephone: 505-827-2900
Fax: 505-827-2965

ANALYSIS DATA SHEET

GW1428

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_116
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403077-01RE1	File ID:	0307701D.D
Sampled:	03/10/14 12:54	Prepared:	03/24/14 10:04	Analyzed:	03/24/14 10:04
Solids:		Preparation:	5030B	Dilution:	2

Batch: 4C22004 Sequence: 4C08411 Calibration: 4069001 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone	**11.4**	5.00	10.0	20.0	XJD
71-43-2	Benzene	**244**	0.500	1.00	2.00	D
108-86-1	Bromobenzene		0.500	1.00	2.00	U
74-97-5	Bromochloromethane		0.500	1.00	2.00	U
75-27-4	Bromodichloromethane		0.500	1.00	2.00	U
75-25-2	Bromoform		0.500	1.00	2.00	U
74-83-9	Bromomethane		1.00	2.00	4.00	UY
104-51-8	n-Butylbenzene	**3.24**	0.500	1.00	2.00	D
78-93-3	2-Butanone		5.00	10.0	20.0	U
135-98-8	sec-Butylbenzene	**5.13**	0.500	1.00	2.00	D
98-06-6	tert-Butylbenzene		0.500	1.00	2.00	U
75-15-0	Carbon disulfide		0.500	1.00	2.00	U
56-23-5	Carbon tetrachloride		0.500	1.00	2.00	U
108-90-7	Chlorobenzene		0.500	1.00	2.00	U
75-00-3	Chloroethane		1.00	2.00	4.00	U
67-66-3	Chloroform		0.500	1.00	2.00	U
74-87-3	Chloromethane		0.500	1.00	2.00	UY
95-49-8	2-Chlorotoluene		0.500	1.00	2.00	U
106-43-4	4-Chlorotoluene		0.500	1.00	2.00	U
124-48-1	Dibromochloromethane		0.500	1.00	2.00	U
96-12-8	1,2-Dibromo-3-chloropropane		1.00	2.00	4.00	U
106-93-4	1,2-Dibromoethane (EDB)		0.500	1.00	2.00	U
74-95-3	Dibromomethane		0.500	1.00	2.00	U
95-50-1	1,2-Dichlorobenzene		0.500	1.00	2.00	U
541-73-1	1,3-Dichlorobenzene		0.500	1.00	2.00	U
106-46-7	1,4-Dichlorobenzene		0.500	1.00	2.00	U
75-71-8	Dichlorodifluoromethane		1.00	2.00	4.00	U
75-34-3	1,1-Dichloroethane		0.500	1.00	2.00	U
107-06-2	1,2-Dichloroethane	**0.893**	0.500	1.00	2.00	JD
75-35-4	1,1-Dichloroethene		0.500	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene		0.500	1.00	2.00	U
156-60-5	trans-1,2-Dichloroethene		0.500	1.00	2.00	U
78-87-5	1,2-Dichloropropane		0.500	1.00	2.00	U
142-28-9	1,3-Dichloropropane		0.500	1.00	2.00	U
594-20-7	2,2-Dichloropropane		0.500	1.00	2.00	U
563-58-6	1,1-Dichloropropene		0.500	1.00	2.00	U
10061-01-5	cis-1,3-Dichloropropene		0.500	1.00	2.00	U
10061-02-6	trans-1,3-Dichloropropene		0.500	1.00	2.00	U
100-41-4	Ethylbenzene	**31.2**	0.500	1.00	2.00	D
87-68-3	Hexachlorobutadiene	**0.513**	0.500	1.00	4.00	JBD

ANALYSIS DATA SHEET

GW1428

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_116
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403077-01RE1	File ID:	0307701D.D
Sampled:	03/10/14 12:54	Prepared:	03/24/14 10:04	Analyzed:	03/24/14 10:04
Solids:		Preparation:	5030B	Dilution:	2

Batch: 4C22004 Sequence: 4C08411 Calibration: 4069001 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone		2.50	5.00	10.0	U
98-82-8	Isopropylbenzene	**15.4**	0.500	1.00	2.00	D
99-87-6	p-Isopropyltoluene	**21.7**	0.500	1.00	2.00	D
75-09-2	Methylene chloride		1.00	2.00	4.00	U
91-20-3	Naphthalene	**4.66**	0.500	1.00	4.00	D
108-10-1	4-Methyl-2-pentanone	**14.3**	2.50	5.00	10.0	D
1634-04-4	Methyl t-Butyl Ether		0.500	1.00	2.00	U
103-65-1	n-Propylbenzene	**7.99**	0.500	1.00	2.00	D
100-42-5	Styrene		0.500	1.00	2.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.500	1.00	2.00	U
630-20-6	1,1,1,2-Tetrachloroethane		0.500	1.00	2.00	U
127-18-4	Tetrachloroethene		0.500	1.00	2.00	U
108-88-3	Toluene	**46.2**	0.500	1.00	2.00	D
87-61-6	1,2,3-Trichlorobenzene		0.500	1.00	4.00	U
120-82-1	1,2,4-Trichlorobenzene		0.500	1.00	4.00	U
79-00-5	1,1,2-Trichloroethane		0.500	1.00	2.00	U
71-55-6	1,1,1-Trichloroethane		0.500	1.00	2.00	U
79-01-6	Trichloroethene		0.500	1.00	2.00	U
75-69-4	Trichlorofluoromethane		1.00	2.00	4.00	U
96-18-4	1,2,3-Trichloropropane		1.00	2.00	4.00	U
108-67-8	1,3,5-Trimethylbenzene	**6.13**	0.500	1.00	2.00	D
95-63-6	1,2,4-Trimethylbenzene	**18.9**	0.500	1.00	2.00	D
75-01-4	Vinyl chloride		0.500	1.00	2.00	U
1330-20-7	Xylenes (total)	**38.0**	1.50	3.00	6.00	D

Total Target Analytes Reported: 64

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	29.30	97.7	75 - 120	
Dibromofluoromethane	30.00	30.96	103	85 - 115	
1,2-Dichloroethane-d4	30.00	29.21	97.4	70 - 120	
Toluene-d8	30.00	29.03	96.8	85 - 120	

ANALYSIS DATA SHEET

GW1428

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_116
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403077-01	File ID:	0307701.D
Sampled:	03/10/14 12:54	Prepared:	03/13/14 13:40	Analyzed:	03/19/14 14:43
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 4C13003 Sequence: 4C08004 Calibration: 4066006 Instrument: MS-BNA5

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
83-32-9	Acenaphthene		1.23	2.45	4.90	U
208-96-8	Acenaphthylene		1.23	2.45	4.90	U
98-86-2	Acetophenone	**46.2**	1.23	2.45	4.90	
120-12-7	Anthracene		1.23	2.45	4.90	U
1912-24-9	Atrazine		1.23	2.45	4.90	U
100-52-7	Benzaldehyde		1.23	2.45	4.90	U
92-87-5	Benzidine		12.3	49.0	98.0	U
56-55-3	Benzo(a)anthracene		1.23	2.45	4.90	U
50-32-8	Benzo(a)pyrene		1.23	2.45	4.90	U
205-99-2	Benzo(b)fluoranthene		1.23	2.45	4.90	U
191-24-2	Benzo(g,h,i)perylene		1.23	2.45	4.90	U
65-85-0	Benzoic acid		12.3	49.0	98.0	U
207-08-9	Benzo(k)fluoranthene		1.23	2.45	4.90	U
92-52-4	1,1-Biphenyl	**4.96**	1.23	2.45	4.90	
101-55-3	4-Bromophenyl-phenylether		1.23	2.45	4.90	U
85-68-7	Butylbenzylphthalate		1.23	2.45	4.90	U
105-60-2	Caprolactam		1.23	2.45	4.90	U
86-74-8	Carbazole		1.23	2.45	4.90	U
59-50-7	4-Chloro-3-methylphenol		1.23	2.45	4.90	U
106-47-8	4-Chloroaniline		1.23	2.45	4.90	U
111-91-1	Bis(2-chloroethoxy)methane		1.23	2.45	4.90	U
111-44-4	Bis(2-chloroethyl)ether		1.23	2.45	4.90	U
108-60-1	2,2'-Oxybis-1-chloropropane		1.23	2.45	4.90	U
91-58-7	2-Chloronaphthalene		1.23	2.45	4.90	U
95-57-8	2-Chlorophenol		1.23	2.45	4.90	U
7005-72-3	4-Chlorophenyl phenyl ether		1.23	2.45	4.90	U
218-01-9	Chrysene		1.23	2.45	4.90	U
53-70-3	Dibenz(a,h)anthracene		1.23	2.45	4.90	U
132-64-9	Dibenzofuran	**1.25**	1.23	2.45	4.90	J
84-74-2	Di-n-butylphthalate		1.23	2.45	4.90	U
91-94-1	3,3'-Dichlorobenzidine		1.23	2.45	4.90	U
120-83-2	2,4-Dichlorophenol		1.23	2.45	4.90	U
84-66-2	Diethylphthalate	**4.39**	1.23	2.45	4.90	J
105-67-9	2,4-Dimethylphenol		4.90	9.80	19.6	U
131-11-3	Dimethyl phthalate		1.23	2.45	4.90	U
534-52-1	4,6-Dinitro-2-methylphenol		4.90	9.80	19.6	UX
51-28-5	2,4-Dinitrophenol		8.17	24.5	49.0	UX
121-14-2	2,4-Dinitrotoluene		1.23	2.45	4.90	U
606-20-2	2,6-Dinitrotoluene		1.23	2.45	4.90	U
117-84-0	Di-n-octylphthalate		1.23	2.45	4.90	U

ANALYSIS DATA SHEET

GW1428

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_116
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403077-01	File ID:	0307701.D
Sampled:	03/10/14 12:54	Prepared:	03/13/14 13:40	Analyzed:	03/19/14 14:43
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 4C13003 Sequence: 4C08004 Calibration: 4066006 Instrument: MS-BNA5

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
122-66-7	1,2-Diphenylhydrazine		1.23	2.45	4.90	U
117-81-7	Bis(2-ethylhexyl)phthalate	**11.1**	1.23	2.45	4.90	
206-44-0	Fluoranthene		1.23	2.45	4.90	U
86-73-7	Fluorene		1.23	2.45	4.90	U
118-74-1	Hexachlorobenzene		1.23	2.45	4.90	U
87-68-3	Hexachlorobutadiene		1.23	2.45	4.90	U
77-47-4	Hexachlorocyclopentadiene		1.23	4.90	9.80	UX
67-72-1	Hexachloroethane		1.23	2.45	4.90	U
193-39-5	Indeno(1,2,3-cd)pyrene		1.23	2.45	4.90	U
78-59-1	Isophorone		1.23	2.45	4.90	U
90-12-0	1-Methylnaphthalene	**7.94**	1.23	2.45	4.90	
91-57-6	2-Methylnaphthalene	**7.17**	1.23	2.45	4.90	
95-48-7	2-Methylphenol		1.23	2.45	4.90	U
108-39-4/106	3-Methylphenol/4-Methylphenol		1.23	2.45	4.90	U
91-20-3	Naphthalene	**3.28**	1.23	2.45	4.90	J
100-01-6	4-Nitroaniline		4.90	9.80	19.6	U
99-09-2	3-Nitroaniline		4.90	9.80	19.6	U
88-74-4	2-Nitroaniline		4.90	9.80	19.6	U
98-95-3	Nitrobenzene		1.23	2.45	4.90	U
100-02-7	4-Nitrophenol		4.90	9.80	19.6	U
88-75-5	2-Nitrophenol		1.23	2.45	4.90	U
86-30-6	N-Nitrosodiphenylamine		1.23	2.45	4.90	U
621-64-7	N-Nitroso-di-n-propylamine		1.23	2.45	4.90	U
87-86-5	Pentachlorophenol		4.90	9.80	19.6	U
85-01-8	Phenanthrene		1.23	2.45	4.90	U
108-95-2	Phenol		1.23	2.45	4.90	U
129-00-0	Pyrene		1.23	2.45	4.90	U
88-06-2	2,4,6-Trichlorophenol		1.23	2.45	4.90	U
95-95-4	2,4,5-Trichlorophenol		1.23	2.45	4.90	U

Total Target Analytes Reported: 69

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	49.02	34.39	70.2	50 - 110	
2-Fluorophenol	98.04	31.21	31.8	20 - 110	
Nitrobenzene-d5	49.02	43.98	89.7	40 - 110	
Phenol-d6	98.04	18.28	18.6	0 - 110	
Terphenyl-d14	49.02	42.49	86.7	50 - 135	
2,4,6-Tribromophenol	98.04	102.6	105	40 - 125	

ANALYSIS DATA SHEET

GW1428

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_116
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403077-01	File ID:	006F0101.D
Sampled:	03/10/14 12:54	Prepared:	03/20/14 09:47	Analyzed:	03/20/14 09:53
Solids:		Preparation:	EDB	Dilution:	1

Batch: 4C17014 Sequence: 4C08005 Calibration: 4029001 Instrument: GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane	0.214	0.00947	0.0189	0.0284	P

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane	1.883	1.198	63.6	55 - 160	Y
1,3-Dibromopropane [2C]	1.883	1.497	79.5	55 - 160	Y

ANALYSIS DATA SHEET

GW1428

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_116
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403077-01RE1	File ID:	046F4601.D
Sampled:	03/10/14 12:54	Prepared:	03/12/14 13:35	Analyzed:	03/22/14 11:34
Solids:		Preparation:	EXT_3510	Dilution:	10

Batch: 4C12021 Sequence: 4C08317 Calibration: 4083005 Instrument: GL-GCFID2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
11-84-7	Diesel Range Organics (C10-C28)	**14.2**	1.02	2.04	4.08	D

Total Target Analytes Reported: 1

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.02041	0.01935	94.8	30 - 140	

ANALYSIS DATA SHEET

GW1428

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_116
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403077-01	File ID:	011F1101.D
Sampled:	03/10/14 12:54	Prepared:	03/14/14 19:16	Analyzed:	03/14/14 19:16
Solids:		Preparation:	8015GRO	Dilution:	10

Batch: 4C14003 Sequence: 4C07902 Calibration: 3305003 Instrument: GL-GCVOA2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
8006-61-9	Gasoline Range Organics (C6-C10)	**2.65**	0.500	1.00	1.50	D

Total Target Analytes Reported: 1

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	0.05000	0.05763	115	50 - 150	

ANALYSIS DATA SHEET

GW1428

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_116
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403077-01
Sampled:	03/10/14 12:54	Received:	03/12/14 09:00

