

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

190c+20

Colonel Ryan S. Nye Vice Commander 377th Air Base Wing 2000 Wyoming Blvd SE Kirtland Air Force Base, New Mexico 87117

Kevin Pierard Hazardous Waste Bureau New Mexico Environment Department Harold Runnels Building 1190 St. Francis Drive, Suite N2050 Santa Fe, New Mexico 87502

Dear Mr. Pierard:

This report is submitted pursuant to the reporting requirements in Resource Conservation and Recovery Act Permit NM9570024423 (RCRA Permit), Part 1.27 (1) for a water release at the groundwater treatment system (GWTS) associated with the Bulk Fuels Facility Interim Measure at Kirtland Air Force Base (AFB). Verbal notification was made by Kirtland AFB via voice mail within 24 hours of the release to Mr. Stephen Connolly of the New Mexico Environment Department (NMED) at approximately 4:20 p.m. on October 6, 2020, in accordance with the RCRA Permit. A follow-up email notification from Kirtland AFB was sent to Mr. Connolly on October 6, 2020 at 4:57 p.m. (Attachment 1). The release occurred due to a failure to shut down extraction wells KAFB-106233 and KAFB-106234 during a power outage. These extraction wells are part of an Interim Measure under Kirtland AFB's RCRA Permit. The objectives of this Interim Measure are to collapse and treat the dissolved-phase ethylene dibromide (EDB) plume that extends north of Ridgecrest Drive Southeast (SE). Currently, only residual concentrations of EDB are present within the plume, particularly in the vicinity of wells KAFB-106233 and KAFB-106234 (Attachment 2, Figure 1).

The U.S. Air Force Contacted Mr. Dave Cobrain, Program Manager, NMED Hazardous Waste Bureau, to request an extension for the submittal of the 15-day reporting required in RCRA Permit Section 1.27 (2). The extension request was approved by NMED via email on October 8, 2020 at 11:33 a.m. (Attachment 1). The time on target date for submission of the report to NMED is October 20, 2020. As detailed below, based upon the absence of EDB and benzene, ethylbenzene, toluene, and total xylenes (BTEX), the depth to groundwater (approximately 450 feet below ground surface), and the fact that there are no surface waters in the area of the release, there is no reasonable potential for the accidental release due to equipment failure to injure or be detrimental to human health, animal or plant life, or property or unreasonably interfere with public welfare or use of property.

RELEASE BACKGROUND

GWTS personnel received a call from the Kirtland AFB fire department notifying them that water was observed in the vicinity of the GWTS building at approximately 11:30 p.m. on October 5, 2020. At that time, GWTS personnel mobilized and, upon arrival, discovered the overflow of the Train 1 influent tank inside the building. Personnel manually shut down the KAFB-106233 and KAFB-106234 extraction well

pumps in the well control house at approximately 11:45 p.m. Water within the building and the external sump was processed through the treatment system in manual mode. A photo log is included as Attachment 3.

An assessment of the system indicated that the uninterrupted power supply failed at the GWTS plant when a power outage occurred between approximately 6:45 and 9:00 p.m. on Monday, October 5, 2020. When the power outage occurred, Train 2 extraction wells KAFB-106228 and KAFB-106239 shut off automatically because they are wired directly into the control panel. Train 1 extraction wells KAFB-106233 and KAFB-106234, however, continued to pump extracted water to the GWTS, which had shut down because they are on a separate power supply than the GWTS. Water then overflowed the Train 1 influent tank. Although some of the overflow water was contained within the building and associated sumps, excess water was released onto the adjacent street and into a nearby stormwater drain that discharged to a nearby ditch to the northwest of the GWTS. All released water remained on Kirtland AFB.

The release occurred at the GWTS building located at the southeast corner of the intersection between Perimeter Circle SE and Ridgecrest Drive SE on Kirtland AFB. The release was mapped out on the morning of October 6, 2020 by personnel who walked the area and noted the wet areas on an aerial photograph. The released water primarily flowed to the west to Perimeter Circle SE then north to Ridgecrest Drive SE (Attachment 2 Figures 2 and 3). Some of the water flowed north along Ridgecrest Drive SE to the intersection with Conner Avenue SE. The majority of the release flowed southwest along Ridgecrest Drive SE then west into a storm drain that discharged to a nearby ditch and along a drainage pathway on the north side of Randolph Road SE. The released water terminated approximately 2,140 feet west of Ridgecrest Drive SE (Attachment 2, Figure 2). Based on the approximate flow rate of Train 1 and the estimated time period that the release could have occurred, it is estimated that between 38,000 and 83,000 total gallons of water could potentially have been released.

The water that was released is from extraction wells that are located outside of the distal EDB plume (Attachment 2, Figure 1). The extraction wells for the Interim Measure are regularly sampled and analyzed for EDB and BTEX. Analytical data from KAFB-106233 and KAFB-106234 indicate that EDB concentrations in these wells have been below the U.S. Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) of 0.05 micrograms per liter (μ g/L) since January 2019 (Attachment 4, Table 1). Concentrations of BTEX have not been detected in these wells since March 2017. In addition, the treatment trains are sampled monthly. Concentrations of EDB in Train 1 have been below the reporting limit (0.019 μ g/L) or not detected since May 2019, and been below the EPA MCL since September 2017 (Attachment 4, Table 2).

SAMPLE COLLECTION

On October 6, 2020, 14 surface soil samples were collected along the release pathways at approximate depths ranging from 0 to 3 inches to assess potential EDB concentrations in the soil (Attachment 2, Figures 2 and 3). Five of the samples were also analyzed for BTEX, iron, and manganese (potential constituents of concern identified for treatment at the GWTS). The samples were analyzed in accordance with EPA Methods SW8260B (volatile organic compounds), SW8011/504.1 modified (EDB), and SW6010B (iron and manganese). One grab water sample was also collected from standing water at the outflow of the culvert located along Ridgecrest Drive SE. The sample was analyzed for EDB by EPA Method SW8011. The analytical laboratory selected (Hall Environmental Analysis Laboratory in Albuquerque, New Mexico) was able to provide EDB and BTEX results on a 2-day turnaround time.

A second round of soil samples was collected on October 13, 2020 from the same locations as the October 6, 2020 samples. The second set of samples was submitted to Eurofins TestAmerica in Arvada, Colorado. Eurofins TestAmerica is a Department of Defense Environmental Laboratory Accreditation Program-certified laboratory and can provide all of the requirements listed in Section 6.5.18.1 of the RCRA Permit. This laboratory was unable to provide the rush turn-around time required to meet the 15-day reporting requirement. The results of this sampling event will be provided in an addendum to this report once the data become available.

LABORATORY ANALYTICAL RESULTS

Results of the soil sample analyses are provided in the analytical results tables (Attachment 4, Table 3) and the analytical report is provided in Attachment 5. Analytical results for the soil samples were reported as non-detect for EDB and BTEX. Iron concentrations ranged from 6,700 to 8,600 milligrams per kilogram and manganese concentrations ranged from 70 to 90 milligrams per kilogram. All iron and manganese concentrations were below the regional screening levels. The water sample result was also reported as non-detect for EDB (Attachment 4, Table 4).

Based on these results, the absence of EDB and BTEX, the depth to groundwater (approximately 450 feet below ground surface), there are no surface waters in the area of the release, there is no reasonable potential for the discharge to injure or be detrimental to human health, animal or plant life, or property or unreasonably interfere with public welfare or use of property, the U.S. Air Force is requesting that no further action be required.

A document certification page is included as Attachment 6. If you have any questions or concerns, please contact Mr. Sheen Kottkamp at commercial line 505-846-7674 or email sheen.kottkamp.1@us.af.mil.

Sincerely,

Ry S me

RYAN S. NYE, Colonel, USAF Vice Commander

Attachments:

Attachment 1 – Notification Emails Attachment 2 – Figures Attachment 3 – Photo Log Attachment 4 – Analytical Data Tables Attachment 5 – Laboratory Analytical Reports Attachment 6 – Document Certification Page

cc:

NMED HWB (Cobrain), letter NMED GWQB (Pullen), letter SAF-IEE (Lynnes), electronic only AFCEC/CZ (Renaghan, Clark, Kottkamp, Segura, Cash), electronic only USACE-ABQ District Office (Moayyad, Phaneuf, Kunkel, Dreeland, Cordova, Lovato), electronic only Public Info Repository, Administrative Record/Information Repository (AR/IR) and File Attachment 1

Notification Emails

Brandon, Alan

From:	KOTTKAMP, SHEEN T GS-13 USAF AFCEC AFCEC/CZOW <sheen.kottkamp.1@us.af.mil></sheen.kottkamp.1@us.af.mil>
Sent:	Wednesday, October 7, 2020 10:11 AM
То:	Dreeland, Linda E CIV USARMY CESPA (USA); Moayyad, Behnaum CIV USARMY CESPA (USA)
Subject:	FW: 24- Hour Oral Notification

See below. Sheen

From: SEGURA, CHRISTOPHER G GS-14 USAF AFCEC/CZO <christopher.segura.2@us.af.mil> Sent: Tuesday, October 6, 2020 4:57 PM To: stephen.Connolly@state.nm.us Cc: KOTTKAMP, SHEEN T GS-13 USAF AFCEC AFCEC/CZOW <sheen.kottkamp.1@us.af.mil> Subject: 24- Hour Oral Notification

Sir,

In accordance with the Kirtland Air Force Base Hazardous Waste Permit and pursuant to NMAC 20.6.2.1203, a voice message was left on your office line at approximately 1620 to notify you of a discharge from the Bulk Fuels Facility Groundwater Treatment System. The oral notification provided meets the 24-hour condition contained in both the permit and the NMAC. Please note that an additional notification was made to the environmental emergency line communicating the discharge at approximately 1700. A follow-on report will be provided in accordance with the permit conditions and NMAC. However, the permit states that a 5-day written report is required, while the NMAC states the report is required within one week. At your earliest convenience, could you please clarify what condition applies to the release?

If you have any questions or concerns, please feel free to contact me at your earliest convenience.

V/R

Chris G. Segura, GS-14, DAF Chief, Kirtland Installation Support Section Air Force Civil Engineer Center DSN 263-5443 Comm (505) 853-5443

Bockisch, Bernard

From:	KOTTKAMP, SHEEN T GS-13 USAF AFCEC AFCEC/CZOW <sheen.kottkamp.1@us.af.mil></sheen.kottkamp.1@us.af.mil>
Sent:	Thursday, October 8, 2020 11:40 AM
То:	Behnaum.Moayyad (Behnaum.Moayyad@usace.army.mil); Phaneuf, Mark J SPA; Phil Lovato; Dreeland, Linda E CIV USARMY CESPA (USA);
	Bockisch, Bernard
Cc:	LYNNES, KATHRYN D HQE USAF AFGSC 377 MSG/SAF/IEE; SEGURA, CHRISTOPHER G GS-14 USAF AFCEC/CZO; WORTMAN, RYAN J GS-13
	USAF AFCEC AFCEC/CZO; CASH, CYNTHIA J GS-13 USAF AFMC AFCEC/CZRX
Subject:	FW: GWTS Release Reporting Extension Request

FYI and file. Sheen

From: KOTTKAMP, SHEEN T GS-13 USAF AFCEC AFCEC/CZOW Sent: Thursday, October 8, 2020 11:37 AM To: Cobrain, Dave, NMENV <dave.cobrain@state.nm.us> Subject: RE: GWTS Release Reporting Extension Request

Thank you Sir. Sheen

From: Cobrain, Dave, NMENV <<u>dave.cobrain@state.nm.us</u>>
Sent: Thursday, October 8, 2020 11:33 AM
To: KOTTKAMP, SHEEN T GS-13 USAF AFCEC AFCEC/CZOW <<u>sheen.kottkamp.1@us.af.mil</u>>; Pierard, Kevin, NMENV <<u>Kevin.Pierard@state.nm.us</u>>
Subject: [Non-DoD Source] RE: GWTS Release Reporting Extension Request

Sheen,

In accordance with Permit Section 1.27 Item 2, your request is hereby approved. The report summarizing the release and related response action conducted at the Groundwater Treatment System must be submitted no later than October 20, 2020.

