Susana Martinez Governor

Ken McQueen Cabinet Secretary

Matthias Sayer Deputy Cabinet Secretary Heather Riley, Division Director Oil Conservation Division



November 28, 2018

Steven Moskal BPX Energy Field Environmental Coordinator 1199 Main Ave, Suite 101 Durango, CO 81301

Reference 3RP-1053 Irvin Com #001E BP's Request for Closure August 13, 2018

Mr. Moskal:

OCD has reviewed the files on the release referenced above. The available information shows BP's remediation efforts have removed BTEX from the groundwater and met the monitoring requirements.

The available information indicates BP has met the requirements of 19.15.29-30 NMAC. No further corrective action is required. This referenced remediation project is closed.

This finding by the OCD does not relieve BP of responsibility if future information shows a threat to ground water, surface water, human health, or the environment. Further, it does not relieve BP of responsibility for compliance with any federal, state, or local law.

Please properly plug remaining monitoring wells per requirements of the New Mexico Office of the State Engineer.

Thank you,

Vanessa Fields Environmental Specialist 505-334-6178 ext. 119

Groundwater Monitoring Closure Report

Irvin Com 1E

(E) Sec 11 – T29N – R13W API: 30-045-25841 San Juan County, New Mexico

3RP-1053

NMOCO AUG 1 3 2018 DISTRICT III

Prepared for: BP America Production Co. Farmington, New Mexico

Prepared by: Blagg Engineering, Inc. P.O. Box 87 Bloomfield, New Mexico 87413 (505)320-1183

GROUNDWATER MONITORING CLOSURE REPORT

IRVIN COM 1E

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GROUNDWATER MONITORING CLOSURE REPORT IRVIN COM 1E

INTRODUCTION

Blagg Engineering Inc. (BEI) has been retained by BP America Production Co. (BP) to conduct groundwater monitoring at the Irvin Com 1E, located in Farmington, New Mexico at (E) Sec. 1 - T29N - R13W (Figure 1). The purpose of this monitoring has been to evaluate groundwater quality following a remedial excavation of hydrocarbon impacted discovered in October, 2012 during planning operations to remove three (3) underground storage tanks (USTs) at the site. At that time soil borings were installed to evaluate soil conditions at the USTs and subsequently discovered groundwater impacts. The impacts were a direct result of hydrocarbons leaking from one or more of the USTs.

A remedial excavation to remove all impacted soils from the ground surface to the water table, found at approximately 20 feet below surface grade, was performed in April – May, 2013. Documentation confirming impacted soil removal is on file with the New Mexico Oil Conservation Division (NMOCD) in case file 3RP - 1053.

There was one pre-existing groundwater monitoring well (MW-1) at the northeast corner of site that was installed by others sometime prior to 2002. Prior to the 2013 soil remediation monitor wells MW-2 (near the UST source area) and MW-3 (at the southeast corner of the well pad) were installed to further evaluate water quality and gradient direction. Immediately following the remedial excavation three (3) additional monitor wells were installed to evaluate residual water quality. Monitor well MW-4 was placed near the center of the prior UST location (as a replacement for MW-2 which was excavated during the remediation) and MW's-5 and 6 were placed down-gradient of the remedial excavation. Minor groundwater impacts were initially detected in MW-4 but these quickly dissipated to non-detect via natural attenuation after one year. Trace free product was detected in MW-6. A small, limited one (1) boring soil vapor extraction (SVE) system was installed in the area of MW-6 and placed into operation in January, 2015 specifically to address the residual groundwater impacts. No soil impacts were detected while installing the SVE point. Groundwater impacts at MW-6 quickly dissipated following operation of the SVE unit and the well has achieved two (2) years of sampling with regulated constituents testing below closure standards.

In order to confirm that no hydrocarbon impacts advanced down-gradient from the site BP installed two (2) additional monitor wells off-site in May, 2018 (MW-7 and MW-8). Laboratory analytical test results from these wells confirm that no residual hydrocarbon impacts are present down-gradient from the original primary remedial excavation or down-gradient from monitor well MW-6.

INVESTIGATIVE PROCEDURES

Drilling locations for new wells MW-7 and MW-8 had been pre-determined and approved by the NMOCD. The wells were permitted and approved by the New Mexico Office of the State Engineer.

Drilling operations were commenced on May 16, 2018 by GeoMat using a CME-55 hollow stem auger rig equipped with 5-foot long x 7-3/4 inch outside diameter, 4-inch inside diameter auger. While drilling soil samples were collected using a 2-inch diameter split spoon sampler (see Appendix D for boring logs).

Well completions consisted of a 15-foot long slotted screened section with riser extending to surface grade. The piping used for completion of the wells was a schedule 40 PVC with threaded connections. The annulus of the screened section was sand packed with washed graded silica 10/20 mesh from boring total depth (TD) to approximately 2 feet above the top screen slot. Hydrated bentonite/grout mix was placed immediately above the sand pack, with a concrete mix at the ground surface. The well tops were secured with a steel, secured well protector, concreted into place and locked.

The wells were developed on June 15, 2018 by using a new, dedicated disposable pump and tubing to recover water from each well until stable parameters (pH, Conductivity and Temperature) were achieved. The wells were sampled by hand bailing using a new, dedicated disposable bailer until stable parameters were achieved on June 18, 2018. Samples were placed into laboratory supplied containers with appropriate preservatives, labeled, placed on ice in an ice chest, then hand delivered to a Hall Laboratories representative with chain-of-custody documentation. Laboratory samples were analyzed via U.S EPA Method 8260 for volatile organics and cation/anion balance.

INVESTIGATION FINDINGS

Relative groundwater elevations were measured on May 9, 2018 to confirm the site gradient prior to installation of monitor wells MW-7 and MW-8. Figure 3, Appendix A, confirms the gradient to be in a primarily southern direction. This is consistent with the historical gradient at the site.

No hydrocarbon contaminates in excess of NMOCD or New Mexico Water Quality Control Commission (NMWQCC) regulatory standards were detected in either monitor well MW-7 or MW-8. Previously installed monitor wells have a minimum of two (2) continuous years passing NMWQCC hydrocarbon standards. Laboratory analytical data from all monitor well groundwater sampling is summarized in Appendix B. Analytical data reports are included in Appendix E.

REMEDIATION CLOSURE

The laboratory analytical results of groundwater indicate that site closure of groundwater impacts has been achieved at all monitor well locations. It is Blagg Engineering, Inc's opinion that monitor wells are sufficiently placed to quantify remaining on-site, down-gradient and upgradient residual water quality. It is possible that monitor wells placed at other locations could result in differing analytical results.

It is Blagg Engineering, Inc's professional opinion that the sampling and analytical testing conducted has been sufficient to determine that no groundwater impacts exceeding site closure standards for petroleum hydrocarbons remain at any monitor well points. There is no indication that additional site investigations are necessary, and closure is recommended.

Blagg Engineering, Inc.

Jeffrey C Blagg, PE DN: cn=Jeffrey C Blagg, PE, o, ou, email=jeffcblagg@aol.com, c=US Date: 2018.08.13 05:49:44 -06'00'

Jeffrey C. Blagg, P.E. President

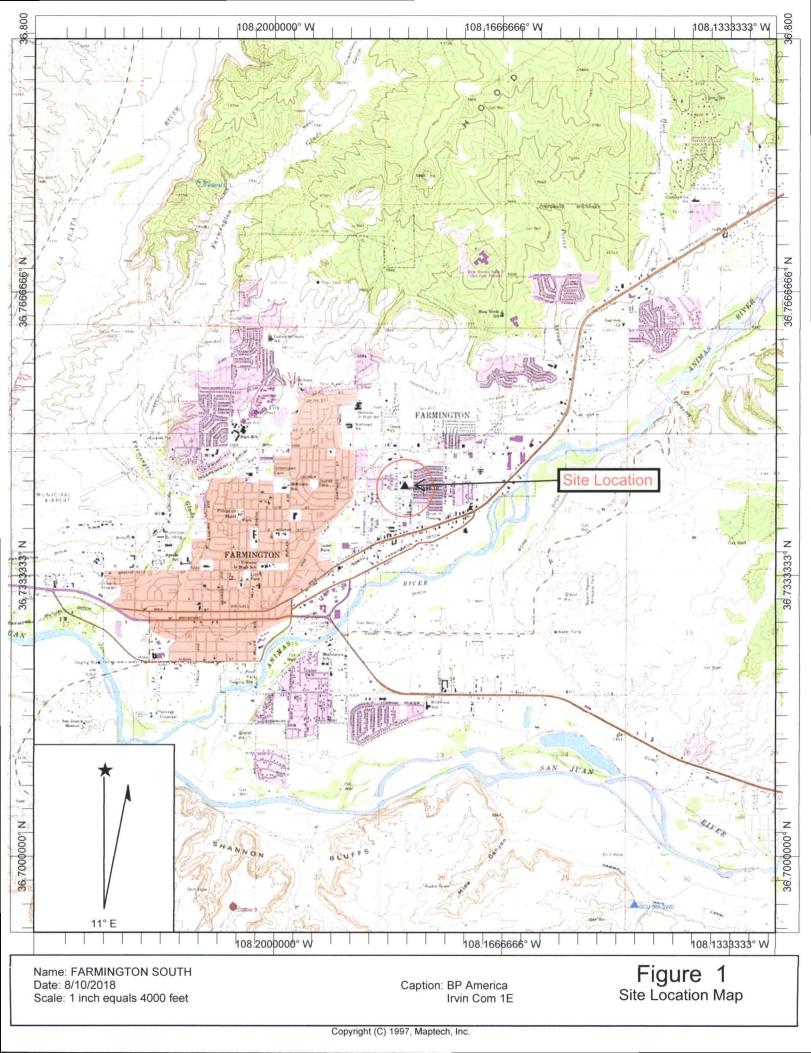
Digitally signed by Jeffrey C Blagg, PE

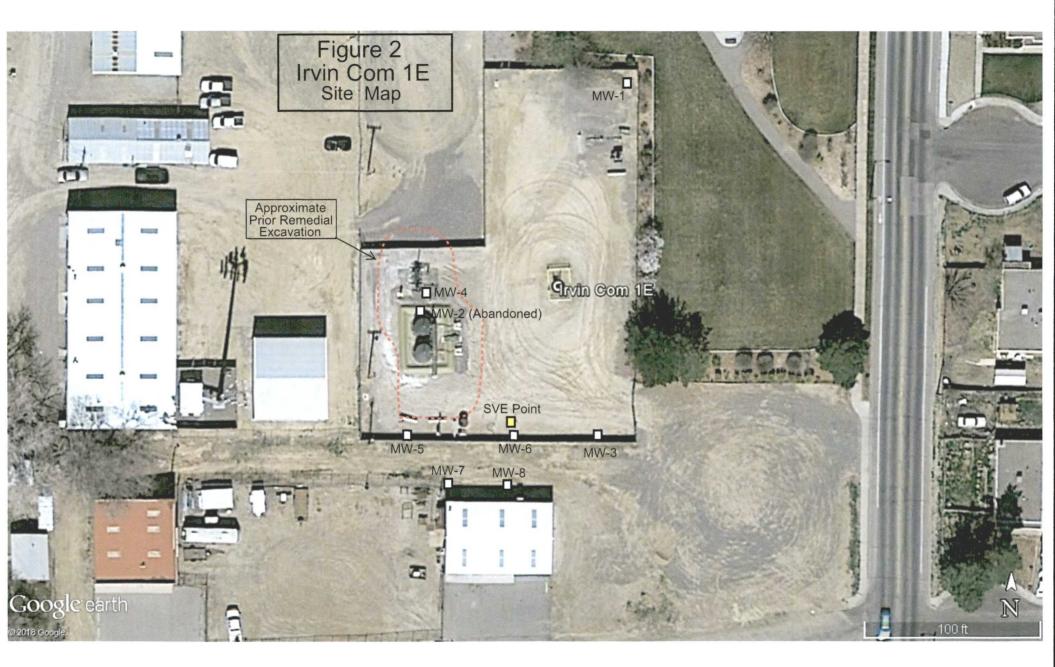
Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action							
0		RATOR			Initial Re	eport 🛛 Final Report	
Name of Company: BP		Contact: Steve Moskal					
Address: 380 Airport Road, Durango, CO 81303		Telephone No.: 505-330-9179					
Facility Name: Irvin Com No. 001E	Fa	Facility Type: Natural gas well					
Surface Owner: Fee Mineral Own	ner: Fe	ee			API No	0. 30-045-25841	
LOCAT	ION	OF REI	LEASE				
	orth/So orth	outh Line	Feet from the 1,110	East/V West	Vest Line	County: San Juan	
Latitude <u>36.7439°</u>]	Longitude	-108.18075°				
NATUI	RE C	OF RELE	EASE				
Type of Release: Hydrocarbon - Underground Storage Tank		Volume of	Release: unknow	/n	and the second se	Recovered: none	
Source of Release: Flowline		Date and H Unknown	our of Occurrence	e:	Date and	Hour of Discovery: April, 2013	
Was Immediate Notice Given?		If YES, To	Whom?				
Yes No Not Requi		m 100, 10	it nom:			WILLORD MARKEN	
By Whom?		Date and H	our:			NMOCD	
Was a Watercourse Reached?		If YES, Vo	lume Impacting t	the Wate	ercourse.	Allo	
Yes No						AUG 1 3 2018	
If a Watercourse was Impacted, Describe Fully.*						DISTRICT III	
Describe Cause of Problem and Remedial Action Taken.* During removal of an underground storage tank, hydrocarbon impacted soils were encountered. Impacted soils were excavated and removed from the location. Residual groundwater impacts were identified in December 2013 in a downgradient monitoring well. Soil vapor extraction points were installed to further remediate due to the proximity of property lines configuration of the site.							
Describe Area Affected and Cleanup Action Taken.* The vertical and lateral extents of the impacted soil were identified via system became operational in August 2015. Attached is the field data effective in reducing the contaminant concentration thus far. Attached of the system and influence downgradient. Based on the attached repo	a demo d are th	onstrating the ne results of	e performance of offsite groundwa	the SVI ter activ	E system.	The SVE continue to appear determined the effectiveness	
I hereby certify that the information given above is true and complete regulations all operators are required to report and/or file certain relea public health or the environment. The acceptance of a C-141 report b should their operations have failed to adequately investigate and reme or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	ise not by the N ediate of	ifications an NMOCD ma contaminatio	d perform correct arked as "Final R on that pose a thr	ctive acti eport" d eat to gr	ons for rele oes not reli ound water	eases which may endanger ieve the operator of liability r, surface water, human health	
			OIL CON	SERV	ATION	DIVISION	
Signature: Mun	_				$\left(\right)$		
Printed Name: Steve Moskal	A	pproved by	Environmental S	pecialist	à	a C	
Title: Field Environmental Coordinator	Aj	Approval Date: 128 200 Expiration Date:					
E-mail Address: steven.moskal@bp.com	Co	onditions of	Approval:			Attached	
Date: August 12, 2018 Phone: 505-330-9179							
Attach Additional Sheets If Necessary	1	Nes	VIDE	573	1882	66	

APPENDIX A Figures





APPENDIX B

Summary Water Quality Analytical Data Spreadsheet

BP AMERICA PRODUCTION COMPANY

GROUNDWATER FIELD DATA & LAB BTEX RESULTS

Irvin Com #1E-USTs UNIT E, SEC. 11, T29N, R13W

REVISED DATE: August 9, 2018 Submitted by Blagg Engineering, Inc.

								BTEX	US EPA METH	OD 8021B or	8260B
SAMPLE	WELL NAME	DEPTH TO	WELL	TDS	CONDUCT.	pН	FREE PHASE	BENZENE	TOLUENE	ETHYL	TOTAL
DATE	/ NUMBER	WATER	DEPTH				PRODUCT			BENZENE	XYLENE
		(ft)	(ft)	(mg/L)	(umhos)		(ft)	(ppb)	(ppb)	(ppb)	(ppb)
01/16/02	MW #1	21.71	25.20					ND	ND	ND	ND
10/02/12	MW #2	19.72	30.00	1,900		7.35	1	150	280	27	260
12/26/12		19.21		1,725		7.22		96	180	20	170
10/02/12	MW #3	20.11	31.70	1,050	1 1	7.05	1	ND	ND	ND	ND
12/19/13		19.48			1,100	7.18		ND	ND	ND	ND
03/18/14		19.23			1,000	7.28		ND	ND	ND	ND
06/29/14		20.33			1,200	7.19		ND	ND	ND	ND
08/30/14		20.73			900	7.16		ND	ND	ND	ND
12/02/14		19.72			1,300	7.26		ND	ND	ND	ND
03/05/15		19.93			1,400	6.70		ND	ND	ND	ND
05/27/15		19.67			1,500	7.02		ND	ND	ND	ND
08/27/15		20.61			1,500	6.93		ND	ND	ND	ND
08/28/13	MW #4	23.57	31.70	1,565		8.40		1,700	ND	130	30
09/18/13		23.51	01.70	1,600		8.10		740	ND	110	/ 10
12/23/13		21.86		1,625		7.90		6.1	ND	49	ND
03/08/14		21.60		1,020	1,600	7.05		3.3	ND	ND	ND
06/29/14		22.65			2,200	6.97		2.2	ND	ND	2.3
08/30/14		23.20			1,500	6.99		20	ND	6.0	5.4
12/02/14		22.01			2,500	7.09		2.1	ND	ND	ND
03/05/15		21.73			4,300	6.63		ND	ND	ND	ND
05/27/15		21.98			4,000	6.88		2.0	ND	ND	ND
08/27/15		22.93			5,000	6.92		1.6	ND	ND	ND
12/03/15		22.01			2,500	7.09		ND	ND	ND	ND
03/09/16		22.62			3,600	6.97		ND	ND	ND	ND
06/21/16		23.85			3,600	6.92		ND	ND	ND	ND
08/29/16		23.71			3,000	7.02		ND	ND	ND	ND
12/19/16		23.44			3,500	6.96		1.8	ND	ND	ND
08/28/13	MW #5	22.37	31.30	1,150		8.20		ND	ND	ND	ND
12/19/13		20.72	01.00	2,200	1,200	7.23		ND	ND	ND	ND
03/18/14		20.46			1,300	7.32		ND	ND	ND	ND
06/29/14		21.56			1,500	7.26		ND	ND	ND	ND
08/30/14		21.99			1,100	7.24		ND	ND	ND	ND
12/02/14		20.95	_		1,500	7.39		ND	ND	ND	ND
03/05/15		20.67			1,900	6.70		ND	ND	ND	ND
05/27/15		20.92			1,900	7.03		ND	ND	ND	ND
08/27/15		21.89			1,900	6.89		ND	ND	ND	ND
08/28/13	MW #6	21.71	30.90	1,270		8.10		ND	ND	ND	4.3
12/19/13		20.15					0.08				
01/10/14		20.08					0.08				
01/13/14		20.09					0.09				
01/16/14		20.08					0.10				
01/20/14		20.08					0.10				
02/18/14		20.04					0.13				
03/04/14		20.01					0.14				
03/05/14		19.90					0.00				
03/18/14		19.86					0.01				
06/29/14		20.95					0.01				
08/30/14		21.30					0.02				

NMWQCC GROUNDWATER STANDARDS 10



BP AMERICA PRODUCTION COMPANY

GROUNDWATER FIELD DATA & LAB BTEX RESULTS

REVISED DATE: August 9, 2018 Submitted by Blagg Engineering, Inc.

Irvin	Со	m #1	LE - U	JSTs	
UNIT	Ε,	SEC.	11,	T29N,	R13W

								BTEX	US EPA METH	OD 8021B or	8260B
SAMPLE	WELL NAME	DEPTH TO	WELL	TDS	CONDUCT.	рН	FREE PHASE	BENZENE	TOLUENE	ETHYL	TOTAL
DATE	/ NUMBER	WATER	DEPTH				PRODUCT			BENZENE	XYLENES
L		(ft)	(ft)	(mg/L)	(umhos)		(ft)	(ppb)	(ppb)	(ppb)	(ppb)
12/02/14	MW #6	21.32	30.90		1,400	7.37		ND	ND	2.4	97
03/30/15	14144 #0	20.12	50.50		1,400	6.84		ND	1.6	8.7	280
05/27/15		20.12			1,600	7.10		ND	ND	2.7	69
08/27/15		21.19			1,600	6.91		ND	ND	ND	45
12/03/15		20.32			1,400	7.37		2.5	70	110	3,900
01/20/16		20.62			1,500	7.15		ND	ND	14	450
03/09/16		20.76			1,400	7.10		ND	ND	2.2	83
06/21/16		21.79			1,500	7.10		ND	4.3	15	920
08/29/16		22.15			1,400	7.06		ND	ND	4.6	570
12/19/16		21.29			1,500	7.02		ND	ND	ND	9.8
03/14/17		20.79			1,500	7.21		ND	ND	3.2	220
06/30/17		21.84			1,400	6.90		ND	ND	ND	12
09/07/17		22.89			1,500	7.11		ND	ND	ND	ND
12/28/17		21.16			1,350	7.34		ND	ND	ND	ND
03/29/18		21.22			1,400	6.96		ND	ND	ND	ND
06/18/18	MW #7	18.67	25.00		1,300	7.14		ND	ND	ND	ND
06/18/18	MW #8	18.05	25.00		1,800	7.10		ND	ND	ND	ND
NMWQCC GROUNDWATER STANDARDS								10	750	750	620

1) RESULTS IN BOLD RED TYPE INDICATE EXCEEDING NMWQCC STANDARDS.

2) RESULTS IN BOLD BLUE TYPE INDICATE BELOW NMWQCC STANDARDS AFTER PREVIOUS RESULTS IN BOLD RED TYPE EXCEEDED. 3) ND INDICATES NOT DETECTED AT THE REPORTING LIMITS (less than regulatory standards of at least a magnitude of 10). 4) NMWQCC INDICATES NEW MEXICO WATER QUALITY CONTROL COMMISSION.