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7440-70-2	Calcium	**42100**	**1000**	2000	5000	1		SW6010B	4C14010	03/17/14 16:48
7439-92-1	Lead		1.50	3.00	3.00	1	U	SW6010B	4C14010	03/17/14 16:48
7439-95-4	Magnesium	**6500**	**1000**	3000	5000	1		SW6010B	4C14010	03/17/14 16:48
7440-09-7	Potassium	**2250**	**1000**	3000	5000	1	J	SW6010B	4C14010	03/17/14 16:48
7440-23-5	Sodium	**25200**	**1000**	3000	5000	1		SW6010B	4C14010	03/17/14 16:48

ANALYSIS DATA SHEET

GW1428

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_116
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403077-02
Sampled:	03/10/14 12:54	Received:	03/12/14 09:00

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7439-89-6	Iron (dissolved)	**207**	**30.0**	60.0	100	1		SW6010B	4C17022	03/17/14 20:26
7439-96-5	Manganese (dissolved)	**641**	**3.00**	6.00	15.0	1	E	SW6010B	4C17022	03/17/14 20:26

ANALYSIS DATA SHEET

GW1428

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_116
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1403077-01
Sampled:	03/10/14 12:54	Received:	03/12/14 09:00

CAS NO.	Analyte	Conc. (mg/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7664-41-7	Ammonia as N		0.110	0.150	0.300	1	U	SM4500NH3BG	4C21018	03/24/14 10:30
18496-25-8	Sulfide		0.769	1.92	3.85	1	U	SM4500S2CF	4C13006	03/13/14 14:59
71-52-3	Alkalinity, Bicarbonate (as CACO3)	**152**	**1.00**	1.00	1.00	1		SM2320B	4C21003	03/21/14 09:59
16887-00-6	Chloride	**13.6**	**0.170**	0.330	0.500	1		E300.0	4C13011	03/13/14 23:23
NA	Nitrate/Nitrite as N		0.250	0.750	1.50	1	U	E353.2	4C12027	03/12/14 14:17
3812-32-6	Alkalinity, Carbonate (as CACO3)		1.00	1.00	1.00	1	U	SM2320B	4C21003	03/21/14 09:59
14808-79-8	Sulfate as SO4	**14.6**	**0.330**	1.00	2.00	1		E300.0	4C13011	03/13/14 23:23

1. Name and mailing address of person proposing to discharge:

Victoria Branson
2050 WYOMING BLVD SE
KIRTLAND AFB, NM 87117

Work Phone: 505 846-6362

Cell/Home Phone: N/A

Email: VICTORIA.BRANSON@KIRTLAND.AF.MIL

Fax: 505 853-1647

2. Name of facility:

KIRTLAND AFB, New Mexico

3. Physical location of discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):

Bulk Fuels Facility (BFF) Spill Solid Waste Management Units ST-106 and SS-111, located in Section 36, Township 10 North, Range 3 East.

4. Type of operation generating the discharge (e.g., truck wash, food processing plant, restaurant, etc.):

Sampling of groundwater well KAFB-106028-510 (Sample ID GW1487) at the BFF Site.

5. Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed:

Water generated from the purging prior to sampling the well and containerized and stored at the BFF site.

6. Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.) Include estimated concentration if known, and copies of results of laboratory analyses, if available:

Exceedance of the EPA MCL or NMWQCC standard noted below. Analytical data report attached.

Benzene **(111 µg/L)** – exceedance of the EPA MCL 5.0 µg/L
EDB **(4.20 µg/L) –** exceedance of the EPA MCL of 0.05 µg/L

7. Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., grease interceptor, lagoon, septic tank/leachfield, etc.) Include sizes, site layout map, plans and specifications, etc. if available:

Water collected from the well purging prior to sampling the well.

8. Estimated maximum daily discharge volume in gallons per day (or other units):

Approximately 45 gallons stored in a polyethylene tank.

9. Estimated depth to ground water (ft):

Depth to groundwater is approximately 500 feet bgs at BFF site.

Signature: _____ **Date:** _____

Printed name: _____ **Title:** _____

Please return this form to:
NMED Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

Telephone: 505-827-2900
Fax: 505-827-2965

ANALYSIS DATA SHEET

GW1487

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-11	File ID:	0211011D.D
Sampled:	02/20/14 15:14	Prepared:	02/25/14 17:06	Analyzed:	02/25/14 17:06
Solids:		Preparation:	5030B	Dilution:	5

Batch: 4B25001 Sequence: 4B05704 Calibration: 4035001 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone	**85.1**	12.5	25.0	50.0	QD
71-43-2	Benzene	**111**	1.25	2.50	5.00	D
108-86-1	Bromobenzene		1.25	2.50	5.00	U
74-97-5	Bromochloromethane		1.25	2.50	5.00	U
75-27-4	Bromodichloromethane		1.25	2.50	5.00	U
75-25-2	Bromoform		1.25	2.50	5.00	U
74-83-9	Bromomethane		2.50	5.00	10.0	U
104-51-8	n-Butylbenzene	**3.60**	1.25	2.50	5.00	JD
78-93-3	2-Butanone	**16.4**	12.5	25.0	50.0	JD
135-98-8	sec-Butylbenzene	**4.65**	1.25	2.50	5.00	JD
98-06-6	tert-Butylbenzene		1.25	2.50	5.00	U
75-15-0	Carbon disulfide		1.25	2.50	5.00	U
56-23-5	Carbon tetrachloride		1.25	2.50	5.00	U
108-90-7	Chlorobenzene		1.25	2.50	5.00	U
75-00-3	Chloroethane		2.50	5.00	10.0	U
67-66-3	Chloroform		1.25	2.50	5.00	U
74-87-3	Chloromethane		1.25	2.50	5.00	U
95-49-8	2-Chlorotoluene		1.25	2.50	5.00	U
106-43-4	4-Chlorotoluene		1.25	2.50	5.00	U
124-48-1	Dibromochloromethane		1.25	2.50	5.00	U
96-12-8	1,2-Dibromo-3-chloropropane		2.50	5.00	10.0	U
106-93-4	1,2-Dibromoethane (EDB)	**2.80**	1.25	2.50	5.00	JD
74-95-3	Dibromomethane		1.25	2.50	5.00	U
95-50-1	1,2-Dichlorobenzene		1.25	2.50	5.00	U
541-73-1	1,3-Dichlorobenzene		1.25	2.50	5.00	U
106-46-7	1,4-Dichlorobenzene		1.25	2.50	5.00	U
75-71-8	Dichlorodifluoromethane		2.50	5.00	10.0	U
75-34-3	1,1-Dichloroethane		1.25	2.50	5.00	U
107-06-2	1,2-Dichloroethane	**3.50**	1.25	2.50	5.00	JD
75-35-4	1,1-Dichloroethene		1.25	2.50	5.00	U
156-59-2	cis-1,2-Dichloroethene		1.25	2.50	5.00	U
156-60-5	trans-1,2-Dichloroethene		1.25	2.50	5.00	U
78-87-5	1,2-Dichloropropane		1.25	2.50	5.00	U
142-28-9	1,3-Dichloropropane		1.25	2.50	5.00	U
594-20-7	2,2-Dichloropropane		1.25	2.50	5.00	U
563-58-6	1,1-Dichloropropene		1.25	2.50	5.00	U
10061-01-5	cis-1,3-Dichloropropene		1.25	2.50	5.00	U
10061-02-6	trans-1,3-Dichloropropene		1.25	2.50	5.00	U
100-41-4	Ethylbenzene	**129**	1.25	2.50	5.00	D
87-68-3	Hexachlorobutadiene		1.25	2.50	10.0	U

ANALYSIS DATA SHEET

GW1487

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-11	File ID:	0211011D.D
Sampled:	02/20/14 15:14	Prepared:	02/25/14 17:06	Analyzed:	02/25/14 17:06
Solids:		Preparation:	5030B	Dilution:	5

Batch: 4B25001 Sequence: 4B05704 Calibration: 4035001 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone		6.25	12.5	25.0	U
98-82-8	Isopropylbenzene	**27.8**	1.25	2.50	5.00	D
99-87-6	p-Isopropyltoluene	**3.90**	1.25	2.50	5.00	JD
75-09-2	Methylene chloride		2.50	5.00	10.0	U
91-20-3	Naphthalene	**12.0**	1.25	2.50	10.0	D
108-10-1	4-Methyl-2-pentanone		6.25	12.5	25.0	UX
1634-04-4	Methyl t-Butyl Ether	**1.95**	1.25	2.50	5.00	JD
103-65-1	n-Propylbenzene	**19.6**	1.25	2.50	5.00	D
100-42-5	Styrene		1.25	2.50	5.00	U
79-34-5	1,1,2,2-Tetrachloroethane		1.25	2.50	5.00	U
630-20-6	1,1,1,2-Tetrachloroethane		1.25	2.50	5.00	U
127-18-4	Tetrachloroethene		1.25	2.50	5.00	U
108-88-3	Toluene	**194**	1.25	2.50	5.00	D
87-61-6	1,2,3-Trichlorobenzene		1.25	2.50	10.0	U
120-82-1	1,2,4-Trichlorobenzene		1.25	2.50	10.0	U
79-00-5	1,1,2-Trichloroethane		1.25	2.50	5.00	U
71-55-6	1,1,1-Trichloroethane		1.25	2.50	5.00	U
79-01-6	Trichloroethene		1.25	2.50	5.00	U
75-69-4	Trichlorofluoromethane		2.50	5.00	10.0	U
96-18-4	1,2,3-Trichloropropane		2.50	5.00	10.0	U
108-67-8	1,3,5-Trimethylbenzene	**10.8**	1.25	2.50	5.00	D
95-63-6	1,2,4-Trimethylbenzene	**23.0**	1.25	2.50	5.00	D
75-01-4	Vinyl chloride		1.25	2.50	5.00	U
1330-20-7	Xylenes (total)	**110**	3.75	7.50	15.0	D

Total Target Analytes Reported: 64

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	29.51	98.4	75 - 120	
Dibromofluoromethane	30.00	29.92	99.7	85 - 115	
1,2-Dichloroethane-d4	30.00	30.26	101	70 - 120	
Toluene-d8	30.00	27.70	92.3	85 - 120	

ANALYSIS DATA SHEET

GW1487

Laboratory:	Empirical Laboratories, LLC		SDG:	Kirtland_113	
Client:	Shaw Environmental, Inc.		Project:	Kirtland AFB 2011	
Matrix:	Water	Laboratory ID:	1402110-11	File ID:	0211011D.D
Sampled:	02/20/14 15:14	Prepared:	02/26/14 08:55	Analyzed:	03/01/14 19:35
Solids:		Preparation:	EXT_3510	Dilution:	10

Batch: 4B25014 Sequence: 4C06205 Calibration: 3263001 Instrument: MS-BNA5

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
83-32-9	Acenaphthene		12.3	24.5	49.0	U
208-96-8	Acenaphthylene		12.3	24.5	49.0	U
98-86-2	Acetophenone	**119**	12.3	24.5	49.0	D
120-12-7	Anthracene		12.3	24.5	49.0	U
1912-24-9	Atrazine		12.3	24.5	49.0	U
100-52-7	Benzaldehyde		12.3	24.5	49.0	U
92-87-5	Benzidine		123	490	980	UX
56-55-3	Benzo(a)anthracene		12.3	24.5	49.0	U
50-32-8	Benzo(a)pyrene		12.3	24.5	49.0	U
205-99-2	Benzo(b)fluoranthene		12.3	24.5	49.0	U
191-24-2	Benzo(g,h,i)perylene		12.3	24.5	49.0	U
65-85-0	Benzoic acid		123	490	980	U
207-08-9	Benzo(k)fluoranthene		12.3	24.5	49.0	U
92-52-4	1,1-Biphenyl		12.3	24.5	49.0	U
101-55-3	4-Bromophenyl-phenylether		12.3	24.5	49.0	U
85-68-7	Butylbenzylphthalate		12.3	24.5	49.0	U
105-60-2	Caprolactam		12.3	24.5	49.0	U
86-74-8	Carbazole		12.3	24.5	49.0	U
59-50-7	4-Chloro-3-methylphenol		12.3	24.5	49.0	U
106-47-8	4-Chloroaniline		12.3	24.5	49.0	U
111-91-1	Bis(2-chloroethoxy)methane		12.3	24.5	49.0	U
111-44-4	Bis(2-chloroethyl)ether		12.3	24.5	49.0	U
108-60-1	2,2'-Oxybis-1-chloropropane		12.3	24.5	49.0	U
91-58-7	2-Chloronaphthalene		12.3	24.5	49.0	U
95-57-8	2-Chlorophenol		12.3	24.5	49.0	U
7005-72-3	4-Chlorophenyl phenyl ether		12.3	24.5	49.0	U
218-01-9	Chrysene		12.3	24.5	49.0	U
53-70-3	Dibenz(a,h)anthracene		12.3	24.5	49.0	U
132-64-9	Dibenzofuran		12.3	24.5	49.0	U
84-74-2	Di-n-butylphthalate		12.3	24.5	49.0	U
91-94-1	3,3'-Dichlorobenzidine		12.3	24.5	49.0	U
120-83-2	2,4-Dichlorophenol		12.3	24.5	49.0	U
84-66-2	Diethylphthalate		12.3	24.5	49.0	U
105-67-9	2,4-Dimethylphenol		49.0	98.0	196	U
131-11-3	Dimethyl phthalate		12.3	24.5	49.0	U
534-52-1	4,6-Dinitro-2-methylphenol		49.0	98.0	196	UX
51-28-5	2,4-Dinitrophenol		81.7	245	490	UX
121-14-2	2,4-Dinitrotoluene		12.3	24.5	49.0	U
606-20-2	2,6-Dinitrotoluene		12.3	24.5	49.0	U
117-84-0	Di-n-octylphthalate		12.3	24.5	49.0	U

ANALYSIS DATA SHEET

GW1487

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-11	File ID:	0211011D.D
Sampled:	02/20/14 15:14	Prepared:	02/26/14 08:55	Analyzed:	03/01/14 19:35
Solids:		Preparation:	EXT_3510	Dilution:	10