Dave Cobrain New Mexico Environment Department Hazardous Waste Bureau 2905 Rodeo Park Drive East Bldg 1 Santa Fe, NM 87505-6313 Main Office Phone 505-476-6000 Direct Line 505-476-6055 Fax 505-476-6030 From: KOTTKAMP, SHEEN T GS-13 USAF AFCEC AFCEC/CZOW <<u>sheen.kottkamp.1@us.af.mil</u>>
Sent: Thursday, October 8, 2020 11:21 AM
To: Pierard, Kevin, NMENV <<u>Kevin.Pierard@state.nm.us</u>>; Cobrain, Dave, NMENV <<u>dave.cobrain@state.nm.us</u>>;
Subject: [EXT] GWTS Release Reporting Extension Request

Good morning gentlemen. In accordance with the Kirtland AFB Resource Conservation and Recovery Act Permit NM9570024423, Section 1.27, I am formally requesting a 15 day extension request regarding the release of influent water from the Kirtland bulk fuels facility ground water treatment system that occurred Monday October 5th 2020. The request will allow for adequate time to receive the analytical data from sampling of media, compiling the report, and staffing the report for Wing CC signature. Upon approval of the request, Kirtland AFB will submit the written report to the New Mexico Environment Department October 20th 2020 meeting the requirements as specified in Section 1.27 of the permit. Thank you.

Respectfully,

Sheen T. Kottkamp GS-13 Environmental Program Manager/Scientist Kirtland ISS, AFCEC/CZO 505-846-7674 DSN 246-7674 Cell 806-463-0811 Attachment 2

Figures



C:\Users\ecarpio\Desktop\WORKING PROJECT FILES\KAFB_LOCAL_GIS\MXD\GWTS_SPILL_REPORT\1_GWTS_SPILL_REPORT_LOCATION.mxd 10/9/2020 EA ecarpio





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Attachment 3

Photo Log



Location: Looking South at stormwater drain. Date: 10/6/2020

Direction: South



Location: Looking west at outflow along Ridgecrest Drive SE Date: 10/6/2020

Direction: West



Looking north at Perimeter Circle SE from Ridgecrest Drive SE. Date: 10/6/2020

Direction: North



Description: Looking east along a portion of the release pathway. Date: 10/6/2020

Direction: East



Description: Looking east at the end of the release pathway. Date: 10/6/2020

Direction: East

Attachment 4

Analytical Data Tables

					Well	Location ID:	KA	FB-1062	33	KA	FB-1062	33	KA	FB-1062	33
					S	ample Date:	GW	233-042	517	G	W233-17	'3	G	N233-18	33
					Field	I Sample ID:	4	/25/2017	7	7	/27/2017	7	7	/18/2018	3
					Sa	ample Type:		REG			REG			REG	
			NMAC	b		Project Screening		Val			Val			Val	
Parameter	Analytical Method	Analyte	NMWQCCª	EPA MCL [®]	EPA RSL°	Level ^u	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	0.090		0.019	0.048		0.019	0.034		0.019
BTEX	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	1				ND	U	1
		Ethylbenzene	750	700	15	700	ND	U	1				ND	U	1
		Toluene	1,000	1,000	1,100	1,000	ND	U	1				ND	U	1
		Xylenes, total	620	10,000	190	620	ND	U	1				ND	U	1
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS									
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.200				ND	U	0.100
		Magnesium	NS	NS	NS	NS									
		Manganese, dissolved	0.2	NS	NS	0.2	0.0318		0.0050				ND	U	0.0025
		Potassium	NS	NS	NS	NS									
		Sodium	NS	NS NS I		NS									
	Method SW6020A (mg/L)	Arsenic	0.01	.01 0.01 0.00052		0.01									
		Lead	0.015	0.015	0.015	0.015									

				Well Location ID:			KA	FB-1062	33	KA	FB-1062	33	KA	FB-1062	34	KA	FB-1062	34
					S	ample Date:	G	N233-19)1	G	N233-20	1	Gl	N234-17	'1	G	V234-17	3
					Field	Sample ID:	1	/24/2019)	1	/14/2020)		3/2/2017		7	/27/2017	
					Sa	ample Type:		REG			REG			REG			REG	
			NMAC			Project Screening		Val			Val			Val			Val	
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	0.013	J	0.019	ND	U	0.019	0.085		0.019	0.064		0.019
BTEX	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	1			
		Ethylbenzene	750	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	1			
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	1			
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	1			
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	51.8		0.1	61.5		0.150						
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.1	ND	U	0.103	ND	U	0.2			
		Magnesium	NS	NS	NS	NS	7.07		0.05	9.10		0.0751						
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0025	ND	U	0.0052	ND	U	0.005			
		Potassium	NS	NS	NS	NS	2.77		0.375	2.89		0.375						
		Sodium	NS	NS	NS	NS	26.3		0.5	29.1		0.500						
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00099	J	0.0016	0.0011	J	0.0016						
		Lead	0.015	0.015	0.015	0.015	ND	U	0.0024	0.0016		0.00025						

				Well Location ID:			KA	FB-1062	34	KA	FB-1062	34	KA	FB-1062	34	KA	FB-1062	34
					S	ample Date:	G	W234-18	33	G	N234-19	1	GW	234-062´	19	G	N234-20)1
					Field	Sample ID:	7	7/18/2018	3	1	/24/2019		6	/21/2019		1	/14/2020)
					Sa	ample Type:		REG			REG			REG			REG	
			NMAC			Project Screening		Val			Val			Val			Val	
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	0.050		0.019	0.022	J	0.019	0.023	J	0.019	0.017	J	0.019
BTEX	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	1	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	750	700	15	700	ND	U	1	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Toluene	1,000	1,000	1,100	1,000	ND	U	1	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	1	ND	U	2	ND	U	2	ND	U	2
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS				53.6		0.1				54.5		0.150
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.100	ND	U	0.1				ND	U	0.103
		Magnesium	NS	NS	NS	NS				7.32		0.05				7.64		0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0025	ND	U	0.0025				ND	U	0.0052
		Potassium	NS	NS	NS	NS				2.76		0.375				2.90		0.375
		Sodium	NS	NS	NS	NS				26.7		0.5				29.1		0.500
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01				0.00093	J	0.0016				0.00094	J	0.0016
		Lead	0.015	0.015	0.015	0.015				ND	U	0.0024				0.00043	J	0.00025

^a NMWQCC numeric standards per the NMAC Title 20.6.2.3101A, Standards for Ground Water of 10,000 mg/L Total Dissolved Solids Concentration or Less (NMAC 2018). For metals, the NMWQCC numeric standard applies to dissolved metals. ^b EPA National Primary Drinking Water Regulations, MCLs and Secondary MCLs, Title 40CFR Part 141, 143 (May 2018).

^c EPA Region 6 RSL for Tapwater (May 2020) for hazard index = 1.0 for noncarcinogens and a 10-5 cancer risk level for carcinogens.

^d The project screening level was selected to satisfy the requirements of the Kirtland AFB Hazardous Waste Permit Number NM9570024423 as the lowest of (1) NMWQCC numeric standard or (2) EPA MCL. If no NMQWCC standard or MCL exists for any analyte, then the project screening level will be the EPA RSL.

— = Compound not analyzed for µg/L = microgram per liter AFB = Air Force Base BTEX = benzene, toluene, ethylbenzene, and total xylenes CFR = Code of Federal Regulations EDB = ethylene dibromide (1,2-dibromoethane) EPA = U.S. Environmental Protection Agency ID = identification LOD = limit of detection MCL = maximum contaminant level mg/L = milligrams per liter ND = not detected NMAC = New Mexico Administrative Code NMWQCC = New Mexico Water Quality Control Commission NS = not specified REG = normal field sample RSL = regional screening level Val Qual = validation qualifier VOC = volatile organic compound Shading = detected concentrations above the detection limit Bold/Shading = reported concentrations exceed the project screening level

Val Quals based on independent data validation

J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.

U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the LOD.

-- = Validation qualifier not assigned.

					Well Location ID:		GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-IN	NF1	GWT	S-BFF-IN	NF1
					Fiel	d Sample ID:	G	WTS-INF		GWT	S-INF-05	2016	GWT	S-INF-062	2116	GWT	S-INF-072	2116
					:	Sample Date:	4	/21/2016		5	/20/2016		6	/21/2016		7	/21/2016	
						Sample Type:		REG			REG			REG			REG	
						Project												
			NMAC			Screening		Val			Val			Val			Val	
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.067		0.019	0.072		0.02	ND	U	0.19	0.075		0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Ethylbenzene	700	700	15	700	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Toluene	1,000	1,000	1,100	1,000	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Xylenes, total	620	10,000	190	620	ND	U	1	ND	U	1	ND	U	1	ND	U	1
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	UJ	0.05	ND	U	0.05	ND	U	0.2	ND	U	0.2
Metals		Manganese, dissolved	0.2	NS	NS	0.2	0.0012	J-	0.0025	ND	U	0.0025	ND	U	0.005	ND	U	0.005

					Well Location ID:		GWT	S-BFF-II	NF1	GWT	S-BFF-IN	NF1	GWT	S-BFF-IN	NF1	GWT	S-BFF-IN	NF1
					Fiel	d Sample ID:	GWT	S-INF-082	2216	GWT	S-INF-092	2016	GWT	S-INF-102	2016	GWT	S-INF-112	2116
						Sample Date:	8	/22/2016		9	/20/2016		1()/20/2016	5	1	1/21/2016	i
					S	Sample Type:		REG			REG			REG			REG	
						Project												
			NMAC			Screening		Val			Val			Val			Val	
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.09		0.019	0.078		0.019	0.072		0.019	0.074		0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Ethylbenzene	700	700	15	700	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Toluene	1,000	1,000	1,100	1,000	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Xylenes, total	620	10,000	190	620	ND	U	1	ND	U	1	ND	U	1	ND	U	1
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.2	ND	U	0.2	ND	U	0.200	ND	U	0.200
Metals		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.005	ND	U	0.005	ND	U	0.0050	ND	U	0.0050

					Well	Well Location ID:		S-BFF-IN	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-IN	IF1
					Fiel	d Sample ID:	GWT	S-INF-12	016	GWT	S-INF-01	1817	GWTS	-INF1-02	2317	GWTS-I	NF1DUP-	022317
						Sample Date:	12	2/20/2016	;	1	/18/2017		2	/23/2017		2	/23/2017	
					S	Sample Type:		REG			REG			REG		Fiel	d Duplica	te
						Project												
			NMAC			Screening		Val			Val			Val			Val	
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.082		0.019	0.082		0.019	0.078		0.019	0.074		0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Ethylbenzene	700	700	15	700	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Toluene	1,000	1,000	1,100	1,000	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Xylenes, total	620	10,000	190	620	ND	U	1	ND	U	1	ND	U	1	ND	U	1
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.2	ND	U	0.200	ND	U	0.200	ND	U	0.200
Metals		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.005	0.0072	J	0.0050	ND	U	0.0050	ND	U	0.0050