NOTES :

APPENDIX C Summary SVE Data

BP America - Irvin Com 1E

Summary SVE System Monitoring Data

Date	SVE Pt.	Exhaust OVM (ppm)	Exhaust Vacuum (in)	Exhaust Rate (cfm)	System Operational at Time of Arrival?	H ₂ O Drained from drum?	H ₂ O Amt. Drained (Gal.)?	Comments
1/15/2016	1	-	52	NA	YES	NO	0.00	Visually inspected water level in drum only
1/29/2016	1	-	52	NA	YES	NO	0.00	Visually inspected water level in drum only
2/9/2016	1	-	48	NA	YES	YES	10.50	
3/9/2016	1	-	46	-	YES	NO	0.00	Measured ~ 0.5" H2O in drum
4/21/2016	1	-	44	-	YES	NO	0.00	Measured ~ 1.0" H2O in drum
6/8/2016	1	-	42	-	YES	NO		Dry drum
8/30/2016	1	-	-	-	YES	NO		Dry drum
11/10/2016	1	9.8	44	-	NO	YES	27.00	Collected readings after draining & restarting
12/1/2016	1	8.4	46	-	NO	YES	27.00	Collected readings after draining & restarting
12/15/2016	1	24.0	50	-	NO	NO		Water in drum below drain port, collected readings after restarting
12/19/2016	1	0.0	50	-	YES	YES	4.00	
12/29/2016	1	0.0	50	-	YES	YES	17.00	
1/12/2017	1	0.0	48	-	YES	YES	14.50	
1/20/2017	1	0.0	48	50	YES	YES	6.50	
2/18/2017	1	0.0	48	-	YES	YES	23.00	
3/14/2017	1	0.0	50	-	YES	YES	9.50	
4/27/2017	1	0.0	48	-	YES	NO		Water in drum below drain port
6/30/2017	1	0.0	48	-	YES	NO		Water in drum below drain port
9/7/2017	1	0.0	48	-	YES	NO		Water in drum below drain port
12/28/2017	1	0.0	49	60	NO	YES		Ice within drum measured at 17 inches, drained, then collected data
1/4/2018	1	-	-	-	YES	YES	22.00	Drained water drum only
2/19/2018	1	0.0	49	80	NO	YES	26.00	Collected readings after draining & restarting
3/29/2018	1	0.0	50	65	YES	YES	14.50	

APPENDIX D

Boring Logs



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

May 29, 2018

Steve Moskal Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: Irvin Com 1E

OrderNo.: 1805A62

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 4 sample(s) on 5/18/2018 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 <u>www.hallenvironmental.com</u> 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

Date Reported: 5/29/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering Project: Irvin Com 1E		Client Sample ID: MW 7 @ 15' Collection Date: 5/16/2018 8:28:00 AM							
Lab ID: 1805A62-001	Matrix: S	OIL	Received	Date: 5/1	8/2018 7:00:00 AM				
Analyses	Result	PQL Qual	Units	DF	Date Analyzed	Batch			
EPA METHOD 300.0: ANIONS					Analyst:	MRA			
Chloride	ND	30	mg/Kg	20	5/23/2018 3:09:12 PM	38280			
EPA METHOD 8015D MOD: GASOL		Analyst:	AG						
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	5/22/2018 6:34:25 PM	38225			
Surr: BFB	117	70-130	%Rec	1	5/22/2018 6:34:25 PM	38225			
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst:	Irm			
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	5/22/2018 5:00:39 PM	38228			
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/22/2018 5:00:39 PM	38228			
Surr: DNOP	104	70-130	%Rec	1	5/22/2018 5:00:39 PM	38228			
EPA METHOD 8260B: VOLATILES S	HORT LIST				Analyst:	AG			
Benzene	ND	0.023	mg/Kg	1	5/22/2018 6:34:25 PM	38225			
Toluene	ND	0.046	mg/Kg	1	5/22/2018 6:34:25 PM	38225			
Ethylbenzene	ND	0.046	mg/Kg	1	5/22/2018 6:34:25 PM	38225			
Xylenes, Total	ND	0.092	mg/Kg	1	5/22/2018 6:34:25 PM	38225			
Surr: 4-Bromofluorobenzene	127	7 <mark>0-130</mark>	%Rec	1	5/22/2018 6:34:25 PM	38225			
Surr: Toluene-d8	88.0	70-130	%Rec	1	5/22/2018 6:34:25 PM	38225			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 8
	ND Not Detected at the Reporting Limit			Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/29/2018

CLIENT: Blagg Engineering		Client Sample ID: MW 7 @ 20' Collection Date: 5/16/2018 8:40:00 AM							
Project: Irvin Com 1E									
Lab ID: 1805A62-002	Matrix: S	Matrix: SOIL			Received Date: 5/18/2018 7:00:00 AM				
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 300.0: ANIONS					Analyst	MRA			
Chloride	ND	30	mg/Kg	20	5/23/2018 3:46:27 PM	38280			
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	AG			
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	5/22/2018 6:57:32 PM	38225			
Surr: BFB	116	70-130	%Rec	1	5/22/2018 6:57:32 PM	38225			
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst	: Irm			
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	5/22/2018 5:22:52 PM	38228			
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/22/2018 5:22:52 PM	38228			
Surr: DNOP	109	70-130	%Rec	1	5/22/2018 5:22:52 PM	38228			
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	AG			
Benzene	ND	0.024	mg/Kg	1	5/22/2018 6:57:32 PM	38225			
Toluene	ND	0.048	mg/Kg	1	5/22/2018 6:57:32 PM	38225			
Ethylbenzene	ND	0.048	mg/Kg	1	5/22/2018 6:57:32 PM	38225			
Xylenes, Total	ND	0.096	mg/Kg	1	5/22/2018 6:57:32 PM	38225			
Surr: 4-Bromofluorobenzene	126	70-130	%Rec	1	5/22/2018 6:57:32 PM	38225			
Surr: Toluene-d8	90.9	70-130	%Rec	1	5/22/2018 6:57:32 PM	38225			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 8
	ND Not Detected at the Reporting Limit		Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix		W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/29/2018

CLIENT: Blagg Engineering			Client Sampl	e ID: M	W 8 @ 15'					
Project: Irvin Com 1E		Collection Date: 5/16/2018 9:48:00 AM								
Lab ID: 1805A62-003	Matrix: S	SOIL	Received 1	Received Date: 5/18/2018 7:00:00 AM						
Analyses	Result	PQL Qua	l Units	DF	Date Analyzed	Batch				
EPA METHOD 300.0: ANIONS					Analyst	MRA				
Chloride	ND	30	mg/Kg	20	5/23/2018 3:58:51 PM	38280				
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	AG				
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/22/2018 7:20:37 PM	38225				
Surr: BFB	111	70-130	%Rec	1	5/22/2018 7:20:37 PM	38225				
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst	Irm				
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	5/22/2018 5:45:07 PM	38228				
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/22/2018 5:45:07 PM	38228				
Surr: DNOP	113	70-130	%Rec	1	5/22/2018 5:45:07 PM	38228				
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	AG				
Benzene	ND	0.024	mg/Kg	1	5/22/2018 7:20:37 PM	38225				
Toluene	ND	0.049	mg/Kg	1	5/22/2018 7:20:37 PM	38225				
Ethylbenzene	ND	0.049	mg/Kg	1	5/22/2018 7:20:37 PM	38225				
Xylenes, Total	ND	0.097	mg/Kg	1	5/22/2018 7:20:37 PM	38225				
Surr: 4-Bromofluorobenzene	121	70-130	%Rec	1	5/22/2018 7:20:37 PM	38225				
Surr: Toluene-d8	86.9	70-130	%Rec	1	5/22/2018 7:20:37 PM	38225				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 8
	ND Not Detected at the Reporting Limit			Sample pH Not In Range
	PQL Practical Quanitative Limit		RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Date Reported: 5/29/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering			Client Sampl	e ID: M	W 8 @ 20'							
Project: Irvin Com 1E			Collection	Date: 5/1	6/2018 9:55:00 AM							
Lab ID: 1805A62-004	Matrix: S	Matrix: SOIL			Received Date: 5/18/2018 7:00:00 AM							
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch						
EPA METHOD 300.0: ANIONS					Analyst	MRA						
Chloride	ND	30	mg/Kg	20	5/23/2018 4:11:16 PM	38280						
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	AG						
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	5/22/2018 7:43:47 PM	38225						
Surr: BFB	119	70-130	%Rec	1	5/22/2018 7:43:47 PM	38225						
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANICS				Analyst	: Irm						
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	5/22/2018 6:07:12 PM	38228						
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/22/2018 6:07:12 PM	38228						
Surr: DNOP	107	70-130	%Rec	1	5/22/2018 6:07:12 PM	38228						
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	AG						
Benzene	ND	0.024	mg/Kg	1	5/22/2018 7:43:47 PM	38225						
Toluene	ND	0.047	mg/Kg	1	5/22/2018 7:43:47 PM	38225						
Ethylbenzene	ND	0.047	mg/Kg	1	5/22/2018 7:43:47 PM	38225						
Xylenes, Total	ND	0.094	mg/Kg	1	5/22/2018 7:43:47 PM	38225						
Surr: 4-Bromofluorobenzene	129	70-130	%Rec	1	5/22/2018 7:43:47 PM	38225						
Surr: Toluene-d8	89.2	70-130	%Rec	1	5/22/2018 7:43:47 PM	38225						

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 4 of 8
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix		W	Sample container temperature is out of limit as specified

Client: Blagg Engineering Project: Irvin Com 1E

ent:	Blagg Engineering	

Sample ID MB-38280	SampType: mblk	TestCode: EPA Method	300.0: Anions							
Client ID: PBS	Batch ID: 38280	RunNo: 51462								
Prep Date: 5/23/2018	Analysis Date: 5/23/2018	SeqNo: 1677388	Units: mg/Kg							
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual						
Chloride	ND 1.5									
Sample ID LCS-38280	SampType: Ics	TestCode: EPA Method	300.0: Anions							
Client ID: LCSS	Batch ID: 38280	RunNo: 51462								
Prep Date: 5/23/2018	Analysis Date: 5/23/2018	SeqNo: 1677389	Units: mg/Kg							
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual						
Chloride	14 1.5 15.00	0 92.8 90	110							

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 Detection Limit
- W Sample container temperature is out of limit as specified

Page 5 of 8

WO#:	1805A62	

29-May-18

Client: Blagg E Project: Irvin Co	ngineering m 1E										
Sample ID MB-38228	SampT	ype: ME	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch	ID: 38	228	F	RunNo: 5	1435					
Prep Date: 5/21/2018	Analysis D	ate: 5/	22/2018	S	674296	Units: mg/K	g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	1 <mark>0</mark>		10.00		101	70	130				
Sample ID LCS-38228	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics		
Client ID: LCSS	Batch	ID: 38	228	F	RunNo: 5	1435					
Prep Date: 5/21/2018	Analysis D	ate: 5/	22/2018	5	SeqNo: 1	674366	Units: mg/K	g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	56	10	50.00	0	111	70	130				
Surr: DNOP	5.1		5.000		102	70	130				

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 Detection Limit
- W Sample container temperature is out of limit as specified

Page 6 of 8

Client:	Blagg Engineering
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Project: Irvin Com 1E

Sample ID Ics-38225	SampT	SampType: LCS4 TestCode: EPA Metho						iles Short	List			
Client ID: BatchQC	Batch	h ID: 38	225	F	RunNo: 5	1446						
Prep Date: 5/21/2018	Analysis D	Date: 5/	22/2018	S	674796	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	0.83	0.025	1.000	0	82.5	80	120					
Toluene	0.93	0.050	1.000	0	92.7	80	120					
Ethylbenzene	0.98	0.050	1.000	0	98.4	80	120					
Xylenes, Total	3.0	0.10	3.000	0	98.5	80	120					
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130					
	0.02											
Surr: Toluene-d8	0.46		0.5000		91.0	70	130					
	0.46	Гуре: М Е		Tes			130 8260B: Volat	iles Short	List			
Surr: Toluene-d8	0.46 SampT	Гуре: МЕ h ID: 38	BLK			PA Method		iles Short	List			
Surr: Toluene-d8 Sample ID mb-38225	0.46 SampT	h ID: 38	3LK 225	F	tCode: El	PA Method 1446			List			
Surr: Toluene-d8 Sample ID mb-38225 Client ID: PBS	0.46 SampT Batch	h ID: 38	3LK 225 22/2018	F	tCode: El RunNo: 5 SeqNo: 10	PA Method 1446	8260B: Volat		RPDLimit	Qual		
Surr: Toluene-d8 Sample ID mb-38225 Client ID: PBS Prep Date: 5/21/2018	0.46 SampT Batch Analysis D	h ID: 38 Date: 5/	3LK 225 22/2018	F	tCode: El RunNo: 5 SeqNo: 10	PA Method 1446 674797	8260B: Volat Units: mg/K	g		Qual		
Surr: Toluene-d8 Sample ID mb-38225 Client ID: PBS Prep Date: 5/21/2018 Analyte	0.46 SampT Batch Analysis D Result	h ID: 38 Date: 5 /	3LK 225 22/2018	F	tCode: El RunNo: 5 SeqNo: 10	PA Method 1446 674797	8260B: Volat Units: mg/K	g		Qual		
Surr: Toluene-d8 Sample ID mb-38225 Client ID: PBS Prep Date: 5/21/2018 Analyte Benzene	0.46 SampT Batch Analysis D Result ND	h ID: 38 Date: 5 / PQL 0.025	3LK 225 22/2018	F	tCode: El RunNo: 5 SeqNo: 10	PA Method 1446 674797	8260B: Volat Units: mg/K	g		Qual		
Surr: Toluene-d8 Sample ID mb-38225 Client ID: PBS Prep Date: 5/21/2018 Analyte Benzene Toluene	0.46 SampT Batch Analysis D Result ND ND	h ID: 38 Date: 5/ PQL 0.025 0.050	3LK 225 22/2018	F	tCode: El RunNo: 5 SeqNo: 10	PA Method 1446 674797	8260B: Volat Units: mg/K	g		Qual		
Surr: Toluene-d8 Sample ID mb-38225 Client ID: PBS Prep Date: 5/21/2018 Analyte Benzene Toluene Ethylbenzene	0.46 SampT Batch Analysis D Result ND ND ND	h ID: 38 Date: 5 / PQL 0.025 0.050 0.050	3LK 225 22/2018	F	tCode: El RunNo: 5 SeqNo: 10	PA Method 1446 674797	8260B: Volat Units: mg/K	g		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 Detection Limit
- W Sample container temperature is out of limit as specified

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WO#:	1805A62
	29-May-18

Client: Blagg E Project: Irvin Co	Engineering om 1E										
Sample ID Ics-38225	SampTy	/pe: LC	S	TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: LCSS	Batch	Batch ID: 38225 RunNo: 51446									
Prep Date: 5/21/2018	Analysis Da	ate: 5/	22/2018	S	eqNo: 1	674772	Units: mg/M	g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.8	70	130				
Surr: BFB	520		500.0		103	70	130				
Sample ID mb-38225	SampTy	pe: ME	BLK	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range		
Client ID: PBS	Batch	ID: 38	225	R	RunNo: 5	1446					
Prep Date: 5/21/2018	Analysis Da	ate: 5/	22/2018	S	eqNo: 1	674773	Units: mg/k	g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	570		500.0		113	70	130				

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 Detection Limit
- W Sample container temperature is out of limit as specified
- Page 8 of 8

ANAL	ONMENTAL /SIS Ratory	Hall Environmental Albi TEL: 505-345-3975 Website: www.ha	4901 Hawkin iquerque, NM 87 FAX: 505-345-4	s NE 7109 Sam 4107	ple Log-In Check List
Client Name:	BLAGG	Work Order Number:	1805A62		RcptNo: 1
Received By:	Anne Thorne	5/18/2018 7:00:00 AM	,	anne Am	~
Completed By:	Ashley Gallegos	5/18/2018 5:16:13 PM		AZ	
Reviewed By:	ENM	5/21/18	la	beled	by: JB 05/21/18
Chain of Cus	tody				
1. Is Chain of Co	ustody complete?		Yes 🗹	No	Not Present
2. How was the	sample delivered?		Courier		
Log In 3. Was an attem	pt made to cool the sampl	es?	Yes 🗹	No 🗌	NA 🗌
4. Were all samp	oles received at a temperat	ure of >0° C to 6.0°C	Yes 🔽	No	
5. Sample(s) in (proper container(s)?		Yes 🗹	No	
6. Sufficient sam	ple volume for indicated te	st(s)?	Yes 🔽	No 🗌	
7. Are samples (except VOA and ONG) pro	perly preserved?	Yes 🗹	No	
8. Was preserva	tive added to bottles?		Yes 🗌	No 🗹	NA 🗌
9. VOA vials hav	e zero headspace?		Yes	No	No VOA Vials 🗹
0, Were any san	nple containers received br	roken?	Yes	No 🗹	No VOA Vials # of preserved bottles checked for pH:
	ork match bottle labels? ancies on chain of custody)		Yes 🔽	No 🗌	for pH: (<2 or 12 unless noted)
	correctly identified on Chair		Yes 🗹	No	Adjusted?
	analyses were requested?		Yes 🗹	No 🗔	/ 5~
	ng times able to be met? ustomer for authorization.)		Yes 🗸	No 🗌	Checked by:
Special Handl	ing (if applicable)			/	
15. Was client no	tified of all discrepancies w	vith this order?	Yes	No	NA 🗹
Person	Notified:	Date		MARAN CONTRACTOR	
By Who	om:	Via:	eMail _ P	hone 🗌 Fax	In Person
Regard	a second s		Landara de la casa da casa de la compación acta d		
Client Ir	nstructions:	1.2	-	2 (2 (mar))	
16. Additional ren	marks:				
17. Cooler Infor	mation				
Cooler No	Temp °C Condition	And and a second s	eal Date	Signed By	
1	1.3 Good	Yes			

and the second second

Chain-of-Custody Record Client: BP AMERICA BLAGE ENGINEERING INC Mailing Address: Phone #: 505 - 320 - 1103				Tum-Around Time: Standard □ Rush Project Name: IRVIN Com 1E Project #:				HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel, 505-345-3975 Fax 505-345-4107 Analysis Request													
email or Fax#: QA/QC Package: Standard Level 4 (Full Validation) Accreditation DEDD (Type)			Project Manager: STEVE MOSKAL Sampler: JEFF BLACC On Ice: Yes D No Sample Temperature: 1,3			BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	od 418.1)	od 504.1)) or 8270 SIMS)	etals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082 PCB's	(A)	(-VOA)				s (Y or N)	
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1805AU2	BTEX + 10	BTEX + M	TPH 8015E	TPH (Method 418.1)	EDB (Method 504	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,(8081 Pesti	8260B (VOA)	8270 (Semi-VOA)	CHERRE			Air Bubbles (Y or N)
5/20/2012	0828 0840	SOIL	MW-7 6 15'	402×1	CEOL	-001	X		X									X		_	
	0945		MW-7020 MW-8015 MW-8020			-003															
	0955		MW-9220			-004															
Date:	Time	Relinquish	1	Received by:		Date Time		mark	S:	Bill	3	P T: 5	<pre></pre>	E	Ma						
Date: 5/17/18	1308 Tirre: 1852	Refinquish	Biegg ed by: 1 othe Walts	Received by:	Jali m)	5/17/19 1308 Date Time 05/18/19 07c (j	-	JBS									IRV	INC	omi	E.	

If necessary, amples 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.

FIE	LD BO	ORINO	G LOG		BORING ID: BH-1 (MW-2)	1
CLIEN DRILL EQUIF DATE TOTAL	NT: <u>BP A</u> ING CON MENT US START: <u>9</u> DEPTH:	merica P NTRACTO SED: - 26 - 12 28	VIN COM 1E roduction (R: Kyvek Cme - 7 DATE FIN CASING CASING	S IISH: TYPE :	DRILLER: KP LOGGED BY: JB SIZE: Z PVC SLOT SIZE: 0.010	
DEPTH	SAMPLE	SAMPLE		FIELD		-
	TIME	CUTT. NGS	CUONTS		Silt, lite Brown, litely amoust, litely plastic	WELL COMPL
	1020	1004002 1 1 1 1	5-5-5	0.0	Recour & Course Sind up think Gracel, litely worst, winds "Brack" Stracking Coorse Snub, lite Guy, lite monsture Rebbins @ 9-10	15'S 15'S 7D Z 2'±S SAND 1
-10 -	1030	Mary UDH 2	4 - 2 - 2		Record 6" Course Soud & 6" 5"1+ Minde Gray Stracky 12 5:1+ Shulo Sitt Mixtage, Record Record	II BENT
	1032	54 57 20 20 20 20 20 20 20 20 20 20 20 20 20	4/19=	5.4	Sill, like BACON, Water Saturated & 16-162	
20-	1047	Mer and	2/18~	ielo	Life Brown Silt, water Saturated EMC ODUR COMB OFF SPOOR	
	1057	Learn Cocyu	4/19	89	Lite Brown SITY Clay - Water Structed. EAC OSUN COMING SEF SPONT	-

FIE	LD BO	DRING	G LOG		BORING ID: BH-Z (MW-3)
CLIE DRIL EQUI DATE TDTAL	NT: <u>BP A</u> _ING COM PMENT US START: 9 _ DEPTH: _	merica P ITRACTE SED: -26 - 12	VIN COM 1E Production (IR: Kyvek CME - DATE FIN CASING AB @ (108	7.5 ISH: TYPE 8	DRILLER: <u>KP</u> LOGGED BY: <u>JCB</u> SIZE: <u>2' PVC</u> SLOT SIZE: <u>0.010</u>
DEPTH FEET	SAMPLE TIME	SAMPLE. TYPE	BLOW COUNTS	FIELD	SAMPLE DESCRIPTION
-	STALT &	C offerson			SAND/SILT MIX, LITE TAN
	1340	Scows -	4-4-4	0.0	MEDIUM Brainol Ernel, Litely Worst, TAN BAND/Sill Mig
- 10	1347	C CONN	3-3-3	4.8	SILT, Litely Most, TAN SAND/SILT MIL
	1352	NUL STATE	3/18	3.6	MEDIUM/Fine Gramad SAND, T.AN. Milist to SAturatul Enablisht Min
-20	1402	MASS21	2/16"	2.4	Silt/clar 241x, Wedger SATUrades, TAN
	1412	5	Por 18	1.7	Srit/ clay Mix, SAT, TAN

ì					a.							
BLAGG ENGINEERING, INC. Page <u>1</u> of <u>1</u> P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199												
FIEI	FIELD BORING LOG BORING ID: MW-4											
PROJECT: Invin Com 1E CLIENT: BP America Production Co. DRILLING CONTRACTOR: Kyvek EQUIPMENT USED: CME-75 DATE START: 8/7/2013 DATE FINISH: 8/7/2013 DRILLER: KP LOGGED BY: JCB TOTAL DEPTH: 28 CASING TYPE & SIZE: 2" × PJC SLOT SIZE: 0.010 COMMENTS:												
DEPTH FEET	SAMPLE TIME	SAMPLE TYPE	FIELD OVM	Co	Well ompletion	SAMPLE DESCRIPTION						
1' 2' 3' 4' 5'	57AF & 0830	00 4-17 00				Silty SAND MIX, DRT, BACKFILL						
6' 7' 8' 9'	084J	S.PWN	0.0	RISER	CHING CHING	SAX						
-10 - <u>11'</u> <u>12'</u> <u>13'</u> <u>14'</u> <u>15'</u>	0946	1 span	0.0	111	BENT	SAA						
16' 17' 18' 19'		אינגיאל) Slotted) SAWN	SAA						
- 20 21' 22' 23' 24' 25'	0902	SPOUN	1.6	0.0.0	10/201	SAA, MOIST to Saturated						
26' 27' 28'	0912	SPaun		1111	V	Sift clay mix, saturatell, the						
<u> </u>		-TD =	28'									

	AGG BOX 8					INC. Page <u>1</u> of <u>1</u> 87413
,	5) 632-			G		
	LD BC)G		BORING ID: <u>MW-5</u>
CLIEN DRILL EQUIP DATE S	DEPTH:	TRACTO TRACTO ED: CM /1/2013	roduc R: <u>K</u> E-75 DATE	vek E FI	NISH: 8/	T/2013 DRILLER: KP LOGGED BY: JCB SIZE: Z'' X PVC SLOT SIZE: 0.010
DEPTH	SAMPLE	SAMPLE	FIELD	ſ	Well	SAMPLE DESCRIPTION
1' 2' 3' 4'	54AP2 20 1010	C U T T 1 N 655			s to	SAUB Silt Wix, Light Yan
5' 6' 7' 8' 9' -10 -	1020	SP∞~	0.0	INN Reve	BENT	Medwin SANA; Lite Moist, tou
10 - 11' 12' 13' 14' 15'	1026	3 SPa~	0.0			544
16' 17' 18' 19'		SRW	0.0	Dotton Scotted	54uD	Fire Grathed Soud, Moist, TAN
20 - 21' 22' 23' 24'	1040	A SPOCA	0,6	· · · · · · · · · ·	10/01	Silty/cley Mix, Schwatel, tay
25' 26' 27' 28'	105-0 1	SPOON	0,8			54.4
29' 30		TD =	28	1		