Batch: 4B25014 Sequence: 4C06205 Calibration: 3263001 Instrument: MS-BNA5

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
122-66-7	1,2-Diphenylhydrazine		12.3	24.5	49.0	U
117-81-7	Bis(2-ethylhexyl)phthalate		12.3	24.5	49.0	U
206-44-0	Fluoranthene		12.3	24.5	49.0	U
86-73-7	Fluorene		12.3	24.5	49.0	U
118-74-1	Hexachlorobenzene		12.3	24.5	49.0	U
87-68-3	Hexachlorobutadiene		12.3	24.5	49.0	U
77-47-4	Hexachlorocyclopentadiene		12.3	49.0	98.0	UX
67-72-1	Hexachloroethane		12.3	24.5	49.0	U
193-39-5	Indeno(1,2,3-cd)pyrene		12.3	24.5	49.0	U
78-59-1	Isophorone		12.3	24.5	49.0	U
90-12-0	1-Methylnaphthalene		12.3	24.5	49.0	U
91-57-6	2-Methylnaphthalene		12.3	24.5	49.0	U
95-48-7	2-Methylphenol		12.3	24.5	49.0	U
108-39-4/106	3-Methylphenol/4-Methylphenol		12.3	24.5	49.0	U
91-20-3	Naphthalene		12.3	24.5	49.0	U
100-01-6	4-Nitroaniline		49.0	98.0	196	U
99-09-2	3-Nitroaniline		49.0	98.0	196	U
88-74-4	2-Nitroaniline		49.0	98.0	196	U
98-95-3	Nitrobenzene		12.3	24.5	49.0	U
100-02-7	4-Nitrophenol		49.0	98.0	196	U
88-75-5	2-Nitrophenol		12.3	24.5	49.0	U
86-30-6	N-Nitrosodiphenylamine		12.3	24.5	49.0	U
621-64-7	N-Nitroso-di-n-propylamine		12.3	24.5	49.0	U
87-86-5	Pentachlorophenol		49.0	98.0	196	U
85-01-8	Phenanthrene		12.3	24.5	49.0	U
108-95-2	Phenol		12.3	24.5	49.0	U
129-00-0	Pyrene		12.3	24.5	49.0	U
88-06-2	2,4,6-Trichlorophenol		12.3	24.5	49.0	U
95-95-4	2,4,5-Trichlorophenol		12.3	24.5	49.0	U

Total Target Analytes Reported: 69

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	49.02	38.58	78.7	50 - 110	
2-Fluorophenol	98.04	27.07	27.6	20 - 110	
Nitrobenzene-d5	49.02	40.88	83.4	40 - 110	
Phenol-d6	98.04	15.68	16.0	0 - 110	
Terphenyl-d14	49.02	39.38	80.3	50 - 135	
2,4,6-Tribromophenol	98.04	80.73	82.3	40 - 125	

ANALYSIS DATA SHEET

GW1487

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-11RE1	File ID:	019F0101.D
Sampled:	02/20/14 15:14	Prepared:	02/26/14 06:36	Analyzed:	03/05/14 18:22
Solids:		Preparation:	EDB	Dilution:	10

Batch: 4B26003 Sequence: 4C06519 Calibration: 4029001 Instrument: GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane	4.20	0.0944	0.189	0.283	D

ANALYSIS DATA SHEET

GW1487

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-11	File ID:	020F2001.D
Sampled:	02/20/14 15:14	Prepared:	02/26/14 13:38	Analyzed:	03/04/14 22:03
Solids:		Preparation:	EXT_3510	Dilution:	10

Batch: 4B26017 Sequence: 4C06411 Calibration: 4064002 Instrument: GL-GCFID2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
11-84-7	Diesel Range Organics (C10-C28)	**9.29**	0.980	1.96	3.92	D

Total Target Analytes Reported: 1

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.01961	0.01461	74.5	30 - 140	

ANALYSIS DATA SHEET

GW1487

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-11	File ID:	016F1601.D
Sampled:	02/20/14 15:14	Prepared:	02/24/14 18:52	Analyzed:	02/24/14 18:52
Solids:		Preparation:	8015GRO	Dilution:	10

Batch: 4B24001 Sequence: 4B05605 Calibration: 3305003 Instrument: GL-GCVOA2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
8006-61-9	Gasoline Range Organics (C6-C10)	**3.38**	0.500	1.00	1.50	D

Total Target Analytes Reported: 1

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	0.05000	0.05625	112	50 - 150	

ANALYSIS DATA SHEET

GW1487

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-11
Sampled:	02/20/14 15:14	Received:	02/21/14 08:40

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7440-70-2	Calcium	**89300**	**1000**	2000	5000	1		SW6010B	4B26005	02/28/14 16:17
7439-92-1	Lead		1.50	3.00	3.00	1	U	SW6010B	4B26005	02/28/14 16:17
7439-95-4	Magnesium	**13700**	**1000**	3000	5000	1		SW6010B	4B26005	02/28/14 16:17
7440-09-7	Potassium	**3040**	**1000**	3000	5000	1	J	SW6010B	4B26005	02/28/14 16:17
7440-23-5	Sodium	**34100**	**1000**	3000	5000	1		SW6010B	4B26005	02/28/14 16:17

ANALYSIS DATA SHEET

GW1487

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-12
Sampled:	02/20/14 15:14	Received:	02/21/14 08:40

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7439-89-6	Iron (dissolved)	**1320**	**30.0**	60.0	100	1		SW6010B	4C05014	03/05/14 22:52
7439-96-5	Manganese (dissolved)	**2290**	**3.00**	6.00	15.0	1		SW6010B	4C05014	03/05/14 22:52

ANALYSIS DATA SHEET

GW1487

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-11
Sampled:	02/20/14 15:14	Received:	02/21/14 08:40

CAS NO.	Analyte	Conc. (mg/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7664-41-7	Ammonia as N		0.110	0.150	0.300	1	U	SM4500NH3BG	4C10004	03/12/14 09:39
18496-25-8	Sulfide		0.741	1.85	3.70	1	U	SM4500S2CF	4B26018	02/26/14 14:46
71-52-3	Alkalinity, Bicarbonate (as CACO3)	**279**	**1.00**	1.00	1.00	1		SM2320B	4C04024	03/05/14 14:32
16887-00-6	Chloride	**33.5**	**0.170**	0.330	0.500	1		E300.0	4C04019	03/05/14 10:11
NA	Nitrate/Nitrite as N		0.250	0.750	1.50	1	U	E353.2	4C07003	03/07/14 10:44
3812-32-6	Alkalinity, Carbonate (as CACO3)		1.00	1.00	1.00	1	U	SM2320B	4C04024	03/05/14 14:32
14808-79-8	Sulfate as SO4	**42.6**	**0.330**	1.00	2.00	1		E300.0	4C04019	03/05/14 10:11

1. Name and mailing address of person proposing to discharge:

Victoria Branson
2050 WYOMING BLVD SE
KIRTLAND AFB, NM 87117

Work Phone: 505 846-6362

Cell/Home Phone: N/A

Email: VICTORIA.BRANSON@KIRTLAND.AF.MIL

Fax: 505 853-1647

2. Name of facility:

KIRTLAND AFB, New Mexico

3. Physical location of discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):

Bulk Fuels Facility (BFF) Spill Solid Waste Management Units ST-106 and SS-111, located in Section 36, Township 10 North, Range 3 East.

4. Type of operation generating the discharge (e.g., truck wash, food processing plant, restaurant, etc.):

Sampling of groundwater well KAFB-106063 (Sample ID GW1485) at the BFF Site.

5. Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed:

Water generated from the purging prior to sampling the well and containerized and stored at the BFF site.

6. Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.) Include estimated concentration if known, and copies of results of laboratory analyses, if available:

Exceedance of the EPA MCL or NMWQCC standard noted below. Analytical data report attached.

EDB **(0.106 µg/L) –** exceedance of the EPA MCL of 0.05 µg/L

7. Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., grease interceptor, lagoon, septic tank/leachfield, etc.) Include sizes, site layout map, plans and specifications, etc. if available:

Water collected from the well purging prior to sampling the well.

8. Estimated maximum daily discharge volume in gallons per day (or other units):

Approximately 51 gallons stored in a polyethylene tank.

9. Estimated depth to ground water (ft):

Depth to groundwater is approximately 500 feet bgs at BFF site.

Signature: _____ **Date:** _____

Printed name: _____ **Title:** _____

Please return this form to:
NMED Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

Telephone: 505-827-2900
Fax: 505-827-2965

ANALYSIS DATA SHEET

GW1485

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_109
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1401114-17	File ID:	0111417D.D
Sampled:	01/23/14 13:30	Prepared:	01/27/14 15:41	Analyzed:	01/27/14 15:41
Solids:		Preparation:	5030B	Dilution:	2

Batch: 4A27005 Sequence: 4A02801 Calibration: 3361001 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone		5.00	10.0	20.0	UQ
71-43-2	Benzene		0.500	1.00	2.00	U
108-86-1	Bromobenzene		0.500	1.00	2.00	U
74-97-5	Bromochloromethane		0.500	1.00	2.00	U
75-27-4	Bromodichloromethane		0.500	1.00	2.00	U
75-25-2	Bromoform		0.500	1.00	2.00	U
74-83-9	Bromomethane		1.00	2.00	4.00	U
104-51-8	n-Butylbenzene		0.500	1.00	2.00	U
78-93-3	2-Butanone		5.00	10.0	20.0	U
135-98-8	sec-Butylbenzene		0.500	1.00	2.00	U
98-06-6	tert-Butylbenzene		0.500	1.00	2.00	U
75-15-0	Carbon disulfide		0.500	1.00	2.00	U
56-23-5	Carbon tetrachloride		0.500	1.00	2.00	U
108-90-7	Chlorobenzene		0.500	1.00	2.00	U
75-00-3	Chloroethane		1.00	2.00	4.00	U
67-66-3	Chloroform		0.500	1.00	2.00	U
74-87-3	Chloromethane		0.500	1.00	2.00	U
95-49-8	2-Chlorotoluene		0.500	1.00	2.00	U
106-43-4	4-Chlorotoluene		0.500	1.00	2.00	U
124-48-1	Dibromochloromethane		0.500	1.00	2.00	U
96-12-8	1,2-Dibromo-3-chloropropane		1.00	2.00	4.00	U
106-93-4	1,2-Dibromoethane (EDB)		0.500	1.00	2.00	U
74-95-3	Dibromomethane		0.500	1.00	2.00	U
95-50-1	1,2-Dichlorobenzene		0.500	1.00	2.00	U
541-73-1	1,3-Dichlorobenzene		0.500	1.00	2.00	U
106-46-7	1,4-Dichlorobenzene		0.500	1.00	2.00	U
75-71-8	Dichlorodifluoromethane		1.00	2.00	4.00	UX
75-34-3	1,1-Dichloroethane		0.500	1.00	2.00	U
107-06-2	1,2-Dichloroethane	**0.860**	0.500	1.00	2.00	JD
75-35-4	1,1-Dichloroethene		0.500	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene		0.500	1.00	2.00	U
156-60-5	trans-1,2-Dichloroethene		0.500	1.00	2.00	U
78-87-5	1,2-Dichloropropane		0.500	1.00	2.00	U
142-28-9	1,3-Dichloropropane		0.500	1.00	2.00	U
594-20-7	2,2-Dichloropropane		0.500	1.00	2.00	U
563-58-6	1,1-Dichloropropene		0.500	1.00	2.00	U
10061-01-5	cis-1,3-Dichloropropene		0.500	1.00	2.00	U
10061-02-6	trans-1,3-Dichloropropene		0.500	1.00	2.00	U
100-41-4	Ethylbenzene		0.500	1.00	2.00	U
87-68-3	Hexachlorobutadiene		0.500	1.00	4.00	U

ANALYSIS DATA SHEET

GW1485

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_109
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1401114-17	File ID:	0111417D.D
Sampled:	01/23/14 13:30	Prepared:	01/27/14 15:41	Analyzed:	01/27/14 15:41
Solids:		Preparation:	5030B	Dilution:	2

Batch: 4A27005 Sequence: 4A02801 Calibration: 3361001 Instrument: MS-VOA4

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone		2.50	5.00	10.0	U
98-82-8	Isopropylbenzene	**4.08**	0.500	1.00	2.00	D
99-87-6	p-Isopropyltoluene		0.500	1.00	2.00	U
75-09-2	Methylene chloride		1.00	2.00	4.00	U
91-20-3	Naphthalene		0.500	1.00	4.00	U
108-10-1	4-Methyl-2-pentanone		2.50	5.00	10.0	U
1634-04-4	Methyl t-Butyl Ether		0.500	1.00	2.00	U
103-65-1	n-Propylbenzene	**1.00**	0.500	1.00	2.00	JD
100-42-5	Styrene		0.500	1.00	2.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.500	1.00	2.00	U
630-20-6	1,1,1,2-Tetrachloroethane		0.500	1.00	2.00	U
127-18-4	Tetrachloroethene		0.500	1.00	2.00	U
108-88-3	Toluene		0.500	1.00	2.00	U
87-61-6	1,2,3-Trichlorobenzene		0.500	1.00	4.00	U
120-82-1	1,2,4-Trichlorobenzene		0.500	1.00	4.00	U
79-00-5	1,1,2-Trichloroethane		0.500	1.00	2.00	U
71-55-6	1,1,1-Trichloroethane		0.500	1.00	2.00	U
79-01-6	Trichloroethene		0.500	1.00	2.00	U
75-69-4	Trichlorofluoromethane		1.00	2.00	4.00	U
96-18-4	1,2,3-Trichloropropane		1.00	2.00	4.00	U
108-67-8	1,3,5-Trimethylbenzene		0.500	1.00	2.00	U
95-63-6	1,2,4-Trimethylbenzene		0.500	1.00	2.00	U
75-01-4	Vinyl chloride		0.500	1.00	2.00	U
1330-20-7	Xylenes (total)		1.50	3.00	6.00	U

Total Target Analytes Reported: 64

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	28.70	95.7	75 - 120	
Dibromofluoromethane	30.00	31.05	104	85 - 115	
1,2-Dichloroethane-d4	30.00	29.83	99.4	70 - 120	
Toluene-d8	30.00	27.46	91.5	85 - 120	

ANALYSIS DATA SHEET

GW1485

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_109
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1401114-17	File ID:	0111417.D
Sampled:	01/23/14 13:30	Prepared:	01/29/14 13:30	Analyzed:	02/02/14 00:09
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 4A28022 Sequence: 4B03411 Calibration: 3263001 Instrument: MS-BNA5