					Well Location ID:		GWT	S-BFF-IN	NF1	GWT	S-BFF-II	NF1	GWI	S-BFF-IN	NF1	GWT	S-BFF-IN	VF1
					Fiel	d Sample ID:	GWTS	-INF1-03	2317	GWTS	-INF1-04	1917	GWTS	-INF1-05	1817	GWTS	-INF1-06	2217
						Sample Date:	3	/23/2017		4	/19/2017		5	/18/2017		6	/22/2017	
					u,	Sample Type:		REG			REG			REG			REG	
						Project												
			NMAC			Screening		Val			Val			Val			Val	1
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD									
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.06		0.019	0.074		0.019	0.076		0.019	0.055		0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	1									
		Ethylbenzene	700	700	15	700	ND	U	1									
		Toluene	1,000	1,000	1,100	1,000	ND	U	1									
		Xylenes, total	620	10,000	190	620	ND	U	1									
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.2									
Metals		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.005									

					Well Location ID:		GWT	S-BFF-II	NF1	GWT	S-BFF-IN	NF1	GWT	S-BFF-IN	NF1	GWT	S-BFF-IN	IF1
					Fiel	d Sample ID:	GWTS	-INF1-07	2517	GWTS	-INF1-08	2417	GWTS	-INF1-09	2117	GWTS	S-INF1-10	1917
						Sample Date:	7	/25/2017		8	/24/2017		9	/21/2017		10	0/19/2017	1
					S	Sample Type:		REG			REG			REG			REG	
						Project												
			NMAC			Screening		Val			Val			Val			Val	
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.054		0.019	0.062		0.019	0.047		0.019	0.038		0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Ethylbenzene	700	700	15	700	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Toluene	1,000	1,000	1,100	1,000	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Xylenes, total	620	10,000	190	620	ND	U	1	ND	U	1	ND	U	1	ND	U	1
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.2	ND	U	0.2	ND	U	0.2	ND	U	0.2
Metals		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.005	ND	U	0.005	ND	U	0.005	ND	U	0.005

					Well	Well Location ID:		S-BFF-IN	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-IN	NF1	GWT	S-BFF-IN	JF1
					Fiel	d Sample ID:	GWTS	-INF1-01	1818	GWTS	-INF1-02	0518	GWTS	-INF1-02	0618	GWTS	-INF1-02	0718
						Sample Date:	1	/18/2018		2	2/5/2018			2/6/2018			2/7/2018	
						Sample Type:		REG			REG			REG			REG	
						Project												1
			NMAC			Screening		Val			Val			Val			Val	1
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD									
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.03		0.019	0.029		0.019	0.028	J	0.019	0.031		0.02
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	1									
		Ethylbenzene	700	700	15	700	ND	U	1									
		Toluene	1,000	1,000	1,100	1,000	ND	U	1									
		Xylenes, total	620	10,000	190	620	ND	U	1									
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.2									
Metals		Manganese, dissolved	0.2	NS	NS	0.2	0.0025	J	0.005	ND	U	0.005	ND	U	0.005	0.004	J	0.005

					Well	Well Location ID:		S-BFF-IN	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-IN	NF1	GWT	S-BFF-IN	JF1
					Fiel	d Sample ID:	GWTS	-INF1-02	0818	GWTS	-INF1-02	0918	GWTS	-INF1-02	1018	GWTS	-INF1-02	1118
						Sample Date:		2/8/2018		2	2/9/2018		2	/10/2018		2	/11/2018	
						Sample Type:		REG			REG			REG			REG	
						Project												l
			NMAC			Screening		Val			Val			Val			Val	1
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD									
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.029		0.019	0.032		0.019	0.031		0.019	0.029		0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	1									
		Ethylbenzene	700	700	15	700	ND	U	1									
		Toluene	1,000	1,000	1,100	1,000	ND	U	1									
		Xylenes, total	620	10,000	190	620	ND	U	1									
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.2									
Metals		Manganese, dissolved	0.2	NS	NS	0.2	0.0016	J	0.005	ND	U	0.005	ND	U	0.005	ND	U	0.005

					Well	Location ID:	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWI	S-BFF-IN	JF1
					Fiel	d Sample ID:	GWTS	-INF1-02	1518	GWTS	-INF1-02	2218	GWTS	-INF1-03	0118	GWTS	-INF1-03	0818
						Sample Date:	2	/15/2018		2	/22/2018			3/1/2018		•••	3/8/2018	
					u,	Sample Type:		REG			REG			REG			REG	
						Project												l
			NMAC			Screening		Val			Val			Val			Val	1
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD									
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.02	J	0.019	0.038		0.019	0.028	J	0.019	0.025	J	0.021
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	1									
		Ethylbenzene	700	700	15	700	ND	U	1									
		Toluene	1,000	1,000	1,100	1,000	ND	U	1									
		Xylenes, total	620	10,000	190	620	ND	U	1									
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.2									
Metals		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.005	0.0232		0.005	0.0038	J	0.005	0.0025	J	0.005

					Well	Location ID:	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-IN	NF1	GWT	S-BFF-IN	JF1
					Fiel	d Sample ID:	GWTS	-INF1-03	2218	GWTS	-INF1-04	1918	GWTS	-INF1-05	2318	GWTS	-INF1-06	2118
						Sample Date:	3	/22/2018		4	/19/2018		5	/23/2018		6	/21/2018	
					u,	Sample Type:		REG			REG			REG			REG	
						Project												l
			NMAC			Screening		Val			Val			Val			Val	1
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD									
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.017	J	0.019	0.024	J	0.019	0.02	J	0.019	0.015	J	0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	1									
		Ethylbenzene	700	700	15	700	ND	U	1									
		Toluene	1,000	1,000	1,100	1,000	ND	U	1									
		Xylenes, total	620	10,000	190	620	ND	U	1									
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	UJ	0.2	ND	U	0.2	ND	U	0.2	ND	U	0.1
Metals		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.005	ND	U	0.005	ND	U	0.005	ND	U	0.0025

					Well	Location ID:	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-IN	NF1
					Fiel	d Sample ID:	GWTS	-INF1-07	1818	GWTS	-INF1-08	1618	GWTS	-INF1-09	1318	GWTS	5-INF1-11	1218
						Sample Date:	7	/18/2018		8	/16/2018		9	/13/2018		1 [.]	1/12/2018	1
					u,	Sample Type:		REG			REG			REG			REG	
						Project												
			NMAC			Screening		Val			Val			Val			Val	
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.042		0.018	0.017	J	0.019	0.016	J	0.019	0.022	L	0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	1	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	700	700	15	700	ND	U	1	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Toluene	1,000	1,000	1,100	1,000	ND	U	1	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	1	ND	U	2	ND	U	2	ND	U	2
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.1	ND	U	0.1	ND	U	0.1	ND	U	0.1
Metals		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0025	ND	U	0.0025	ND	U	0.0025	ND	U	0.0025

					Well	Location ID:	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GW1	S-BFF-IN	JF1
					Fiel	d Sample ID:	GWTS	-INF1-12	0318	GWTS	-INF1-01	0919	GWTS	-INF1-02	20719	GWTS	-INF1-03	0719
						Sample Date:	1	2/3/2018			1/9/2019			2/7/2019			3/7/2019	
					u,	Sample Type:		REG			REG			REG			REG	
						Project												l
			NMAC			Screening		Val			Val			Val			Val	1
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD									
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.024	J	0.019	0.016	J	0.019	0.021	J	0.019	0.013	J	0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5									
		Ethylbenzene	700	700	15	700	ND	U	0.8									
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5									
		Xylenes, total	620	10,000	190	620	ND	U	2									
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.1									
Metals		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0025									

					Well	Location ID:	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-IN	IF1
					Fiel	d Sample ID:	GWTS	-INF1-04	0419	GWTS	-INF1-05	60119	GWTS	-INF1-06	0619	GWTS	-INF1-06	1319
						Sample Date:	4	/4/2019		Ę	5/1/2019		(6/6/2019		6	/13/2019	
					u,	Sample Type:		REG			REG			REG			REG	
						Project												
			NMAC			Screening		Val			Val			Val			Val	
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD									
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.022	J	0.019	0.016	J	0.019	0.015	J	0.019	0.014	L	0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5									
		Ethylbenzene	700	700	15	700	ND	U	0.8									
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5									
		Xylenes, total	620	10,000	190	620	ND	U	2									
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.1	0.293		0.1	ND	U	0.1	ND	U	0.1
Metals		Manganese, dissolved	0.2	NS	NS	0.2	0.0028	J	0.0025	0.0032	J	0.0025	ND	U	0.0025	0.0023	J	0.0025

					Well	Location ID:	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-IN	JF1
					Fiel	d Sample ID:	GWTS	-INF1-06	51419	GWTS	-INF1-06	1519	GWTS	-INF1-06	51619	GWTS	-INF1-06	1719
						Sample Date:	6	/14/2019		6	/15/2019		6	/16/2019		6	/17/2019	
						Sample Type:		REG			REG			REG			REG	
						Project												1
			NMAC			Screening		Val			Val			Val			Val	1
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD									
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.014	J	0.019	0.014	J	0.019	0.014	J	0.019	0.013	L	0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5									
		Ethylbenzene	700	700	15	700	ND	U	0.8									
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5									
		Xylenes, total	620	10,000	190	620	ND	U	2									
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.1									
Metals		Manganese, dissolved	0.2	NS	NS	0.2	0.0018	J	0.0025	0.0016	J	0.0025	0.0016	J	0.0025	0.0016	J	0.0025

					Well	Location ID:	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-IN	JF1
					Fiel	d Sample ID:	GWTS	-INF1-06	1819	GWTS	-INF1-06	1919	GWTS	-INF1-06	2019	GWTS	-INF1-06	2619
						Sample Date:	6	/18/2019		6	/19/2019		6	/20/2019		6	/26/2019	
						Sample Type:		REG			REG			REG			REG	
						Project												1
			NMAC			Screening		Val			Val			Val			Val	1
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD									
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.014	J	0.019	0.014	J	0.019	0.016	J	0.019	0.0097	L	0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5									
		Ethylbenzene	700	700	15	700	ND	U	0.8									
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5									
		Xylenes, total	620	10,000	190	620	ND	U	2									
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.1									
Metals		Manganese, dissolved	0.2	NS	NS	0.2	0.0016	J	0.0025	0.0015	J	0.0025	0.0016	J	0.0025	0.002	J	0.0025

					Well	Location ID:	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GW1	S-BFF-IN	NF1
					Fiel	d Sample ID:	GWTS	-INF1-07	0219	GWTS	-INF1-07	1219	GWTS	-INF1-07	'1619	GWTS	6-INF1-08	0819
						Sample Date:		7/2/2019		7	/12/2019		7	/16/2019			8/8/2019	
					u,	Sample Type:		REG			REG			REG			REG	
						Project												
			NMAC			Screening		Val			Val			Val			Val	
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.014	J	0.019	0.014	J	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	700	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2	ND	U	2
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.1	ND	U	0.1	ND	U	0.1	ND	U	0.100
Metals		Manganese, dissolved	0.2	NS	NS	0.2	0.0012	J	0.0025	ND	U	0.0025	ND	U	0.0025	ND	U	0.0025