BLAGG ENGINEERING, INC. Page 1 of 1										
P.O. BOX 87, BLOOMFIELD, NM 87413										
(505) 632-1199										
EIELD DODING LOC DODING ID. MILL (-										
FIELD BORING LOG BORING ID: <u>Mw-6</u>										
PREJECT: Invin Com 1E CLIENT: BP America Production Co.										
DRILLING CONTRACTOR: Kyvek										
EQUIPMENT USED: CME-75										
DATE START: 8/3/2013 DATE FINISH: 8/3/2013 DRILLER: KP LOGGED BY: JCB TOTAL DEPTH: 20' CASING TYPE & SIZE: 2" PVC SLOT SIZE: 0,010										
COMMENTS:										
DEPTH SAMPLE SAMPLE FIELD Well SAMPLE DESCRIPTION										
(21) IME THE UVM COMPLETION (24.4) (34.4) (31.4) (40.4)										
<u>2'</u> <u>7</u>										
N										
5/ 1 1 1 1										
4' E To 5' 0807 Star O.U Z J Medine Cuarse SANA, Like Kust, tay										
<u>7'</u>										
8'										
9'										
-10 11' 0315 Show O.V BENY Medicon/Fine SANI)										
10 0315 Show O.V BENY Medicar Fine SANT)										
13'										
14'										
15'										
16' 0923 Show U.U. Fire SAND, MOIST										
17' 9										
18' 19'										
20 0831 SROW 1.6 3- 5 Silt/Clay Mix, Saturated, sun										
22'										
23'										
24'										
25' C 340 1 D G - SAA										
20 Spar										
$\frac{29'}{30}$ TD = 28										

1

1												
P.0.	BLAGG ENGINEERING, INC. Page <u>1</u> of <u>1</u> P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199											
PROJE	FIELD BORING LOG BORING ID: <u>MW-7</u> PREJECT: <u>IRVIN COM 1E</u> CLIENT: BP America Production Co.											
DRILL EQUIP	ING CON Ment us	TRACTO	R:C	ME-S	at 55	NU/18 DRILLER: KP LOGGED BY: JB						
	DATE START: 5/16/2018 DATE FINISH: 5/16/18 DRILLER: KP LOGGED BY: JB TOTAL DEPTH: 25 CASING TYPE & SIZE: 2 [°] PVC SLOT SIZE: 0.010 COMMENTS:											
DEPTH FEET	SAMPLE TIME	SAMPLE TYPE	OVM	Co	Well	SAMPLE DESCRIPTION						
1'	START 0814	CUTTINUS			CEMENT	Sitty GAND, TAN, lite Moisture, NO/NS						
2'												
<u> </u>					1 m							
5′		5.5.	07	SER	Hy dualal Beumwite	CAA 2						
6' 7'	08(8	5.5.	0.5	RA	FER	SAA Recour 13"						
8'				R								
9'												
$-10_{11'}$ -	0822	1 < 5	0.5			RECOVER 18", VELLOW ORANGE SILT, MOIST, NO/NS						
12'		3.7.		-								
<u>13'</u> 14'				-								
15'				2-	Å							
16'	0828	5.5.	0.4	SLOTED	SAW	RECOVER 22, SATURATED & Hy SAND, SMALL I" CALK Stringer of Gray Discolorution, No ODDR.						
<u>17'</u> 18'				0-	20	, A						
19'				0.01	6							
- 20	0840	5.5.	0.5			RECOVER 24, SATURATED Sitty SAMD. Lite Brown,						
55,	010	3 2.2.		-		RECOVER 24, SATURATED Sitty SAMD, lite Brown, Ng/NS						
53,												
24' 25'				Ę								
26'	TD	Drilled	=	25	(
27'												
28' 29'												
30												

<u>````</u>										
BLAGG ENGINEERING, INC. Page 1 of 1 P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199										
FIEI	LD BC	RING	LC)G		BORING ID: MW-8				
	CT:				<u></u>					
DRILL	ING CON MENT US	TRACTO	R:G		at					
DATE S	DEPTH:	16/2012	DATE	FI	NISH: 5/	16/18 DRILLER: KP LOGGED BY: JB SIZE: 2" PIC SLOT SIZE: 0.010				
DEPTH FEET	SAMPLE TIME	SAMPLE TYPE	OVM	Cc	Well	SAMPLE DESCRIPTION				
1'	START 0930	CUTTINGS				Silty SAND, TAN, Life MOISTURE, NO/NS				
2' 3'										
4'				RISER	ust of					
5′ 6′	0938	1 V	0.5	R	Hydrotted Beintonite	RECOVER 20 medium Graned SAND, Yellow Du, Lite Moisture, NU/NS				
7'		1				Lite Moisture, NU/NS				
8' 9'						·				
10 -	0943	3	0.41		<u>_</u>	Recover 14 rellow/Orange Silt, MOIST, NU/NS				
11' 12'	0775	3	0.4							
13' 14'					SAND	5				
14				TED						
<u>16'</u> 17'	0948	ALL	0.5	S	3	RECOVER 24, TAN Silty SAND, Water Saturated, NO/N				
18′				0.010	10					
19'				0						
20 -	0955		0.4			RECOVER 24, TAN SIT, SATURATED, NO/NS				
22' 23'				1 1 1 1						
24']					
25' 26'	TD	DRIL	ED	=	25'					
27'	12									
28' 29' 30										
30										

÷.,

P.0	BLAGG ENGINEERING, INC. Page of P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199										
FIELD BORING LOG BORING ID: SVE POINT											
PROJECT: BP: IRVIN COM 1E CLIENT: BP America Production Co. DRILLING CONTRACTOR: Kyvek EQUIPMENT USED: CME-75 DATE START: 19/16/2014 DATE FINISH: 10/16/2014 DRILLER: KP LOGGED BY: JCB TOTAL DEPTH: 20 CASING TYPE & SIZE: 2" PJC SLOT SIZE: 0.010 COMMENTS:											
DEPTH FEET	SAMPLE TIME	SAMPLE TYPE	BL D' C DUN		FIELD DVM	SAMPLE DESCRIPTION					
	HACT @	1005 AM		11/1/		MEDIUM/COARSE SAND. NO Odor/No Stain, DRT					
	_101Q	5.5.	9	11111	0.1	SAA, increased moisting					
-10 -		5.5.	14		0.3						
	1030	\$ 5.5.	18		0.1						
- 20 -	103 <i>0</i>	955	8	1.1	0.0	TD DRIVED = 20'					
30						SET 5 Scheen 15-20 Riser to Surface 10/20' SAND FROM 13'-20 Coment/Bontonike 13'-Surface					

APPENDIX E Laboratory Reports January 2002 - June 2018



OFF: (505) 325-5667 FAX: (505) 327-1496

February 04, 2002

Jeff Blagg Blagg Engineering P.O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: Irvin Com 1E

Order No.: 0201017

Dear Jeff Blagg,

On Site Technologies, LTD, received 1 sample on 1/16/2002 for the analyses presented in the following report.

The Samples were analyzed for the following tests: Aromatic Volatiles by GC/PID (SW8021B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely.

David Cox

P.O. BOX 2606 • FARMINGTON, NM 87499 EMAIL: ONSITE@ONSITELTD.COM LAB: (505) 325-1556 FAX: (505) 327-1496

P.O. BOX 2606 • FARMINGTON, NM 87499 EMAIL: ONSITE@ONSITELTD.COM

OFF: (505) 325-5667 FAX: (505) 327-1496

On Site Technologies, LTD.

CLIENT:Blagg EngineeringProject:Irvin Com IILab Order:0201017

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).



LAB: (505) 325-1556 FAX: (505) 327-1496

Date: 04-Feb-02

CASE NARRATIVE

1 of 1

OFF: (505) 325-5667 FAX: (505) 327-1496

Ethylbenzenc

m.p-Xylene

o-Xylene



LAB: (505) 325-1556 FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 04-Feb-02

01/25/2002

01/25/2002

01/25/2002

Client: Work Order: Lab ID: Project:	Blagg Engineering 0201017 0201017-01A Itym Com 11	Matrix: AQUE0)US	Client Sample Info: Irvin Com 1E Client Sample ID: <u>MW #1</u> (per JCE Collection Date: 01-16-2002-9:45:00 AM COC Record: 11735					
Parameter		Result	PQL	Qual	Units	DE	Date Analyzed		
ROMATIC VOL	ATILES BY GC/PID	SV	V8021B				Analyst: HNR		
Benzene		ND	0.5		µg/L	1	01/25/2002		
Toluene		ND	0.5		ug/L	1	01/25/2002		

1

0.5

µg/L

µg/L

µg/L

1

1

ND

ND

ND

Qualifiers:

S - Spike Recovery outside accepted recovery limits

ND - Not Detected at Practical Quantitation Limit

13 - Vitabyte detected in the associated Method Blank

R - RPD outside accepted recovery limits.

T - Value above quantitation range.

P.O. BOX 2606 • FARMINGTON, NM 87499 EMAIL: ONSITE@ ONSITELTD.COM

1 of 1

CLIENT: Blagg Engineering Work Order: 0201017

Project: Irvin Com 11

Date: 04-Feb-02

....

QC SUMMARY REPORT

Sample ID: MB_020125	Batch ID GC-1_020125	Test Code	SW8021B	Units. µg/L		Analysis	s Date 01/2	5/2002	Prep D	ate	
Client ID	0201017	Run ID	GC-1_020125	5A		SeqNo	4685	6			
Analyte	Result	PQL	SPK value	SPK Ref Val	*«REC	LowLimit	HighLimit	RPD Ref Val	RPD	RPDLimit	Qual
Benzene	.0461	0.5									J
Ethylbenzene	ND	0.5									
m.p-Xylene	.2562	1									J
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	05									
Toluene	.161	0 5									J
1.4-Difluorobenzene	99.72	0									
4-Bromochlorobenzene	117.4	0									
Fluorobenzene	97.62	0									

Qualifiers:

ND - Not Detected at the Reporting Limit

8 - Spike Recovery outside accepted recovery limits

1 - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

 CLIENT:
 Blagg Engineering

 Work Order:
 020101⁺⁺

 Project:
 Irvin Com 1E

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0201020-12AMS	Batch ID GC-1_020125	Test Code	SW8021B	Units: µg/L		Analysis	Date 01/25	5/2002	Prep Da	ate	
Client ID.	0201017	Run ID	GC-1_020125	A		SeqNo:	46857				
Analyte	Result	PQL	SPK value	SPK Ref Val	REC	LowLimit	HighLimit	RPD Ref Val	RPD	RPDLimit	Qual
Benzene	2859	25	2000	1035	91.2%	70	130				
Ethylbenzene	3973	25	2000	2034	97.0%	70	130				
m,p-Xylene	6920	50	4000	2937	99.6%	70	130				
Methyl tert-Butyl Ether	1802	50	2000	63.21	87.0%	70	130				
o-Xylene	2636	25	2000	505	106.6%	70	130				
Toluene	3141	25	2000	1205	96.8%	70	130				
1,4-Difluorobenzene	4884	0	5500	0	88.8%	70	130				
4-Bromochlorobenzene	5893	0	5500	0	107 1%	70	130				
Fluorobenzene	4658	0	5500	0	84.7%	70	130				
Sample ID: 0201020-12AMSD	Batch ID: GC-1_020125	Test Code	SW8021B	Units µg/L		Analysis	Date 01/2	5/2002	Prep Da	ate	
Client ID.	0201017	Run ID	GC-1_020125	A		SeqNo:	46858	}			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2903	25	2000	1035	93.4%	70	130	2859	1.5%	15	
Ethylbenzene	3906	25	2000	2034	93.6%	70	130	3973	1.7%	15	
m.p-Xylene	6778	50	4000	2937	96.0%	70	130	6920	2.1%	15	
Methyl tert-Butyl Ether	1881	50	2000	63.21	90.9%	70	130	1802	4.2%	15	
					103.00	70	130	2636	2.0%	15	
o-Xylene	2583	25	2000	505	103.9%	10					
·	2583 3070	25 25	2000 2000	505 1205	93.3%	70	130	3141	2.3%	15	
Toluene							130 130	3141 0	2.3% 0.0%	15 0	
o-Xylene Toluene 1.4-Difluorobenzene 4-Bromochlorobenzene	3070	25	2000	1205	93.3%	70					

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits.

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

Date: 04-Feb.02

CLIENT:Blagg EngineeringWork Order:0201017Project:Irvin Com 1E

Date: 04-1[ch-0]

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS_020125	Batch ID: GC-1_020125	Test Code	SW8021B	Units µg/L		Analysis	Date 01/25/2002	Prep Date
Client ID	0201017	Run ID	GC-1_020125	A		SeqNo	46855	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit Qual
Benzene	41.28	0.5	40	0.0461	103.1%	80	120	
Ethylbenzene	42.53	0.5	40	0	106.3%	80	120	
m,p-Xylene	86.18	1	80	0.2562	107.4%	80	120	
Methyl tert-Butyl Ether	41.88	1	40	0	104.7%	80	120	
o-Xylene	44.22	0.5	40	0	110.5%	80	120	
Toluene	41.6	0.5	40	0.161	103.6%	80	120	
1,4-Difluorobenzene	99.05	0	110	0	90.0%	70	130	
4-Bromachlorobenzene	119.5	0	110	0	108.7%	70	130	
Fluorobenzene	96.34	0	110	0	87.6%	70	130	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

CLIENT: Blagg Engineering Work Order: 0201017 Project: Irvin Com 1E

Date: 04-Feb-02

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID CCV1_020125	Batch ID GC-1_020125	Test Code	SW8021B	Units µg/L		Analysis	Date 01/2	5/2002	Prep Da	ate.	
Client ID	0201017	Run ID	GC-1_020125	A		SeqNo	46852	2			
Analyte	Result	PQL	SPK value	SPK Ref Val	^b /₀REC	LowLund	HighLimit	RPD Ref Val	RPD	RPDLimit	Qual
Benzene	20.36	05	20	0	101.8%	85	115				
Ethylbenzene	20.82	0.5	20	0	104 1%	85	115				
m.p-Xylene	42.32	1	40	0	105 8%	85	115				
Methyl tert-Butyl Ether	20.46	1	20	0	102.3%	85	115				
o-Xylene	21.69	0.5	20	0	108.5%	85	115				
Toluene	20.44	0.5	20	0	102.2%	85	115				
1.4-Difluorobenzene	99.22	0	110	0	90.2%	70	130				
-Bromochlorobenzene	118 1	0	110	0	107.3%	70	130				
luorobenzene	96 83	0	110	0	88.0%	70	130				
Sample ID CCV2_020125	Batch ID. GC-1_020125	Test Code:	SW8021B	Units: µg/L		Analysis	Date 01/2	5/2002	Prep Da	ate	
			011000110	orner pigna		/ intury end	Dure one				
	0201017	Run ID	GC-1_020125			SeqNo:	46853				
Client ID			GC-1_020125		%REC	SeqNo:	46853		%RPD	RPDLimit	Qua
Client ID Analyte	0201017	Run ID	GC-1_020125	A	%REC 98 1%	SeqNo:	46853	3		RPDLimit	Qua
Client ID Analyte Benzene	0201017 Result	Run ID PQL	GC-1_020125 SPK value	SPK Ref Val		SeqNo: LowLimit	46853 HighLimit	3		RPDLimit	Qua
Client ID Analyte Benzene Ethylbenzene m.p-Xylene	0201017 Result 19.61	Run ID PQL 0.5	GC-1_020125 SPK value 20	SPK Ref Val	98.1%	SeqNo: LowLimit 85	46853 HighLimit 115	3		RPDLimit	Qua
Client ID Analyte Benzene Ethylbenzene m.p-Xylene	0201017 Result 19.61 19.96	Run ID PQL 0.5	GC-1_020125 SPK value 20 20	SPK Ref Val	98 1% 99 8%	SeqNo: LowLimit 85	46853 HighLimit 115 115	3		RPDLimit	Qua
Client ID Analyte Benzene Ethylbenzene m.p-Xylene Methyl tert-Butyl Ether	0201017 Result 19.61 19.96 40.83	Run ID PQL 0.5 0.5 1	GC-1_020125 SPK value 20 40	SPK Ref Val 0 0 0	98 1% 99 8% 102 1%	SeqNo: LowLimit 85 85 85	46853 HighLimit 115 115 115	3		RPDLimit	Qua
Client ID Analyte Benzene Ethylbenzene m.p-Xylene Methyl tert-Butyl Ether p-Xylene	0201017 Result 19.61 19.96 40.83 19.22	Run ID PQL 0.5 0.5 1 1	GC-1_020125 SPK value 20 20 40 20	SPK Ref Val 0 0 0 0	98 1% 99 8% 102 1% 96 1%	SeqNo: LowLimit 85 85 85 85	46853 HighLimit 115 115 115 115	3		RPDLimit	Qua
Client ID Analyte Benzene Ethylbenzene m.p-Xylene Methyl tert-Butyl Ether o-Xylene Foluene	0201017 Result 19.61 19.96 40.83 19.22 21.04	Run ID PQL 0.5 0.5 1 1 0.5	GC-1_020125 SPK value 20 20 40 20 20 20	A SPK Ref Val 0 0 0 0 0	98 1% 99 8% 102 1% 96 1% 105 2%	SeqNo: LowLimit 85 85 85 85 85	4685: HighLimit 115 115 115 115 115	3		RPDLimit	Qua
Client ID Analyte Benzene Ethylbenzene	0201017 Result 19.61 19.96 40.83 19.22 21.04 19.46	Run ID POL 0.5 0.5 1 1 0.5 0.5	GC-1_020125 SPK value 20 20 40 20 20 20 20	A SPK Ref Val 0 0 0 0 0 0 0	98 1% 99 8% 102 1% 96 1% 105 2% 97 3%	SeqNo: LowLimit 85 85 85 85 85 85	4685: HighLimit 115 115 115 115 115 115	3		RPDLimit	Qua

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits.

R - RPD outside accepted recovery limits

CLIENT: Blagg Engineering

Work Order: 0201017

Project: http://on.il

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID CCV3_020125	Batch ID GC-1_020125	Test Code.	SW8021B	Units µg/L		Analysis	Date 01/25	6/2002	Prep Date	
Client ID	0201017	Run ID	GC-1_020125	A		SeqNo	46854			
Analyte	Result	POL	SPK value	SPK Ref Val	² REC	LowLimit	HighLimit	RPD Ref Val	RPD RPDLimit	Qual
Benzene	36.92	0.5	40		92.3° a	85	115			
Ethylbenzene	38.93	0.5	40	Û	97.3%	85	115			
m.p-Xylene	78.93	1	80	0	98.7%	85	115			
Methyl tert-Butyl Ether	37.65	1	40		94.1°a	85	115			
o-Xylene	40.37	0.5	40	Ũ	100.9%	85	115			
Toluene	37.66	0.5	40	0	94.2%	85	115			
1.4-Difluorobenzene	98.42	0	110	0	89.5%	70	130			
4-Bromochlorobenzene	120.8	Ū	110		109.8%	70	130			
Fluorobenzene	95.31	0	110	0	86.6%	70	130			

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits.

B - Analyte detected in the associated Method Blank

1 - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

ON SITE	CHAIN
TECHNOLOGIES, LTD.	612 E. Murray Dr. • P.O. LAB: (505) 325-

CHAIN OF CUSTODY RECORD

Date: 16 JAN 02

11735

Page: _____ of _____

612 E. Murray Dr	P.O. Box 2606 .	Farmington, NM 874	199
LAB: (505) 3	325-5667 • FAX:	(505) 327-1496	

Purchase	Order No.:	Project No.	1.46	gi di		TO	Name)						Title				
ш	Name JEFF BLACK		1.				Comp	bany										
D C P	Company -	ANG	Dept.			REPORT ESULTS 1	Mailin	ng Add	Iress									
SEND INVOICE TO	Address P.O. Box 87			-		REPOR	City,	State,	Zip	1								
4	City, State, Zip REAMFIELD 1	VM 5	741	3		Ē	Telephone No. Telefax No.						1					
PROJEC	IRVIN COM 11					of ers					ANAL	YSIS	REG	QUES	STED		,	
SAMPLER'S SIGNATURE:						Number of Containers		125	/ /							/		
0	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	PRES.												LAB	D
													-			021	1517	- 15
Mu	MW #1 (per JCB)	1-16-02	0945	Hav	HCL	2	\times	-					-			4		
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Relinquis	hed by: J. C. Blogg		Date/	Time_	1014	Recei	ived by	1	11	11-	art	L		1		ate/Ti	me	Dy IDI
Relinquis	hed by		Date/	and the second	1017		ived by	1500	~~~~~	1 221	nadio	~				Date/Ti	1114	V3 1V1
Relinquis	hed by:		Date/	Time			ived by									ate/Ti		
Method o	of Shipment:					Rush		24-4	8 Hours		10 Wo	orking	Days		By Da	ate		
Authoriz	zed by: Client Signature <u>Must</u> Accompany Re	equest)	1-1		17				ns / Rem									

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

October 09, 2012

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-1183 FAX (505) 632-3903

RE: Irvin Com 1E

OrderNo.: 1210338

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/4/2012 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 <u>www.hallenvironmental.com</u> or the state specific web sites. 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. 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.

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Lab Order 1210338

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 10/9/2012

CLIENT:Blagg EngineeringProject:Irvin Com 1ELab ID:1210338-001	Client Sample ID: MW-3Collection Date: 10/2/2012 1:22:00 PMMatrix: AQUEOUSReceived Date: 10/4/2012 10:34:00 AM								
Analyses	Result	RL Qua	l Units	DF	Date Analyzed				
EPA METHOD 8021B: VOLATILES					Analyst: NSB				
Benzene	ND	1.0	µg/L	1	10/6/2012 12:21:14 AM				
Toluene	ND	1.0	µg/L	1	10/6/2012 12:21:14 AM				
Ethylbenzene	ND	1.0	µg/L	1	10/6/2012 12:21:14 AM				
Xylenes, Total	ND	2.0	µg/L	1	10/6/2012 12:21:14 AM				
Surr: 4-Bromofluorobenzene	105	69.7-152	%REC	1	10/6/2012 12:21:14 AM				

Qua	lifiers:	
-----	----------	--

Value exceeds Maximum Contaminant Level. *

Е Value above quantitation range

- J Analyte detected below quantitation limits
- Sample pH greater than 2 Р
- Reporting Detection Limit RL

- Analyte detected in the associated Method Blank В
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S

QC SUMMARY REPORT	
Hall Environmental Analysis Laboratory, I	nc.