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
83-32-9	Acenaphthene		1.25	2.50	5.00	U
208-96-8	Acenaphthylene		1.25	2.50	5.00	U
98-86-2	Acetophenone		1.25	2.50	5.00	U
120-12-7	Anthracene		1.25	2.50	5.00	U
1912-24-9	Atrazine		1.25	2.50	5.00	U
100-52-7	Benzaldehyde		1.25	2.50	5.00	U
92-87-5	Benzidine		12.5	50.0	100	U
56-55-3	Benzo(a)anthracene		1.25	2.50	5.00	U
50-32-8	Benzo(a)pyrene		1.25	2.50	5.00	U
205-99-2	Benzo(b)fluoranthene		1.25	2.50	5.00	U
191-24-2	Benzo(g,h,i)perylene		1.25	2.50	5.00	U
65-85-0	Benzoic acid		12.5	50.0	100	U
207-08-9	Benzo(k)fluoranthene		1.25	2.50	5.00	U
92-52-4	1,1-Biphenyl		1.25	2.50	5.00	U
101-55-3	4-Bromophenyl-phenylether		1.25	2.50	5.00	U
85-68-7	Butylbenzylphthalate		1.25	2.50	5.00	U
105-60-2	Caprolactam		1.25	2.50	5.00	U
86-74-8	Carbazole		1.25	2.50	5.00	U
59-50-7	4-Chloro-3-methylphenol		1.25	2.50	5.00	U
106-47-8	4-Chloroaniline		1.25	2.50	5.00	U
111-91-1	Bis(2-chloroethoxy)methane		1.25	2.50	5.00	U
111-44-4	Bis(2-chloroethyl)ether		1.25	2.50	5.00	U
108-60-1	2,2'-Oxybis-1-chloropropane		1.25	2.50	5.00	U
91-58-7	2-Chloronaphthalene		1.25	2.50	5.00	U
95-57-8	2-Chlorophenol		1.25	2.50	5.00	U
7005-72-3	4-Chlorophenyl phenyl ether		1.25	2.50	5.00	U
218-01-9	Chrysene		1.25	2.50	5.00	U
53-70-3	Dibenz(a,h)anthracene		1.25	2.50	5.00	U
132-64-9	Dibenzofuran		1.25	2.50	5.00	U
84-74-2	Di-n-butylphthalate		1.25	2.50	5.00	U
91-94-1	3,3'-Dichlorobenzidine		1.25	2.50	5.00	U
120-83-2	2,4-Dichlorophenol		1.25	2.50	5.00	U
84-66-2	Diethylphthalate		1.25	2.50	5.00	U
105-67-9	2,4-Dimethylphenol		5.00	10.0	20.0	U
131-11-3	Dimethyl phthalate		1.25	2.50	5.00	U
534-52-1	4,6-Dinitro-2-methylphenol		5.00	10.0	20.0	U
51-28-5	2,4-Dinitrophenol		8.33	25.0	50.0	UX
121-14-2	2,4-Dinitrotoluene		1.25	2.50	5.00	U
606-20-2	2,6-Dinitrotoluene		1.25	2.50	5.00	U
117-84-0	Di-n-octylphthalate		1.25	2.50	5.00	U

ANALYSIS DATA SHEET

GW1485

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_109
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1401114-17	File ID:	0111417.D
Sampled:	01/23/14 13:30	Prepared:	01/29/14 13:30	Analyzed:	02/02/14 00:09
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 4A28022 Sequence: 4B03411 Calibration: 3263001 Instrument: MS-BNA5

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
122-66-7	1,2-Diphenylhydrazine		1.25	2.50	5.00	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.25	2.50	5.00	U
206-44-0	Fluoranthene		1.25	2.50	5.00	U
86-73-7	Fluorene		1.25	2.50	5.00	U
118-74-1	Hexachlorobenzene		1.25	2.50	5.00	U
87-68-3	Hexachlorobutadiene		1.25	2.50	5.00	U
77-47-4	Hexachlorocyclopentadiene		1.25	5.00	10.0	UX
67-72-1	Hexachloroethane		1.25	2.50	5.00	U
193-39-5	Indeno(1,2,3-cd)pyrene		1.25	2.50	5.00	U
78-59-1	Isophorone		1.25	2.50	5.00	U
90-12-0	1-Methylnaphthalene		1.25	2.50	5.00	U
91-57-6	2-Methylnaphthalene		1.25	2.50	5.00	U
95-48-7	2-Methylphenol		1.25	2.50	5.00	U
108-39-4/106	3-Methylphenol/4-Methylphenol		1.25	2.50	5.00	U
91-20-3	Naphthalene		1.25	2.50	5.00	U
100-01-6	4-Nitroaniline		5.00	10.0	20.0	U
99-09-2	3-Nitroaniline		5.00	10.0	20.0	U
88-74-4	2-Nitroaniline		5.00	10.0	20.0	U
98-95-3	Nitrobenzene		1.25	2.50	5.00	U
100-02-7	4-Nitrophenol		5.00	10.0	20.0	U
88-75-5	2-Nitrophenol		1.25	2.50	5.00	U
86-30-6	N-Nitrosodiphenylamine		1.25	2.50	5.00	U
621-64-7	N-Nitroso-di-n-propylamine		1.25	2.50	5.00	U
87-86-5	Pentachlorophenol		5.00	10.0	20.0	U
85-01-8	Phenanthrene		1.25	2.50	5.00	U
108-95-2	Phenol		1.25	2.50	5.00	U
129-00-0	Pyrene		1.25	2.50	5.00	U
88-06-2	2,4,6-Trichlorophenol		1.25	2.50	5.00	U
95-95-4	2,4,5-Trichlorophenol		1.25	2.50	5.00	U

Total Target Analytes Reported: 69

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	50.00	34.45	68.9	50 - 110	
2-Fluorophenol	100.0	26.48	26.5	20 - 110	
Nitrobenzene-d5	50.00	37.22	74.4	40 - 110	
Phenol-d6	100.0	17.37	17.4	0 - 110	
Terphenyl-d14	50.00	42.08	84.2	50 - 135	
2,4,6-Tribromophenol	100.0	66.97	67.0	40 - 125	

ANALYSIS DATA SHEET

GW1485

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_109
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1401114-17	File ID:	025F0101.D
Sampled:	01/23/14 13:30	Prepared:	01/27/14 09:02	Analyzed:	01/27/14 22:45
Solids:		Preparation:	EDB	Dilution:	1

Batch: 4A27007 Sequence: 4A02909 Calibration: 4029001 Instrument: GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane	0.106	0.00953	0.0191	0.0286	P

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane	1.895	1.574	83.1	55 - 160	
1,3-Dibromopropane [2C]	1.895	1.529	80.7	55 - 160	

ANALYSIS DATA SHEET

GW1485

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_109
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1401114-17	File ID:	035F3501.D
Sampled:	01/23/14 13:30	Prepared:	01/28/14 16:48	Analyzed:	02/01/14 11:53
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 4A28021 Sequence: 4B03419 Calibration: 4034003 Instrument: GL-GCFID2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
11-84-7	Diesel Range Organics (C10-C28)	**0.871**	0.100	0.200	0.400	

Total Target Analytes Reported: 1

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.02000	0.01480	74.0	30 - 140	

ANALYSIS DATA SHEET

GW1485

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_109
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1401114-17	File ID:	015F1501.D
Sampled:	01/23/14 13:30	Prepared:	01/27/14 18:12	Analyzed:	01/27/14 18:12
Solids:		Preparation:	8015GRO	Dilution:	1

Batch: 4A27001 Sequence: 4A02906 Calibration: 3305003 Instrument: GL-GCVOA2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
8006-61-9	Gasoline Range Organics (C6-C10)	**0.246**	0.0500	0.100	0.150	

Total Target Analytes Reported: 1

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	0.05000	0.04594	91.9	50 - 150	

ANALYSIS DATA SHEET

GW1485

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_109
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1401114-17
Sampled:	01/23/14 13:30	Received:	01/24/14 08:50

CAS NO.	Analyte	Conc. (mg/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7664-41-7	Ammonia as N		0.110	0.150	0.300	1	U	SM4500NH3BG	4B07002	02/10/14 10:29
18496-25-8	Sulfide		0.800	2.00	4.00	1	U	SM4500S2CF	4A29013	01/29/14 17:22
71-52-3	Alkalinity, Bicarbonate (as CACO3)	**153**	**1.00**	1.00	1.00	1		SM2320B	4B05006	02/05/14 12:54
16887-00-6	Chloride	**11.7**	**0.170**	0.330	0.500	1		E300.0	4B07009	02/08/14 02:29
NA	Nitrate/Nitrite as N		0.250	0.750	1.50	1	U	E353.2	4A29011	01/29/14 15:53
3812-32-6	Alkalinity, Carbonate (as CACO3)		1.00	1.00	1.00	1	U	SM2320B	4B05006	02/05/14 12:54
14808-79-8	Sulfate as SO4	**24.8**	**0.330**	1.00	2.00	1		E300.0	4B07009	02/08/14 02:29

ANALYSIS DATA SHEET

GW1485

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_109
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1401114-17
Sampled:	01/23/14 13:30	Received:	01/24/14 08:50

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7440-70-2	Calcium	**42300**	**1000**	2000	5000	1		SW6010B	4A27003	02/01/14 12:13
7439-92-1	Lead		1.50	3.00	3.00	1	U	SW6010B	4A27003	02/01/14 12:13
7439-95-4	Magnesium	**5780**	**1000**	3000	5000	1		SW6010B	4A27003	02/01/14 12:13
7440-09-7	Potassium	**2090**	**1000**	3000	5000	1	J	SW6010B	4A27003	02/01/14 12:13
7440-23-5	Sodium	**22700**	**1000**	3000	5000	1		SW6010B	4A27003	02/01/14 12:13

ANALYSIS DATA SHEET

GW1485

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_109
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1401114-18
Sampled:	01/23/14 13:30	Received:	01/24/14 08:50

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7439-89-6	Iron (dissolved)		30.0	60.0	100	1	U	SW6010B	4A28002	02/01/14 16:25
7439-96-5	Manganese (dissolved)	**34.6**	**3.00**	6.00	15.0	1		SW6010B	4A28002	02/01/14 16:25

1. Name and mailing address of person proposing to discharge:

Victoria Branson
2050 WYOMING BLVD SE
KIRTLAND AFB, NM 87117

Work Phone: 505 846-6362

Cell/Home Phone: N/A

Email: VICTORIA.BRANSON@KIRTLAND.AF.MIL

Fax: 505 853-1647

2. Name of facility:

KIRTLAND AFB, New Mexico

3. Physical location of discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):

Bulk Fuels Facility (BFF) Spill Solid Waste Management Units ST-106 and SS-111, located in Section 36, Township 10 North, Range 3 East.

4. Type of operation generating the discharge (e.g., truck wash, food processing plant, restaurant, etc.):

Sampling of groundwater well KAFB-106065 (Sample ID GW1488) at the BFF Site.

5. Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed:

Water generated from the purging prior to sampling the well and containerized and stored at the BFF site.

6. Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.) Include estimated concentration if known, and copies of results of laboratory analyses, if available:

Exceedance of the EPA MCL or NMWQCC standard noted below. Analytical data report attached.

Benzene **(8.35 µg/L) –** exceedance of the EPA MCL of 5.0 µg/L
1,2-dichloroethane **(5.75 µg/L) –** exceedance of the EPA MCL of 5.0 µg/L

7. Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., grease interceptor, lagoon, septic tank/leachfield, etc.) Include sizes, site layout map, plans and specifications, etc. if available:

Water collected from the well purging prior to sampling the well.

8. Estimated maximum daily discharge volume in gallons per day (or other units):

Approximately 57 gallons stored in a polyethylene tank.

9. Estimated depth to ground water (ft):

Depth to groundwater is approximately 500 feet bgs at BFF site.

Signature: _____ **Date:** _____

Printed name: _____ **Title:** _____

Please return this form to:
NMED Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

Telephone: 505-827-2900
Fax: 505-827-2965

ANALYSIS DATA SHEET

GW1488

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-13	File ID:	0211013D.D
Sampled:	02/20/14 13:59	Prepared:	02/25/14 17:33	Analyzed:	02/25/14 17:33
Solids:		Preparation:	5030B	Dilution:	5

Batch: 4B25001 Sequence: 4B05704 Calibration: 4035001 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone		12.5	25.0	50.0	UQ
71-43-2	Benzene	**8.35**	1.25	2.50	5.00	D
108-86-1	Bromobenzene		1.25	2.50	5.00	U
74-97-5	Bromochloromethane		1.25	2.50	5.00	U
75-27-4	Bromodichloromethane		1.25	2.50	5.00	U
75-25-2	Bromoform		1.25	2.50	5.00	U
74-83-9	Bromomethane		2.50	5.00	10.0	U
104-51-8	n-Butylbenzene	**2.80**	1.25	2.50	5.00	JD
78-93-3	2-Butanone		12.5	25.0	50.0	U
135-98-8	sec-Butylbenzene	**4.40**	1.25	2.50	5.00	JD
98-06-6	tert-Butylbenzene		1.25	2.50	5.00	U
75-15-0	Carbon disulfide		1.25	2.50	5.00	U
56-23-5	Carbon tetrachloride		1.25	2.50	5.00	U
108-90-7	Chlorobenzene		1.25	2.50	5.00	U
75-00-3	Chloroethane		2.50	5.00	10.0	U
67-66-3	Chloroform		1.25	2.50	5.00	U
74-87-3	Chloromethane		1.25	2.50	5.00	U
95-49-8	2-Chlorotoluene		1.25	2.50	5.00	U
106-43-4	4-Chlorotoluene		1.25	2.50	5.00	U
124-48-1	Dibromochloromethane		1.25	2.50	5.00	U
96-12-8	1,2-Dibromo-3-chloropropane		2.50	5.00	10.0	U
106-93-4	1,2-Dibromoethane (EDB)		1.25	2.50	5.00	U
74-95-3	Dibromomethane		1.25	2.50	5.00	U
95-50-1	1,2-Dichlorobenzene		1.25	2.50	5.00	U
541-73-1	1,3-Dichlorobenzene		1.25	2.50	5.00	U
106-46-7	1,4-Dichlorobenzene		1.25	2.50	5.00	U
75-71-8	Dichlorodifluoromethane		2.50	5.00	10.0	U
75-34-3	1,1-Dichloroethane		1.25	2.50	5.00	U
107-06-2	1,2-Dichloroethane	**5.75**	1.25	2.50	5.00	D
75-35-4	1,1-Dichloroethene		1.25	2.50	5.00	U
156-59-2	cis-1,2-Dichloroethene		1.25	2.50	5.00	U
156-60-5	trans-1,2-Dichloroethene		1.25	2.50	5.00	U
78-87-5	1,2-Dichloropropane		1.25	2.50	5.00	U
142-28-9	1,3-Dichloropropane		1.25	2.50	5.00	U
594-20-7	2,2-Dichloropropane		1.25	2.50	5.00	U
563-58-6	1,1-Dichloropropene		1.25	2.50	5.00	U
10061-01-5	cis-1,3-Dichloropropene		1.25	2.50	5.00	U
10061-02-6	trans-1,3-Dichloropropene		1.25	2.50	5.00	U
100-41-4	Ethylbenzene	**46.6**	1.25	2.50	5.00	D
87-68-3	Hexachlorobutadiene		1.25	2.50	10.0	U