					Well	Location ID:	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWT	S-BFF-II	NF1	GWI	S-BFF-IN	IF1	
					Fiel	d Sample ID:	GWTS	-INF1-09	0519	GWTS	-INF1-10	0919	GWTS	5-INF1-11	0719	GWTS	-INF1-12	1019	
						Sample Date:	Q	9/5/2019		1	0/9/2019		1	1/7/2019		1:	2/10/2019		
					u,	Sample Type:		REG			REG			REG			REG		
						Project													
			NMAC			Screening		Val			Val			Val			Val		
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	0.014	J	0.019	ND	U	0.019	
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5	
		Ethylbenzene	700	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	0.8	ND	U	0.8	
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5	
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2	ND	U	2	
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.100	ND	U	0.1	ND	U	0.100	ND	U	0.1	
Metals		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0025	ND	U	0.005	ND	U	0.0050	ND	U	0.005	
					Well Location ID:		GWT	S-BFF-IN	NF1	GWTS-BFF-INF1		GWTS-BFF-INF1		NF1	GWTS-BFF-INF1		√F1		
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					Fiel	d Sample ID:	GWTS	-INF1-01	1420	GWTS-INF1-020520		20520	GWTS-INF1-030520		0520	GWTS-INF1-04022		0220	
						Sample Date:	1	/14/2020		2/5/2020			3/5/2020			4/2/2		2020	
					Sample Type:		REG		REG		REG			REG					
						Project												1	
			NMAC			Screening		Val			Val			Val			Val	1	
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.016	J	0.019	0.016	J	0.019	0.012	J	0.019	ND	U	0.019	
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5	
		Ethylbenzene	700	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	0.8	ND	U	0.8	
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5	
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2	ND	U	2	
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.1	ND	U	0.103	ND	UJ	0.103	ND	U	0.103	
Metals		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.005	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	

					Well Location ID:		GWT	S-BFF-II	NF1	GWTS-BFF-INF1		NF1	GWTS-BFF-INF1		NF1	GWTS-BFF-INF1		JF1	
					Fiel	d Sample ID:	GWTS	-INF1-05	1120	GWTS-INF1-060320		60320	GWTS-INF1-072320		2320	GWTS-INF1-08052		0520	
						Sample Date:	5	/11/2020		6/3/2020			7/23/2020			8/5/2		/2020	
					Sample Type:		REG		REG		REG			RE		EG			
						Project													
			NMAC			Screening		Val			Val			Val			Val	1	
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	Result	Qual	LOD	
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019	
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5	
		Ethylbenzene	700	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	0.8	ND	U	0.8	
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5	
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2	ND	U	2	
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.103	ND	U	0.1	ND	U	0.1	ND	U	0.1	
Metals		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	0.012		0.0052	ND	U	0.0052	ND	U	0.0052	

					Well	Location ID:	GWT	GWTS-BFF-INF1			
					Fiel	d Sample ID:	GWTS	-INF1-09	0920		
						Sample Date:	Q,	9/9/2020			
_					S	ample Type:		REG			
						Project					
			NMAC			Screening		Val			
Parameter	Analytical Method	Analyte	NMWQCC ^a	EPA MCL ^b	EPA RSL ^c	Level ^d	Result	Qual	LOD		
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.012	J	0.019		
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5		
		Ethylbenzene	700	700	15	700	ND	U	0.8		
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5		
		Xylenes, total	620	10,000	190	620	ND	U	2		
Dissolved	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.1		
Metals		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052		

^a NMWQCC numeric standards per the New Mexico Administrative Code Title 20.6.2.3101A, Standards for Groundwater of 10,000 mg/L Total Dissolved Solids Concentration or Less (NMAC, 2018).

^b EPA National Primary Drinking Water Regulations, MCLs and Secondary MCLs, Title 40CFR Part 141, 143 (May 2018).

^c EPA Region 6 RSL for Tapwater (May 2020) for hazard index = 1.0 for noncarcinogens and a 10-5 cancer risk level for carcinogens.

^d The project screening level was selected to satisfy the requirements of the Kirtland AFB Hazardous Waste Permit Number NM9570024423 as the lowest of (1) NMWQCC numeric standard or (2) EPA MCL. If no NMQWCC numeric standard or MCL exists for any analyte, then the project screening level will be the EPA RSL.

µg/L = microgram per liter AFB = Air Force Base EDB = ethylene dibromide (1,2-dibromoethane) EPA = U.S. Environmental Protection Agency ID = identification LOD = limit of detection MCL = maximum contaminant level mg/L= milligram per liter ND = nondetect NMAC = New Mexico Administrative Code NMWQCC = New Mexico Water Quality Control Commission NS = not specified REG = normal field sample RSL = regional screening level Val Qual = validation qualifier VOC = volatile organic compound Shading = detected concentrations above the detection limit Bold/Shading = reported concentrations exceed the project screening level Val Quals based on independent data validation:

J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.

J- = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated and biased low.

U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the LOD.

-- = Validation qualifier not assigned.

Benzene 1.2-Dibromoethane Ethylbenzene Toluene Xylenes, total 71-43-2 106-93-4 100-41-4 108-88-3 1330-20-7 Method SW8011 (µg/kg) Method SW8260B (mg/kg) Method SW8260B (mg/kg) Method SW8260B (mg/kg) Method SW8260B (mg/kg) Me Val Val Val Val Val Qual RL Qual Qual Qual Qual Field Sample Name Sample Date Result Result RL Result RL Result RL Result RL GWTS-1-100620 0.74 0.024 0.047 0.047 0.094 10/6/2020 ND U ND υ ND U ND U ND U GWTS-2-100620 10/6/2020 0.062 0.049 ND 0.049 ND ND U ND U 0.025 ND U U U 0.099 GWTS-3-100620 10/6/2020 ND U 0.058 ____ — _ — — — — ____ — — — — GWTS-4-100620 10/6/2020 ND U 0.078 ND U 0.024 ND U 0.048 ND U 0.048 ND U 0.095 U GWTS-5-100620 10/6/2020 ND U 0.086 ND υ 0.024 ND U 0.047 ND 0.047 ND U 0.095 10/6/2020 GWTS-6-100620 ND U 0.085 — — _ _ ____ _ — _ ____ _ ____ _ GWTS-7-100620 10/6/2020 ND U 0.85 ND U 0.024 ND U 0.048 ND U 0.048 ND U 0.095 GWTS-8-100620 10/6/2020 ND U 0.64 — — — _ ____ — — — — ____ ____ ____ GWTS-9-100620 10/6/2020 ND U 0.066 — — — — — — — — — _ — — GWTS-10-100620 10/6/2020 U 0.076 ND — — — — — — ____ — — ____ — ____ GWTS-11-100620 10/6/2020 ND U 0.065 _ _ _ _ _ — ____ ____ ____ ____ ____ ____ GWTS-12-100620 10/6/2020 ND U 0.086 _ _ _ ____ _ ___ ____ ____ ____ ____ ____ ____ GWTS-13-100620 10/6/2020 ND U 0.074 _ — — ____ — — _ — _ ___ _ _ GWTS-14-100620 10/6/2020 ND U 0.77 — _ ___ — ____ ____ _ _ _ — _ ____ NMED Residential^a 672 17.8 75.1 5,230 871 360 58 4,900 580 12 EPA Residential^b

Table 3Groundwater Treatment System Release Soil Samples

^a New Nexico Environment Department (NMED) Risk Assessment Guidance for Site Investigations and Remediation, Appendix A, Table A-1, NMED Soil Screening Levels (SSL). February 2019.

^b EPA Regional Screening Levels (RSLs) for residential use scenario for hazard index = 1.0 for noncarcinogens and a 10⁻⁵ cancer risk level for carcinogens. May 2020.

µg/kg = microgram per kilogram

mg/kg = milligrams per kilogram

ND = not detected

RL = reporting limit

U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the reporting limit.

— = Compound not analyzed for.

	Iron		Manganese							
74	439-89·	-6	7439-96-5							
thod S	W6010	3 (mg/kg)	Method SW6010B (mg/kg)							
	Val			Val						
Result	Qual	RL	Result	Qual	RL					
7,900		250	90		0.4					
8,600		250	81		0.4					
_	—		_	—	—					
7,000		250	70		0.4					
7,400		250	77		0.39					
—	—	_		—	—					
6,700		250	73		0.4					
_	_	_	_	_						
_	_	_	_	_						
_				—						
_				—						
_				—						
_	_		_	—						
_	—			—						
	54,800			10,500						
	55,000			1,800						

Table 4 Groundwater Treatment System Water Release Sample

			Fie	d Sample Name:	G	0	
				Sample Date:			
Analytical Method	Analyte	NMAC NMWQCC ^a	EPA MCL ^b	EPA RSL°	Result	Val Qual	RL
Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	ND	U	0.0093

^a NMWQCC numeric standards per the NMAC Title 20.6.2.3101A, Standards for Ground Water of 10,000 mg/L Total Dissolved Solids Concentration or Less (NMAC 2018).

For metals, the NMWCC numeric standard applies to dissolved metals.

^b EPA National Primary Drinking Water Regulations, MCLs and Secondary MCLs, Title 40CFR Part 141, 143 (May 2018).

^c EPA Region 6 RSL for Tapwater (May 2020) for hazard index = 1.0 for noncarcinogens and a 10^{-5} cancer risk level for carcinogens.

 μ g/L = microgram per liter

ND = not detected

RL = reporting limit

U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the reporting limit.

Attachment 5 Laboratory Analytical Reports



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

October 15, 2020

Bernie Bockisch EA Engineering Science & Technology 320 Gold Ave SW Suite 1210 Albuquerque, NM 87102 TEL: FAX:

OrderNo.: 2010292

RE: KAFB BFF

Dear Bernie Bockisch:

Hall Environmental Analysis Laboratory received 17 sample(s) on 10/6/2020 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 2010292

Date Reported: 10/15/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering Science & Technology Project: KAFB BFF

2010292-001

Lab ID:

Client Sample ID: GWTS-1-100620 Collection Date: 10/6/2020 10:37:00 AM Received Date: 10/6/2020 3:50:00 PM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 6010B: SOIL METALS					Analyst	JLF
Iron	7900	250	mg/Kg	100) 10/8/2020 2:29:05 PM	55708
Manganese	90	0.40	mg/Kg	2	10/8/2020 2:00:25 PM	55708
EPA METHOD 8011/504.1 MODIFIED: EDB					Analyst	JME
1,2-Dibromoethane	ND	0.74	µg/Kg	10	10/7/2020 12:18:45 PM	55693
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	JMR
Benzene	ND	0.024	mg/Kg	1	10/8/2020 1:54:56 PM	55696
Toluene	ND	0.047	mg/Kg	1	10/8/2020 1:54:56 PM	55696
Ethylbenzene	ND	0.047	mg/Kg	1	10/8/2020 1:54:56 PM	55696
Xylenes, Total	ND	0.094	mg/Kg	1	10/8/2020 1:54:56 PM	55696
Surr: 1,2-Dichloroethane-d4	89.2	70-130	%Rec	1	10/8/2020 1:54:56 PM	55696
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	10/8/2020 1:54:56 PM	55696
Surr: Dibromofluoromethane	105	70-130	%Rec	1	10/8/2020 1:54:56 PM	55696
Surr: Toluene-d8	101	70-130	%Rec	1	10/8/2020 1:54:56 PM	55696

Matrix: SOIL

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 25

Analytical Report Lab Order 2010292

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering Science & Technology

Project: KAFB BFF

Date Reported: 10/15/2020 Client Sample ID: GWTS-2-100620 Collection Date: 10/6/2020 10:44:00 AM