WO#: 1210338

09-Oct-12

Client: Project:	Blagg En Irvin Con										
Sample ID	5ML RB	SampTyp	e: Me	BLK	Test	tCode: E	PA Method	8015B: Gaso	oline Rang	e	
Client ID:	PBS	Batch ID	D: R6	020	R	RunNo: 6	6020				
Prep Date:		Analysis Date	e: 10	0/5/2012	S	SeqNo: 1	73460	Units: %RE	C		
Analyte		Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		1000		1000		104	84	116			
Sample ID	2.5UG GRO LCS	SampTyp	e: LC	s	Test	tCode: E	PA Method	8015B: Gaso	oline Rang	e	
Client ID:	LCSS	Batch IE	D: R6	020	R	anNo: 6	6020				
Prep Date:		Analysis Date	e: 10	0/5/2012	S	eqNo: 1	73461	Units: %RE	C		
Analyte		Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		820		1000		82.5	84	116			S
Sample ID	1210279-011BMS	SampTyp	e: MS	6	Tes	tCode: E	PA Method	8015B: Gaso	oline Rang	e	
Client ID:	BatchQC	Batch ID	D: R6	020	R	unNo: 6	020				
Prep Date:		Analysis Date	e: 10	0/6/2012	S	eqNo: 1	73465	Units: %RE	C		
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		1100		1000		108	84	116			
Sample ID	1210279-011BMSI	D SampTyp	e: MS	SD	Test	tCode: E	PA Method	8015B: Gaso	oline Rang	e	
Client ID:	BatchQC	Batch ID	D: R6	020	R	tunNo: 6	020				
Prep Date:		Analysis Date	e: 10	0/6/2012	S	eqNo: 1	73466	Units: %RE	с		
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		1100		1000		105	84	116	0	0	
Sample ID	1210332-013BMS	SampTyp	e: MS	6	Test	Code: E	PA Method	8015B: Gaso	oline Rang	e	
Client ID:	BatchQC	Batch IE	D: R6	043	R	unNo: 6	043				
Prep Date:		Analysis Date	e: 10	0/6/2012	S	eqNo: 1	74108	Units: %RE	с		
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		860		1000		85.8	84	116			
Sample ID	1210332-013BMSI	SampTyp	e: MS	SD	Test	Code: E	PA Method	8015B: Gasc	oline Rang	e	
Client ID:	BatchQC	Batch ID	D: R6	043	R	unNo: 6	043				
Prep Date:		Analysis Date	e: 10	0/6/2012	S	eqNo: 1	74109	Units: %RE	С		
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		950		1000		95.3	84	116	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

Page 3 of 5

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#:	12	210	338

09-Oct-12

Client: Project:	Blagg En Irvin Cor	gineering n 1E									
Sample ID	5ML RB	SampT	ype: Mi	BLK	Test	Code: El	PA Method	8015B: Gase	oline Rang	e	
Client ID:	PBW	Batch	ID: Re	5020	R	unNo: 6	020				
Prep Date:		Analysis D	ate: 1	0/5/2012	S	eqNo: 1	73451	Units: %RE	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		21		20.00		104	69.8	119			
Sample ID	5ML RB	SampT	ype: MI	BLK	Tes	Code: El	PA Method	8015B: Gaso	line Rang	e	
Client ID:	PBW	Batch	ID: Re	5043	R	unNo: 6	043				
Prep Date:		Analysis D	ate: 1	0/6/2012	S	eqNo: 1	74095	Units: %RE	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		21		20.00		105	69.8	119			
Sample ID	2.5UG GRO LCS	SampT	ype: LC	cs	Tes	Code: El	PA Method	8015B: Gaso	oline Rang	e	
Client ID:	LCSW	Batch	ID: Re	6043	R	unNo: 6	043				
Prep Date:		Analysis D	ate: 1	0/6/2012	S	eqNo: 1	74096	Units: %RE	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		17		20.00		87.0	69.8	119			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering

		n 1E									
Sample ID 5	5ML RB	Samp	Туре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: P	PBW	Bato	h ID: R6	020	F	RunNo: 6	020				
Prep Date:		Analysis I	Date: 10)/5/2012	S	SeqNo: 1	73476	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Bromof	fluorobenzene	21		20.00		107	69.7	152			
Sample ID 1	100NG BTEX LCS	Samp	Type: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: L	LCSW	Bato	h ID: R6	020	F	RunNo: 6	020				
Prep Date:		Analysis I	Date: 10	/5/2012	S	eqNo: 1	73477	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		20	1.0	20.00	0	101	80	120			
Toluene		21	1.0	20.00	0	105	80	120			
Ethylbenzene		22	1.0	20.00	0	108	80	120			
Xylenes, Total		66	2.0	60.00	0	110	80	120			
Surr: 4-Bromof	fluorobenzene	23		20.00		114	69.7	152			
Sample ID 5	5ML RB	Samp	Туре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: P		D (h ID: R6	043	R	anNo: 6	043				
	PBW	Batc	1110. 110								
Prep Date:		Bato Analysis I		/6/2012	S	eqNo: 1	74118	Units: µg/L			
					S SPK Ref Val	•	7 4118 LowLimit	Units: µg/L HighLimit	%RPD	RPDLimit	Qual
Prep Date: Analyte		Analysis I Result ND	Date: 10 PQL 1.0			•			%RPD	RPDLimit	Qual
Prep Date: Analyte Benzene		Analysis I Result	Date: 10 PQL			•			%RPD	RPDLimit	Qual
Prep Date: Analyte Benzene Toluene		Analysis I Result ND	Date: 10 PQL 1.0			•			%RPD	RPDLimit	Qual
Prep Date: Analyte Benzene Toluene Ethylbenzene		Analysis I Result ND ND	Date: 10 PQL 1.0 1.0			•			%RPD	RPDLimit	Qual
Prep Date: Analyte Benzene Toluene Ethylbenzene		Analysis I Result ND ND ND	Date: 10 PQL 1.0 1.0 1.0			•			%RPD	RPDLimit	Qual
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromof		Analysis I Result ND ND ND ND 20	Date: 10 PQL 1.0 1.0 1.0	SPK value 20.00	SPK Ref Val	%REC 99.5	LowLimit 69.7	HighLimit		RPDLimit	Qual
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromof	ofluorobenzene	Analysis I Result ND ND ND 20 Samp	Date: 10 PQL 1.0 1.0 1.0 2.0	SPK value 20.00 S	SPK Ref Val	%REC 99.5	LowLimit 69.7 PA Method	HighLimit		RPDLimit	Qual
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromof Sample ID 1	fluorobenzene	Analysis I Result ND ND ND 20 Samp	Date: 10 PQL 1.0 1.0 2.0 Type: LC h ID: R6	SPK value 20.00 S 043	SPK Ref Val Test	%REC 99.5	69.7 PA Method 043	HighLimit		RPDLimit	Qual
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromof Sample ID 1 Client ID: L	fluorobenzene	Analysis I Result ND ND 20 Samp Bato Analysis I Result	Date: 10 PQL 1.0 1.0 2.0 Type: LC h ID: R6	20.00 S 043 V6/2012	SPK Ref Val Test	%REC 99.5 tCode: EF	69.7 PA Method 043	HighLimit 152 8021B: Volati		RPDLimit	Qual
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromof Sample ID 1 Client ID: L Prep Date:	fluorobenzene	Analysis I Result ND ND ND 20 Samp Batc Analysis I	Date: 10 PQL 1.0 1.0 2.0 Type: LC h ID: R6 Date: 10	20.00 S 043 V6/2012	SPK Ref Val	%REC 99.5 tCode: EF RunNo: 60 GeqNo: 12	69.7 PA Method 043 74119	HighLimit 152 8021B: Volati Units: µg/L	iles		
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromof Sample ID 1 Client ID: L Prep Date: Analyte	fluorobenzene	Analysis I Result ND ND 20 Samp Bato Analysis I Result	Date: 10 PQL 1.0 1.0 2.0 Type: LC h ID: R6 Date: 10 PQL	20.00 20.00 S 043 V/6/2012 SPK value	SPK Ref Val Test R SPK Ref Val	%REC 99.5 Code: EF SunNo: 60 SeqNo: 13 %REC	69.7 PA Method 043 74119 LowLimit	HighLimit 152 8021B: Volati Units: µg/L HighLimit	iles		
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromof Sample ID 1 Client ID: L Prep Date: Analyte Benzene	fluorobenzene	Analysis I Result ND ND ND 20 Samp Bato Analysis I Result 20	Date: 10 PQL 1.0 1.0 2.0 Type: LC h ID: R6 Date: 10 PQL 1.0	20.00 20.00 5 043 v/6/2012 SPK value 20.00	SPK Ref Val Test R SPK Ref Val 0	99.5 99.5 Code: Ef CunNo: 6 SeqNo: 12 %REC 101	69.7 CA Method 043 74119 LowLimit 80	HighLimit 152 8021B: Volati Units: µg/L HighLimit 120	iles		
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromof Sample ID 1 Client ID: L Prep Date: Analyte Benzene Toluene	fluorobenzene	Analysis I Result ND ND ND 20 Samp Bato Analysis I Result 20 21	Date: 10 PQL 1.0 1.0 2.0 Type: LC h ID: R6 Date: 10 PQL 1.0 1.0 1.0	20.00 20.00 S 043 V/6/2012 SPK value 20.00 20.00	SPK Ref Val Test S SPK Ref Val 0 0	%REC 99.5 Code: EF CunNo: 60 SeqNo: 17 %REC 101 105	69.7 69.7 PA Method 043 74119 LowLimit 80 80	HighLimit 152 8021B: Volati Units: µg/L HighLimit 120 120	iles		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 5 of 5

WO#: 1210338 09-Oct-12

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albu Albu TEL: 505-345-3975 Website: www.hal	4901 Ha querque, i FAX: 505	NM 871 -345-41	VE 05 0;	Sample Log-In Check List
Client Name: BLAGG	w w	ork Orde	r Numb	er:	1210338
Received by/date: AC	10/04/12				
Logged By: Michelle Garcia	10/4/2012 10:34:00 AM			m	itelle Concie
Completed By: Michelle Garcia	10/5/2012 8:48:07 AM		10	mi	tall (Corris)
Reviewed By:	10/05/12				
Chain of Custody	, .				
1. Were seals intact?		Yes	No		Not Present
2. Is Chain of Custody complete?		Yes 🖌	No		Not Present
3. How was the sample delivered?		Courier	:		
Log In					
4. Coolers are present? (see 19. for cooler s	pecific information)	Yes 🛛	No		
5. Was an attempt made to cool the samples	s?	Yes 🔽	No		NA 🗌
6. Were all samples received at a temperatu	ire of >0° C to 6.0°C	Yes 🔽	No		
7. Sample(s) in proper container(s)?		Yes 🗹	No		
8. Sufficient sample volume for indicated tes	t(s)?	Yes 🔽	No		
9. Are samples (except VOA and ONG) prop	erly preserved?	Yes 🖌	No		_
10. Was preservative added to bottles?		Yes	No	\checkmark	NA 🗌
11. VOA vials have zero headspace?		Yes 🗹	No		No VOA Vials
12. Were any sample containers received brok	ken?	Yes	No	V	
 Does paperwork match bottle labels? (Note discrepancies on chain of custody) 		Yes 🗹	No		# of preserved bottles checked for pH:
14. Are matrices correctly identified on Chain	of Custody?	Yes 🗸			(<2 or >12 unless noted)
15. Is it clear what analyses were requested?		Yes 🖌			Adjusted?
 Were all holding times able to be met? (If no, notify customer for authorization.) 		Yes 🗸] No L		Checked by:
Special Handling (if applicable)					
17. Was client notified of all discrepancies with	h this order?	Yes] No [NA 🗹
Person Notified:	Date:				
By Whom:	Via:	eMail	Pho	ne	Fax In Person
Regarding:					
Client Instructions:					
18. Additional remarks:					

19. Cooler Information

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

C	hain-	of-Cu	stody Record	Turn-Around	Time:					F	14		F	NV	/TE	20	NR	ЛFI	NTA	AT	
Client:	BLA	66 Er	IONEERING INC.	Standard	🗆 Rush			1.32.51.3	E										то		r
	RP	AME		Project Name	:											tal.co					
Mailing	Address	P.0	Buz 87	IRVI	V COM	16		490	01 H								M 87	109			
			D NM 87413	Project #:	and the second		1)5-34							4107				
Phone	and the second		632-1199	1								-				uesi					
email o				Project Mana	ger:			only)	sel)					,SO4)							Γ
QA/QC	Package:			J-B	SLAGE		(8021)	IO SE	(Gas/Diesel)					,4,S(PCB's						
Stan			Level 4 (Full Validation)				S	Ő	Gas					PC,	2 P(
Accred			-	Sampler: 🗧	I- BAGE		Elvi6	H	5B ((1)	Ê.	Î		NO,	8082						ź
	(Type)		r	On Ice: Sample Tem		E No.		÷ ш	801	418	207	PA	als	NO ₃	les /		VOA				(Y or
Date	Time	Matrix	Sample Request ID	1	Preservative Type		BTEX + MIBE =	BTEX + MTBE + TPH (Gas	TPH Method 8015B	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (
10/2/12	1322	WATER	MW-3	2 × 1/0.A	HCL	-001	X							_					+		
11	1350	u	MW-Z	2 x VOA	HCL	-002	X														
																					Γ
Date:	Time: 1508 Time:	Relinquishe	1 Byy	Received by:	Juliete	Date Time		narks		LAC	06										
10/3/12	1712	Maria	the Wellers &	A	21010	412 1034	B			UTA			TEF	F	PE	10E	Al	1 6' 1			

HALL ENVIRONMENTAL ANALYSIS LABORATORY

January 03, 2013

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-1183 FAX (505) 632-3903

RE: Irvin COM 1E

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

OrderNo.: 1212A62

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/27/2012 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 <u>www.hallenvironmental.com</u> or the state specific web sites. 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. 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.

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Lab Order 1212A62

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/3/2013

CLIENT: Blagg Engineering Project: Irvin COM 1E			Client Sample		2012 11:20:00 AM
Lab ID: 1212A62-001	Matrix:	2012 11:00:00 AM			
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	96	5.0	µg/L	5	12/29/2012 2:41:31 AN
Toluene	180	5.0	µg/L	5	12/29/2012 2:41:31 AM
Ethylbenzene	20	5.0	µg/L	5	12/29/2012 2:41:31 AM
Xylenes, Total	170	10	µg/L	5	12/29/2012 2:41:31 AM
Surr: 4-Bromofluorobenzene	113	69.7-152	%REC	5	12/29/2012 2:41:31 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH greater than 2
- RL Reporting Detection Limit

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S

•	MMARY vironment				ory, Inc.					WO#:	1212A62 <i>03-Jan-13</i>
Client: Project:	Blagg En Irvin CC	ngineering DM 1E									
Sample ID 5	5ML RB	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID: F	PBW	Batch	n ID: R7	776	F	RunNo: 7	7776				
Prep Date:		Analysis D	ate: 12	2/28/2012	S	SeqNo: 2	226043	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Bromo	fluorobenzene	22		20.00	and Second as a fill build be an angle from	109	69.7	152			
Sample ID 1	00NG BTEX LC	s SampT	ype: LC	S	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID: L	CSW	Batch	n ID: R7	776	F	RunNo: 7	7776				
Prep Date:		Analysis D	ate: 12	2/28/2012	5	SeqNo:	226044	Units: µg/L			
				-							

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	80	120			
Toluene	22	1.0	20.00	0	110	80	120			
Ethylbenzene	22	1.0	20.00	0	111	80	120			
Xylenes, Total	68	2.0	60.00	0	113	80	120			
Surr: 4-Bromofluorobenzene	24		20.00		118	69.7	152			

Sample ID 1212A13-006AM	S Samp	Type: MS	3	Tes	tCode: El	PA Method	8021B: Volati	iles		
Client ID: BatchQC	Batc	h ID: R7	776	F	RunNo: 7	776				
Prep Date:	Analysis I	Date: 12	2/28/2012	5	SeqNo: 2	26051	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	74.1	124			
Toluene	21	1.0	20.00	0	106	75.2	124			
Ethylbenzene	21	1.0	20.00	0	107	69	125			
Xylenes, Total	66	2.0	60.00	0	110	73.1	126			
Surr: 4-Bromofluorobenzene	23		20.00		115	69.7	152			

Sample ID 1212A13-006AM	SampT	ype: MS	D	Tes	tCode: El	PA Method	8021B: Volati	iles		
Client ID: BatchQC	Batch	ID: R7	776	F	RunNo: 7	776				
Prep Date:	Analysis D	ate: 12	2/28/2012	S	SeqNo: 2	26052	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.5	74.1	124	6.10	11.2	
Toluene	20	1.0	20.00	0	98.9	75.2	124	7.02	11.9	
Ethylbenzene	20	1.0	20.00	0	101	69	125	6.18	13.5	
Xylenes, Total	61	2.0	60.00	0	101	73.1	126	8.07	13	
Surr: 4-Bromofluorobenzene	23		20.00		114	69.7	152	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

Е Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2 В Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Η

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

ENVIRONMENTAL ANALYSIS	Ill Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105 EL: 505-345-3975 FAX: 505-345-410; Website: www.hallenvironmental.con	List
Client Name: BLAGG	Work Order Number: 1212A62	
Received by/date:	67/12	
Logged By: Michelle Garcia 12/27/	012 11:00:00 AM	
Completed By: Michelle Garcia 12/27/	012 11:00:00 AM Minute Garcies	
Reviewed By: 4-12/27/12		
Chain of Custody		
1. Were seals intact?	Yes 🗌 No 🗌 Not Present 🗹	
2. Is Chain of Custody complete?	Yes 🗹 No 🗌 Not Present 🗌	
3. How was the sample delivered?	Courier	
Log In		
4. Coolers are present? (see 19. for cooler specific in	ormation) Yes 🗹 No 🗌 NA 🗌	
5. Was an attempt made to cool the samples?	Yes 🗹 No 🗌 NA 🗌	
6. Were all samples received at a temperature of >0	C to 6.0°C Yes ☑ No □ NA □	
7. Sample(s) in proper container(s)?	Yes 🗹 No	
8. Sufficient sample volume for indicated test(s)?	Yes 🗹 No 🗌	
9. Are samples (except VOA and ONG) properly pres		
10. Was preservative added to bottles?	Yes 🗌 No 🗹 🛛 NA 🗌	
11. VOA vials have zero headspace?	Yes 🗹 No 🗌 No VOA Vials	
12. Were any sample containers received broken?	Yes No 🗹	
 Does paperwork match bottle labels? (Note discrepancies on chain of custody) 	Yes V No Hoffreserved bottles checked for pH:	
14. Are matrices correctly identified on Chain of Custor		noted)
15. Is it clear what analyses were requested?	Yes 🗹 No 🗌 Adjusted?	
 Were all holding times able to be met? (If no, notify customer for authorization.) 	Yes V No Checked by:	
Special Handling (if applicable)		
17. Was client notified of all discrepancies with this or	er? Yes 🗌 No 🗌 NA 🗹	
Person Notified:	Date:	
By Whom:	Via: eMail Phone Fax In Person	
Regarding:	, Algorithman (1997), and a state of the sta	
Client Instructions:		
18. Additional remarks:		

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			

С	hain	-of-Cu	stody Record	Turn-Around	Time:								E		TC	20	NIN		NT		
Client:	BLAG	6 ENG	WEERING INC.	X Standard	🗆 Rush	L													TO		r
	BP L	MERI	Δ	Project Name	and the second se										ment						
Mailing	Address	POI	-A Box 87	IRVI	N COM	1E		490	01 H								M 87	109			
			IM 87413	Project #:			1)5-34							4107				
			32-1197	-									and the second second	and the second se	Req		-				
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Accredi				Sampler:	T. BLAGA	0	TIMB	+ TPH (Gas	5B ((,	÷.	Ŧ		NON NO	8082						Î
		L Othe	r	On Ice.	ØYes I.		+	+ ш	8015	418	504	PA	s	103	Pesticides /		(Semi-VOA)				or
	(Type)_			Sample hem	leratures	2.8	+-MTBE	MTBE	pou	poq	pou	A or	Meta	,C,	ticid	(AO)	V-ir				V Se
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1	BTEX + 1	BTEX + N	TPH Method 8015B	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,	8081 Pes	8260B (VOA)	8270 (Sei				Air Bubbles (Y or N)
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12/26/12	1120	WATER	MW-2	VOAx 3	HgCLZ	-001	X													_	\perp
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

September 06, 2013

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-1183 FAX (505) 632-3903

RE: Irvin COM 1E

OrderNo.: 1308D56

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 3 sample(s) on 8/30/2013 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 <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1308D56 Date Reported: 9/6/2013

CLIENT: Blagg Engineering Project: Irvin COM 1E Lab ID: 1308D56-001	Matrix:	AQUEOUS		Date: 8 /2	W-4 28/2013 1:30:00 PM 30/2013 10:00:00 AM	
Analyses	Result		Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES S	HORT LIST				Analyst	cadg
Benzene	1700	20	µg/L	20	9/4/2013 12:22:01 PM	R13079
Toluene	ND	1.0	µg/L	1	9/3/2013 10:28:12 PM	R13040
Ethylbenzene	130	20	μg/L	20	9/4/2013 12:22:01 PM	R13079
Xylenes, Total	30	2.0	μg/L	1	9/3/2013 10:28:12 PM	R13040
Surr: 1,2-Dichloroethane-d4	93.7	70-130	%REC	1	9/3/2013 10:28:12 PM	R13040
Surr: 4-Bromofluorobenzene	84.9	70-130	%REC	1	9/3/2013 10:28:12 PM	R13040
Surr: Dibromofluoromethane	105	70-130	%REC	1	9/3/2013 10:28:12 PM	R13040
Surr: Toluene-d8	94.6	70-130	%REC	1	9/3/2013 10:28:12 PM	R13040

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 1 of 5
	0	RSD is greater than RSDlimit	Р	Not Detected at the Reporting Limit Page 1 of 5 Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1308D56** Date Reported: **9/6/2013**

CLIENT:Blagg EngineeringProject:Irvin COM 1ELab ID:1308D56-002	Matrix:	AQUEOUS	e o ne o ne o ne o	Date: 8 /2	W-5 28/2013 2:15:00 PM 30/2013 10:00:00 AM	
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SI	HORT LIST				Analyst	cadg
Benzene	ND	1.0	µg/L	1	9/3/2013 11:25:29 PM	R13040
Toluene	ND	1.0	µg/L	1	9/3/2013 11:25:29 PM	R13040
Ethylbenzene	ND	1.0	µg/L	1	9/3/2013 11:25:29 PM	R13040
Xylenes, Total	ND	2.0	µg/L	1	9/3/2013 11:25:29 PM	R13040
Surr: 1,2-Dichloroethane-d4	99.0	70-130	%REC	1	9/3/2013 11:25:29 PM	R13040
Surr: 4-Bromofluorobenzene	98.7	70-130	%REC	1	9/3/2013 11:25:29 PM	R13040
Surr: Dibromofluoromethane	111	70-130	%REC	1	9/3/2013 11:25:29 PM	R13040
Surr: Toluene-d8	97.4	70-130	%REC	1	9/3/2013 11:25:29 PM	R13040

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 2 of 5
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Lab Order 1308D56

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/6/2013

CLIENT: Blagg Engineering Project: Irvin COM 1E Lab ID: 1308D56-003	Matrix	AQUEOUS		Date: 8/2	W-6 28/2013 3:00:00 PM 30/2013 10:00:00 AM	
Analyses	Result	RL Qu			Date Analyzed	Batch
EPA METHOD 8260: VOLATILES S	HORT LIST				Analyst	cadg
Benzene	ND	1.0	µg/L	1	9/4/2013 12:22:46 AM	R13040
Toluene	ND	1.0	µg/L	1	9/4/2013 12:22:46 AM	R13040
Ethylbenzene	ND	1.0	µg/L	1	9/4/2013 12:22:46 AM	R13040
Xylenes, Total	4.3	2.0	µg/L	1	9/4/2013 12:22:46 AM	R13040
Surr: 1,2-Dichloroethane-d4	98.5	70-130	%REC	1	9/4/2013 12:22:46 AM	R13040
Surr: 4-Bromofluorobenzene	96.9	70-130	%REC	1	9/4/2013 12:22:46 AM	R13040
Surr: Dibromofluoromethane	113	70-130	%REC	1	9/4/2013 12:22:46 AM	R13040
Surr: Toluene-d8	98.0	70-130	%REC	1	9/4/2013 12:22:46 AM	R13040

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	E	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 3 of 5
	0	RSD is greater than RSDlimit	Р	Not Detected at the Reporting Limit Page 3 of 5 Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Blagg Engineering
Project:	Irvin COM 1E