ANALYSIS DATA SHEET

GW1488

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-13	File ID:	0211013D.D
Sampled:	02/20/14 13:59	Prepared:	02/25/14 17:33	Analyzed:	02/25/14 17:33
Solids:		Preparation:	5030B	Dilution:	5

Batch: 4B25001 Sequence: 4B05704 Calibration: 4035001 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone		6.25	12.5	25.0	U
98-82-8	Isopropylbenzene	**46.0**	1.25	2.50	5.00	D
99-87-6	p-Isopropyltoluene	**6.20**	1.25	2.50	5.00	D
75-09-2	Methylene chloride		2.50	5.00	10.0	U
91-20-3	Naphthalene	**2.05**	1.25	2.50	10.0	JD
108-10-1	4-Methyl-2-pentanone		6.25	12.5	25.0	UX
1634-04-4	Methyl t-Butyl Ether	**2.05**	1.25	2.50	5.00	JD
103-65-1	n-Propylbenzene	**12.6**	1.25	2.50	5.00	D
100-42-5	Styrene		1.25	2.50	5.00	U
79-34-5	1,1,2,2-Tetrachloroethane		1.25	2.50	5.00	U
630-20-6	1,1,1,2-Tetrachloroethane		1.25	2.50	5.00	U
127-18-4	Tetrachloroethene		1.25	2.50	5.00	U
108-88-3	Toluene		1.25	2.50	5.00	U
87-61-6	1,2,3-Trichlorobenzene		1.25	2.50	10.0	U
120-82-1	1,2,4-Trichlorobenzene		1.25	2.50	10.0	U
79-00-5	1,1,2-Trichloroethane		1.25	2.50	5.00	U
71-55-6	1,1,1-Trichloroethane		1.25	2.50	5.00	U
79-01-6	Trichloroethene		1.25	2.50	5.00	U
75-69-4	Trichlorofluoromethane		2.50	5.00	10.0	U
96-18-4	1,2,3-Trichloropropane		2.50	5.00	10.0	U
108-67-8	1,3,5-Trimethylbenzene		1.25	2.50	5.00	U
95-63-6	1,2,4-Trimethylbenzene	**62.8**	1.25	2.50	5.00	D
75-01-4	Vinyl chloride		1.25	2.50	5.00	U
1330-20-7	Xylenes (total)		3.75	7.50	15.0	U

Total Target Analytes Reported: 64

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	29.05	96.8	75 - 120	
Dibromofluoromethane	30.00	30.86	103	85 - 115	
1,2-Dichloroethane-d4	30.00	31.02	103	70 - 120	
Toluene-d8	30.00	28.27	94.2	85 - 120	

ANALYSIS DATA SHEET

GW1488

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-13	File ID:	0211013D.D
Sampled:	02/20/14 13:59	Prepared:	02/26/14 08:55	Analyzed:	03/01/14 20:04
Solids:		Preparation:	EXT_3510	Dilution:	10

Batch: 4B25014 Sequence: 4C06205 Calibration: 3263001 Instrument: MS-BNA5

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
83-32-9	Acenaphthene		12.0	24.0	48.1	U
208-96-8	Acenaphthylene		12.0	24.0	48.1	U
98-86-2	Acetophenone		12.0	24.0	48.1	U
120-12-7	Anthracene		12.0	24.0	48.1	U
1912-24-9	Atrazine		12.0	24.0	48.1	U
100-52-7	Benzaldehyde		12.0	24.0	48.1	U
92-87-5	Benzidine		120	481	962	UX
56-55-3	Benzo(a)anthracene		12.0	24.0	48.1	U
50-32-8	Benzo(a)pyrene		12.0	24.0	48.1	U
205-99-2	Benzo(b)fluoranthene		12.0	24.0	48.1	U
191-24-2	Benzo(g,h,i)perylene		12.0	24.0	48.1	U
65-85-0	Benzoic acid		120	481	962	U
207-08-9	Benzo(k)fluoranthene		12.0	24.0	48.1	U
92-52-4	1,1-Biphenyl		12.0	24.0	48.1	U
101-55-3	4-Bromophenyl-phenylether		12.0	24.0	48.1	U
85-68-7	Butylbenzylphthalate		12.0	24.0	48.1	U
105-60-2	Caprolactam		12.0	24.0	48.1	U
86-74-8	Carbazole		12.0	24.0	48.1	U
59-50-7	4-Chloro-3-methylphenol		12.0	24.0	48.1	U
106-47-8	4-Chloroaniline		12.0	24.0	48.1	U
111-91-1	Bis(2-chloroethoxy)methane		12.0	24.0	48.1	U
111-44-4	Bis(2-chloroethyl)ether		12.0	24.0	48.1	U
108-60-1	2,2'-Oxybis-1-chloropropane		12.0	24.0	48.1	U
91-58-7	2-Chloronaphthalene		12.0	24.0	48.1	U
95-57-8	2-Chlorophenol		12.0	24.0	48.1	U
7005-72-3	4-Chlorophenyl phenyl ether		12.0	24.0	48.1	U
218-01-9	Chrysene		12.0	24.0	48.1	U
53-70-3	Dibenz(a,h)anthracene		12.0	24.0	48.1	U
132-64-9	Dibenzofuran		12.0	24.0	48.1	U
84-74-2	Di-n-butylphthalate		12.0	24.0	48.1	U
91-94-1	3,3'-Dichlorobenzidine		12.0	24.0	48.1	U
120-83-2	2,4-Dichlorophenol		12.0	24.0	48.1	U
84-66-2	Diethylphthalate		12.0	24.0	48.1	U
105-67-9	2,4-Dimethylphenol		48.1	96.2	192	U
131-11-3	Dimethyl phthalate		12.0	24.0	48.1	U
534-52-1	4,6-Dinitro-2-methylphenol		48.1	96.2	192	UX
51-28-5	2,4-Dinitrophenol		80.1	240	481	UX
121-14-2	2,4-Dinitrotoluene		12.0	24.0	48.1	U
606-20-2	2,6-Dinitrotoluene		12.0	24.0	48.1	U
117-84-0	Di-n-octylphthalate		12.0	24.0	48.1	U

ANALYSIS DATA SHEET

GW1488

Laboratory:	Empirical Laboratories, LLC		SDG:	Kirtland_113	
Client:	Shaw Environmental, Inc.		Project:	Kirtland AFB 2011	
Matrix:	Water	Laboratory ID:	1402110-13	File ID:	0211013D.D
Sampled:	02/20/14 13:59	Prepared:	02/26/14 08:55	Analyzed:	03/01/14 20:04
Solids:		Preparation:	EXT_3510	Dilution:	10

Batch: 4B25014 Sequence: 4C06205 Calibration: 3263001 Instrument: MS-BNA5

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
122-66-7	1,2-Diphenylhydrazine		12.0	24.0	48.1	U
117-81-7	Bis(2-ethylhexyl)phthalate		12.0	24.0	48.1	U
206-44-0	Fluoranthene		12.0	24.0	48.1	U
86-73-7	Fluorene		12.0	24.0	48.1	U
118-74-1	Hexachlorobenzene		12.0	24.0	48.1	U
87-68-3	Hexachlorobutadiene		12.0	24.0	48.1	U
77-47-4	Hexachlorocyclopentadiene		12.0	48.1	96.2	UX
67-72-1	Hexachloroethane		12.0	24.0	48.1	U
193-39-5	Indeno(1,2,3-cd)pyrene		12.0	24.0	48.1	U
78-59-1	Isophorone		12.0	24.0	48.1	U
90-12-0	1-Methylnaphthalene	**12.5**	12.0	24.0	48.1	JD
91-57-6	2-Methylnaphthalene		12.0	24.0	48.1	U
95-48-7	2-Methylphenol		12.0	24.0	48.1	U
108-39-4/106	3-Methylphenol/4-Methylphenol		12.0	24.0	48.1	U
91-20-3	Naphthalene		12.0	24.0	48.1	U
100-01-6	4-Nitroaniline		48.1	96.2	192	U
99-09-2	3-Nitroaniline		48.1	96.2	192	U
88-74-4	2-Nitroaniline		48.1	96.2	192	U
98-95-3	Nitrobenzene		12.0	24.0	48.1	U
100-02-7	4-Nitrophenol		48.1	96.2	192	U
88-75-5	2-Nitrophenol		12.0	24.0	48.1	U
86-30-6	N-Nitrosodiphenylamine		12.0	24.0	48.1	U
621-64-7	N-Nitroso-di-n-propylamine		12.0	24.0	48.1	U
87-86-5	Pentachlorophenol		48.1	96.2	192	U
85-01-8	Phenanthrene		12.0	24.0	48.1	U
108-95-2	Phenol		12.0	24.0	48.1	U
129-00-0	Pyrene		12.0	24.0	48.1	U
88-06-2	2,4,6-Trichlorophenol		12.0	24.0	48.1	U
95-95-4	2,4,5-Trichlorophenol		12.0	24.0	48.1	U

Total Target Analytes Reported: 69

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	48.08	39.83	82.8	50 - 110	
2-Fluorophenol	96.15	29.59	30.8	20 - 110	
Nitrobenzene-d5	48.08	41.06	85.4	40 - 110	
Phenol-d6	96.15	16.27	16.9	0 - 110	
Terphenyl-d14	48.08	40.70	84.7	50 - 135	
2,4,6-Tribromophenol	96.15	89.93	93.5	40 - 125	

ANALYSIS DATA SHEET

GW1488

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-13	File ID:	026R0101.D
Sampled:	02/20/14 13:59	Prepared:	02/26/14 06:36	Analyzed:	02/26/14 23:26
Solids:		Preparation:	EDB	Dilution:	1

Batch: 4B26003 Sequence: 4B05803 Calibration: 4029001 Instrument: GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane [2C]		0.00944	0.0189	0.0283	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane	1.877	0.7746	41.3	55 - 160	*
1,3-Dibromopropane [2C]	1.877	1.269	67.6	55 - 160	

ANALYSIS DATA SHEET

GW1488

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-13	File ID:	021F2101.D
Sampled:	02/20/14 13:59	Prepared:	02/26/14 13:38	Analyzed:	03/04/14 22:36
Solids:		Preparation:	EXT_3510	Dilution:	5

Batch: 4B26017 Sequence: 4C06411 Calibration: 4064002 Instrument: GL-GCFID2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
11-84-7	Diesel Range Organics (C10-C28)	**7.03**	0.500	1.00	2.00	D

Total Target Analytes Reported: 1

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.02000	0.01244	62.2	30 - 140	

ANALYSIS DATA SHEET

GW1488

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-13	File ID:	017F1701.D
Sampled:	02/20/14 13:59	Prepared:	02/24/14 19:31	Analyzed:	02/24/14 19:31
Solids:		Preparation:	8015GRO	Dilution:	10

Batch: 4B24001 Sequence: 4B05605 Calibration: 3305003 Instrument: GL-GCVOA2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
8006-61-9	Gasoline Range Organics (C6-C10)	**2.32**	0.500	1.00	1.50	D

Total Target Analytes Reported: 1

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	0.05000	0.05682	114	50 - 150	

ANALYSIS DATA SHEET

GW1488

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-13
Sampled:	02/20/14 13:59	Received:	02/21/14 08:40

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7440-70-2	Calcium	**95800**	**1000**	2000	5000	1		SW6010B	4B26005	02/28/14 16:22
7439-92-1	Lead		1.50	3.00	3.00	1	U	SW6010B	4B26005	02/28/14 16:22
7439-95-4	Magnesium	**14900**	**1000**	3000	5000	1		SW6010B	4B26005	02/28/14 16:22
7440-09-7	Potassium	**3330**	**1000**	3000	5000	1	J	SW6010B	4B26005	02/28/14 16:22
7440-23-5	Sodium	**39500**	**1000**	3000	5000	1		SW6010B	4B26005	02/28/14 16:22

ANALYSIS DATA SHEET

GW1488

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-14
Sampled:	02/20/14 13:59	Received:	02/21/14 08:40

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7439-89-6	Iron (dissolved)	**1580**	**30.0**	60.0	100	1		SW6010B	4C05014	03/05/14 22:57
7439-96-5	Manganese (dissolved)	**1990**	**3.00**	6.00	15.0	1		SW6010B	4C05014	03/05/14 22:57

ANALYSIS DATA SHEET

GW1488

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_113
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402110-13
Sampled:	02/20/14 13:59	Received:	02/21/14 08:40

CAS NO.	Analyte	Conc. (mg/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7664-41-7	Ammonia as N		0.110	0.150	0.300	1	U	SM4500NH3BG	4C10004	03/12/14 09:40
18496-25-8	Sulfide		0.769	1.92	3.85	1	U	SM4500S2CF	4B26018	02/26/14 14:52
71-52-3	Alkalinity, Bicarbonate (as CACO3)	**253**	**1.00**	1.00	1.00	1		SM2320B	4C04024	03/05/14 14:47
16887-00-6	Chloride	**82.5**	**0.170**	0.330	0.500	1		E300.0	4C04019	03/05/14 11:20
NA	Nitrate/Nitrite as N		0.250	0.750	1.50	1	U	E353.2	4C07003	03/07/14 10:45
3812-32-6	Alkalinity, Carbonate (as CACO3)		1.00	1.00	1.00	1	U	SM2320B	4C04024	03/05/14 14:47
14808-79-8	Sulfate as SO4	**35.4**	**0.330**	1.00	2.00	1		E300.0	4C04019	03/05/14 11:20

1. Name and mailing address of person proposing to discharge:

Victoria Branson
2050 WYOMING BLVD SE
KIRTLAND AFB, NM 87117

Work Phone: 505 846-6362

Cell/Home Phone: N/A

Email: VICTORIA.BRANSON@KIRTLAND.AF.MIL

Fax: 505 853-1647

2. Name of facility:

KIRTLAND AFB, New Mexico

3. Physical location of discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):

Bulk Fuels Facility (BFF) Spill Solid Waste Management Units ST-106 and SS-111, located in Section 36, Township 10 North, Range 3 East.

4. Type of operation generating the discharge (e.g., truck wash, food processing plant, restaurant, etc.):

Sampling of groundwater well KAFB-106094 (Sample ID GW1520) at the BFF Site.

5. Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed:

Water generated from the purging prior to sampling the well and containerized and stored at the BFF site.

6. Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.) Include estimated concentration if known, and copies of results of laboratory analyses, if available:

Exceedance of the EPA MCL or NMWQCC standard noted below. Analytical data report attached.

EDB **(0.328 µg/L) –** exceedance of the EPA MCL of 0.05 µg/L

7. Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., grease interceptor, lagoon, septic tank/leachfield, etc.) Include sizes, site layout map, plans and specifications, etc. if available:

Water collected from the well purging prior to sampling the well.

8. Estimated maximum daily discharge volume in gallons per day (or other units):

Approximately 46 gallons stored in a polyethylene tank.

9. Estimated depth to ground water (ft):

Depth to groundwater is approximately 500 feet bgs at BFF site.

Signature: _____ **Date:** _____

Printed name: _____ **Title:** _____

Please return this form to:
NMED Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

Telephone: 505-827-2900
Fax: 505-827-2965

ANALYSIS DATA SHEET

GW1520

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_112
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402063-19	File ID:	0206319D.D
Sampled:	02/11/14 15:16	Prepared:	02/14/14 19:51	Analyzed:	02/14/14 19:51
Solids:		Preparation:	5030B	Dilution:	2

Batch: 4B14005 Sequence: 4B04805 Calibration: 4035001 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone	**11.8**	5.00	10.0	20.0	JD
71-43-2	Benzene	**0.620**	0.500	1.00	2.00	JD
108-86-1	Bromobenzene		0.500	1.00	2.00	U
74-97-5	Bromochloromethane		0.500	1.00	2.00	U
75-27-4	Bromodichloromethane		0.500	1.00	2.00	U
75-25-2	Bromoform		0.500	1.00	2.00	U
74-83-9	Bromomethane		1.00	2.00	4.00	U
104-51-8	n-Butylbenzene	**0.780**	0.500	1.00	2.00	JD
78-93-3	2-Butanone		5.00	10.0	20.0	U
135-98-8	sec-Butylbenzene	**1.58**	0.500	1.00	2.00	JD
98-06-6	tert-Butylbenzene		0.500	1.00	2.00	U
75-15-0	Carbon disulfide	**1.18**	0.500	1.00	2.00	JD
56-23-5	Carbon tetrachloride		0.500	1.00	2.00	U
108-90-7	Chlorobenzene		0.500	1.00	2.00	U
75-00-3	Chloroethane		1.00	2.00	4.00	U
67-66-3	Chloroform		0.500	1.00	2.00	U
74-87-3	Chloromethane		0.500	1.00	2.00	U
95-49-8	2-Chlorotoluene		0.500	1.00	2.00	U
106-43-4	4-Chlorotoluene		0.500	1.00	2.00	U
124-48-1	Dibromochloromethane		0.500	1.00	2.00	U
96-12-8	1,2-Dibromo-3-chloropropane		1.00	2.00	4.00	U
106-93-4	1,2-Dibromoethane (EDB)		0.500	1.00	2.00	U
74-95-3	Dibromomethane		0.500	1.00	2.00	U
95-50-1	1,2-Dichlorobenzene		0.500	1.00	2.00	U
541-73-1	1,3-Dichlorobenzene		0.500	1.00	2.00	U
106-46-7	1,4-Dichlorobenzene		0.500	1.00	2.00	U
75-71-8	Dichlorodifluoromethane		1.00	2.00	4.00	UX
75-34-3	1,1-Dichloroethane		0.500	1.00	2.00	U
107-06-2	1,2-Dichloroethane	**3.94**	0.500	1.00	2.00	D
75-35-4	1,1-Dichloroethene		0.500	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene		0.500	1.00	2.00	U
156-60-5	trans-1,2-Dichloroethene		0.500	1.00	2.00	U
78-87-5	1,2-Dichloropropane		0.500	1.00	2.00	U
142-28-9	1,3-Dichloropropane		0.500	1.00	2.00	U
594-20-7	2,2-Dichloropropane		0.500	1.00	2.00	U
563-58-6	1,1-Dichloropropene		0.500	1.00	2.00	U
10061-01-5	cis-1,3-Dichloropropene		0.500	1.00	2.00	U
10061-02-6	trans-1,3-Dichloropropene		0.500	1.00	2.00	U
100-41-4	Ethylbenzene	**3.60**	0.500	1.00	2.00	D
87-68-3	Hexachlorobutadiene		0.500	1.00	4.00	U

ANALYSIS DATA SHEET

GW1520

Laboratory:	Empirical Laboratories, LLC		SDG:	Kirtland_112	
Client:	Shaw Environmental, Inc.		Project:	Kirtland AFB 2011	
Matrix:	Water	Laboratory ID:	1402063-19	File ID:	0206319D.D
Sampled:	02/11/14 15:16	Prepared:	02/14/14 19:51	Analyzed:	02/14/14 19:51
Solids:		Preparation:	5030B	Dilution:	2

Batch: 4B14005 Sequence: 4B04805 Calibration: 4035001 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone		2.50	5.00	10.0	U
98-82-8	Isopropylbenzene	**22.8**	0.500	1.00	2.00	D
99-87-6	p-Isopropyltoluene	**1.00**	0.500	1.00	2.00	JD
75-09-2	Methylene chloride		1.00	2.00	4.00	U
91-20-3	Naphthalene	**0.680**	0.500	1.00	4.00	JD
108-10-1	4-Methyl-2-pentanone		2.50	5.00	10.0	U
1634-04-4	Methyl t-Butyl Ether		0.500	1.00	2.00	U
103-65-1	n-Propylbenzene	**6.96**	0.500	1.00	2.00	D
100-42-5	Styrene		0.500	1.00	2.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.500	1.00	2.00	U
630-20-6	1,1,1,2-Tetrachloroethane		0.500	1.00	2.00	U
127-18-4	Tetrachloroethene		0.500	1.00	2.00	U
108-88-3	Toluene		0.500	1.00	2.00	U
87-61-6	1,2,3-Trichlorobenzene		0.500	1.00	4.00	U
120-82-1	1,2,4-Trichlorobenzene		0.500	1.00	4.00	U
79-00-5	1,1,2-Trichloroethane		0.500	1.00	2.00	U
71-55-6	1,1,1-Trichloroethane		0.500	1.00	2.00	U
79-01-6	Trichloroethene		0.500	1.00	2.00	U
75-69-4	Trichlorofluoromethane		1.00	2.00	4.00	U
96-18-4	1,2,3-Trichloropropane		1.00	2.00	4.00	U
108-67-8	1,3,5-Trimethylbenzene	**0.560**	0.500	1.00	2.00	JD
95-63-6	1,2,4-Trimethylbenzene		0.500	1.00	2.00	U
75-01-4	Vinyl chloride		0.500	1.00	2.00	U
1330-20-7	Xylenes (total)		1.50	3.00	6.00	U

Total Target Analytes Reported: 64

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.91	103	75 - 120	
Dibromofluoromethane	30.00	29.60	98.7	85 - 115	
1,2-Dichloroethane-d4	30.00	29.46	98.2	70 - 120	
Toluene-d8	30.00	30.00	100	85 - 120	

ANALYSIS DATA SHEET

GW1520

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_112
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402063-19	File ID:	0206319.D
Sampled:	02/11/14 15:16	Prepared:	02/17/14 10:25	Analyzed:	02/19/14 01:49
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 4B17007 Sequence: 4B05022 Calibration: 3263001 Instrument: MS-BNA5

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
83-32-9	Acenaphthene		1.25	2.50	5.00	U
208-96-8	Acenaphthylene		1.25	2.50	5.00	U
98-86-2	Acetophenone		1.25	2.50	5.00	U
120-12-7	Anthracene		1.25	2.50	5.00	U
1912-24-9	Atrazine		1.25	2.50	5.00	U
100-52-7	Benzaldehyde		1.25	2.50	5.00	U
92-87-5	Benzidine		12.5	50.0	100	UX
56-55-3	Benzo(a)anthracene		1.25	2.50	5.00	U
50-32-8	Benzo(a)pyrene		1.25	2.50	5.00	U
205-99-2	Benzo(b)fluoranthene		1.25	2.50	5.00	U
191-24-2	Benzo(g,h,i)perylene		1.25	2.50	5.00	U
65-85-0	Benzoic acid		12.5	50.0	100	UX
207-08-9	Benzo(k)fluoranthene		1.25	2.50	5.00	U
92-52-4	1,1-Biphenyl		1.25	2.50	5.00	U
101-55-3	4-Bromophenyl-phenylether		1.25	2.50	5.00	U
85-68-7	Butylbenzylphthalate		1.25	2.50	5.00	U
105-60-2	Caprolactam		1.25	2.50	5.00	U
86-74-8	Carbazole		1.25	2.50	5.00	U
59-50-7	4-Chloro-3-methylphenol		1.25	2.50	5.00	U
106-47-8	4-Chloroaniline		1.25	2.50	5.00	U
111-91-1	Bis(2-chloroethoxy)methane		1.25	2.50	5.00	U
111-44-4	Bis(2-chloroethyl)ether		1.25	2.50	5.00	U
108-60-1	2,2'-Oxybis-1-chloropropane		1.25	2.50	5.00	U
91-58-7	2-Chloronaphthalene		1.25	2.50	5.00	U
95-57-8	2-Chlorophenol		1.25	2.50	5.00	U
7005-72-3	4-Chlorophenyl phenyl ether		1.25	2.50	5.00	U
218-01-9	Chrysene		1.25	2.50	5.00	U
53-70-3	Dibenz(a,h)anthracene		1.25	2.50	5.00	U
132-64-9	Dibenzofuran		1.25	2.50	5.00	U
84-74-2	Di-n-butylphthalate		1.25	2.50	5.00	U
91-94-1	3,3'-Dichlorobenzidine		1.25	2.50	5.00	U
120-83-2	2,4-Dichlorophenol		1.25	2.50	5.00	U
84-66-2	Diethylphthalate		1.25	2.50	5.00	U
105-67-9	2,4-Dimethylphenol		5.00	10.0	20.0	U
131-11-3	Dimethyl phthalate		1.25	2.50	5.00	U
534-52-1	4,6-Dinitro-2-methylphenol		5.00	10.0	20.0	U
51-28-5	2,4-Dinitrophenol		8.33	25.0	50.0	UX
121-14-2	2,4-Dinitrotoluene		1.25	2.50	5.00	U
606-20-2	2,6-Dinitrotoluene		1.25	2.50	5.00	U
117-84-0	Di-n-octylphthalate		1.25	2.50	5.00	U

ANALYSIS DATA SHEET

GW1520

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_112
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402063-19	File ID:	0206319.D
Sampled:	02/11/14 15:16	Prepared:	02/17/14 10:25	Analyzed:	02/19/14 01:49
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 4B17007 Sequence: 4B05022 Calibration: 3263001 Instrument: MS-BNA5

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
122-66-7	1,2-Diphenylhydrazine		1.25	2.50	5.00	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.25	2.50	5.00	U
206-44-0	Fluoranthene		1.25	2.50	5.00	U
86-73-7	Fluorene		1.25	2.50	5.00	U
118-74-1	Hexachlorobenzene		1.25	2.50	5.00	U
87-68-3	Hexachlorobutadiene		1.25	2.50	5.00	U
77-47-4	Hexachlorocyclopentadiene		1.25	5.00	10.0	UX
67-72-1	Hexachloroethane		1.25	2.50	5.00	U
193-39-5	Indeno(1,2,3-cd)pyrene		1.25	2.50	5.00	U
78-59-1	Isophorone		1.25	2.50	5.00	U
90-12-0	1-Methylnaphthalene		1.25	2.50	5.00	U
91-57-6	2-Methylnaphthalene		1.25	2.50	5.00	U
95-48-7	2-Methylphenol		1.25	2.50	5.00	U
108-39-4/106	3-Methylphenol/4-Methylphenol		1.25	2.50	5.00	U
91-20-3	Naphthalene		1.25	2.50	5.00	U
100-01-6	4-Nitroaniline		5.00	10.0	20.0	U
99-09-2	3-Nitroaniline		5.00	10.0	20.0	U
88-74-4	2-Nitroaniline		5.00	10.0	20.0	U
98-95-3	Nitrobenzene		1.25	2.50	5.00	U
100-02-7	4-Nitrophenol		5.00	10.0	20.0	U
88-75-5	2-Nitrophenol		1.25	2.50	5.00	U
86-30-6	N-Nitrosodiphenylamine		1.25	2.50	5.00	U
621-64-7	N-Nitroso-di-n-propylamine		1.25	2.50	5.00	U
87-86-5	Pentachlorophenol		5.00	10.0	20.0	U
85-01-8	Phenanthrene		1.25	2.50	5.00	U
108-95-2	Phenol		1.25	2.50	5.00	U
129-00-0	Pyrene		1.25	2.50	5.00	U
88-06-2	2,4,6-Trichlorophenol		1.25	2.50	5.00	U
95-95-4	2,4,5-Trichlorophenol		1.25	2.50	5.00	U

Total Target Analytes Reported: 69

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	50.00	39.58	79.2	50 - 110	
2-Fluorophenol	100.0	32.00	32.0	20 - 110	
Nitrobenzene-d5	50.00	44.95	89.9	40 - 110	
Phenol-d6	100.0	17.98	18.0	0 - 110	
Terphenyl-d14	50.00	45.26	90.5	50 - 135	
2,4,6-Tribromophenol	100.0	98.17	98.2	40 - 125	

ANALYSIS DATA SHEET

GW1520

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_112
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402063-19	File ID:	016F0101.D
Sampled:	02/11/14 15:16	Prepared:	02/18/14 09:06	Analyzed:	02/18/14 20:32
Solids:		Preparation:	EDB	Dilution:	1

Batch: 4B18007 Sequence: 4B05103 Calibration: 4029001 Instrument: GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane	0.328	0.00946	0.0189	0.0284	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane	1.881	1.175	62.5	55 - 160	
1,3-Dibromopropane [2C]	1.881	1.290	68.6	55 - 160	

ANALYSIS DATA SHEET

GW1520

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_112
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402063-19RE1	File ID:	004F0401.D
Sampled:	02/11/14 15:16	Prepared:	02/17/14 14:50	Analyzed:	02/21/14 10:05
Solids:		Preparation:	EXT_3510	Dilution:	5

Batch: 4B17006 Sequence: 4B05502 Calibration: 4034003 Instrument: GL-GCFID2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
11-84-7	Diesel Range Organics (C10-C28)	**5.44**	0.500	1.00	2.00	D

Total Target Analytes Reported: 1

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.02000	0.01744	87.2	30 - 140	