Lab ID: 2010292-002 Matrix: SOIL Received Date: 10/6/2020 3:50:00 PM							
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD	6010B: SOIL METALS					Analyst	JLF
Iron		8600	250	mg/Kg	100) 10/8/2020 2:30:33 PM	55708
Manganese		81	0.40	mg/Kg	2	10/8/2020 2:01:53 PM	55708
EPA METHOD	8011/504.1 MODIFIED	: EDB				Analyst:	JME
1,2-Dibromoeth	ane	ND	0.062	µg/Kg	1	10/7/2020 12:33:45 PM	55693
EPA METHOD	8260B: VOLATILES SI	HORT LIST				Analyst:	JMR
Benzene		ND	0.025	mg/Kg	1	10/8/2020 2:23:27 PM	55696
Toluene		ND	0.049	mg/Kg	1	10/8/2020 2:23:27 PM	55696
Ethylbenzene		ND	0.049	mg/Kg	1	10/8/2020 2:23:27 PM	55696
Xylenes, Total		ND	0.099	mg/Kg	1	10/8/2020 2:23:27 PM	55696
Surr: 1,2-Dic	hloroethane-d4	94.5	70-130	%Rec	1	10/8/2020 2:23:27 PM	55696
Surr: 4-Brom	ofluorobenzene	103	70-130	%Rec	1	10/8/2020 2:23:27 PM	55696
Surr: Dibrom	ofluoromethane	105	70-130	%Rec	1	10/8/2020 2:23:27 PM	55696
Surr: Toluene	e-d8	102	70-130	%Rec	1	10/8/2020 2:23:27 PM	55696

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Ei	nvironmental Ana	alysis Laboratory, Inc	Lab Order 2010292 Date Reported: 10/15/2020							
CLIENT:	EA Engineering Science	e & Technology	Cl	ient Sample I	D:G	WTS-3-100620				
Project:	KAFB BFF		(Collection Dat	e: 10	/6/2020 10:47:00 AM	1			
Lab ID:	2010292-003	Matrix: SOIL	Received Date: 10/6/2020 3:50:00 PM							
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch			
EPA MET	THOD 8011/504.1 MODIF	IED: EDB				Analys	st: JME			
1,2-Dibro	omoethane	ND	0.058	µg/Kg	1	10/7/2020 12:48:52 P	M 55693			

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

Qualifiers: *

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analytical Report Lab Order 2010292

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering Science & Technology

Project: KAFB BFF

Date Reported: 10/15/2020 Client Sample ID: GWTS-4-100620 Collection Date: 10/6/2020 10:50:00 AM

Lab ID: 2010292-004	Matrix: SOIL	R	Received Date: 10/6/2020 3:50:00 PM							
Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch				
EPA METHOD 6010B: SOIL METALS					Analyst	JLF				
Iron	7000	250	mg/Kg	100	10/8/2020 2:32:01 PM	55708				
Manganese	70	0.40	mg/Kg	2	10/8/2020 2:03:21 PM	55708				
EPA METHOD 8011/504.1 MODIFIED: ED	В				Analyst	JME				
1,2-Dibromoethane	ND	0.078	µg/Kg	1	10/7/2020 1:03:59 PM	55693				
EPA METHOD 8260B: VOLATILES SHOR	T LIST				Analyst	JMR				
Benzene	ND	0.024	mg/Kg	1	10/8/2020 2:51:56 PM	55696				
Toluene	ND	0.048	mg/Kg	1	10/8/2020 2:51:56 PM	55696				
Ethylbenzene	ND	0.048	mg/Kg	1	10/8/2020 2:51:56 PM	55696				
Xylenes, Total	ND	0.095	mg/Kg	1	10/8/2020 2:51:56 PM	55696				
Surr: 1,2-Dichloroethane-d4	96.1	70-130	%Rec	1	10/8/2020 2:51:56 PM	55696				
Surr: 4-Bromofluorobenzene	105	70-130	%Rec	1	10/8/2020 2:51:56 PM	55696				
Surr: Dibromofluoromethane	108	70-130	%Rec	1	10/8/2020 2:51:56 PM	55696				
Surr: Toluene-d8	102	70-130	%Rec	1	10/8/2020 2:51:56 PM	55696				

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analytical Report Lab Order 2010292

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering Science & Technology

Project: KAFB BFF

Date Reported: 10/15/2020 Client Sample ID: GWTS-5-100620 Collection Date: 10/6/2020 10:57:00 AM

Lab ID: 2010292-005	Matrix: SOIL	Received Date: 10/6/2020 3:50:00 PM					
Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 6010B: SOIL METALS					Analyst:	JLF	
Iron	7400	250	mg/Kg	100	10/8/2020 2:33:28 PM	55708	
Manganese	77	0.39	mg/Kg	2	10/8/2020 2:04:48 PM	55708	
EPA METHOD 8011/504.1 MODIFIED: EDI	В				Analyst:	JME	
1,2-Dibromoethane	ND	0.086	µg/Kg	1	10/7/2020 1:19:11 PM	55693	
EPA METHOD 8260B: VOLATILES SHOR	T LIST				Analyst:	JMR	
Benzene	ND	0.024	mg/Kg	1	10/8/2020 3:20:31 PM	55696	
Toluene	ND	0.047	mg/Kg	1	10/8/2020 3:20:31 PM	55696	
Ethylbenzene	ND	0.047	mg/Kg	1	10/8/2020 3:20:31 PM	55696	
Xylenes, Total	ND	0.095	mg/Kg	1	10/8/2020 3:20:31 PM	55696	
Surr: 1,2-Dichloroethane-d4	90.2	70-130	%Rec	1	10/8/2020 3:20:31 PM	55696	
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	10/8/2020 3:20:31 PM	55696	
Surr: Dibromofluoromethane	101	70-130	%Rec	1	10/8/2020 3:20:31 PM	55696	
Surr: Toluene-d8	99.8	70-130	%Rec	1	10/8/2020 3:20:31 PM	55696	

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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S % Recovery outside of range due to dilution or matrix

Hall Ei	nvironmental Ana	alysis Laboratory, Inc.				Lab Order 2010292 Date Reported: 10/15 /2	2020
CLIENT:	EA Engineering Science	e & Technology	Cl	ient Sample I	D: G'	WTS-6-100620	
Project:	KAFB BFF		(Collection Dat	e: 10	/6/2020 11:01:00 AM	
Lab ID:	2010292-006	Matrix: SOIL	Received Date: 10/6/2020 3:50:00 PM				
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA MET	THOD 8011/504.1 MODIF	IED: EDB				Analys	st: JME
1,2-Dibro	omoethane	ND (.085	µg/Kg	1	10/7/2020 1:34:21 PM	55693

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

Qualifiers:

*

- Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank В
- Е Value above quantitation range
- Analyte detected below quantitation limits J
- Р Sample pH Not In Range
- RL Reporting Limit

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Analytical Report Lab Order 2010292

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 10/15/2020

CLIENT:	EA Engineering Science &	& Technology	Client Sample ID: GWTS-7-100620									
Project:	KAFB BFF		(Collection Dat	e: 10/	6/2020 11:04:00 AM						
Lab ID:	2010292-007	Matrix: SOIL	Received Date: 10/6/2020 3:50:00 PM									
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch					
EPA MET	HOD 6010B: SOIL METAL	.S				Analyst:	JLF					
Iron		6700	250	mg/Kg	100	10/8/2020 2:53:04 PM	55708					
Mangane	se	73	0.40	mg/Kg	2	10/8/2020 2:06:16 PM	55708					
EPA MET	HOD 8011/504.1 MODIFIE	D: EDB				Analyst:	JME					
1,2-Dibro	moethane	ND	0.85	µg/Kg	10	10/7/2020 1:49:39 PM	55693					
EPA MET	HOD 8260B: VOLATILES	SHORT LIST				Analyst:	JMR					
Benzene		ND	0.024	mg/Kg	1	10/8/2020 3:49:03 PM	55696					
Toluene		ND	0.048	mg/Kg	1	10/8/2020 3:49:03 PM	55696					
Ethylben	zene	ND	0.048	mg/Kg	1	10/8/2020 3:49:03 PM	55696					
Xylenes,	Total	ND	0.095	mg/Kg	1	10/8/2020 3:49:03 PM	55696					
Surr: 1	,2-Dichloroethane-d4	96.7	70-130	%Rec	1	10/8/2020 3:49:03 PM	55696					
Surr: 4	-Bromofluorobenzene	103	70-130	%Rec	1	10/8/2020 3:49:03 PM	55696					
Surr: E	Dibromofluoromethane	111	70-130	%Rec	1	10/8/2020 3:49:03 PM	55696					
Surr: T	oluene-d8	99.2	70-130	%Rec	1	10/8/2020 3:49:03 PM	55696					

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range RL Reporting Limit

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Hall Eı	nvironmental Ai	nalysis Laboratory, Inc.	Lab Order 2010292 • Date Reported: 10/15/2020					
CLIENT:	EA Engineering Scien	nce & Technology	Client Sample ID: GWTS-8-100620					
Project:	KAFB BFF		(Collection Dat	e: 10	/6/2020 11:10:00 AM		
Lab ID:	2010292-008	Matrix: SOIL		Received Dat	e: 10	/6/2020 3:50:00 PM		
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 8011/504.1 MODIFIED: EDB							st: JME	
1,2-Dibro	omoethane	ND	0.64	µg/Kg	10	10/7/2020 2:04:53 PM	55693	

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

Qualifiers: *

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Ei	nvironmental An	alysis Laboratory, Inc.	Lab Order 2010292 Date Reported: 10/15/2020						
CLIENT:	EA Engineering Scienc	e & Technology	Cl	ient Sample I	D:G	WTS-9-100620			
Project:	KAFB BFF		(Collection Dat	t e: 10	/6/2020 11:24:00 AM	[
Lab ID:	2010292-009	Matrix: SOIL		Received Dat	t e: 10	/6/2020 3:50:00 PM			
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch		
EPA MET	THOD 8011/504.1 MODIF	FIED: EDB				Analys	st: JME		
1,2-Dibro	omoethane	ND 0	.066	µg/Kg	1	10/7/2020 2:35:35 PM	55693		

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

Qualifiers:

*

- Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank В
- Value above quantitation range Е
- Analyte detected below quantitation limits J
- Р Sample pH Not In Range
- RL Reporting Limit

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Hall Eı	nvironmental Ana	lysis Laboratory, Inc	Lab Order 2010292 Date Reported: 10/15/2020						
CLIENT:	EA Engineering Science	& Technology	Cl	ient Sample I	D:G	WTS-10-100620			
Project:	KAFB BFF		(Collection Dat	t e: 10	/6/2020 11:30:00 AM			
Lab ID:	2010292-010	Matrix: SOIL		Received Dat	t e: 10	/6/2020 3:50:00 PM			
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch		
EPA METHOD 8011/504.1 MODIFIED: EDB Analyst: JI							st: JME		
1,2-Dibro	omoethane	ND	0.076	µg/Kg	1	10/7/2020 2:50:56 PM	55693		