Sample ID 5mL rb SampType: MBLK TestCode: EPA Method 8260: Volatiles Short List Client ID: PBW Batch ID: R13040 RunNo: 13040 <th>Qual</th>	Qual
Prep Date:Analysis Date:9/3/2013SeqNo::372717Units:µg/LAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitBenzeneND1.0TolueneND1.0<	Qual
AnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitBenzeneND1.0TolueneND1.0EthylbenzeneND1.0Xylenes, TotalND2.0Surr: 1,2-Dichloroethane-d49.810.0098.170Surr: 4-Bromofluorobenzene1010.0010570130Surr: Dibromofluoromethane1110.0011470130	Qual
ND 1.0 Toluene ND 1.0 Ethylbenzene ND 1.0 Xylenes, Total ND 2.0 Surr: 1,2-Dichloroethane-d4 9.8 10.00 98.1 70 130 Surr: 4-Bromofluorobenzene 10 10.00 105 70 130 Surr: Dibromofluoromethane 11 10.00 114 70 130	Qual
ND 1.0 Ethylbenzene ND 1.0 Xylenes, Total ND 2.0 Surr: 1,2-Dichloroethane-d4 9.8 10.00 98.1 70 130 Surr: 4-Bromofluorobenzene 10 10.00 105 70 130 Surr: Dibromofluoromethane 11 10.00 114 70 130	
Klylenese ND 1.0 Xylenes, Total ND 2.0 Surr: 1,2-Dichloroethane-d4 9.8 10.00 98.1 70 130 Surr: 4-Bromofluorobenzene 10 10.00 105 70 130 Surr: Dibromofluoromethane 11 10.00 114 70 130	
ND 2.0 Surr: 1,2-Dichloroethane-d4 9.8 10.00 98.1 70 130 Surr: 4-Bromofluorobenzene 10 10.00 105 70 130 Surr: Dibromofluoromethane 11 10.00 114 70 130	
Surr: 1,2-Dichloroethane-d49.810.0098.170130Surr: 4-Bromofluorobenzene1010.0010570130Surr: Dibromofluoromethane1110.0011470130	
Surr: 4-Bromofluorobenzene 10 10.00 105 70 130 Surr: Dibromofluoromethane 11 10.00 114 70 130	
Surr: Dibromofluoromethane 11 10.00 114 70 130	
Surr: Toluene-d8 10 10.00 99.7 70 130	
Sample ID 100ng Ics2 SampType: LCS TestCode: EPA Method 8260: Volatiles Short List	
Client ID: LCSW Batch ID: R13040 RunNo: 13040	
Prep Date: Analysis Date: 9/3/2013 SeqNo: 372718 Units: μg/L	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit	Qual
Benzene 19 1.0 20.00 0 94.8 70 130	
Toluene 18 1.0 20.00 0 90.8 82.2 124	
Surr: 1,2-Dichloroethane-d4 9.8 10.00 98.4 70 130	
Surr: 4-Bromofluorobenzene 9.8 10.00 97.8 70 130	
Surr: Dibromofluoromethane 11 10.00 107 70 130	
Surr: Toluene-d8 9.8 10.00 98.2 70 130	
Sample ID 5mL rb SampType: MBLK TestCode: EPA Method 8260: Volatiles Short List	
Client ID: PBW Batch ID: R13079 RunNo: 13079	
Prep Date: Analysis Date: 9/4/2013 SeqNo: 373212 Units: µg/L	
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit	Qual
Benzene ND 1.0	
Ethylbenzene ND 1.0	
Surr: 1,2-Dichloroethane-d4 10 10.00 101 70 130	
Surr: 4-Bromofluorobenzene 10 10.00 104 70 130	
Surr: Dibromofluoromethane 12 10.00 116 70 130	
Surr: Toluene-d8 9.7 10.00 97.3 70 130	
Sample ID 100ng Ics SampType: LCS TestCode: EPA Method 8260: Volatiles Short List	
Client ID: LCSW Batch ID: R13079 RunNo: 13079	
Prep Date: Analysis Date: 9/4/2013 SeqNo: 373213 Units: μg/L	
	Qual
Prep Date: Analysis Date: 9/4/2013 SeqNo: 373213 Units: μg/L	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimitR RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 4 of 5

WO#: **1308D56**

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Blagg Engineering
Project:	Irvin COM 1E

Sample ID 100ng lcs	SampTy	pe: LCS		Test	TestCode: EPA Method 8260: Volatiles Short List										
Client ID: LCSW	Batch	ID: R1307	9												
Prep Date:	Analysis Date: 9/4/2013 Set				eqNo: 3	73213	Units: µg/L								
Analyte	Result	PQL SP	K value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual					
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130								
Surr: Dibromofluoromethane	11		10.00		108	70	130								
Surr: Toluene-d8	9.9		10.00		98.7	70	130								

Qualifiers:

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

Page 5 of 5

1308D56 06-Sep-13

WO#:

	4901 Hawkins NE Albuquerque, NM 87109 EL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com	Samp	le Log-In Chec	k List
Received by/date: Ashley Gallegos 8/30/2	k Order Number: 1308D56	AJ	RcptNo: 1	
Completed By: Ashley Gallegos 8/30/2 Reviewed By: Mg OS/ Chain of Custody	30/13	t f		
1. Custody seals intact on sample bottles?	Yes	No	Not Present	
2. Is Chain of Custody complete?	Yes 🗸	No	Not Present	
3. How was the sample delivered?	Courier			
Log In				
4. Was an attempt made to cool the samples?	Yes 🗸	No	NA	
5. Were all samples received at a temperature of >0	C to 6.0°C Yes 🗸	No	NA	
6. Sample(s) in proper container(s)?	Yes 🗸	No		
7, Sufficient sample volume for indicated test(s)?	Yes 🗸	No		
8. Are samples (except VOA and ONG) properly pres	erved? Yes V	No		
9. Was preservative added to bottles?	Yes	No 🗸	NA	
10.VOA vials have zero headspace?	Yes	No	No VOA Vials 🗸	
11. Were any sample containers received broken?	Yes	No 🖍	# of preserved bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗸	No	for pH:	unless noted)
13, Are matrices correctly identified on Chain of Custo	dy? Yes ✔	No	Adjusted?	
14. Is it clear what analyses were requested?	Yes 🗸	No		
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🖌	No	Checked by:	
Special Handling (if applicable)				
16. Was client notified of all discrepancies with this or	er? Yes	No	NA 🗸	
Person Notified: By Whom:	Date: Date: Pho	ne Fax	In Person	8
Regarding: Client Instructions:				
17. Additional remarks:	<i>.</i>		1	
18. Cooler Information				
Cooler No Temp °C Condition Seal Intra 1 4.9 Good Yes	ct Seal No Seal Date Si	gned By		
Page 1 of 1				

U	nain	ot-Cu	stody Record	Turn-Around	Time:								-		TE	0				
Client:	BLAGE	ENGI	DERING INC.	Standard	🗆 Rush															
	BP	America	(A	Project Name												al.co				
Mailing	Address	RO	Box 87	IRVIN	v Com	1E		400	11 Ц								M 87	109		
			NM 87413	Project #:					1. 50								4107			
Phone #			32-1199					Te	1. 50	0-34	0-38	and the second se	-	and the owner where the party is not	Contraction of the local division of the loc	uest	and the second second			
email or		103 6	<u> </u>	Project Mana	aer:			(À	ô	Ì										TT
QA/QC F				1	SLAGE		021)	uo s	MR					SO,	B's					
Stan	-		Level 4 (Full Validation)	V- E	SLACE		<u>M</u> (8021)	+ TPH (Gas only)	DRO / MRO)			(SMIS)		PO	2 PC					
Accredi				Sampler: J				Hd	-	E	=	8270 \$		NO2	8082					:
		□ Othe	r	On ice:	Aves /	HE NO		+	SR	418	504.1)		s	03,	/ S		(YO			
	(Type)			Sample Leni	Serature: 4		TATEL -	TBE	0	po	po	00	etal	CI,N	cide	(A)	j-V(1.1
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	REALIND	EX +	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method	PAH's (8310 or	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)			
8/28/13	1330	BUATER	MW-4	2 × VOA	Ma	1308D50	M X	B	-	-	<u> </u>	9	R	A	8	80	80	-+		<
11	1415	И	MW-5	h	Н	-002	X		-	-+	-	-						-	-	++
W	1500	ч	MW-6	it	V	-603			-	+	-†		-	-				-	+	++
										-	-	-						-	1	++
										-+	1							-+	-	++
										-+								+	+	++
									-+	-+		-				-		-	+	++
									-										-	++
																		-		++
Date: 8/29/13	Time: 1439	Relinquishe	d by: Blegg	Received by:	Walter	B/29/13 1439	Ren	narks	3:	Bi	и	B.	46.6						Æ	
Pate:	Time: 1751	Relinquishe	t 1)	Received by:)	Date Time				BP	° (on-	taei	+:	61	TEP.	FI	EA.	eΕ	
1411-5	necessary	A TULA	hitted to Hall Environmental may be subc	instracted to other ac	r O	This serves as notice of this	Doesi	hiliby (Any gu	h cont	acted	data	will be	dear	hy nots	ated or	the ar	alutica	report	

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



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

September 26, 2013

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-1183 FAX (505) 632-3903

RE: Irvin Com 1E

OrderNo.: 1309915

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/19/2013 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 <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1309915** Date Reported: **9/26/2013**

CLIENT: Dlaga Engineering			Client Sampl	. ID. M	X7 A								
CLIENT: Blagg Engineering	Client Sample ID: MW-4												
Project: Irvin Com 1E			Collection I	Date: 9/1	8/2013 1:15:00 PM								
Lab ID: 1309915-001	Matrix:	AQUEOUS	Date: 9/1	e: 9/19/2013 10:00:00 AM									
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	Batch							
EPA METHOD 8021B: VOLATILES					Analyst	NSB							
Benzene	740	20	µg/L	20	9/20/2013 5:14:11 PM	R13517							
Toluene	ND	2.0	µg/L	2	9/20/2013 5:44:11 PM	R13517							
Ethylbenzene	110	2.0	µg/L	2	9/20/2013 5:44:11 PM	R13517							
Xylenes, Total	10	4.0	µg/L	2	9/20/2013 5:44:11 PM	R13517							
Surr: 4-Bromofluorobenzene	114	85-136	%REC	20	9/20/2013 5:14:11 PM	R13517							

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	E	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 1 of 2
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT	
Hall Environmental Analysis Laboratory, Inc.	

Client: Blagg Engineering

Irvin Com 1E

Project:

Troject.	II VIII COII												
Sample ID	ble ID 5ML RB SampType: MBLK TestCode: EPA Method 8021B: Volatiles												
Client ID:	PBW	Batc	h ID: R1	3517	F	RunNo: 1	3517						
Prep Date:		Analysis I	Date: 9/	20/2013	5	SeqNo: 3	84731	Units: µg/L					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene		ND	1.0										
Toluene		ND	1.0										
Ethylbenzene		ND	1.0										
Xylenes, Total		ND	2.0										
Surr: 4-Bron	ofluorobenzene	22		20.00		111	85	136					
Sample ID 100NG BTEX LCS SampType: LCS TestCode: EPA Method 8021B: Volatiles													
Client ID:	LCSW	Batc	h ID: R1	3517	F	RunNo: 1	3517						
Prep Date:		Analysis I	Date: 9/	20/2013	5	SeqNo: 3	84732	Units: µg/L					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene		20	1.0	20.00	0	102	80	120					
Toluene		20	1.0	20.00	0	102	80	120					
Ethylbenzene		21	1.0	20.00	0	103	80	120					
Xylenes, Total		64	2.0	60.00	0	106	80	120					
Surr: 4-Bron	nofluorobenzene	23		20.00		114	85	136					
Sample ID	1309862-001AMS	Samp	Type: MS	;	Tes	tCode: E	PA Method	8021B: Volat	iles		and a second provident		
Client ID:	BatchQC	Batc	h ID: R1	3517	F	RunNo: 1	3517						
Prep Date:		Analysis [Date: 9/	20/2013	S	SeqNo: 3	84734	Units: µg/L					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene		980	50	1000	0	97.8	73.4	119					
Toluene		970	50	1000	0	97.4	80	120					
Ethylbenzene		990	50	1000	0	98.9	80	120					
Xylenes, Total		3100	100	3000	0	102	80	120					
Surr: 4-Bron	ofluorobenzene	1100		1000		112	85	136					
Sample ID	1309862-001AMSE) Samp	Type: MS	D	Tes	tCode: E	PA Method	8021B: Volat	iles				
Client ID:	BatchQC	Batc	h ID: R1	3517	F	RunNo: 1	3517						
Prep Date:		Analysis [Date: 9/	20/2013	5	SeqNo: 3	84735	Units: µg/L					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene		990	50	1000	0	98.8	73.4	119	1.01	20			
Toluene		990	50	1000	0	99.2	80	120	1.76	20			
Ethylbenzene		1000	50	1000	0	101	80	120	2.00	20			
Xylenes, Total		3100	100	3000	0	104	80	120	1.45	20			
Surr 4-Bron	ofluorobenzene	1100		1000		114	85	136	0	0			
oun. i bion													

Qualifiers:

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

Page 2 of 2

WO#: **1309915** 26-Sep-13

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Tall Environmental A Albuq TEL: 505-345-3975 I Website: www.hali	4901 juerque 7AX: 50	Hawk 2. NM 05-34:	ins NE 87109 S 5-4107	amp	ole Log-In Check List
Client Name: BLAGG	Work Order Number:	13099	15			RcptNo: 1
Designed by Market D	nalialia					
Received by/date.	UMMIS			-A-: >		
Logged By: Ashley Gallegos	9/19/2013 10:00:00 AM			24 J	-	
Completed By: Ashley Gallegos	9/19/2013 7:28:10 PM			A	-	
Reviewed By: 9/20						
Chain of Custody						
1. Custody seals intact on sample bottles?		Yes		No		Not Present 🗸
2. Is Chain of Custody complete?		Yes	V	No		Not Present
3. How was the sample delivered?		Cour	ier			
Log In						
4. Was an attempt made to cool the sample	es?	Yes	~	No	:	NA
5. Were all samples received at a temperatu	ure of >0° C to 6.0°C	Yes	~	No	4 () () () ()	NA
6 Sample(a) in proper container(a)?		Vaa	~	No		
6. Sample(s) in proper container(s)?		Yes		140		
7. Sufficient sample volume for indicated tes	st(s)?	Yes	V	No	r T	
8. Are samples (except VOA and ONG) prop	perly preserved?	Yes		No		
9. Was preservative added to bottles?		Yes		No	✓	NA
10.VOA vials have zero headspace?		Yes		No		No VOA Vials
11. Were any sample containers received bro	oken?	Yes		No	~	
	,					# of preserved bottles checked
12. Does paperwork match bottle labels?		Yes	~	No		for pH:
(Note discrepancies on chain of custody)						(<2 or >12 unless noted) Adjusted?
13. Are matrices correctly identified on Chain	-	Yes		No		Aujusteu :
14. Is it clear what analyses were requested?		Yes	×.	No		Checked by:
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes	•	No		Checked by.
Special Handling (if applicable)						
16. Was client notified of all discrepancies with	th this order?	Yes		No	1	NA 🗸
Person Notified:	Date:		and the second			
By Whom:	Via:	eMa	ail :	Phone	Fax	In Person
Regarding:	n de la marche de la marche de la compania de la marche de	CATALONIA A COLORI				ten han en
. Client Instructions:	n na bha na na na sharanna an an ann an ann an ann an ann an			elikatok altik cartanara ili altikation		Alle Anterio (Martino), A. Annaha alexee ha Alle Alle Alle Alle Alle Alle Alle All
17. Additional remarks:						
18. Cooler Information						
Cooler No Temp °C Condition		eal Da	ate	Signed B	By	
1 1.0 Good	fes		5 M 10			

С	hain-	of-Cu	stody Record	Turn-Around	Time:		1									ТС	20			NT		
Client:	BLAG	ENGIA	LEERING INC.	Standard	🗆 Rush	L				H	_											
	RP N	LAERICA	Λ	Project Name									w.hal									
Mailing	Address	POR	a lox 87	- IRVIN COM 1E					19	<u>01 н</u>								M 87	109			
		1.0.0	IM 87413	Project #:			1															
Phone #			32-1199					Tel. 505-345-3975 Fax 505-345-4107 Analysis Request														
email or		03 0		Project Mana	ger:				ly)	0												
QA/QC F	Package:				-			021	s on	MR			6		4,SC	PCB's						
Stan	dard		Level 4 (Full Validation)		BLAGG			\$ (8	(Ga	RO			SIMS)		PO	2 PC						
Accredi				Sampler:	J- BLAG	6		TMB's (8021)	H	DI	÷.	(1-	8270		NO2	808						Î
		Other	r	On Ice	Yes			111	+	SRO	418	504	or 82	s	1 0 ₃ ,	/ SE		(YO				or
	(Type)_			Sample I em	perature	¹			TBE	B (0	por	pou	10 c	leta	CI,N	icide	(YC	N-in				S (Y
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.		BTEX + MTBE	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082	8260B (VOA)	'0 (Semi-VOA)				Air Bubbles (Y or N)
						1309915		BT	BT	TP	ТР	ED	PAI	RC	Ani	808	826	8270 (Air
9/18/2013	1315	WATER	MW-4	VOAx3	HCL	-00	۲	X														
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							-														+	+
							1														+	
							1													-+	+	+
							1													-	+	+
Date:	Time: /430	Relinquishe	d by: 1 Block	Received by:	1. h. l.	Date Time 9/18/2013 [43]		Rer	nark	s:	T.	314	B.	LAG	.6					[
Date:	Time:	Relinquishe	ed by:	Received by:	noeras	Date Time																
9/18/13	1737 Decessary	Mis	the Jaeles	T H	4	og lal B IN	Ó				B	P	LON	TAC	ti	JE	FF	REA	E	-		

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



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

December 24, 2013

Nelson Velez Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-3489 FAX (505) 632-3903

RE: IRVIN COM # 1E

OrderNo.: 1312A38

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/20/2013 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 <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1312A38** Date Reported: **12/24/2013**

CLIENT: Blagg Engineering Project: IRVIN COM # 1E	Client Sample ID: MW # 3 Collection Date: 12/19/2013 1:30:00 PM								
Lab ID: 1312A38-001	Matrix:	AQUEOUS	Received I	Date: 12/20/2013 10:00:00 A	Μ				
Analyses	Result	RL Qua	al Units	DF Date Analyzed	Batch				
EPA METHOD 8021B: VOLATILES				Analy	st: NSB				
Benzene	ND	1.0	µg/L	1 12/24/2013 12:28:19	AM R15705				
Toluene	ND	1.0	µg/L	1 12/24/2013 12:28:19	AM R15705				
Ethylbenzene	ND	1.0	µg/L	1 12/24/2013 12:28:19	M R15705				
Xylenes, Total	ND	2.0	µg/L	1 12/24/2013 12:28:19	AM R15705				
Surr: 4-Bromofluorobenzene	102	85-136	%REC	1 12/24/2013 12:28:19	AM R15705				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded	ed
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Pag	elof3
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only	y.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Lab Order 1312A38

Hall Environmenta	l Analysis	Laboratory,	Inc.
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Date Reported: 12/24/2013

CLIENT: Blagg Engineering Project: IRVIN COM # 1E			concernou a	Date: 12/19/2013 2:30:00 PM	
Lab ID: 1312A38-002 Analyses	Result	AQUEOUS	Received I al Units	Date: 12/20/2013 10:00:00 AM DF Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES				Analyst	NSB
Benzene	ND	1.0	µg/L	1 12/24/2013 12:58:28 AM	AR15705
Toluene	ND	1.0	µg/L	1 12/24/2013 12:58:28 AM	A R15705
Ethylbenzene	ND	1.0	µg/L	1 12/24/2013 12:58:28 AM	AR15705
Xylenes, Total	ND	2.0	µg/L	1 12/24/2013 12:58:28 AM	AR15705
Surr: 4-Bromofluorobenzene	102	85-136	%REC	1 12/24/2013 12:58:28 AM	AR15705

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 2 of 3	
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.	3
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Blagg Engineering
Project:	IRVIN COM # 1E

Qualifiers:

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

ENVIRONMENTAL ANALYSIS LABORATORY	4901 Hawkins Albuquerque, NM 87 TEL: 505-345-3975 FAX: 505-345-4 Website: www.hallenvironmental.	NE 105 Sam	ple Log-In Check List
Client Name: BLAGG	Work Order Number: 1312A38		RcptNo: 1
Received by/date:	12.120 13		
Logged By: Lindsay Mangin 12	/20/2013 10:00:00 AM	And the for	
Completed By: Lindsay Mangin 12	21/2013 9:10:40 AM	Juniy	
Reviewed By:	123/13	-	
Chain of Custody			
1. Custody seals intact on sample bottles?	Yes	No 🗌	Not Present
2. Is Chain of Custody complete?	Yes 🗸	No 🗌	Not Present
3. How was the sample delivered?	Courier		
Log In			
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗌	NA
5. Were all samples received at a temperature of	>0° C to 6.0°C Yes 🗹	No 🗌	
6. Sample(s) in proper container(s)?	Yes 🗹	No 🗌	
7. Sufficient sample volume for indicated test(s)?	Yes 🖌	No 🗌	
8. Are samples (except VOA and ONG) properly p	vreserved? Yes	No 🗌	
9. Was preservative added to bottles?	Yes	No 🗹	NA 🗌
10.VOA vials have zero headspace?	Yes 🗹	No 🗋	No VOA Vials
11. Were any sample containers received broken?	Yes	No 🗹	# of preserved
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗆	bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Cu	stody? Yes 🗹	No 🗌	Adjusted?
14. Is it clear what analyses were requested?	Yes 🗹	No 🗌	
15.Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No 🗌	Checked by:

Special Handling (if applicable)

16.1	Was client notified of all o	liscrepancies with this order?	,	Yes 🗌	No 🗌	NA 🗹
	Person Notified:		Date:			
	By Whom:		Via:	eMail	Phone Fax	In Person
	Regarding:					
	Client Instructions:	and a state of a special Robbin as a service state of the Robbin service state of the state of t		and and a second second	an and the second statement of the second statement of	

17. Additional remarks:

18. Cooler Information

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

cilent:	BLAG	G ENGR.	/ BP AMERICA	Standard Project Name:	Rush_					A			.YS	SIS	SL	LAE	BO	DR/	ENT		
Mailing Ad	dress:	P.O. BOX	(87	1 .	IRVIN COM #	# 1E	l	490	01 H									87109	9		
		BLOOMF	FIELD, NM 87413	Project #:			1			05-34					505-						
Phone #:		(505) 632		1							Ĩ	and the second second			s Req	and the second					
email or Fa	ìх#:			Project Manage	ier:										1 1		T	î.	П	T	
QA/QC Pack	-		Level 4 (Full Validation)		NELSON VE	ELEZ	48¹s (8021B)	(Aluo	/ MRO)			4S)		PO4,SO	2 PCB's			ter - 300.1)			е
Accreditatio	on:	and the second second			NELSON VE			(Gas	NO/	(1)	(1)	NISO.	•	VO2)	8082		1	/ wat			sample
	The second s	Other_		danse and a second s		<u>⊡ No</u>		HdT	0/0	418	504	827	s	103,1	/ sa	1	(AC	000.0	1		
	ype)			Sample Tempe	erature: /	$\cdot \mathcal{O}$		H + 38	(GR	por	pou	Jor	etal	C,N	icide	(A	ni-V(oil - 3	└ ┃.	ple	posi
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX MATRIE	BTEX + MTBE + TPH (Gas only)	TPH 80158 (GRO / DRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metais	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water		rab.	5 pt. composite
12/19/13	1330	WATER	MW # 3	40 mJ VOA - 2	HCI & Cool	-001	V	Ţ							T	T,	T,	T		V	-
				1	1	T									T,	T,	T.	\square	-+	-	+
				1	1		1-1		-	+-+	-	-		t	Τ.	\top	T.	\top	++	-+	-+
				1	†	1	1	1	\vdash				\square	1	+	\top	\top	\mathbf{T}	++	+	+
12/19/13	1430	WATER	MW # 5	40 ml VOA - 2	HCI & Cool	-002	V	-			1	5		-	t					V	+
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					T			Γ					\square		T	T	T	\square		1	-
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ate;	Time:	Relinquispec	T,by:	Received by:	L	Date Time	Rom	narks	Ļ			<u> </u>	<u> </u>		L				\Box		
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ate: 1	Time: I	Relinquished	d by:	Received by:	Th	Date Time /	Jet	ff Pead	1ce, 2	200 E)	nerg	γ Col	urt, F	⊂arm	ningtu	on, N	VM 8	7401			
19/12	100	Chn-	The labore ()	Meller	1/galena	12/20/13	Fin	nd Pur	rchas	se Or	der i	in em	nail fi	from	BP.						
1.51		V, samples eut	ubmitted to Hall Environmental may be su	1 XI2/1664	Handling Inhandling	ies. This serves as notice of	P	Seihim	tv A-	Vent	- the	- 11 -						_			

If necessary, samples submitted to Hall Environmental may be subcolutracted to give accredited laboratories. This serves as notice of this possibility. Any sub-contracted to give accredited laboratories.