ANALYSIS DATA SHEET

GW1520

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_112
Client:	Shaw Environmental, Inc.			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402063-19	File ID:	016F1601.D
Sampled:	02/11/14 15:16	Prepared:	02/14/14 21:23	Analyzed:	02/14/14 21:23
Solids:		Preparation:	8015GRO	Dilution:	1

Batch: 4B14004 Sequence: 4B04806 Calibration: 3305003 Instrument: GL-GCVOA2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
8006-61-9	Gasoline Range Organics (C6-C10)	**1.35**	0.0500	0.100	0.150	

Total Target Analytes Reported: 1

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	0.05000	0.06873	137	50 - 150	

ANALYSIS DATA SHEET

GW1520

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_112
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402063-19
Sampled:	02/11/14 15:16	Received:	02/12/14 09:00

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7440-70-2	Calcium	**74000**	**1000**	2000	5000	1		SW6010B	4B18003	02/28/14 14:17
7439-92-1	Lead		1.50	3.00	3.00	1	U	SW6010B	4B18003	02/28/14 14:17
7439-95-4	Magnesium	**11400**	**1000**	3000	5000	1		SW6010B	4B18003	02/28/14 14:17
7440-09-7	Potassium	**3130**	**1000**	3000	5000	1	J	SW6010B	4B18003	02/28/14 14:17
7440-23-5	Sodium	**31500**	**1000**	3000	5000	1		SW6010B	4B18003	02/28/14 14:17

ANALYSIS DATA SHEET

GW1520

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_112
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402063-20
Sampled:	02/11/14 15:16	Received:	02/12/14 09:00

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7439-89-6	Iron (dissolved)	**935**	**30.0**	60.0	100	1		SW6010B	4B24003	02/25/14 19:09
7439-96-5	Manganese (dissolved)	**1150**	**3.00**	6.00	15.0	1		SW6010B	4B24003	02/25/14 19:09

ANALYSIS DATA SHEET

GW1520

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_112
Client:	Shaw Environmental, Inc.	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1402063-19
Sampled:	02/11/14 15:16	Received:	02/12/14 09:00

CAS NO.	Analyte	Conc. (mg/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7664-41-7	Ammonia as N		0.110	0.150	0.300	1	U	SM4500NH3BG	4B27003	02/27/14 16:25
18496-25-8	Sulfide		0.702	1.75	3.51	1	U	SM4500S2CF	4B17018	02/17/14 14:02
71-52-3	Alkalinity, Bicarbonate (as CACO3)	**196**	**1.00**	1.00	1.00	1		SM2320B	4B18011	02/19/14 11:29
16887-00-6	Chloride	**42.1**	**0.170**	0.330	0.500	1		E300.0	4B20016	02/20/14 22:24
NA	Nitrate/Nitrite as N		0.250	0.750	1.50	1	U	E353.2	4B24018	02/24/14 16:29
3812-32-6	Alkalinity, Carbonate (as CACO3)		1.00	1.00	1.00	1	U	SM2320B	4B18011	02/19/14 11:29
14808-79-8	Sulfate as SO4	**55.3**	**0.330**	1.00	2.00	1		E300.0	4B20016	02/20/14 22:24

1. Name and mailing address of person proposing to discharge:

Victoria Branson

2050 WYOMING BLVD SE
KIRTLAND AFB, NM 87117

Work Phone: 505 846-6362

Cell/Home Phone: N/A

Fax: 505 853-1647

Email: VICTORIA.BRANSON@KIRTLAND.AF.MIL

2. Name of facility:

KIRTLAND AFB, New Mexico

3. Physical location of discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):

Bulk Fuels Facility (BFF) Spill Solid Waste Management Units ST-106 and SS-111, located in Section 36, Township 10 North, Range 3 East.

4. Type of operation generating the discharge (e.g., truck wash, food processing plant, restaurant, etc.):

Quarterly sampling of groundwater wells at the BFF Site.

5. Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed:

Water generated from the purging prior to sampling the well and containerized and stored at the BFF site. List of wells and volumes which were bulked and sampled as Q1-2014-PW01 is attached.

6. Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.) Include estimated concentration if known, and copies of results of laboratory analyses, if available:

Exceedance of the EPA MCL or NMWQCC standard noted below. Analytical data report attached.

EDB **(0.0644 µg/L)** – exceedance of EPA MCL 0.05 µg/L

7. Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., grease interceptor, lagoon, septic tank/leachfield, etc.) Include sizes, site layout map, plans and specifications, etc. if available:

Water collected from the well purging prior to sampling the well.

8. Estimated maximum daily discharge volume in gallons per day (or other units):

Approximately 1897 gallons stored in a polyethylene tank.

9. Estimated depth to ground water (ft):

Depth to groundwater is approximately 500 feet bgs at BFF site.

Signature: _____ **Date:** _____

Printed name: _____ **Title:** _____

Please return this form to:
NMED Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

Telephone: 505-827-2900
Fax: 505-827-2965

Kirtland AFB Bulk Fuels Facility Spill Project

Purge Water Management for Q1-2014-PW01

Well ID	Volume (gals)
KAFB-3411	42
KAFB-106007	41
KAFB-106011	39
KAFB-106016	40
KAFB-106017	50
KAFB-106018	50
KAFB-106019	48
KAFB-106022	52
KAFB-106024	49
KAFB-106025	55
KAFB-106034	81
KAFB-106035	48
KAFB-106036	57
KAFB-106037	82
KAFB-106038	55
KAFB-106039	54
KAFB-106040	78
KAFB-106055	46
KAFB-106057	55
KAFB-106058	80
KAFB-106060	56
KAFB-106062	122
KAFB-106070	49
KAFB-106071	126
KAFB-106072	63
KAFB-106078	128
KAFB-106088	39
KAFB-106089	55
KAFB-106091	46
KAFB-106092	54
KAFB-106095	57
Total	**1897**

Laboratory Analytical Results Report

Client Sample ID: Q1-2014-PW01 **Sample Collection Date/Time: 03/18/2014 11:00**

Lab Sample ID: 1403143-08 **Sample Received Date/Time: 03/19/2014 09:00**

Sample Matrix: Water

Analyte	Result	DL	LOD	LOQ	Units	Dilution	Analyzed	Method	Batch	Notes
Classical Chemistry Parameters										
Nitrate/Nitrite as N	**0.259**	0.250	0.750	1.50	mg/L	1	03/24/14 13:35	E353.2	4C24028	J
Metals in Water by ICP-AES										
Calcium	**49500**	1000	2000	5000	ug/L	1	03/21/14 20:10	SW6010B	4C20006	
Potassium	**2600**	1000	3000	5000	ug/L	1	03/21/14 20:10	SW6010B	4C20006	J
Lead	ND	1.50	3.00	3.00	ug/L	1	03/21/14 20:10	SW6010B	4C20006	U
Magnesium	**7180**	1000	3000	5000	ug/L	1	03/21/14 20:10	SW6010B	4C20006	
Sodium	**26900**	1000	3000	5000	ug/L	1	03/21/14 20:10	SW6010B	4C20006	
Volatile Organic Compounds by GC/MS										
Acetone	ND	2.50	5.00	10.0	ug/L	1	03/26/14 13:45	SW8260B	4C25012	XU
Benzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Bromobenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Bromochloromethane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Bromodichloromethane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Bromoform	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	XU
Bromomethane	ND	0.500	1.00	2.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
n-Butylbenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
2-Butanone	ND	2.50	5.00	10.0	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
sec-Butylbenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
tert-Butylbenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Carbon disulfide	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Carbon tetrachloride	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Chlorobenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Chloroethane	ND	0.500	1.00	2.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Chloroform	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Chloromethane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
2-Chlorotoluene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
4-Chlorotoluene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Dibromochloromethane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,2-Dibromo-3-chloropropane	ND	0.500	1.00	2.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,2-Dibromoethane (EDB)	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Dibromomethane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,2-Dichlorobenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,3-Dichlorobenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,4-Dichlorobenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Dichlorodifluoromethane	ND	0.500	1.00	2.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,1-Dichloroethane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,2-Dichloroethane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,1-Dichloroethene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
cis-1,2-Dichloroethene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
trans-1,2-Dichloroethene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,2-Dichloropropane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,3-Dichloropropane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U

Laboratory Analytical Results Report

Client Sample ID: Q1-2014-PW01 **Sample Collection Date/Time: 03/18/2014 11:00**

Lab Sample ID: 1403143-08 **Sample Received Date/Time: 03/19/2014 09:00**

Sample Matrix: Water

Analyte	Result	DL	LOD	LOQ	Units	Dilution	Analyzed	Method	Batch	Notes
Volatile Organic Compounds by GC/MS										
2,2-Dichloropropane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,1-Dichloropropene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
cis-1,3-Dichloropropene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
trans-1,3-Dichloropropene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Ethylbenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Hexachlorobutadiene	ND	0.250	0.500	2.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
2-Hexanone	ND	1.25	2.50	5.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Isopropylbenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
p-Isopropyltoluene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Methylene chloride	**2.04**	0.500	1.00	2.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	
Naphthalene	ND	0.250	0.500	2.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
4-Methyl-2-pentanone	ND	1.25	2.50	5.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Methyl t-Butyl Ether	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
n-Propylbenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Styrene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,1,1,2-Tetrachloroethane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Tetrachloroethene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Toluene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,2,3-Trichlorobenzene	ND	0.250	0.500	2.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,2,4-Trichlorobenzene	ND	0.250	0.500	2.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,1,2-Trichloroethane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,1,1-Trichloroethane	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Trichloroethene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Trichlorofluoromethane	ND	0.500	1.00	2.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,2,3-Trichloropropane	ND	0.500	1.00	2.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,3,5-Trimethylbenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
1,2,4-Trimethylbenzene	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Vinyl chloride	ND	0.250	0.500	1.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Xylenes (total)	ND	0.750	1.50	3.00	ug/L	1	03/26/14 13:45	SW8260B	4C25012	U
Surrogate: Bromofluorobenzene				*96.4 %*	*75-120*		*03/26/14 13:45*	*SW8260B*	*4C25012*	
Surrogate: Dibromofluoromethane				*110 %*	*85-115*		*03/26/14 13:45*	*SW8260B*	*4C25012*	
Surrogate: 1,2-Dichloroethane-d4				*103 %*	*70-120*		*03/26/14 13:45*	*SW8260B*	*4C25012*	
Surrogate: Toluene-d8				*99.1 %*	*85-120*		*03/26/14 13:45*	*SW8260B*	*4C25012*	

Laboratory Analytical Results Report

Client Sample ID: Q1-2014-PW01 **Sample Collection Date/Time: 03/18/2014 11:00**

Lab Sample ID: 1403143-08 **Sample Received Date/Time: 03/19/2014 09:00**

Sample Matrix: Water

Analyte	Result	DL	LOD	LOQ	Units	Dilution	Analyzed	Method	Batch	Notes
EDB and DBCP by GC										
1,2-Dibromoethane	**0.0644**	0.00948	0.0190	0.0284	ug/L	1	03/27/14 12:28	SW8011	4C27001	
Surrogate: 1,3-Dibromopropane				*154 %*	*55-160*		*03/27/14 12:28*	*SW8011*	*4C27001*	
Surrogate: 1,3-Dibromopropane [2C]				*149 %*	*55-160*		*03/27/14 12:28*	*SW8011*	*4C27001*	
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Acenaphthylene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Acetophenone	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Anthracene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Atrazine	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Benzaldehyde	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Benzidine	ND	11.8	47.2	94.3	ug/L	1	03/28/14 16:57	SW8270D	4C24033	XU
Benzo(a)anthracene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Benzo(a)pyrene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Benzo(b)fluoranthene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Benzo(g,h,i)perylene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Benzoic acid	ND	11.8	47.2	94.3	ug/L	1	03/28/14 16:57	SW8270D	4C24033	XU
Benzo(k)fluoranthene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
1,1-Biphenyl	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
4-Bromophenyl-phenylether	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Butylbenzylphthalate	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Caprolactam	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	XU
Carbazole	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
4-Chloro-3-methylphenol	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
4-Chloroaniline	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Bis(2-chloroethoxy)methane	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Bis(2-chloroethyl)ether	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
2,2'-Oxybis-1-chloropropane	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
2-Chloronaphthalene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
2-Chlorophenol	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
4-Chlorophenyl phenyl ether	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Chrysene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Dibenz(a,h)anthracene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Dibenzofuran	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Di-n-butylphthalate	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
3,3'-Dichlorobenzidine	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	XU
2,4-Dichlorophenol	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Diethylphthalate	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
2,4-Dimethylphenol	ND	4.72	9.43	18.9	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Dimethyl phthalate	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
4,6-Dinitro-2-methylphenol	ND	4.72	9.43	18.9	ug/L	1	03/28/14 16:57	SW8270D	4C24033	XU
2,4-Dinitrophenol	ND	7.86	23.6	47.2	ug/L	1	03/28/14 16:57	SW8270D	4C24033	XU
2,4-Dinitrotoluene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
2,6-Dinitrotoluene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U

Laboratory Analytical Results Report

Client Sample ID: Q1-2014-PW01 **Sample Collection Date/Time: 03/18/2014 11:00**

Lab Sample ID: 1403143-08 **Sample Received Date/Time: 03/19/2014 09:00**

Sample Matrix: Water

Analyte	Result	DL	LOD	LOQ	Units	Dilution	Analyzed	Method	Batch	Notes
Semivolatile Organic Compounds by GC/MS										
Di-n-octylphthalate	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
1,2-Diphenylhydrazine	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Bis(2-ethylhexyl)phthalate	**3.26**	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	JB
Fluoranthene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Fluorene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Hexachlorobenzene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Hexachlorobutadiene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Hexachlorocyclopentadiene	ND	1.18	4.72	9.43	ug/L	1	03/28/14 16:57	SW8270D	4C24033	XU
Hexachloroethane	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Indeno(1,2,3-cd)pyrene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Isophorone	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
1-Methylnaphthalene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
2-Methylnaphthalene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
2-Methylphenol	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
3-Methylphenol/4-Methylphenol	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Naphthalene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
4-Nitroaniline	ND	4.72	9.43	18.9	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
3-Nitroaniline	ND	4.72	9.43	18.9	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
2-Nitroaniline	ND	4.72	9.43	18.9	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Nitrobenzene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
4-Nitrophenol	ND	4.72	9.43	18.9	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
2-Nitrophenol	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
N-Nitrosodiphenylamine	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
N-Nitroso-di-n-propylamine	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Pentachlorophenol	ND	4.72	9.43	18.9	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Phenanthrene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Phenol	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Pyrene	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
2,4,6-Trichlorophenol	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
2,4,5-Trichlorophenol	ND	1.18	2.36	4.72	ug/L	1	03/28/14 16:57	SW8270D	4C24033	U
Surrogate: 2-Fluorobiphenyl				*82.8 %*	*50-110*		*03/28/14 16:57*	*SW8270D*	*4C24033*	
Surrogate: 2-Fluorophenol				*35.0 %*	*20-110*		*03/28/14 16:57*	*SW8270D*	*4C24033*	
Surrogate: Nitrobenzene-d5				*89.2 %*	*40-110*		*03/28/14 16:57*	*SW8270D*	*4C24033*	
Surrogate: Phenol-d6				*19.9 %*	*0-110*		*03/28/14 16:57*	*SW8270D*	*4C24033*	
Surrogate: Terphenyl-d14				*97.3 %*	*50-135*		*03/28/14 16:57*	*SW8270D*	*4C24033*	
Surrogate: 2,4,6-Tribromophenol				*106 %*	*40-125*		*03/28/14 16:57*	*SW8270D*	*4C24033*	X