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

Qualifiers: *

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL Reporting Limit

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Hall Eı	nvironmental Ana	lysis Laboratory, Inc	Lab Order 2010292 Date Reported: 10/15/2020						
CLIENT:	EA Engineering Science	& Technology	Cl	ient Sample I	D:G	WTS-11-100620			
Project:	KAFB BFF		(Collection Dat	e: 10	/6/2020 11:39:00 AM	[
Lab ID:	2010292-011	Matrix: SOIL		Received Dat	e: 10	/6/2020 3:50:00 PM			
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch		
EPA METHOD 8011/504.1 MODIFIED: EDB Analy							st: JME		
1,2-Dibro	omoethane	ND	0.065	µg/Kg	1	10/7/2020 3:06:17 PM	55693		

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall E	nvironmental Ana	lysis Laboratory, Inc	Lab Order 2010292 Date Reported: 10/15/2020						
CLIENT:	EA Engineering Science	& Technology	Cl	ient Sample I	D:G	WTS-12-100620			
Project:	KAFB BFF		(Collection Dat	t e: 10	/6/2020 11:46:00 AM			
Lab ID:	2010292-012	Matrix: SOIL		Received Dat	t e: 10	/6/2020 3:50:00 PM			
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch		
EPA ME	THOD 8011/504.1 MODIFI	ED: EDB				Analys	t: JME		
1,2-Dibro	omoethane	ND	0.086	µg/Kg	1	10/7/2020 3:21:42 PM	55693		

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Eı	nvironmental Ana	lysis Laboratory, Inc	Lab Order 2010292 Date Reported: 10/15/2020						
CLIENT:	EA Engineering Science	& Technology	Cl	ient Sample I	D:G	WTS-13-100620			
Project:	KAFB BFF		(Collection Dat	e: 10	/6/2020 11:53:00 AM			
Lab ID:	2010292-013	Matrix: SOIL		Received Dat	e: 10	/6/2020 3:50:00 PM			
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch		
EPA METHOD 8011/504.1 MODIFIED: EDB Analyst: JME							st: JME		
1,2-Dibro	omoethane	ND	0.074	µg/Kg	1	10/7/2020 3:37:05 PM	55693		

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

Qualifiers: *

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Value exceeds Maximum Contaminant Level.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Ei	nvironmental Ana	lysis Laboratory, Inc.	Lab Order 2010292 • Date Reported: 10/15/2020						
CLIENT:	EA Engineering Science	e & Technology	Cl	ient Sample II	D:G\	WTS-14-100620			
Project:	KAFB BFF		(Collection Dat	e: 10	/6/2020 11:57:00 AN	1		
Lab ID:	2010292-014	Matrix: SOIL		Received Dat	e: 10	/6/2020 3:50:00 PM			
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch		
EPA MET	THOD 8011/504.1 MODIFI	Analy	st: JME						
1,2-Dibro	omoethane	ND	0.77	µg/Kg	10	10/7/2020 3:52:32 PM	1 55693		

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

Qualifiers: *

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range RL Reporting Limit

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Analytical Report Lab Order 2010292

Hall E	nvironmental Analysis		Date Reported: 10/15/2020							
CLIENT: EA Engineering Science & Technology					Client Sample ID: GWTS-15W-100620					
Project:	KAFB BFF			C	ollect	ion Dat	e: 10/	/6/2020 12:45:00 PM		
Lab ID:	2010292-015	Matrix:	AQUEOUS]	Receiv	ved Dat	e: 10/	/6/2020 3:50:00 PM		
Analyses		Re	sult	RL	Qual	Units	DF	Date Analyzed	Batch	
EPA MET	ГНОD 8011/504.1: EDB							Analys	t: JME	
1,2-Dibro	omoethane		ND C	0.0093		µg/L	1	10/7/2020 10:49:02 AN	1 55695	
NOTES: No trip bla	nk was included with work order									

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analytical Report Lab Order 2010292 Date Reported: 10/15/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering Science & Technology Client Sample ID: GWTS-2-100620DUP Project: KAFB BFF Collection Date: 10/6/2020 10:44:00 AM Lab ID: 2010292-016 Matrix: SOIL Received Date: 10/6/2020 3:50:00 PM Result **RL Oual** Units **DF** Date Analyzed Batch Analyses EPA METHOD 8011/504.1 MODIFIED: EDB Analyst: mb 10/13/2020 2:44:00 PM 55780 1,2-Dibromoethane ND 0.086 µg/Kg 1 **EPA METHOD 8021B: VOLATILES** Analyst: **NSB** Methyl tert-butyl ether (MTBE) ND 0.093 mg/Kg 1 10/14/2020 9:21:07 AM 55797 Benzene ND mg/Kg 0.023 1 10/14/2020 9:21:07 AM 55797 Toluene ND mg/Kg 10/14/2020 9:21:07 AM 55797 0.047 1 Ethylbenzene ND 0.047 mg/Kg 1 10/14/2020 9:21:07 AM 55797 Xylenes, Total ND 0.093 mg/Kg 1 10/14/2020 9:21:07 AM 55797 Surr: 4-Bromofluorobenzene 99.3 80-120 %Rec 1 10/14/2020 9:21:07 AM 55797

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analytical Report Lab Order 2010292 Date Reported: 10/15/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EA Engineering Science & Technology Client Sample ID: GWTS-4-100620DUP Project: KAFB BFF Collection Date: 10/6/2020 10:50:00 AM Lab ID: 2010292-017 Matrix: SOIL Received Date: 10/6/2020 3:50:00 PM Result **RL Oual** Units **DF** Date Analyzed Batch Analyses EPA METHOD 8011/504.1 MODIFIED: EDB Analyst: mb 10/13/2020 3:14:19 PM 55780 1,2-Dibromoethane ND 0.087 µg/Kg 1 **EPA METHOD 8021B: VOLATILES** Analyst: **NSB** Methyl tert-butyl ether (MTBE) ND 0.095 mg/Kg 1 10/14/2020 10:32:17 AM 55797 Benzene ND mg/Kg 0.024 1 10/14/2020 10:32:17 AM 55797 Toluene ND mg/Kg 10/14/2020 10:32:17 AM 55797 0.047 1 Ethylbenzene ND 0.047 mg/Kg 1 10/14/2020 10:32:17 AM 55797 Xylenes, Total ND 0.095 mg/Kg 1 10/14/2020 10:32:17 AM 55797 Surr: 4-Bromofluorobenzene 98.8 80-120 %Rec 1 10/14/2020 10:32:17 AM 55797

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits P Sample pH Not In Range
- P Sample pH Not In
 - RL Reporting Limit

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WO#:	2010292
	15-Oct-20

Client: EA	Engineering Science & Technolog	gy	
Project: KA	AFB BFF		
Sample ID: MB-55693	SampType: MBLK	TestCode: EPA Method	8011/504.1 Modified: EDB
Client ID: PBS	Batch ID: 55693	RunNo: 72485	
Prep Date: 10/7/2020	Analysis Date: 10/7/2020	SeqNo: 2543898	Units: µg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
1,2-Dibromoethane	ND 0.10		-
Sample ID: MB-55693	SampType: MBLK	TestCode: EPA Method	8011/504.1 Modified: EDB
Client ID: PBS	Batch ID: 55693	RunNo: 72485	
Prep Date: 10/7/2020	Analysis Date: 10/7/2020	SeqNo: 2543899	Units: µg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
1,2-Dibromoethane	ND 0.10		
Sample ID: LCS-55693	SampType: LCS	TestCode: EPA Method	8011/504.1 Modified: EDB
Client ID: LCSS	Batch ID: 55693	RunNo: 72485	
Prep Date: 10/7/2020	Analysis Date: 10/7/2020	SeqNo: 2543902	Units: µg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
1,2-Dibromoethane	0.72 0.10 1.000	0 72.2 70	130
Sample ID: MB-55780	SampType: MBLK	TestCode: EPA Method	8011/504.1 Modified: EDB
Client ID: PBS	Batch ID: 55780	RunNo: 72615	
Prep Date: 10/13/202	0 Analysis Date: 10/13/2020	SeqNo: 2550133	Units: µg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
1,2-Dibromoethane	ND 0.10		
Sample ID: 2010292-01	I7AMS SampType: MS	TestCode: EPA Method	8011/504.1 Modified: EDB
Client ID: GWTS-4-10	00620DUP Batch ID: 55780	RunNo: 72615	
Prep Date: 10/13/202	0 Analysis Date: 10/13/2020	SeqNo: 2550134	Units: µg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
1,2-Dibromoethane	0.95 0.094 0.9358	0 102 65	135
Sample ID: LCS-55780	SampType: LCS	TestCode: EPA Method	8011/504.1 Modified: EDB
Client ID: LCSS	Batch ID: 55780	RunNo: 72615	
Prep Date: 10/13/202	0 Analysis Date: 10/13/2020	SeqNo: 2550137	Units: µg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

EA Engineering Science & Technology

Project:	KAFB BI	FF									
Sample ID:	MB-55780	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8011/504.1 M	odified: E	DB	
Client ID:	PBS	Batch	n ID: 55	780	F	RunNo: 72	2615				
Prep Date:	10/13/2020	Analysis D	ate: 10)/13/2020	S	SeqNo: 2	550140	Units: µg/Kg	9		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoet	nane	ND	0.10								
Sample ID:	2010292-017AMS) SampT	ype: MS	SD	Tes	tCode: EF	PA Method	8011/504.1 M	odified: E	DB	
Client ID:	GWTS-4-100620D	UP Batch	n ID: 55	780	F	RunNo: 72	2615				
Prep Date:	10/13/2020	Analysis D	ate: 10)/13/2020	S	SeqNo: 2	550149	Units: µg/Kg	3		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoet	nane	1.0	0.10	0.9972	0	103	65	135	7.63	20	

Qualifiers:

Client:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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WO#: 2010292