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

January 07, 2014

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-1183 FAX (505) 632-3903

RE: Irvin Com 1E

OrderNo.: 1312B92

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/27/2013 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 <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1312B92** Date Reported: **1/7/2014**

CLIENT: Blagg Engineering Project: Irvin Com 1E	Client Sample ID: MW-4 Collection Date: 12/23/2013 1:30:00 PM									
Lab ID: 1312B92-001	Matrix: A	AQUEOUS	Received I	Date: 12/	/27/2013 10:00:00 AM					
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	Batch				
EPA METHOD 8021B: VOLATILES					Analyst	NSB				
D.	6.1	2.0	ua/I	2	12/30/2013 6:21:05 PM	DAFOA				
Benzene	0.1	2.0	μg/L	2	12/30/2013 0.21.031 1	R15810				
Benzene Toluene	ND	2.0	μg/L	2	12/30/2013 6:21:05 PM					
Bonzonio				2 2 2		R15810				
Toluene	ND	2.0	µg/L	-	12/30/2013 6:21:05 PM	R15810 R15810				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	E	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 1 of 2
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering **Project:** Irvin Com 1E

Sample ID 5ML RB	SampT	SampType: MBLK TestCode: EPA Metho						iles		
Client ID: PBW	Batch	n ID: R1	5810	RunNo: 15810						
Prep Date:	Analysis D	ate: 12	2/30/2013	S	SeqNo: 4	56386	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	19		20.00		97.4	85	136			
Sample ID 100NG BTEX LCS	SampT	ype: LC	S	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID: LCSW	Batch	n ID: R1	5810	F	RunNo: 1	5810				
Prep Date:	Analysis D	ate: 12	2/30/2013	S	eqNo: 4	56387	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	80	120			
Toluene	22	1.0	20.00	0	111	80	120			
Ethylbenzene	21	1.0	20.00	0	107	80	120			
Xylenes, Total	66	2.0	60.00	0	109	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		105	85	136			

Qualifiers:

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

Page 2 of 2

07-Jan-14

1312B92

WO#:

	ENVIRONMENTAL
	ANALYSIS
	LABORATORY
10 million (10 million)	

4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	BLAGG	Work Order Numb	er: 1312B92		RcptNo: 1	
Received by/dat	te:	12/27/13				
Logged By:	Anne Thorne	12/27/2013 10:00:00	AM	arme How	~	
Completed By:	Anne Thorne	12/27/2013		anne Hom		
Reviewed By:	- AT-1	2/22/13				j
Chain of Cus	stody					
1. Custody sea	als intact on sample	bottles?	Yes 🗌	No 🗌	Not Present	
2. Is Chain of	Custody complete?		Yes 🖌	No	Not Present	
3. How was the	e sample delivered?		Courier			
Log In						
4. Was an atte	empt made to cool t	he samples?	Yes 🗹	No 🗌		
5. Were all sa	mples received at a	temperature of >0° C to 6.0°C	Yes 🗹	No		
6. Sample(s) i	n proper container(s	3)?	Yes 🗹	No		
7. Sufficient sa	ample volume for inc	dicated test(s)?	Yes 🔽	No 🗌		
8. Are samples	s (except VOA and (ONG) properly preserved?	Yes 🗹	No 🗌		
9. Was preser	vative added to bott	les?	Yes	No 🗹	NA 🗌	
10.VOA vials h	ave zero headspace	?	Yes 🗸	No 🗌	No VOA Vials	
11. Were any s	ample containers re	ceived broken?	Yes	No 🗹	# of preserved	
	work match bottle la epancies on chain of		Yes 🗹	No 🗆	for pH: (<2 or >12 unless not	oted)
13. Are matrice	s correctly identified	on Chain of Custody?	Yes 🗹	No 🗌	Adjusted?	_
14. Is it clear wi	hat analyses were re	equested?	Yes 🗹	No 🗌		
	lding times able to b customer for autho		Yes 🗹	No 🗌	Checked by:	_

Special Handling (if applicable)

16.1	Nas client notified of all o	liscrepancies with this order?		Yes	No	NA 🗹
	Person Notified:		Date			
	By Whom:		Via:	eMail 🗌 I	Phone 🗌 Fax 📋	In Person
	Regarding:					
	Client Instructions:		a sec on a cost of the latent			

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.7	Good	Yes			

Client:	Blagg Engi	neering,	Inc.	Standard		. Artes Altone A										OR			
	BP Americ	а		Project Name	E Irvin Com 1E	an a												OF	61
Mailing Add				1	Irvin Com TE			10								tal.co		4.00	
		P.O. Bo		Project #:			-							-	•	e, NN			
Providence			eld, NM 87413					Te	əl. 50)5-34	Concession of the local division of the loca	and the second	and the second	Contraction of the local	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	345-	4107		
Phone #:		(505)32	0-1183			·					A	naly	/sis	Req	uest				
email or Fax	d#:			Project Mana	ager:		=	uly.	RO					04)	6				
QA/QC Pack	age:				Jeff Blagg		802	as o	/ M					04,S	B				
Standard	1		□ Level 4 (Full Validation)			2.05	19	Ö	RO			MS)		PC,	2 D				
Other		-		Sampler:	Jeff Blagg	a	TMB's (8021)	Hd	0/	,	÷.	0SI		Ň	808				
🗆 EDD (Ty	pe)			On Ice:		□ No		+	RO	118	504	827	S	03,	/ S		(AC		
				Sample Tem	perature:	6.4		B	0 O	po	po	o	etal	N,N	cide	A	>-		
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1312892	BTEX FATTRE	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride	
12/23/2013	1:30 PM	Water	MW-4	3x voa	HCL	701	×		,			<u> </u>		4			-		-
																	-	\neg	-
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				\frown													-	+	+
Date: 2/27/13	Time: 0615		4 Blogg	Received by:		Pate Time 27/13/000	Ren	nark		Bi P.o		ho	A	be	Cu	t:1	e		
Date:	Time:	Relinquis	neu by.	Received by:		^t Date Time				CON	itac	t :	J	eH	F.	Pea	C		

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



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

March 26, 2014

Nelson Velez Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-3489 FAX (505) 632-3903

RE: IRVIN COM #1E

OrderNo.: 1403860

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/20/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1403860** Date Reported: **3/26/2014**

CLIENT:Blagg EngineeringProject:IRVIN COM #1ELab ID:1403860-001	Client Sample ID: MW #3 Collection Date: 3/18/2014 11:15:00 AM Matrix: AQUEOUS Received Date: 3/20/2014 10:00:00 AM								
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 8021B: VOLATILES					Analyst	NSB			
Benzene	ND	1.0	µg/L	1	3/20/2014 9:56:06 PM	R17450			
Toluene	ND	1.0	µg/L	1	3/20/2014 9:56:06 PM	R17450			
Ethylbenzene	ND	1.0	µg/L	1	3/20/2014 9:56:06 PM	R17450			
Xylenes, Total	ND	2.0	µg/L	1	3/20/2014 9:56:06 PM	R17450			
Surr: 4-Bromofluorobenzene	98.8	82.9-139	%REC	1	3/20/2014 9:56:06 PM	R17450			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	E	Value above quantitation range	Н	Holding times for preparation or analysi	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 4
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 1 01 4
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Lab Order 1403860

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 3/26/2014

CLIENT:Blagg EngineeringProject:IRVIN COM #1ELab ID:1403860-002	Client Sample ID: MW #4 Collection Date: 3/18/2014 1:50:00 PM Matrix: AQUEOUS Received Date: 3/20/2014 10:00:00 AM								
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	Batch			
EPA METHOD 8021B: VOLATILES					Analyst	NSB			
Benzene	3.3	1.0	µg/L	1	3/24/2014 1:21:06 PM	R17539			
Toluene	ND	1.0	µg/L	1	3/24/2014 1:21:06 PM	R17539			
Ethylbenzene	ND	1.0	µg/L	1	3/24/2014 1:21:06 PM	R17539			
Xylenes, Total	ND	2.0	µg/L	1	3/24/2014 1:21:06 PM	R17539			
Surr: 4-Bromofluorobenzene	99.9	82.9-139	%REC	1	3/24/2014 1:21:06 PM	R17539			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysi	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 4
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 2 01 4
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1403860 Date Reported: 3/26/2014

CLIENT: Blagg Engineering Project: IRVIN COM #1E	Client Sample ID: MW #5 Collection Date: 3/18/2014 12:30:00 PM									
Lab ID: 1403860-003	Matrix: AQUEOUS Received Date: 3/20/2014 10:00:00 AM									
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	Batch				
EPA METHOD 8021B: VOLATILES					Analys	st: NSB				
Benzene	ND	1.0	µg/L	1	3/20/2014 10:56:34 Pl	M R17450				
Toluene	ND	1.0	µg/L	1	3/20/2014 10:56:34 Pl	M R17450				
Ethylbenzene	ND	1.0	µg/L	1	3/20/2014 10:56:34 Pl	M R17450				
Xylenes, Total	ND	2.0	µg/L	1	3/20/2014 10:56:34 Pl	M R17450				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Meth	od Blank
	E	Value above quantitation range	Н	Holding times for preparation or analysi	is exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 4
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 5 01 4
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

										WO#.	140300
Hall En	vironment	al Anal	ysis l	Laborat	ory, Inc.						26-Mar-1-
Client:	Blagg E	ngineering									
Project:	IRVIN (COM #1E									
Sample ID	5ML RB	Samp	Type: Mi	BLK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBW	Batc	h ID: R1	7450	F	RunNo: 1	7450				
Prep Date:		Analysis [Date: 3	/20/2014	5	SeqNo: 5	03110	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Brom	ofluorobenzene	19		20.00		96.6	82.9	139			
Sample ID 100NG BTEX LCS SampType: LCS TestCode: EPA Method 8021B: Volatiles											
Client ID: LCSW Batch ID: R17450 RunNo: 17450											
Prep Date:		Analysis [Date: 3	20/2014	5	SeqNo: 5	03111	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		20	1.0	20.00	0	100	80	120			
Toluene		20	1.0	20.00	0	101	80	120			
Ethylbenzene		20	1.0	20.00	0	99.8	80	120			
Xylenes, Total		61	2.0	60.00	0	101	80	120			
Surr: 4-Brom	ofluorobenzene	20		20.00		100	82.9	139			
Sample ID	5ML RB	SampT	ype: MI	BLK	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	PBW	Batc	h ID: R1	7539	F	RunNo: 1	7539				
Prep Date:		Analysis E	Date: 3	24/2014	5	SeqNo: 5	05125	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Brom	ofluorobenzene	19		20.00		94.9	82.9	139			
Sample ID	100NG BTEX LC	S Samp1	ype: LC	s	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	LCSW	Batcl	h ID: R1	7539	F	RunNo: 1	7539				
Prep Date:		Analysis E	Date: 3/	24/2014	S	SeqNo: 5	05126	Units: µg/L			
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		20	1.0	20.00	0	102	80	120			
Toluene		20	1.0	20.00	0	102	80	120			
Ethylbenzene		20	1.0	20.00	0	100	80	120			
Xylenes, Total		61	2.0	60.00	0	102	80	120			
Surr: 4-Brom	ofluorobenzene	20		20.00		101	82.9	139			

Qualifiers:

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

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1403860

Page 4 of 4

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Received by/date: Logged By: Anne Thome 3/20/2014 10:00:00 AM <i>Ame f k</i>	Client Name:	BLAGG	Work Order Num	ber: 1403860		RcptNo:	1
Completed By: Anne Thome 3/20/2014 Anne Anne Reviewed By: Mg 0/3/po//4 Anne Anne Chain of Custody I. Custody seals intact on sample bottles? Yes No Not Present Image: State S	Received by/date	9:				-	
Reviewed By: 03/b0/l4 Chain of Custody No Not Present 1. Custody seals intact on sample bottles? Yes No Not Present 2. Is Chain of Custody complete? Yes No Not Present 3. How was the sample delivered? Courrier Log In	Logged By:	Anne Thorne	3/20/2014 10:00:00	AM	arme Am	~	
Reviewed By: 03/b0/l4 Chain of Custody No Not Present 1. Custody seals intact on sample bottles? Yes No Not Present 2. Is Chain of Custody complete? Yes No Not Present 3. How was the sample delivered? Courrier Log In	Completed By:	Anne Thorne	3/20/2014		ame Am	~	
1. Custody seals intact on sample bottles? Yes No Not Present 2. Is Chain of Custody complets? Yes No Not Present 3. How was the sample delivered? Courier 4. Was an attempt made to cool the samples? Yes No NA 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA 6. Sample(s) in proper container(s)? Yes No NA 7. Sufficient sample volume for indicated test(s)? Yes No NA 8. Are samples (except VOA and ONG) property preserved? Yes No NA 9. Was preservative added to bottles? Yes No NA Image: test of the sample containers received brokan? 10. VOA vials have zero headspace? Yes No No Image: test of the samples received brokan? 12. Does paperwork match bottle labels? Yes No Image: test of the samples noted? 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No Checked by: 15. Were all hoding times able to be mat? Yes No Checked by: <td>Reviewed By:</td> <td>ma</td> <td>03/20/14</td> <td></td> <td></td> <td></td> <td></td>	Reviewed By:	ma	03/20/14				
2. Is Chain of Custody complete? Yes No Not Present 3. How was the sample delivered? Courier Log In . . No NA 4. Was an attempt made to cool the samples? Yes No NA 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA 6. Sample(s) in proper container(s)? Yes No NA 7. Sufficient sample volume for indicated test(s)? Yes No NA 8. Are samples (except VOA and ONG) property preserved? Yes No NA 9. Was preservative added to bottles? Yes No NA 10. VOA vials have zero headspace? Yes No Ma 11. Were any sample containers received broken? Yes No Ma 12. Does paperwork match bottle labels? Yes No If of preserved bottles checked for pH: 14. Is it clear what analyses were requested? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No Checked by: 15. Were all holding times able to be mat? Yes No Checked by: 14. I	Chain of Cust	tody					
2. Is of number of country completed. Item in the country completed. 3. How was the sample delivered? Courier Log In . 4. Was an attempt made to cool the samples? Yes 5. Were all samples received at a temperature of >0° C to 6.0°C Yes 6. Sample(s) in proper container(s)? Yes 7. Sufficient sample volume for indicated test(s)? Yes 8. Are samples (except VOA and ONG) properly preserved? Yes 9. Was preservative added to bottles? Yes 10. VOA vials have zero headspace? Yes 11. Were any sample containers received broksn? Yes 12. Does paperwork match bottle labels? Yes 13. Are matrices correctly identified on Chain of Custody? Yes 14. Is it clear what analyses were requested? Yes 15. Were all holding times able to be met? Yes Yes No 16. Was client notified of all discrepancies with this order? Yes 16. Was client notified of all discrepancies with this order? Yes	1. Custody seal	is intact on sample bott	les?	Yes	No 🗌	Not Present	
Log In 4. Was an attempt made to cool the samples? Yes No NA 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA 6. Sample(s) in proper container(s)? Yes No NA 7. Sufficient sample volume for indicated test(s)? Yes No NA 8. Are samples (except VOA and ONG) properly preserved? Yes No NA 9. Was preservative added to bottles? Yes No NA 10. VOA vials have zero headspace? Yes No No 11. Were any sample containers received broken? Yes No Mo 12. Does paperwork match bottle labels? Yes No Image: sameted bottles checked for pH: (Note discrepancies on chain of custody) 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No Checked by: Checked by: 15. Were all holding times able to be met? Yes No No Na Mo 16. Was client notified of all discrepancies with this order? Yes No Na Mo	2. Is Chain of C	Custody complete?		Yes 🗸	No 🗌	Not Present	
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7. Sufficient sample volume for indicated test(s)? Yes No 8. Are samples (except VOA and ONG) property preserved? Yes No 9. Was preservative added to bottles? Yes No 10. VOA vials have zero headspace? Yes No 11. Were any sample containers received broken? Yes No 12. Does paperwork match bottle labels? Yes No 12. Does paperwork match bottle labels? Yes No 13. Are matrices correctly identified on Chain of Custody? Yes No 13. Are matrices correctly identified on Chain of Custody? Yes No 15. Were all holding times able to be met? Yes No Checked by: (If no, notify customer for authorization.) Yes No No Checked by:	5. Were all sam	nples received at a tem	perature of >0° C to 6.0°C	Yes 🖌	No 🗌	NA	
8. Are samples (except VOA and ONG) property preserved? Yes No 9. Was preservative added to bottles? Yes No 10. VOA vials have zero headspace? Yes No 11. Were any sample containers received broken? Yes No 12. Does paperwork match bottle labels? Yes Yes (Note discrepancies on chain of custody) Yes No 13. Are matrices correctly identified on Chain of Custody? Yes No 14. Is it clear what analyses were requested? Yes No 15. Were all holding times able to be met? Yes No (If no, notify customer for authorization.) Yes No	6. Sample(s) in	n proper container(s)?		Yes 🗸	No 🗌		
9. Was preservative added to bottles? Yes No NA 10. VOA vials have zero headspace? Yes No No VOA Vials 11. Were any sample containers received broken? Yes No Image: No VOA Vials 11. Were any sample containers received broken? Yes No Image: Work with the temperature of the temperature of temp	7. Sufficient sar	mple volume for indicat	ed test(s)?	Yes 🖌	No 🗌		
10. VOA vials have zero headspace? Yes No No VOA Vials 11. Were any sample containers received broken? Yes No # of preserved bottles checked 12. Does paperwork match bottle labels? Yes No # of preserved bottles checked for pH: (Note discrepancies on chain of custody) Yes No Adjusted? 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No Checked by: 15. Were all holding times able to be met? Yes No Checked by: (If no, notify customer for authorization.) Special Handling (if applicable) I6. Was client notified of all discrepancies with this order? Yes No NA	8. Are samples	(except VOA and ONG) properly preserved?	Yes 🖌	No 🗌		
11. Were any sample containers received broken? Yes No ✓ 12. Does paperwork match bottle labels? Yes No ✓ (Note discrepancies on chain of custody) Yes No ✓ 13. Are matrices correctly identified on Chain of Custody? Yes No ✓ 14. Is it clear what analyses were requested? Yes No ✓ 15. Were all holding times able to be met? Yes No Checked by: (If no, notify customer for authorization.) Yes No No Special Handling (if applicable) 16. Was client notified of all discrepancies with this order? Yes No NA	9. Was preserv	ative added to bottles?		Yes	No 🗸	NA	
12. Does paperwork match bottle labels? Yes ✓ No bottles checked for pH: (Note discrepancies on chain of custody) 13. Are matrices correctly identified on Chain of Custody? Yes ✓ No Adjusted? 14. Is it clear what analyses were requested? Yes ✓ No Adjusted? 15. Were all holding times able to be met? Yes ✓ No Checked by: (If no, notify customer for authorization.) ✓ ✓ ✓ ✓ 16. Was client notified of all discrepancies with this order? Yes No Na ✓	10.VOA vials ha	ave zero headspace?		Yes 🗸	No 🗌	No VOA Vials	
12. Does paperwork match bottle labels? Yes ✓ No bottles checked for pH: (Note discrepancies on chain of custody) (<2 or >12 unless noted) (<2 or >12 unless noted) 13. Are matrices correctly identified on Chain of Custody? Yes ✓ No Adjusted? 14. Is it clear what analyses were requested? Yes ✓ No Checked by: 15. Were all holding times able to be met? Yes ✓ No Checked by: (If no, notify customer for authorization.) Yes No Na ✓ 16. Was client notified of all discrepancies with this order? Yes No NA ✓	11. Were any sa	ample containers receiv	ed broken?	Yes	No 🗹		
(Note discrepancies on chain of custody) (<2 or >12 unless noted) 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? 14. Is it clear what analyses were requested? Yes No Adjusted? 15. Were all holding times able to be met? Yes No Checked by: (If no, notify customer for authorization.) Yes No NA 16. Was client notified of all discrepancies with this order? Yes No NA							
13. Are matrices correctly identified on Chain of Custody? Yes ✓ No Adjusted? 14. Is it clear what analyses were requested? Yes ✓ No 15. Were all holding times able to be met? Yes ✓ No Checked by: (If no, notify customer for authorization.) ✓ Yes ✓ No				Yes 🗸	No 🗌		- 12 uplace noted
13. Are matrices conectly identified on chain of custody? Tes No 14. Is it clear what analyses were requested? Yes No 15. Were all holding times able to be met? Yes No Checked by: (If no, notify customer for authorization.) Yes No Checked by: 5. Were all holding times able to be met? Yes No Checked by: (If no, notify customer for authorization.) Yes No No Special Handling (if applicable) 16. Was client notified of all discrepancies with this order? Yes No NA				Ver M			1 > 12 unless noted)
15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No Checked by: Special Handling (if applicable) . 16. Was client notified of all discrepancies with this order? Yes No NA							
Special Handling (if applicable) 16. Was client notified of all discrepancies with this order? Yes No NA ✓	15. Were all hold	ding times able to be me	et?			Checked by:	
16. Was client notified of all discrepancies with this order? Yes No No NA	(If no, notify	customer for authorizat	ion.)				
	Special Hand	lling (if applicable	2			·	
Person Notified: Date	16. Was client no	otified of all discrepanc	ies with this order?	Yes	No 🗌	NA 🗹	_
	Person	n Notified:	Date	e 📘			
By Whom: Via: eMail Phone Fax In Person	By Wh	iom:	Via:	eMail	Phone Fax	In Person	
Regarding:	Regard	ding:	a second a s				
Client Instructions:	Client I	Instructions:	······································	a. 1 a. 1.12.13		· · · · · · · · · · · · · · · · · · ·	