Laboratory Analytical Results Report

Client Sample ID: Q1-2014-PW01

Sample Collection Date/Time: 03/18/2014 11:00

Lab Sample ID: 1403143-09

Sample Received Date/Time: 03/19/2014 09:00

Sample Matrix: Water

Analyte	Result	DL	LOD	LOQ	Units	Dilution	Analyzed	Method	Batch	Notes
Metals (Dissolved) by ICP										
Iron	ND	30.0	60.0	100	ug/L	1	04/07/14 13:02	SW6010B	4D04007	U
Manganese	**15.3**	3.00	6.00	15.0	ug/L	1	04/07/14 13:02	SW6010B	4D04007	

1. Name and mailing address of person proposing to discharge:

Victoria Branson

2050 WYOMING BLVD SE
KIRTLAND AFB, NM 87117

Work Phone: 505 846-6362

Cell/Home Phone: N/A

Fax: 505 853-1647

Email: VICTORIA.BRANSON@KIRTLAND.AF.MIL

2. Name of facility:

KIRTLAND AFB, New Mexico

3. Physical location of discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):

Bulk Fuels Facility (BFF) Spill Solid Waste Management Units ST-106 and SS-111, located in Section 36, Township 10 North, Range 3 East.

4. Type of operation generating the discharge (e.g., truck wash, food processing plant, restaurant, etc.):

Quarterly sampling of groundwater wells at the BFF Site.

5. Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed:

Water generated from the purging prior to sampling the well and containerized and stored at the BFF site. List of wells and volumes which were bulked and sampled as Q1-2014-PW02 is attached.

6. Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.) Include estimated concentration if known, and copies of results of laboratory analyses, if available:

Exceedance of the EPA MCL or NMWQCC standard noted below. Analytical data report attached.

Methylene chloride **(7.57 µg/L)** – exceedance of EPA MCL 5.0 µg/L

7. Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., grease interceptor, lagoon, septic tank/leachfield, etc.) Include sizes, site layout map, plans and specifications, etc. if available:

Water collected from the well purging prior to sampling the well.

8. Estimated maximum daily discharge volume in gallons per day (or other units):

Approximately 976 gallons stored in a polyethylene tank.

9. Estimated depth to ground water (ft):

Depth to groundwater is approximately 500 feet bgs at BFF site.

Signature: _____ **Date:** _____

Printed name: _____ **Title:** _____

Please return this form to:
NMED Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

Telephone: 505-827-2900
Fax: 505-827-2965

Kirtland AFB Bulk Fuels Facility Spill Project

Purge Water Management for Q1-2014-PW02

Well ID	Volume (gals)
KAFB-106021	40
KAFB-106042	40
KAFB-106046	44
KAFB-106047	57
KAFB-106048	82
KAFB-106061	128
KAFB-106067	43
KAFB-106069	57
KAFB-106073	57
KAFB-106075	48
KAFB-106077	56
KAFB-106081	121
KAFB-106082	43
KAFB-106083	59
KAFB-106085	45
KAFB-106086	56
Total	**976**

Laboratory Analytical Results Report

Client Sample ID: Q1-2014-PW02 **Sample Collection Date/Time: 03/18/2014 10:30**

Lab Sample ID: 1403143-10 **Sample Received Date/Time: 03/19/2014 09:00**

Sample Matrix: Water

Analyte	Result	DL	LOD	LOQ	Units	Dilution	Analyzed	Method	Batch	Notes
Classical Chemistry Parameters										
Nitrate/Nitrite as N	ND	0.250	0.750	1.50	mg/L	1	03/24/14 13:36	E353.2	4C24028	U
Metals in Water by ICP-AES										
Calcium	**51900**	1000	2000	5000	ug/L	1	03/21/14 20:31	SW6010B	4C20006	N
Potassium	**3060**	1000	3000	5000	ug/L	1	03/21/14 20:31	SW6010B	4C20006	J
Lead	ND	1.50	3.00	3.00	ug/L	1	03/21/14 20:31	SW6010B	4C20006	U
Magnesium	**7320**	1000	3000	5000	ug/L	1	03/21/14 20:31	SW6010B	4C20006	
Sodium	**30400**	1000	3000	5000	ug/L	1	03/21/14 20:31	SW6010B	4C20006	N
Volatile Organic Compounds by GC/MS										
Acetone	ND	2.50	5.00	10.0	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Benzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Bromobenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Bromochloromethane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Bromodichloromethane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Bromoform	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	XU
Bromomethane	ND	0.500	1.00	2.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
n-Butylbenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
2-Butanone	ND	2.50	5.00	10.0	ug/L	1	04/01/14 13:02	SW8260B	4D01007	YU
sec-Butylbenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
tert-Butylbenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Carbon disulfide	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Carbon tetrachloride	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Chlorobenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Chloroethane	ND	0.500	1.00	2.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Chloroform	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Chloromethane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	YU
2-Chlorotoluene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
4-Chlorotoluene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Dibromochloromethane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,2-Dibromo-3-chloropropane	ND	0.500	1.00	2.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,2-Dibromoethane (EDB)	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Dibromomethane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,2-Dichlorobenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,3-Dichlorobenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,4-Dichlorobenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Dichlorodifluoromethane	ND	0.500	1.00	2.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,1-Dichloroethane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,2-Dichloroethane	**0.251**	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	J
1,1-Dichloroethene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
cis-1,2-Dichloroethene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
trans-1,2-Dichloroethene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,2-Dichloropropane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,3-Dichloropropane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U

Laboratory Analytical Results Report

Client Sample ID: Q1-2014-PW02 **Sample Collection Date/Time: 03/18/2014 10:30**

Lab Sample ID: 1403143-10 **Sample Received Date/Time: 03/19/2014 09:00**

Sample Matrix: Water

Analyte	Result	DL	LOD	LOQ	Units	Dilution	Analyzed	Method	Batch	Notes
Volatile Organic Compounds by GC/MS										
2,2-Dichloropropane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,1-Dichloropropene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
cis-1,3-Dichloropropene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
trans-1,3-Dichloropropene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Ethylbenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Hexachlorobutadiene	**0.259**	0.250	0.500	2.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	JB
2-Hexanone	ND	1.25	2.50	5.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Isopropylbenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
p-Isopropyltoluene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Methylene chloride	**7.57**	0.500	1.00	2.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	
Naphthalene	ND	0.250	0.500	2.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
4-Methyl-2-pentanone	ND	1.25	2.50	5.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Methyl t-Butyl Ether	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
n-Propylbenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Styrene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,1,1,2-Tetrachloroethane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Tetrachloroethene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Toluene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,2,3-Trichlorobenzene	ND	0.250	0.500	2.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,2,4-Trichlorobenzene	ND	0.250	0.500	2.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,1,2-Trichloroethane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,1,1-Trichloroethane	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Trichloroethene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Trichlorofluoromethane	ND	0.500	1.00	2.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,2,3-Trichloropropane	ND	0.500	1.00	2.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,3,5-Trimethylbenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
1,2,4-Trimethylbenzene	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Vinyl chloride	ND	0.250	0.500	1.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Xylenes (total)	ND	0.750	1.50	3.00	ug/L	1	04/01/14 13:02	SW8260B	4D01007	U
Surrogate: Bromofluorobenzene				*99.2 %*	*75-120*		*04/01/14 13:02*	*SW8260B*	*4D01007*	
Surrogate: Dibromofluoromethane				*101 %*	*85-115*		*04/01/14 13:02*	*SW8260B*	*4D01007*	
Surrogate: 1,2-Dichloroethane-d4				*94.5 %*	*70-120*		*04/01/14 13:02*	*SW8260B*	*4D01007*	
Surrogate: Toluene-d8				*100 %*	*85-120*		*04/01/14 13:02*	*SW8260B*	*4D01007*	

Laboratory Analytical Results Report

Client Sample ID: Q1-2014-PW02 **Sample Collection Date/Time: 03/18/2014 10:30**

Lab Sample ID: 1403143-10 **Sample Received Date/Time: 03/19/2014 09:00**

Sample Matrix: Water

Analyte	Result	DL	LOD	LOQ	Units	Dilution	Analyzed	Method	Batch	Notes
EDB and DBCP by GC										
1,2-Dibromoethane	**0.0440**	0.00937	0.0187	0.0281	ug/L	1	03/27/14 12:49	SW8011	4C27001	P
Surrogate: 1,3-Dibromopropane				*125 %*	*55-160*		*03/27/14 12:49*	*SW8011*	*4C27001*	
Surrogate: 1,3-Dibromopropane [2C]				*122 %*	*55-160*		*03/27/14 12:49*	*SW8011*	*4C27001*	
Semivolatile Organic Compounds by GC/MS										
Acenaphthene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Acenaphthylene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Acetophenone	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Anthracene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Atrazine	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Benzaldehyde	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Benzidine	ND	12.0	48.1	96.2	ug/L	1	03/31/14 19:39	SW8270D	4C24033	XU
Benzo(a)anthracene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Benzo(a)pyrene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Benzo(b)fluoranthene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Benzo(g,h,i)perylene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Benzoic acid	ND	12.0	48.1	96.2	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Benzo(k)fluoranthene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
1,1-Biphenyl	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
4-Bromophenyl-phenylether	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Butylbenzylphthalate	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Caprolactam	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Carbazole	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
4-Chloro-3-methylphenol	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
4-Chloroaniline	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Bis(2-chloroethoxy)methane	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Bis(2-chloroethyl)ether	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
2,2'-Oxybis-1-chloropropane	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
2-Chloronaphthalene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
2-Chlorophenol	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
4-Chlorophenyl phenyl ether	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Chrysene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Dibenz(a,h)anthracene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Dibenzofuran	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Di-n-butylphthalate	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
3,3'-Dichlorobenzidine	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
2,4-Dichlorophenol	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Diethylphthalate	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
2,4-Dimethylphenol	ND	4.81	9.62	19.2	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Dimethyl phthalate	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
4,6-Dinitro-2-methylphenol	ND	4.81	9.62	19.2	ug/L	1	03/31/14 19:39	SW8270D	4C24033	XU
2,4-Dinitrophenol	ND	8.01	24.0	48.1	ug/L	1	03/31/14 19:39	SW8270D	4C24033	XU
2,4-Dinitrotoluene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
2,6-Dinitrotoluene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U

Laboratory Analytical Results Report

Client Sample ID: Q1-2014-PW02 **Sample Collection Date/Time: 03/18/2014 10:30**

Lab Sample ID: 1403143-10 **Sample Received Date/Time: 03/19/2014 09:00**

Sample Matrix: Water

Analyte	Result	DL	LOD	LOQ	Units	Dilution	Analyzed	Method	Batch	Notes
Semivolatile Organic Compounds by GC/MS										
Di-n-octylphthalate	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
1,2-Diphenylhydrazine	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Bis(2-ethylhexyl)phthalate	**3.17**	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	JB
Fluoranthene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Fluorene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Hexachlorobenzene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Hexachlorobutadiene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Hexachlorocyclopentadiene	ND	1.20	4.81	9.62	ug/L	1	03/31/14 19:39	SW8270D	4C24033	XU
Hexachloroethane	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Indeno(1,2,3-cd)pyrene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Isophorone	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
1-Methylnaphthalene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
2-Methylnaphthalene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
2-Methylphenol	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
3-Methylphenol/4-Methylphenol	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Naphthalene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
4-Nitroaniline	ND	4.81	9.62	19.2	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
3-Nitroaniline	ND	4.81	9.62	19.2	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
2-Nitroaniline	ND	4.81	9.62	19.2	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Nitrobenzene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
4-Nitrophenol	ND	4.81	9.62	19.2	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
2-Nitrophenol	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
N-Nitrosodiphenylamine	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
N-Nitroso-di-n-propylamine	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Pentachlorophenol	ND	4.81	9.62	19.2	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Phenanthrene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Phenol	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Pyrene	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
2,4,6-Trichlorophenol	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
2,4,5-Trichlorophenol	ND	1.20	2.40	4.81	ug/L	1	03/31/14 19:39	SW8270D	4C24033	U
Surrogate: 2-Fluorobiphenyl				*83.2 %*	*50-110*		*03/31/14 19:39*	*SW8270D*	*4C24033*	
Surrogate: 2-Fluorophenol				*29.0 %*	*20-110*		*03/31/14 19:39*	*SW8270D*	*4C24033*	
Surrogate: Nitrobenzene-d5				*91.8 %*	*40-110*		*03/31/14 19:39*	*SW8270D*	*4C24033*	
Surrogate: Phenol-d6				*17.2 %*	*0-110*		*03/31/14 19:39*	*SW8270D*	*4C24033*	
Surrogate: Terphenyl-d14				*99.4 %*	*50-135*		*03/31/14 19:39*	*SW8270D*	*4C24033*	
Surrogate: 2,4,6-Tribromophenol				*94.2 %*	*40-125*		*03/31/14 19:39*	*SW8270D*	*4C24033*	

Laboratory Analytical Results Report

Client Sample ID: Q1-2014-PW02

Sample Collection Date/Time: 03/18/2014 10:30

Lab Sample ID: 1403143-11

Sample Received Date/Time: 03/19/2014 09:00

Sample Matrix: Water

Analyte	Result	DL	LOD	LOQ	Units	Dilution	Analyzed	Method	Batch	Notes
Metals (Dissolved) by ICP										
Iron	**57.5**	30.0	60.0	100	ug/L	1	04/07/14 13:06	SW6010B	4D04007	J
Manganese	**106**	3.00	6.00	15.0	ug/L	1	04/07/14 13:06	SW6010B	4D04007	