WO#:	2010292
	15-Oct-20

Client: EA	Engineering Science & Technolog	3y					
Project: KAF	FB BFF						
Ocurrele ID: MD 55005		TaskOadas FDA M athad	0044/504.4. 500				
Sample ID: MB-55695	SampType: MBLK	TestCode: EPA Method	8011/504.1: EDB				
Client ID: PBW	Batch ID: 55695	RunNo: 72485					
Prep Date: 10/7/2020	Analysis Date: 10/7/2020	SeqNo: 2543891	Units: µg/L				
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual	I		
1,2-Dibromoethane	ND 0.010						
Sample ID: MB-55695	SampType: MBLK	TestCode: EPA Method	8011/504.1: EDB				
Client ID: PBW	Batch ID: 55695	RunNo: 72485					
Prep Date: 10/7/2020	Analysis Date: 10/7/2020	SeqNo: 2543892	Units: µg/L				
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual	l		
1,2-Dibromoethane	ND 0.010						
Sample ID: LCS-55695	SampType: LCS TestCode: EPA Method 8011/504.1: EDB						
Client ID: LCSW	Batch ID: 55695	RunNo: 72485					
Prep Date: 10/7/2020	Analysis Date: 10/7/2020	SeqNo: 2543893	Units: µg/L				
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual	I		
1,2-Dibromoethane	0.11 0.010 0.1000	0 111 70	130				
Sample ID: LCSD-55695	SampType: LCSD	TestCode: EPA Method	8011/504.1: EDB				
Client ID: LCSS02	Batch ID: 55695	RunNo: 72485					
Prep Date: 10/7/2020	Analysis Date: 10/7/2020	SeqNo: 2543894	Units: µg/L				
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual			
1,2-Dibromoethane	0.11 0.010 0.1000	0 105 70	130 5.65	20			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Client:	EA Engi	neering So	cience &	z Technolog	gy						
Project:	КАГЬ Ы	Γ Γ									
Sample ID:	LCS-55696	Samp ⁻	Туре: LC	S	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	LCSS	Batc	h ID: 55	696	F	RunNo: 7	2529				
Prep Date:	10/7/2020	Analysis [Date: 10	0/8/2020	S	SeqNo: 2	545827	Units: %Re	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	nofluorobenzene	1.0		1.000		101	80	120			
Sample ID:	mb-55696	Samp	Туре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	PBS	Batc	h ID: 55	696	F	RunNo: 7	2529				
Prep Date:	10/7/2020	Analysis [Date: 10	0/8/2020	S	SeqNo: 2	545828	Units: %Re	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	nofluorobenzene	0.99		1.000		98.9	80	120			
Sample ID:	mb-55797	Samp	Туре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	PBS	Batc	h ID: 55	797	F	RunNo: 7	2630				
Prep Date:	10/13/2020	Analysis [Date: 10)/14/2020	S	SeqNo: 2	551485	Units: mg/k	ίg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-buty	yl ether (MTBE)	ND	0.10								
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	nofluorobenzene	1.0		1.000		99.7	80	120			
Sample ID:	LCS-55797	Samp	Type: LC	S	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	LCSS	Batc	h ID: 55	797	F	RunNo: 7	2630				
Prep Date:	10/13/2020	Analysis [Date: 10)/14/2020	ę	SeqNo: 2	551486	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-buty	yl ether (MTBE)	0.94	0.10	1.000	0	94.5	70.9	141			
Benzene		0.90	0.025	1.000	0	90.0	80	120			
Toluene		0.95	0.050	1.000	0	94.6	80	120			
Ethylbenzene		0.96	0.050	1.000	0	95.9	80	120			
Xylenes, Total		2.9	0.10	3.000	0	95.9	80	120			
Surr: 4-Brom	nofluorobenzene	1.0		1.000		102	80	120			
Sample ID:	2010292-016ams	Samp	Туре: М	6	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	GWTS-2-100620D	UP Batc	h ID: 55	797	F	RunNo: 72	2630				
Prep Date:	10/13/2020	Analysis [Date: 10	0/14/2020	S	SeqNo: 2	551488	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-buty	yl ether (MTBE)	0.90	0.096	0.9588	0	94.1	78.1	153			
Benzene		0.88	0.024	0.9588	0	92.2	76.3	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

NDNot Detected at the Reporting LimitPQLPractical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

WO#:	2010292
	15 Oct 20

Client: EA Eng Project: KAFB F	gineering So BFF	cience &	t Technolog	зу						
Sample ID: 2010292-016ams	s Samp	Гуре: МS	6	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: GWTS-2-100620	DUP Batc	h ID: 55	797	F	RunNo: 7	2630				
Prep Date: 10/13/2020	Analysis [Date: 10)/14/2020	S	SeqNo: 2	551488	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	0.94	0.048	0.9588	0	98.3	78.5	120			
Ethylbenzene	0.97	0.048	0.9588	0	102	78.1	124			
Xylenes, Total	2.9	0.096	2.876	0	102	79.3	125			
Surr: 4-Bromofluorobenzene	0.96		0.9588		100	80	120			
Sample ID: 2010292-016amsd SampType: MSD TestCode: EPA Method 8021B: Volatiles										
Client ID: GWTS-2-100620	DUP Batc	h ID: 55	797	F	RunNo: 7	2630				
Prep Date: 10/13/2020	Analysis [Date: 10)/14/2020	S	SeqNo: 2	551489	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.90	0.093	0.9285	0	96.6	78.1	153	0.565	20	
Benzene	0.90	0.023	0.9285	0	96.4	76.3	120	1.28	20	
Toluene	0.95	0.046	0.9285	0	102	78.5	120	0.740	20	
Ethylbenzene	0.99	0.046	0.9285	0	107	78.1	124	1.54	20	
Xylenes, Total	3.0	0.093	2.786	0	106	79.3	125	0.691	20	
Surr: 4-Bromofluorobenzene	0.92		0.9285		99.6	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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WO#:	2010292
	15-Oct-20

Client:EA EngiProject:KAFB BI	neering Sc FF	eience &	t Technolog	gy						
Sample ID: Ics-55696	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8260B: Volat	tiles Short	List	
Client ID: LCSS	Batch	h ID: 55	696	F	RunNo: 72	2513				
Prep Date: 10/7/2020	Analysis D)ate: 10)/8/2020	ŝ	BeqNo: 2	545061	Units: mg/K	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	91.6	70	130			
Toluene	1.0	0.050	1.000	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.2	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.9	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			
Sample ID: mb-55696	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8260B: Volat	tiles Short	List	
Client ID: PBS	Batch	h ID: 55	696	F	RunNo: 72	2513				
Prep Date: 10/7/2020	Analysis D)ate: 10	/8/2020	S	SeqNo: 2	545062	Units: mg/K	٤g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.3	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.9	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.49		0.5000		97.7	70	130			
Sample ID: 2010292-001ams	SampT	уре: М	6	Tes	tCode: EF	PA Method	8260B: Volat	tiles Short	List	
Client ID: GWTS-1-100620	Batch	n ID: 55	696	F	RunNo: 72	2513				
Prep Date: 10/7/2020	Analysis D)ate: 10)/8/2020	5	SeqNo: 2	545810	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.025	0.9930	0	84.3	67.9	137			
Toluene	0.99	0.050	0.9930	0	99.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.46		0.4965		93.3	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.4965		108	70	130			
Surr: Dibromofluoromethane	0.50		0.4965		101	70	130			
Surr: Toluene-d8	0.50		0.4965		102	70	130			
Sample ID: 2010292-001amsd	I SampT	уре: М	SD	Tes	tCode: EF	PA Method	8260B: Volat	tiles Short	List	
Client ID: GWTS-1-100620	Batch	h ID: 55	696	F	RunNo: 72	2513				
Prep Date: 10/7/2020	Analysis D)ate: 10)/8/2020	S	SeqNo: 2	545811	Units: mg/K	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	0.9901	0	95.6	67.9	137	12.3	20	
Toluene	1.0	0.050	0.9901	0	103	70	130	2.60	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceededND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

0.51

0.54

0.50

WO#:	2010292
	15 Oct 20

Client:EA EngProject:KAFB E	ineering So BFF	cience &	t Technolog	ЗУ						
Sample ID: 2010292-001ams	d Samp	Туре: М	SD	Tes	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: GWTS-1-100620	Batc	h ID: 55	696	F	RunNo: 7	2513				
Prep Date: 10/7/2020	Analysis [Date: 10)/8/2020	S	SeqNo: 2	545811	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.48		0.4950		96.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.50		0.4950		101	70	130	0	0	
Surr: Dibromofluoromethane	0.54		0.4950		108	70	130	0	0	
Surr: Toluene-d8	0.49		0.4950		99.2	70	130	0	0	
Sample ID: Ics-55696	Samp	Type: LC	S4	Tes	tCode: El	PA Method	8260B: Volat	tiles Short	List	
Client ID: BatchQC	Batc	h ID: 55	696	F	RunNo: 7	2548				
Prep Date: 10/7/2020	Analysis [Date: 10	0/9/2020	S	SeqNo: 2	546785	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	98.5	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	105	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.8	70	130			

0.5000

0.5000

0.5000

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

Surr: Dibromofluoromethane

Surr: Toluene-d8

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

102

108

101

70

70

70

130

130

130

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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15-Oct-20

Client: Project:	EA En KAFB	gineering Sc BFF	ience &	Technolog	ЗУ						
Sample ID: M	B-55708	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	6010B: Soil I	Vietals		
Client ID: PI	BS	Batch	n ID: 55	708	F	RunNo: 72	2520				
Prep Date: 1	10/7/2020	Analysis D	ate: 10	/8/2020	S	SeqNo: 2	545190	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		ND	2.5								
Manganese		ND	0.20								
Sample ID: LC	CS-55708	SampType: LCS TestCode: EPA Method 6010B: Soil Metals									
Client ID: LC	CSS	Batch	n ID: 557	708	F	RunNo: 72	2520				
Prep Date: 1	10/7/2020	Analysis D	ate: 10	/8/2020	5	SeqNo: 2	545192	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		25	2.5	25.00	0	101	80	120			
Manganese		24	0.20	25.00	0	97.7	80	120			

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Р
- Sample pH Not In Range
- RL Reporting Limit

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	ONMENTAL 'SIS Ratory	Hall Environmental Albu TEL: 505-345-3975 Website: clients.hal	Analysis Laborator 4901 Hawkins N querque, NM 8710 FAX: 505-345-410 llenvironmental.co	73 1/E 279 Sam 177 117	ple Log-In Check Lis	t
Client Name:	EA Engineering	Work Order Number:	2010292		RcptNo: 1	
Received By: Completed By: Reviewed By:	Juan Rojas Emily Mocho	10/6/2020 3:50:00 РМ 10/6/2020 4:12:36 РМ IUUU		Juan En G		
Chain of Cust	ody V					
1. Is Chain of Cu	stody complete?		Yes 🗹	No 🗌	Not Present	
2. How was the s	ample delivered?		Client			

Z, How was the sample delivered?	Cli	ent			
Log In					
3. Was an attempt made to cool the samples?	Ye	s 🗸	No 🗌	NA 🗌	
4. Were all samples received at a temperature of $>0^{\circ}$ C to 6.0	°C Ye	s 🔽	No 🗌) NA 🗌	
5. Sample(s) in proper container(s)?	Yes	•	No 🗌	1	
6. Sufficient sample volume for indicated test(s)?	Yes	~	No 🗌	Î	
7. Are samples (except VOA and ONG) properly preserved?	Yes	~	No 🗌		
8. Was preservative added to bottles?	Yes		No 🔽	NA 🗌	
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes		No 🗌	NA 🗹	
10. Were any sample containers received broken?	Yes		No 🔽	# of preserved	/
 Does paperwork match bottle labels? (Note discrepancies on chain of custody) 	Yes	\checkmark	No 🗌	for pH: (<2 or >12	unless noted)
2. Are matrices correctly identified on Chain of Custody?	Yes	V	No 🗌	Adjusted?	
3. Is it clear what analyses were requested?	Yes	V	No 🗌	/	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes		No 🗌	Checked by: JR	- 10/6/20
Special Handling (if applicable)				/	
15. Was client notified of all discrepancies with this order?	Yes		No 🗌	NA 🗹	
Person Notified	Date:			-	
By Whom:	Via: eN	lail 🗍	Phone 🗌 Fa	x 🗍 In Person	
Regarding:					
Client Instructions:					
16. Additional remarks:					
17. <u>Cooler Information</u>					
Cooler No Temp °C Condition Seal Intact Seal	No Seal D	ate	Signed By		