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			

Client:	BLAG	G ENGR.	/ BP AMERICA	Standard Project Name:	🗌 Rush _					A	N	AL	YS	SIS	S L		BO	R/		
Mailing Ad	ddress:	P.O. BO	X 87	1	RVIN COM	# 1E	4901 Hawkins NE - Albuquerque, NM 87109													
- diversity and the sec		BLOOM	FIELD, NM 87413	Project #:	- _{Marin} and the Standard Standard		Tel. 505-345-3975 Fax 505-345-4107													
Phone #:		(505) 63	2-1199	-1 · · · · ·												ques				
email or F	ax#:			Project Manager:										-			Â			
QA/QC Pad	-		Level 4 (Full Validation)		NELSON VELEZ		10, (80218)	only)	MRO)			IS)		04,504	PCB's			er - 300.1)		a
Accreditat				Sampler:	NELSON VI	ELEZ nv	•(80	Gas	NO/	1	1	SIM		02,F	082			/ water		du
)	D Other		On Ice:	X Yes			+ TPH (Gas	0 / DRO	418.	504.	8270SIMS)		0 ₃ ,N	s / 8		(Y	300.0		e sa
	уре)			Sample Tempe	erature: 1,4		II	+	GRC	po	pol	5	etals	CI'N(cide	(A	i-VC	1 1	e	osit
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1403860	BTEX + MTB	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil	Grab sample	5 pt. composite sample
3/18/14	1115	WATER	MW # 3	40 ml VOA - 2	HCI & Cool	-621	V												V	T
																			T	
3/18/14	1350	WATER	MW # 4	40 ml VOA - 2	HCI & Cool	-02	V												V	T
																				T
3/18/14	1230	WATER	MW # 5	40 ml VOA - 2	HCI & Cool	-003	V												V	
19 /14	Time: 1543	Relinquish	ny	Received by:	lab	Date Time 3/19/14 1543		L DI	RECT				11/1	Farm	lingt	0.0.		7401		
19/14 1857 Christe Walter			Received by:	£ 03	Date Time 20/14/1000	Fin	id Pu	rcha	se Or	der	in en	nail f	from	BP.						
	IF necessa	w, samples s	ubmitted to Hall Environmental may be s	upcontracted to other	accredited laboratorie	es. This serves as notice of	r this po	ossibil	ity. Ar	ny sub-	contra	acted	data v	will he	clearb	r natel				



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

July 09, 2014

Nelson Velez Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-3489 FAX (505) 632-3903

RE: IRVIN COM #1E

OrderNo.: 1407180

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 3 sample(s) on 7/3/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1407180** Date Reported: **7/9/2014**

CLIENT: Blagg Engineering Project: IRVIN COM #1E Lab ID: 1407180-001	Matrix	AQUEOUS		Date: 6/2	W #3 29/2014 7:45:00 AM 3/2014 7:06:00 AM	
Analyses	Result		al Units		Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	1.0	µg/L	1	7/3/2014 6:54:14 PM	R19692
Toluene	ND	1.0	µg/L	1	7/3/2014 6:54:14 PM	R19692
Ethylbenzene	ND	1.0	µg/L	1	7/3/2014 6:54:14 PM	R19692
Xylenes, Total	ND	2.0	µg/L	1	7/3/2014 6:54:14 PM	R19692
Surr: 4-Bromofluorobenzene	111	82.9-139	%REC	1	7/3/2014 6:54:14 PM	R19692

and the second se					
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	Е	Value above quantitation range	Holding times for preparation or analysi	s exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 4
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 1 01 4
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Lab Order 1407180

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/9/2014

CLIENT: Blagg Engineering	Client Sample ID: MW #4									
Project: IRVIN COM #1E			Collection I	Date: 6/2	29/2014 9:45:00 AM					
Lab ID: 1407180-002	Matrix:	AQUEOUS	Received I	Date: 7/3	3/2014 7:06:00 AM					
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	Batch				
EPA METHOD 8021B: VOLATILES					Analys	t: NSB				
Benzene	2.2	1.0	µg/L	1	7/3/2014 7:24:24 PM	R19692				
Toluene	ND	1.0	µg/L	1	7/3/2014 7:24:24 PM	R19692				
Ethylbenzene	ND	1.0	µg/L	1	7/3/2014 7:24:24 PM	R19692				
Xylenes, Total	2.3	2.0	µg/L	1	7/3/2014 7:24:24 PM	R19692				
Surr: 4-Bromofluorobenzene	117	82.9-139	%REC	1	7/3/2014 7:24:24 PM	R19692				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 4
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 uge 2 01 4
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1407180** Date Reported: **7/9/2014**

CLIENT: Blagg Engineering Project: IRVIN COM #1E				Date: 6/2	29/2014 8:45:00 AM	
Lab ID: 1407180-003	Matrix:	AQUEOUS	Received I	Date: 7/3	3/2014 7:06:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analys	t NSB
Benzene	ND	1.0	µg/L	1	7/3/2014 7:54:30 PM	R19692
Toluene	ND	1.0	µg/L	1	7/3/2014 7:54:30 PM	R19692
Ethylbenzene	ND	1.0	µg/L	1	7/3/2014 7:54:30 PM	R19692
Xylenes, Total	ND	2.0	µg/L	1	7/3/2014 7:54:30 PM	R19692
Surr: 4-Bromofluorobenzene	110	82.9-139	%REC	1	7/3/2014 7:54:30 PM	R19692

and the second se					
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	E	Value above quantitation range	Н	Holding times for preparation or analysis	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 4
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 5 01 4
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

-	QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.							
Client: Project:	Blagg Engineering IRVIN COM #1E							

Sample ID 5ML RB	SampT	SampType: MBLK TestCode: EPA Method 8021B: Vola						iles		
Client ID: PBW	Batch	ID: R1	9692	F	RunNo: 1	9692				
Prep Date:	Analysis D	ate: 7/	3/2014	5	SeqNo: 5	71873	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	22		20.00		109	82.9	139			
Sample ID 100NG BTEX LC		ype: LC		Tes		PA Method	8021B: Volat	iles		
	S SampT	ype: LC	S					iles		
Sample ID 100NG BTEX LC	S SampT	1D: R1	S 9692	F	tCode: E	9692		iles		
Sample ID 100NG BTEX LC	S SampT Batch	1D: R1	S 9692 3/2014	F	tCode: El RunNo: 1	9692	8021B: Volat	iles %RPD	RPDLimit	Qual
Sample ID 100NG BTEX LC: Client ID: LCSW Prep Date:	S SampT Batch Analysis D	ID: R1 ate: 7 /	S 9692 3/2014	F	tCode: El RunNo: 1 SeqNo: 5	9692 71874	8021B: Volati Units: μg/L		RPDLimit	Qual
Sample ID 100NG BTEX LC: Client ID: LCSW Prep Date: Analyte	S SampT Batch Analysis D Result	n ID: R1 ate: 7 / PQL	S 9692 3/2014 SPK value	F S SPK Ref Val	tCode: El RunNo: 1 GeqNo: 5 %REC	9692 71874 LowLimit	8021Β: Volat Units: μg/L HighLimit		RPDLimit	Qual
Sample ID 100NG BTEX LC Client ID: LCSW Prep Date: Analyte Benzene	S SampT Batch Analysis D Result 21	n ID: R1 Pate: 7/ PQL 1.0	S 9692 3/2014 SPK value 20.00	F S SPK Ref Val 0	tCode: El RunNo: 1 SeqNo: 5 %REC 105	9692 71874 LowLimit 80	8021Β: Volat Units: μg/L HighLimit 120		RPDLimit	Qual
Sample ID 100NG BTEX LC Client ID: LCSW Prep Date: Analyte Benzene Toluene	S SampT Batch Analysis D Result 21 21	n ID: R1 ate: 7/ PQL 1.0 1.0	S 9692 3/2014 SPK value 20.00 20.00	F S SPK Ref Val 0 0	tCode: El RunNo: 1 SeqNo: 5 %REC 105 103	9692 71874 LowLimit 80 80	8021Β: Volat Units: μ g/L HighLimit 120 120		RPDLimit	Qual

Qualifiers:

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

Page 4 of 4

WO#: 1407180

MALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Nam	e: BLAGG	Work Order Numbe	er: 1407180		RcptNo:	1
Received b	y/date:	-07/03/14				
Logged By:	Anne Thorne	7/3/2014 7:06:00 AM		anne Ham		
Completed	By: Anne Thorne	7/3/2014		anne Ham	_	
Reviewed E	av:	07/03/14				
Chain of	Custody	- /] - /				
1. Custod	y seals intact on sample bot	tles?	Yes	No 🗌	Not Present	
2. Is Chai	n of Custody complete?		Yes 🗸	No 🗌	Not Present	
3. How wa	as the sample delivered?		Courier			
<u>Log In</u>						
4. Was a	attempt made to cool the	samples?	Yes 🗹	No 🗌		
5. Were a	Il samples received at a ten	nperature of >0° C to 6.0°C	Yes 🔽	No 🗌		
6. Sample	e(s) in proper container(s)?		Yes 🗸	No		
7. Sufficie	nt sample volume for indica	ted test(s)?	Yes 🖌	No 🗌		
8. Are sar	nples (except VOA and ON	G) properly preserved?	Yes 🖌	No 🗌		
9. Was pr	eservative added to bottles?		Yes	No 🗹	NA	
10.VOA vi	als have zero headspace?		Yes 🖌	No 🗌	No VOA Vials	
11. Were a	iny sample containers receiv	ved broken?	Yes	No 🗹	# of preserved	
	aperwork match bottle label iscrepancies on chain of cu		Yes 🗹	No 🗋	bottles checked for pH: (<2 or	r >12 unless noted)
13. Are ma	trices correctly identified on	Chain of Custody?	Yes 🖌	No 🗌	Adjusted?	
14. Is it cle	ar what analyses were requ	ested?	Yes 🔽	No 🗆		
	Il holding times able to be m otify customer for authoriza		Yes 🗹	No 🗌	Checked by:	
Special H	andling (if applicable	2				
16. Was cli	ent notified of all discrepand	cies with this order?	Yes	No 🗌	NA 🔽	
P	erson Notified:	Date				

By Whom:		Via:	eMail	Phone Fax	In Person
Regarding:					
Client Instructions:	And an analytic to the set of the	·	-	an an an an	

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	1.3	Good	Yes	1		

C	hain-o	of-Cus	stody Record		1110.		Ι.				44		F	N	/IF	20	N	FN	ITA	AT.
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush				R									RA		
BARLAN DE MONTANTAN				Project Name:				2		-					nme					
Mailing A	ddress:	P.O. BO	X 87	- I	IRVIN COM # 1E			49	01⊦	lawk								37109		
		BLOOM	FIELD, NM 87413	Project #:			1					975				05-345-4107				
Phone #:	ELSEPTIMICA _N Estation com	(505) 63	2-1199	1				Analysis Request												
email or F	ax#:			Project Manag	er:													Â		
QA/QC Pa	-		Level 4 (Full Validation)	NELSON VELEZ			TMB16 (8 021B) PH (Gas only)	(ylno	MRO)			S)		04,504	PCB's			er - 300.1)		
Accreditat				Sampler: NELSON VELEZ		18	Gas	80/	F	1)	SIM		02,F	/ 8082			wat		sample	
	0	□ Other		On Ice:	Yes			Hd (ID/D	118.	504.1)	or 8270SIMS)		03,N	s / 8		A)	0.0/		e sal
	Type)			Sample Temps	erature: 🕠	3	I	+	(GRC	7 poi	pol		etals	N,N	cide	A	i-VC	il - 3(e	osit
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1407180	BTEX +-MH	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO	TPH (Method 418.1)	EDB (Method	PAH (8310	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 / water	Grab sample	5 pt. composite
6/29/14	0745	WATER	MW # 3	40 ml VOA - 2	HCI & Cool	-00	V												V	
															1				+-	
6/29/14	0945	WATER	MW # 4	40 ml VOA - 2	HCI & Cool	-102	V											-	V	
6/29/14	0845	WATER	MW # 5	40 ml VOA - 2	HCI & Cool	-003	٧												V	
																			\perp	+ + + + + + + + + + + + + + + + + + +
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					2															
Date: 7/2./14	Time: 1500	Relinquish	my	Received by:	wh	Date Time 11/5-4/4 0706	BI	nark LL DI	RECT											
Date:	Time:	Relinquish	ed by:	Received by:		Date Time		ff Pe nd Pu								on, M	NM 8	7401		
							1													



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

September 10, 2014

Nelson Velez Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-3489 FAX (505) 632-3903

RE: Irvin Com #1E

OrderNo.: 1409160

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 3 sample(s) on 9/4/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

ander

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1409160

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/10/2014

CLIENT:Blagg EngineeringProject:Irvin Com #1ELab ID:1409160-001	Matrix:	AQUEOUS		Date: 8 /3	W # 3 80/2014 11:25:00 AM 4/2014 7:00:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analys	NSB
Benzene	ND	1.0	µg/L	1	9/5/2014 3:19:08 AM	R21004
Toluene	ND	1.0	µg/L	1	9/5/2014 3:19:08 AM	R21004
Ethylbenzene	ND	1.0	µg/L	1	9/5/2014 3:19:08 AM	R21004
Xylenes, Total	ND	2.0	µg/L	1	9/5/2014 3:19:08 AM	R21004
Surr: 4-Bromofluorobenzene	103	82.9-139	%REC	1	9/5/2014 3:19:08 AM	R21004

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank		
	Е	Value above quantitation range	Н	H Holding times for preparation or analysis exceeded			
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 4		
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 1 01 4		
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit			
	S	Spike Recovery outside accepted recovery limits					

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1409160** Date Reported: **9/10/2014**

CLIENT: Blagg Engineering	Client Sample ID: MW # 4									
Project: Irvin Com #1E	Collection Date: 8/30/2014 1:20:00 PM									
Lab ID: 1409160-002	Matrix:	AQUEOUS	Received I	Date: 9/4	/2014 7:00:00 AM					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch				
EPA METHOD 8021B: VOLATILES					Analys	t: NSB				
Benzene	20	1.0	µg/L	1	9/5/2014 3:47:42 AM	R21004				
Toluene	ND	1.0	µg/L	1	9/5/2014 3:47:42 AM	R21004				
Ethylbenzene	6.0	1.0	µg/L	1	9/5/2014 3:47:42 AM	R21004				
Xylenes, Total	5.4	2.0	µg/L	1	9/5/2014 3:47:42 AM	R21004				
Surr: 4-Bromofluorobenzene	125	82.9-139	%REC	1	9/5/2014 3:47:42 AM	R21004				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	E Value above quantitation rangeJ Analyte detected below quantitation limits		Н	Holding times for preparation or analysi	s exceeded
			ND	Page 2 of 4	
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 2 01 4
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report Lab Order 1409160

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/10/2014

CLIENT: Blagg Engineering Project: Irvin Com #1E Lab ID: 1409160-003	Matrix	AQUEOUS	controllo	Date: 8/3	W # 5 30/2014 12:20:00 PM 4/2014 7:00:00 AM	
Analyses	Result		al Units		Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	1.0	µg/L	1	9/5/2014 4:16:18 AM	R21004
Toluene	ND	1.0	µg/L	1	9/5/2014 4:16:18 AM	R21004
Ethylbenzene	ND	1.0	µg/L	1	9/5/2014 4:16:18 AM	R21004
Xylenes, Total	ND	2.0	µg/L	1	9/5/2014 4:16:18 AM	R21004
Surr: 4-Bromofluorobenzene	105	82,9-139	%REC	1	9/5/2014 4:16:18 AM	R21004

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank				
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded					
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 4				
	Ο	RSD is greater than RSDlimit	Р	Sample pH greater than 2.	1 age 5 61 4				
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit					
	S	Spike Recovery outside accepted recovery limits							

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Blagg Engineering
Project:	Irvin Com #1E

Sample ID 5ML RB	SampT	ype: ME	BLK	Tes	Code: El	PA Method	8021B: Volati	iles		
Client ID: PBW	Batcl	h ID: R2	1004	F	unNo: 2	1004				
Prep Date:	Analysis D	Date: 9/	4/2014	S	eqNo: 6	11423	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	21		20.00		104	82.9	139			
	21		20.00		104	02.9	139			
Sample ID 100NG BTEX LCS		ype: LC		Tes			8021B: Volati	iles		
	Samp1	ype: LC	S			PA Method		iles		
Sample ID 100NG BTEX LCS	Samp1	n ID: R2	:S 1004	F	Code: El	PA Method		iles		
Sample ID 100NG BTEX LCS Client ID: LCSW	S SampT Batcl	n ID: R2	S 1004 4/2014	F	Code: El	PA Method	8021B: Volati	iles %RPD	RPDLimit	Qual
Sample ID 100NG BTEX LCS Client ID: LCSW Prep Date:	S SampT Batcl Analysis D	n ID: R2 Date: 9 /	S 1004 4/2014	F	Code: El JunNo: 2 JeqNo: 6	PA Method 1004 11425	8021B: Volati Units: μg/L		RPDLimit	Qual
Sample ID 100NG BTEX LCS Client ID: LCSW Prep Date: Analyte	S Samp1 Batcl Analysis D Result	n ID: R2 Date: 9/ PQL	S 1004 4/2014 SPK value	F S SPK Ref Val	Code: El JunNo: 2 JunNo: 6 WREC	PA Method 1004 11425 LowLimit	8021Β: Volati Units: μg/L HighLimit		RPDLimit	Qual
Sample ID 100NG BTEX LCS Client ID: LCSW Prep Date: Analyte Benzene	S Samp1 Batcl Analysis D Result 20	n ID: R2 Date: 9 / PQL 1.0	:S 1004 4/2014 SPK value 20.00	F S SPK Ref Val 0	Code: El JunNo: 2 JeqNo: 6 %REC 102	PA Method 1004 11425 LowLimit 80	8021Β: Volati Units: μ g/L HighLimit 120		RPDLimit	Qual
Sample ID 100NG BTEX LCS Client ID: LCSW Prep Date: Analyte Benzene Toluene	S SampT Batcl Analysis E Result 20 21	n ID: R2 Date: 9/ PQL 1.0 1.0	S 1004 4/2014 SPK value 20.00 20.00	F S SPK Ref Val 0 0	Code: El JunNo: 2 JeqNo: 6 %REC 102 103	PA Method 1004 11425 LowLimit 80 80	8021B: Volati Units: μ g/L HighLimit 120 120		RPDLimit	Qual

Qualifiers:

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

Page 4 of 4

WO#: 1409160

10-Sep-14

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG Work Order Number	er: 1409160	and a second	RcptNo: 1			
Received by/date: AT 09/04/14						
Logged By: Lindsay Mangin 9/4/2014 7:00:00 AM		AndigHapp				
Completed By: Lindsay Mangin 9/4/2014 9:26150 AM		Annahing Hardward				
Reviewed By A 09, 64, 14		0.9.00				
Chain of Custody						
1 Custody seals intact on sample bottles?	Yes	No	Not Present			
2. Is Chain of Custody complete?	Yes 🗸	No	Not Present			
3. How was the sample delivered?	Courier					
<u>Log In</u>		[7]				
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗌				
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes 🗹	No 🗌				
6. Sample(s) in proper container(s)?	Yes 🗹	No				
7. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗌				
8. Are samples (except VOA and ONG) properly preserved?	Yes 🗹	No 🗌				
9. Was preservative added to bottles?	Yes	No 🗹	NA			
10.VOA vials have zero headspace?	Yes 🗹	No 🗌	No VOA Vials			
11. Were any sample containers received broken?	Yes	No 🗹	# of preserved			
			bottles checked			
12. Does paperwork match bottle labels?	Yes 🖌	No	for pH: (<2 or >12 unless noted)			
(Note discrepancies on chain of custody)	Yes 🗹	No 🗌	Adjusted?			
13. Are matrices correctly identified on Chain of Custody?						
14. Is it clear what analyses were requested?			Checked by:			
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹					
Special Handling (if applicable)						
16. Was client notified of all discrepancies with this order?	Yes	No 🗌	NA 🗹			
Person Notified: Date:		1.7.7.1.1.				
By Whom: Via:		Phone Fax	In Person			
Regarding:						
Client Instructions:						
17. Additional remarks:	1 K K K		··· ··· ··· ··· ··· ··· ··· ··· ··· ··			
18 Cooler Information						
18. <u>Cooler Information</u> Cooler No. Temp °C Condition Seal Intact Seal No.	Seal Date	Signed By				
1 2.1 Good Yes						

Page 1 of 1

C	hain-c	of-Cus	stody Record	Turn-Alound I	ime.		Ι.				1.		F	NIL	/T E	20	N	F	IN'	'A	
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush			-											AT(
				Project Name:	and the second se			ۇ بى									.com				
Mailing A	ddress:	P.O. BO	X 87		RVIN COM	# 1E		49	01 F									3710	9		
			FIELD, NM 87413	Project #:)5-34					-		-410		5		
Dhana H		(505) 63								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10-0				Rec						
Phone #: email or F	ax#:	(303) 03		Project Manag	er:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1															
QA/QC Pa									6					SO4)	3's			300.1)			
Standa	-		Level 4 (Full Validation)		NELSON VI	ELEZ	(8021B)	only)	(MRO)			(S)		PO4,	PCB's						e
Accreditat	tion:			Sampler:	NELSON V	ELEZ nu	(8)	TPH (Gas	DRO /	,	1)	NISC		102	/ 8082			/ water			du
	>			On Ice	Yes	D No		HdT	1	418.	504	827(03,1	s / 8		(YC	0.00			ite sa
	Гуре)			Sample Tempo	erature	21	-	+	(GR(po	pol	or	etal	N'N	cide	(A)	i-V0	il - 3		e	osit
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1409160	BTEX + AATB	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 /	8	Grab sample	5 pt. composite sample
8/30/14	1125	WATER	MW # 3	40 ml VOA - 2	HCI & Cool	-001	V													V	
8/30/14	1220-	WATER	MW # 4	40 ml VOA - 2	HCI & Cool	-002	V													V	
	1320																				-
8/30/14	-1320-	WATER	MW # 5	40 ml VOA - 2	HCI & Cool	-003	V													V	
	1220																				+
																					
													-								
					1		1														+
																					+
							\vdash						-								+
													-	-							+
Date; ,	Time:	Relinquish	ed by:	Received by:	L	Date Time	Rer	nark	s:		Ļ	1	1		L						
9/3/14	1450	1	la J	Mhn. 1	1.2010	9/3/14 1450					O BF	• :									
Date:	Time:	Relinquish	ed by:	Received by:	walt	Date Time	Je	ff Pe	ace, i	200 E	inerg	gy Co	ourt,	Farm	ningto	on, N	IM 8	7401			
Date: 9/3/14/	2024	An	stub actor	Y /	then	09/04/14	Fi	nd Pu	ircha	ise O	rder	in er	nail	from	BP.						
	If necessa	N samples s	ubmitted to Hall Environmental may be a	ubcontracted to other	accredited laboratoria	This server at potion of	E thin r	ocoihi		nu out	oont	notod	data	will bo	aload	(notat	an her	the or	alutios	Irono	+

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



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

December 05, 2014

Nelson Velez Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-3489 FAX (505) 632-3903

RE: Irvin Com # 1E

OrderNo.: 1412127

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 4 sample(s) on 12/3/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

ander

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environm		Date Reported: 12/		4				
•	gg Engineering n Com # 1E				Lab (Drder: 1412	127	
Lab ID: 1	412127-001			Collection D	ate: 12	2/2/2014 10:25:00	AM	
Client Sample ID: M	1W # 3			Mat	rix: A	QUEOUS		
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD 8021B	: VOLATILES					Ar	alyst	NSB
Benzene		ND	1.0	µg/L	1	12/3/2014 2:18:5	PM	R22896
Toluene		ND	1.0	µg/L	1	12/3/2014 2:18:5	PM	R22896
Ethylbenzene		ND	1.0	µg/L	1	12/3/2014 2:18:51	PM	R22896
Xylenes, Total		ND	2.0	µg/L	1	12/3/2014 2:18:51	PM	R22896
Surr: 4-Bromofluorol	benzene	107	66.6-167	%REC	1	12/3/2014 2:18:51	PM	R22896
Lab ID: 1	412127-002			Collection D	ate: 12	2/2/2014 12:25:00	PM	
Client Sample ID: M	1W # 4			Mat	rix: A	QUEOUS		
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD 8021B	: VOLATILES					Ar	alyst	NSB
Benzene		2.1	1.0	µg/L	1	12/3/2014 2:46:12	PM	R22896
Toluene		ND	1.0	μg/L	1	12/3/2014 2:46:12	2 PM	R22896
Ethylbenzene		ND	1.0	μg/L	1	12/3/2014 2:46:12	PM	R22896
Xylenes, Total		ND	2.0	μg/L	1	12/3/2014 2:46:12	PM	R22896
Surr: 4-Bromofluorol	benzene	106	66.6-167	%REC	1	12/3/2014 2:46:12	PM	R22896
Lab ID: 14	412127-003			Collection D	ate: 12	/2/2014 11:30:00	AM	
Client Sample ID: M	1W # 5			Mat	rix: A	QUEOUS		
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Ba	atch ID
EPA METHOD 8021B	: VOLATILES					Ar	alyst:	NSB
Benzene		ND	1.0	µg/L	1	12/3/2014 3:13:13		R22896
Toluene		ND	1.0	μg/L	1	12/3/2014 3:13:13		R22896
Ethylbenzene		ND	1.0	µg/L	1	12/3/2014 3:13:13		R22896
Xylenes, Total		ND	2.0	μg/L	1	12/3/2014 3:13:13		R2289€
Surr: 4-Bromofluorot								R22896

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

Qualifiers: *

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

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

Value exceeds Maximum Contaminant Level.