Chain-of-Custody Record				Turn-Around										-								
Client: EA ENGINEERING				Standard & Rush 2 DAY				ANALYSIS LABORATORY														
				Project Name:																		
Mailing Address: 320 GOLD AVE SW				KIRTLAND REF				4901 Hawkins NE - Albuquerque, NM 87109														
A	BQN	IM	87102	Project #:					Tel. 505-345-3975 Fax 505-345-4107													
Phone	#: 50	5-28	10-0572	6360401				Analysis Request														
email or Fax#: blockisch @enest.com				Project Manager:				ô					04			nt)						
QA/QC Package:				Bernie Bockisch				O / MR	PCB's	8011	SMISC		PO4, S			it/Abse	12					
Accreditation: Az Compliance				Sampler: JRL				DR	082	1)/(1.	827(102,			eser	2					
NELAC Other				On Ice:Yes _ No				RO	es/8	504) or	s	3, N		(YO)	(Pre	10					
EDD (Type)				# of Coolers:				D(G	ticid	pou	8310	Veta	NO	(A)	ni-V	form	1					
Date	Time	Matrix	Sample Name	Container	Preservative	HEAL No.	BTEX / N	TPH:8015	8081 Pes	EDB (Met	AHs by	SCRA 8	Cl, F, Br,	3260 (VO	8270 (Ser	otal Coli	rotA1					
10/1/2020	11.31	Sail	GWTS-1-100620	ix4 of	1 ypc	2010212	X	F		X	ш.	ш.	0	8	8	F	Ý	-	-			
(Inclu		GWTS-2-100620	1	<u></u>	007	X										X		-			
	1047		GWTS-3-100620			003				T												
	1050		GWTS-4-100620			004	X										\times					
	1057		GWTS-5-100620			005	X										X					
	1101		GWTS-6-100620			006																
	1104		GWTS-7-100620			007	X										X					
	1110		GWTS-8-100620			008													4			
-h	1124		GWTS-9-100620			009																
	7130		GWTS-10-100620			010	EL.															
	1139	- 1,	GWTS-1124-100620			011																
V	1146	V	GWTS-1182100620	V	V	012				V												
Date: 10/6 2020	Time: 1536	Relinquish Josff	Livingston Jult-	Received by:	Via:" TCDO	Date Time 10 6 20 15,50	Rem	narks	5:													
Date: Time: Relinquished by:				Received by:	Via:	Date Time																

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

Chain-of-Custody Record				Turn-Around Time:																	
Client: EA ENGINEERING				□ Standard	ANALYSIS LABORATORY																
				Project Name:																	
Mailing	Address	5:320	GOLD AVE SW	Kirtland BFF				4901 Hawkins NE - Albuquerque, NM 87109													
ABQ, NM 87102				Project #:	~			Te	el. 50	5-34	5-39	75	Fa	x 50	05-3	345-4	107				
Phone #: 505-280-0572				6 3	36041	01	Analysis Request														
email or Fax#: bhockisch Claest.con				Project Manager:				(0)		-		9	04			int)					
QA/QC	Package: Idard		□ Level 4 (Full Validation)	Bernie Bockisch				O / MR	PCB's	1801	SMISO		гО4,			nt/Abse					
Accreditation: Az Compliance				Sampler: JRL				/ DR	082	. 1	827(102,			eser					
NELAC Other				On Ice:Yes No				RO	es/8	504	or	s	3, 1		(A)	(Pr	сĿ.,				
) (Type)		T	# of Coolers:				D(G	ticid	poq	8310	Aeta		A I	>-iu	form					
Data	Time	Matrix	Sampla Nama	Container	Preservative	HEAL No.	TEX / N	PH:8015	081 Pest	DB (Met	AHs by {	CRA 8 N	1, F, Bf,	100 (VU)	270 (Ser	otal Colif					
Date	lime	Matrix	CLTC-IX-108620	i when and #	Туре	10102912	<u> </u>	-	00		<u> </u>				∞	<u>+</u>	-	-		-	-
(0(6)2#20	1153	TOUL	GUTS BALLOCO	Ity of		015				A	-	-			-	-	-	-		-	-
	1157		01615-194100020			014			-	1	-	+	+	-	-	-	-	\vdash	\vdash		-
			4w15 95 100620										-	-	-	-	-			_	-1.
			94517-100620										-	-	-	-		-		_	JL
			GWTS-13-100620				_		-	+	-			-	-	-	_			-	11
1	1		GWTS-19-100520								_		-			-				-	JL
V	1	V	GWTS-20-100620	V					1.00	V				_	_	_	_			-	JL
10/6/2020	1245	420	GWTS-15W-100620	2× Youl	Thiosulfate	015				X											
1											_	-	-	_	_	-	_			_	_
												_	4	_	_		_			-	_
-										-		_	-	-	-	-	-			-	-
Date: Time: Relinguished by:		Received by:	Via:	Date Time	Ren	narks	3:				-			_					-		
1016	1530	JOSH LIVINGTON AL		Del																	
Date:	Time:	Relinquish	ned by:	Received by:																	
						-															

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albu TEL: 505-345-3975 Website: clients.hau	Analy 49(iquero FAX: Ilenvi	vsis La DI Hav que, N 505-3 ronme	boratory vkins NE M 87109 45-4107 ntal.com	Sar	nple Log-In	Check List
Client Name: EA Engineering	Work Order Number:	201	0292	an E.		RcptN	lo: 1
Received By: Juan Rojas 10	0/6/2020 3:50:00 PM			flean	E.G		
Completed By: Emily Mocho 10	0/6/2020 4:12:36 PM						
Reviewed By: MA 10	upo						
Chain of Custody U ENH	10/12/20						
1. Is Chain of Custody complete?		Yes	~	No		Not Present	
2. How was the sample delivered?		Clie	nt				
Log In							
3. Was an attempt made to cool the samples?		Yes	~	No			
4. Were all samples received at a temperature of >	•0° C to 6.0°C	Yes	~	No			
5. Sample(s) in proper container(s)?		Yes		No			
6. Sufficient sample volume for indicated test(s)?		Yes	V	No			
7. Are samples (except VOA and ONG) properly pro	eserved?	Yes	V	No			
8. Was preservative added to bottles?		Yes		No	~	NA 🗌	
9. Received at least 1 vial with headspace <1/4" for	AQ VOA?	Yes		No		NA 🗹	
10. Were any sample containers received broken?		Yes		No	•	# of proponied	/
11 December 1						bottles checked	
(Note discrepancies on chain of custody)		Yes		No	L	tor pH: (<2)	or >12 unless noted)
12. Are matrices correctly identified on Chain of Cust	ody?	Yes	V	No		Adjusted?	/
13. Is it clear what analyses were requested?		Yes	~	No		/	
14. Were all holding times able to be met?		Yes	~	No		Checked by:	JR 10/6/20
(If no, notify customer for authorization.)					1	2nd label	By: DAD IDITION
Special Handling (if applicable)							1. 200 1010 10
15. Was client notified of all discrepancies with this of	order?	Yes		No		NA 🔽	
Person Notified:	Date:				-		
By Whom:	Via:	eMa	ail 🗌	Phone	Fax	In Person	
Regarding:							
Client Instructions:							
16. Additional remarks:							
17. <u>Cooler Information</u> Cooler No Temp ^o C Condition Seal Ir 1 4.0 Good Not Pre	ntact Seal No Se sent	eal D	ate	Signed	Ву		

С	hain	-of-Cu	ustody Record	Turn-Around	I Time:								-							
Client:	EA	ENC	INERING	□ Standard	Rush	2 DAY					AL DR'	v								
				Project Name:																
Mailing Address: 3 LO GOLD AVE SW			Kirtland BFF			4901 Hawkins NE - Albuquerque, NM 87109														
ABQ. NM STIOZ			Project #:	<i>C</i>		Tel. 505-345-3975 Fax 505-345-4107														
Phone #: 505-280-0572			63	36041	0 (Analysis Request														
email or Fax#: bhockisch Claest, con			Project Mana	ager:		÷	Ô				Ċ	t (nt)	-	5	4	4		
QA/QC Package:			Bernie Bockisch				O / MR	PCB's	1801	SMISO	DO.			nt/Abse		2120	IL De	20		
Accredi	tation:	□ Az Co	ompliance	Sampler:	JRL		IMB	/ DR	082	(7	827	ģ	2		eser	9	1	8	Z	
	AC	□ Othe	r	On Ice: PYes D No			15	RO	es/8	504	or	s s	- 6	(YO	(Pr	7	0	2	8	
	(Type)			# of Coolers:		m / / / / / / / / / / / / / / / / / / /	TBE	D(G	icide	pou	3310	NO NO		Ni-V	orm	J.	2	8	8	
Date	Time	Matrix	Sample Name	Container	Preservative	HEAL No.	BTEX / M	PH:8015	3081 Pest	EDB (Met	AHs by 8	CCRA 8 N	3260 (VO	3270 (Sen	otal Colif	Etal F	EN	BTEX	gamo	
Jolthan	1100	FOIL	GUTS-VG-100620	IFU . Z		112	-			V			100		-	17			-	+
10/0/010	112	2-12	GLUTS-1844100620	In to C		015	-			1	-	-	-	-				-	+	++
	1157		GWTC-16#100620			019		-			-					-)
-			GW75-17-100620				-	-		+	-	-	+-							j
-			GWTS-18-100620				-						_	-		1.0				J
-			GLOTS-19 100620						-	+			-	-			_			J
V		V	GWTS-20-100620	V	V			1.000		V										
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10/6/20	1044	Soil	GWTS-7-100620D	4P		-016	X			T					1	×	2	21/		
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	FN	U N	12/20	1																
	P	r Be	rnord Bockish		E		34)													
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Date:	Time:	Relinquish	ed by:	Received by:	Via:	Date Time														

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

C	hain	-of-Cu	ustody Record	Turn-Around	Time:																
Client: EA ENGINEERING				Standard Krush 2 DAY																	
				Project Name:																	
Mailing Address: 320 GOLD AVE SW			KIRTLAND REF				4901 Hawking NE _ Albuquorquo NM 97100														
ARR NM 87102			Project #:		Ort	Tel. 505-345-3975 Fax 505-345-4107															
Phone	#: 50	5-28	0-0572	63	6360401				Analysis Request												
email or Fax#: blockisch @enest-com			Project Mana	ager:		1)												T			
QA/QC Package:			Bernie Bockisch				O / MR	PCB's	11081	OSIMS		PO4, S			nt/Abse	14					
Accred	itation:	🗆 Az Co	ompliance	Sampler:	JRL		TMB	/ DR	082	1)/	827		NO ₂ ,			lese.	V				
	AC	□ Othe	r	On Ice:	- Yes	□ No	./3	SRO	les/8	1 504	0 or	sle	D ₃ , 1		(AO)	n (Pr	12				
	(Type)_	<u> </u>		Cooler Temp	O(including CF): U -	0+0=4.0 (°C)	MTB	5D(0	sticic	ethoc	831	Meta	NON .	(YC	-ime	liforn	2				
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / I	TPH:801	8081 Pe	EDB (Me	PAHs by	RCRA 8	CI, F, Br	8260 (VC	8270 (Se	Total Col	TotA				
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	1/01		GWTS-6-100620			006		í. La													
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	1124		GWTS-9-100620			009															
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V	1146	V	GWTS-182100620	V	V	012				V										1	
Date: 10/6 2020	Time: 1536	Josh	Livingsper Aufter	Received by	Via: TCDO	Date Time 10/6/20 15,50	Ren	narks	S:												
Date:	Time:	Relinquish	hed by:	Received by:	Via:	Date Time		1													

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Attachment 6

Document Certification Page

40 CFR 270.11 DOCUMENT CERTIFICATION

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.

S. Ma

RYAN S. NYE, Colonel, U.S. Air Force Vice Commander, 377th Air Base Wing 19 oct 20

Date

This document has been approved for public release.

KIRTLAND AIR FORCE BASE 377th Air Base Wing Public Affairs

<u>19 OCT 20</u> Date

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PURCHASE ORDER NUMBER	KAFB GWTS Water Release
REFERENCE	6360401 3001 010000
SHIPPER REFERENCE	6360401 3001 010000
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DELIVERED TO	Mailroom
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