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

Page 1 of 3

- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2.
- RL Reporting Detection Limit

Analytical Report

Lab Order: 1412127

Analytical	Report
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	Lab Order: 141	2127
Hall Environmental Analysis Laboratory, Inc.	Date Reported:	12/5/2

Date Reported: 12/5/2014

CLIENT: Project:	Blagg Engineering Irvin Com # 1E				Lab Order:	141212	27
Lab ID:	1412127-004			Collection D	ate: 12/2/2014	1:20:00 PM	1
Client Sample	e ID: MW # 6			Ma	trix: AQUEOU	S	
Analyses		Result	RL (Qual Units	DF Date A	nalyzed	Batch ID
EPA METHO	D 8021B: VOLATILES					Ana	lyst: NSB
Benzene		ND	1.0	µg/L	1 12/3/20)14 3:40:15 F	PM R22896
Toluene		ND	1.0	μg/L	1 12/3/20)14 3:40:15 F	PM R22896
Ethylbenzene	e	2.4	1.0	μg/L	1 12/3/20	14 3:40:15 F	PM R22896
Xylenes, Tota	al	97	2.0	μg/L	1 12/3/20	014 3:40:15 F	PM R22896
Surr: 4-Bro	omofluorobenzene	122	66.6-167	%REC	1 12/3/20)14 3:40:15 F	PM R22896

Qualifiers: *	Value exceeds Maximum C	Contaminant Level.
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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 2 of 3
- Р Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Blagg Engineering
Project:	Irvin Com # 1E

0					and the second se		the second se			Contraction of the local data and the local data an	
Sample ID 5	ML RB	SampT	ype: ME	BLK	Test	Code: I	EPA Method	8021B: Volati	iles		al Barylang, ang guarta (ng sign ang
Client ID: P	PBW	Batch	ID: R2	2896	R	unNo:	22896				
Prep Date:		Analysis D	ate: 12	2/3/2014	S	eqNo:	676694	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Bromofl	fluorobenzene	21		20.00		105	66.6	167			
Sample ID 10	00NG BTEX LCS	SampT	ype: LC	S	Test	Code: I	EPA Method	8021B: Volati	les		
Client ID: L	csw	Batch	ID: R2	2896	R	unNo:	22896				
Prep Date:		Analysis D	ate: 12	2/3/2014	S	eqNo:	676695	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
					-			400			
Benzene		21	1.0	20.00	0	105	80	120			
Benzene Toluene		21 21	1.0 1.0	20.00 20.00	0	105 107		120 120			
					-		80				
Toluene		21	1.0	20.00	0	107	80 80	120			

Qualifiers:

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

Page 3 of 3

WO#: 1412127 05-Dec-14

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG Work Order Number		er: 1 412 1	27		RcptNo	1
Received by/date:	12/03/14					
Logged By: Lindsay Mang		M		Junely Hopp		
Completed By: Lindsay Mang		M		Annales Harborg		
Reviewed By:	12/03/14)		0.5.0		
	12/05/1	1				
Chain of Custody	la hattian?	Yes		No []	Not Present	
1. Custody seals intact on sample bottles?		Yes		No	Not Present	
2. Is Chain of Custody complete?		Cour				
3. How was the sample delivered?			ler			
Log In						
4. Was an attempt made to cool the samples?		Yes		No 🗌	NA []]	
5. Were all samples received at a temperature of $>0^{\circ}$ C to 6.0° C		Yes		No	NA	
6. Sample(s) in proper container(s)?		Yes		No		
7. Sufficient sample volume for indicated test(s)?		Yes		No []]		
8. Are samples (except VOA and ONG) properly preserved?		Yes		No		
9. Was preservative added to bottles?		Yes		No 🖈	NA 🗌	
10.VOA vials have zero headspace?		Yes		No	No VOA Vials	
11. Were any sample containers received broken?		Yes		No 🖈		
					# of preserved bottles checked	
12. Does paperwork match bottle labels?		Yes		No	for pH:	
(Note discrepancies on chain of custody)				No	<2) Adjusted?	or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? 14. Is it clear what analyses were requested?		Yes Yes			,	
15. Were all holding times able to be met?		Yes		No 🗌	Checked by:	
(If no, notify customer for authorization.)						
Special Handling (if applic	cable)			_		
16. Was client notified of all discr	epancies with this order?	Yes		No	NA 🖈	
Person Notified:	Date	:		ىمەمارىكە بەرلىي ۋەرىيەرلەيەت مەمەر مەمارىكە ئەترە - رورايە		
By Whom:	Via:	[] eM	ail [Phone [] Fax	In Person	
Regarding:	ومروري ويرورون والمراجعة والمراجعة والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والم			a a gan a she da a da balakan gaya	and a fair of a large state of the state of	
Client Instructions:						
17. Additional remarks:						
18. <u>Cooler Information</u>						
	Condition Seal Intact Seal No	Seal D	ate	Signed By	-	
1 1.6 G	ood Yes					

Chain-of-Custody Record					HTDe.					н			F	NV	/ T E	20	N	ME	NT		L
:lient:	BLAG	G ENGR.	/ BP AMERICA	Standard Project Name:	Rush					A	N	AL	Y	519	S L	A		R/	ATO		
Aailing Ad	ddress:	P.O. BO	x 87		RVIN COM	# 1E		49	01 н									37109	9		
			FIELD, NM 87413	Project #:						5-34							-410				
hone #:		(505) 63														ques					
email or F	ax#:	(1007)00		Project Manag	jer:									-				1		i itsep	
AVQC Part	+		Level 4 (Full Validation)		NELSON VE	ELEZ	8's (8021B)	only)	MRO)			(5)		04,SO4	PCB's			er - 300.1)			0
Accreditat				Sampler:	NELSON VI	ELEZ nv	8	(Gas	DRO /	7	1)	70SIMS)		102,1	8082			/ water			sample
] NELAP	, ,	Other		On Ice:	Yes	D No		TPH (Gas	-	418.	504.	827(03, 1	~		(YC	300.0			a. ~
	(ype)			Sample Temp	erature:	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		+	(GR(pou		Ы	etal	CI'N	cide	A)	i-V(e	iv a
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MTH	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method	PAH (8310	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil		Grab sample	5 pt. composite Air Bubbles (Y or I
12/2/14	1025	WATER	MW # 3	40 ml VOA - 2	HCI & Cool	-001	٧													٧	
12/2/14	1225	WATER	MW # 4	40 ml VOA - 2	HCI & Cool	-002	٧													٧	
12/2/14	1130	WATER	MW # 5	40 ml VOA - 2	HCI & Cool	-003	V				_	_							+	v	+
																					+
12/2/14	1320	WATER	MW # 6	40 ml VOA - 2	HCI & Cool	-004	٧													٧	+
											_				-					-	+
																-	-		\vdash	_	
Date:	Time:	Relinquish	ed by	Received by:		Date Time	Ren	nark	s:					1	1	1					
12/14	2/14/1537 7Chalf			Chut 1	Jacta	12/2/N 1537	BILL DIRECTLY TO BP: Jeff Peace, 200 Energy Court, Farmington, NM 87401														
Date:	and the second									200 E Ise Oi						ion, l	VM 8	7401	25		

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



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

March 09, 2015

Nelson Velez Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-3489 FAX (505) 632-3903

RE: IRVIN COM #1E

OrderNo.: 1503246

Dear Nelson Velez:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/6/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

ander

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1503246** Date Reported: **3/9/2015**

CLIENT: Blagg Engineering Project: IRVIN COM #1E	Client Sample ID: MW #3 Collection Date: 3/5/2015 9:45:00 AM										
Lab ID: 1503246-001	Matrix:	AQUEOUS			5/2015 7:30:00 AM						
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	Batch					
EPA METHOD 8021B: VOLATILES					Analyst	NSB					
Benzene	ND	1.0	μg/L	1	3/6/2015 12:23:22 PM	R24685					
Toluene	ND	1.0	µg/L	1	3/6/2015 12:23:22 PM	R24685					
Ethylbenzene	ND	1.0	µg/L	1	3/6/2015 12:23:22 PM	R24685					
Xylenes, Total	ND	2.0	µg/L	1	3/6/2015 12:23:22 PM	R24685					
Surr: 4-Bromofluorobenzene	105	80-120	%REC		3/6/2015 12:23:22 PM	R24685					

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysi	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 4
	0	RSD is greater than RSDlimit	Р	Sample pH Not In Range	1 age 1 01 4
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1503246** Date Reported: **3/9/2015**

CLIENT: Blagg Engineering Project: IRVIN COM #1E		Client Sample ID: MW #4 Collection Date: 3/5/2015 11:45:00 AM											
Lab ID: 1503246-002	Matrix:	AQUEOUS	Received I	Date: 3/6	5/2015 7:30:00 AM								
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch							
EPA METHOD 8021B: VOLATILES					Analyst	NSB							
Benzene	ND	1.0	µg/L	1	3/6/2015 12:52:37 PM	R24685							
Toluene	ND	1.0	µg/L	1	3/6/2015 12:52:37 PM	R24685							
Ethylbenzene	ND	1.0	µg/L	1	3/6/2015 12:52:37 PM	R24685							
Xylenes, Total	ND	2.0	µg/L	1	3/6/2015 12:52:37 PM	R24685							
	114	80-120	%REC		3/6/2015 12:52:37 PM	R24685							

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Metho	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysi	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 2 of 4
	0	RSD is greater than RSDlimit	Р	Sample pH Not In Range	1 age 2 01 4
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report Lab Order 1503246

Hall Environmental Analysis Laboratory, Inc.

-

Date Reported: 3/9/2015

CLIENT:Blagg EngineeringProject:IRVIN COM #1ELab ID:1503246-003	Matrix: A	Client Sample ID: MW #5Collection Date: 3/5/2015 10:45:00 AMMatrix: AQUEOUSReceived Date: 3/6/2015 7:30:00 AM									
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	Batch					
EPA METHOD 8021B: VOLATILES					Analys	t: NSB					
Benzene	ND	1.0	µg/L	1	3/6/2015 1:21:51 PM	R24685					
Toluene	ND	1.0	µg/L	1	3/6/2015 1:21:51 PM	R24685					
Ethylbenzene	ND	1.0	µg/L	1	3/6/2015 1:21:51 PM	R24685					
Xylenes, Total	ND	2.0	µg/L	1	3/6/2015 1:21:51 PM	R24685					
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	3/6/2015 1:21:51 PM	R24685					

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysi	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 3 of 4
	0	RSD is greater than RSDlimit	Р	Sample pH Not In Range	1 age 5 01 4
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:Blagg EngineeringProject:IRVIN COM #1E

		les	8021B: Volat	PA Method	Code: EF	Tes	BLK	Гуре: МЕ	Samp	5ML RB	Sample ID
				4685	unNo: 24	F	4685	h ID: R2	Bato	PBW	Client ID:
			Units: µg/L	27402	eqNo: 7	S	6/2015	Date: 3/	Analysis I		Prep Date:
Qual	RPDLimit	%RPD	HighLimit	LowLimit	%REC	SPK Ref Val	SPK value	PQL	Result		Analyte
								1.0	ND		Benzene
								1.0	ND		Toluene
								1.0	ND		Ethylbenzene
								2.0	ND		Xylenes, Total
								2.0			gionoo, rotar
			120	80	108		20.00	2.0	22	nofluorobenzene	,
		les	120 8021B: Volat			Tes		Type: LC	22	100NG BTEX LCS	Surr: 4-Brom
		les		PA Method			S		22 Samp		Surr: 4-Brom Sample ID
		les		PA Method 4685	tCode: El	F	S 4685	Гуре: LC h ID: R2	22 Samp	100NG BTEX LCS	Surr: 4-Brom Sample ID
Qual	RPDLimit	%RPD	8021B: Volat	PA Method 4685	tCode: Ef	F	S 4685 6/2015	Гуре: LC h ID: R2	22 Samp Bato	100NG BTEX LCS	Surr: 4-Brom Sample ID Client ID:
Qual	RPDLimit		8021B: Volat Units: μg/L	PA Method 4685 27403	Code: Ef RunNo: 24 GeqNo: 72	F	S 4685 6/2015	Type: LC h ID: R2 Date: 3/	22 Samp Bato Analysis I	100NG BTEX LCS	Surr: 4-Brom Sample ID Client ID: Prep Date:
Qual	RPDLimit		8021Β: Volat Units: μg/L HighLimit	PA Method 4685 27403 LowLimit	tCode: Ef tunNo: 24 GeqNo: 72 %REC	F S SPK Ref Val	:S 4685 6/2015 SPK value	Type: LC h ID: R2 Date: 3/ PQL	22 Samp Bato Analysis I Result	100NG BTEX LCS	Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte
Qual	RPDLimit		8021B: Volat Units: µg/L HighLimit 120	PA Method 4685 27403 LowLimit 80	tCode: EF tunNo: 24 teqNo: 72 %REC 108	F SPK Ref Val	35 4685 6/2015 SPK value 20.00	Гуре: LC h ID: R2 Date: 3/ PQL 1.0	22 Samp Bato Analysis I Result 22	100NG BTEX LCS	Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene
Qual	RPDLimit		8021B: Volat Units: μ g/L HighLimit 120 120	PA Method 4685 27403 LowLimit 80 80	tCode: EF RunNo: 24 SeqNo: 72 %REC 108 106	F S SPK Ref Val 0 0	35 4685 6/2015 <u>SPK value</u> 20.00 20.00	Type: LC h ID: R2 Date: 3/ PQL 1.0 1.0	22 Samp Bato Analysis I Result 22 21	100NG BTEX LCS	Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene
iit	RPDLim		Units: µg/L	4685 27402	aunNo: 24 SeqNo: 72	F	4685 6/2015	h ID: R2 Date: 3/ <u>PQL</u> 1.0 1.0	Bato Analysis I Result ND ND		Client ID: Prep Date: Analyte Benzene Foluene

Qualifiers:

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

Page 4 of 4

WO#: 1503246 09-Mar-15

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name:	BLAGG		Work C	order Number	: 15032	246			RcptNo:	1
Raceived by/dat	te: A	T 0310	0115							
Logged By:	Anne Thorn	6	3/6/2015	7:30:00 AM			anne,	Am		
Completed By:	Anne Thorn	e	3/6/2015				anne	Am	_	
Reviewed By:	K		3301	0/15						
Chain of Cus	stody									
1. Custody sea		mple bottles?			Yes		No		Not Present	
2. Is Chain of	Custody comple	ete?			Yes	\checkmark	No		Not Present	
3. How was the	e sample delive	ered?			Cour	er				
Log In										
4. Was an atte	empt made to c	ool the sample	es?		Yes	\checkmark	No		NA 🗀	
5. Were all sai	mples received	at a temperatu	ire of >0° C	to 6.0°C	Yes	\checkmark	No		NA	
6. Sample(s) i	n proper contai	ner(s)?			Yes	\checkmark	No			
7. Sufficient sa	ample volume fo	or indicated tes	t(s)?		Yes	\checkmark	No			
8. Are samples	s (except VOA a	and ONG) prop	eriy preserve	ed?	Yes	\checkmark	No			
9. Was preser	vative added to	bottles?			Yes		No	\checkmark	NA	
10.VOA vials h	ave zero heads	pace?			Yes	\checkmark	No		No VOA Vials	
11. Were any s	ample containe	ars received bro	oken?		Yes		No	\checkmark	# of preserved]
12. Does paper	work match bot	tle labels?			Yes	\checkmark	No		bottles checked for pH:	
	pancies on cha				103				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	or >12 unless noted)
13. Are matrices	s correctly ident	tified on Chain	of Custody?		Yes	\checkmark	No		Adjusted?	
14. Is it clear whether the second se	nat analyses we	ere requested?			Yes	\checkmark	No		1	
15. Were all hol (If no, notify	ding times able customer for a				Yes	\checkmark	No		Checked by:	
Special Hand	lling (if app	licable)								
16. Was client r			h this order?		Yes		No		NA 🗹	
	n Notified:			Date						
By Wi	, 			Via:	eMa	ii 🗖	Phone	Fax	In Person	
Regar										
1	Instructions:	1812 Dage 0.08.1								×
17. Additional r	emarks:									_
18. Cooler Info										
Cooler N		Condition	Seal Intact	Seal No	Seal Da	te	Signed E	Зу	4	-
1	1.0	Good	les						I.	
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Chain-of-Custody Record			Turn-Around T	ime:				in the second	F	-14		F	NV	/TF	20		MEN		
BLAG	G ENGR.	/ BP AMERICA	Standard	Rush			10.10	Ę											
			Project Name:				5.8											. •	
ddress:	P.O. BO	X 87	- I	RVIN COM	# 1E		49	01 H											
	BLOOM	FIELD, NM 87413	Project #:			1								,					
	(505) 63	2-1199	1			1										1.1.1.1.1.1.1			
Fax#:			Project Manag	er:									-				1		
ackage: dard		Level 4 (Full Validation)		NELSON VI	ELEZ	1218)	only)	MRO)			(5)		04, SO4	PCB's					
ation:			Sampler:	NELSON VI	ELEZ SS	.80	Gas	RO /	,	1)	SIM		0 ₂ ,F	082			wat		sample
Р	Other		On Ice:	XYes	D No		LPH (118.	504.	3270		0 ₃ ,N	s / 8		(A)	0.00		e sa
Type)			Sample Tempe	erature: /	-0	I	+ 3	GRC	po	po	5	tals	I,N(cide	A)	-VC	1-3(e	osit
Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX	BTEX + MTB	TPH 8015B (TPH (Meth	EDB (Meth	PAH (8310	RCRA 8 Me	Anions (F,C	8081 Pesti	8260B (VO	8270 (Sem	Chloride (so	Grab samp	5 pt. composite
0945	WATER	MW # 3	40 ml VOA - 2	HCI & Cool	-col	٧												V	
1145	WATER	MW # 4	40 ml VOA - 2	HCI & Cool	-602	٧												V	
1045	WATER	MW # 5	40 mi VOA - 2	HCI & Cool	-713	٧												V	
Time	Poliosuiah	ad but	Descind has		Data Tima														
Time:	90	In VI	Received by:	schalt	3/5/15 1619	BI Je	LL DI ff Pea	RECT ace,	200 E	Ener	gy Co		Farm	ningt	on, f	NM 8	7401		
	BLAG	BLAGG ENGR.	BLAGG ENGR. / BP AMERICA address: P.O. BOX 87 BLOOMFIELD, NM 87413 (505) 632-1199 Fax#: ackage: Jard [Level 4 (Full Validation) tition: P Other Type)	Traini-OI-Custody Record BLAGG ENGR. / BP AMERICA Standard Project Name: Project Name: address: P.O. BOX 87 I BLOOMFIELD, NM 87413 Project #: (505) 632-1199 Project Manage ackage: I jard Level 4 (Full Validation) stion: Sampler: On Ice: On Ice: Type) Sample Request ID Time Matrix Sample Request ID Container I/145 WATER MW # 3 40 ml VOA - 2 I/145 WATER MW # 5 40 ml VOA - 2 I/145 WATER MW # 5 40 ml VOA - 2 I Intermode and	BLAGG ENGR. / BP AMERICA □ Standard □ Rush _ viddress: P.O. 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BOX 87 BLOOMFIELD, NM 87413 Project Manager: (505) 632-1199 Fax#: Project Manager: ickage: NELSON VELEZ iard Level 4 (Full Valdation) Sampler: NELSON VELEZ Time Matrix Sample Request ID Container Type and # Time Matrix Sample Request ID Container Type and # // 45 WATER MW # 3 40 ml VOA-2 HCI & Cool -CCOl // 14 S WATER MW # 5 40 ml VOA-2 HCI & Cool -CCOl // 04/S WATER MW # 5 40 ml VOA-2 I I // 04/S WATER MW # 5 40 ml VOA-2 I I I I I/ 04/S I I/ 04/S I I/ 04/S I I/ 04/S I	BLAGG ENGR. / BP AMERICA ? Standard Rush Project Name: Project Name: Iddress: P.O. 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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

April 01, 2015

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-1183 FAX (505) 632-3903

RE: Irvin Com #1E

OrderNo.: 1503D63

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/31/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1503D63

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/1/2015

CLIENT: Blagg Engineering Project: Irvin Com #1E	Client Sample ID: MW#6 Collection Date: 3/30/2015 2:05:00 PM											
Lab ID: 1503D63-001	Matrix: A	QUEOUS			31/2015 8:45:00 AM							
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	Batch						
EPA METHOD 8021B: VOLATILES					Analyst	RAA						
EPA METHOD 8021B: VOLATILES Benzene	ND	1.0	µg/L	1	Analyst 3/31/2015 3:20:38 PM							
	ND 1.6	1.0 1.0	μg/L μg/L	1 1	,	R25204						
Benzene				1 1 1	3/31/2015 3:20:38 PM	R25204 R25204						
Benzene Toluene	1.6	1.0	μg/L	1 1 1	3/31/2015 3:20:38 PM 3/31/2015 3:20:38 PM	RAA R25204 R25204 R25204 R25204						

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	od Blank
	E	Value above quantitation range	Н	Holding times for preparation or analysi	s exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 1 of 2
	0	RSD is greater than RSDlimit	Р	Sample pH Not In Range	rage rorz
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:Blagg EngineeringProject:Irvin Com #1E

Sample ID 100NG BTEX LO	CS Samp1	SampType: LCS TestCode: EPA Method 8021B: Volatiles											
Client ID: LCSW	Batch	n ID: R2	5204	R	RunNo: 2	5204							
Prep Date:	Analysis D	ate: 3/	31/2015	S	eqNo: 7	44926	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	23	1.0	20.00	0	113	80	120						
Toluene	22	1.0	20.00	0	110	80	120						
Ethylbenzene	21	1.0	20.00	0	106	80	120						
Xylenes, Total	64	2.0	60.00	0	106	80	120						
Surr: 4-Bromofluorobenzene	23		20.00		114	80	120						
Sample ID 5ML RB	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles					
Client ID: PBW	Batch	n ID: R2	5204	R	RunNo: 2	5204							
Prep Date:	Analysis D	ate: 3/	31/2015	S	eqNo: 74	44944	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	ND	1.0											
-	ND	1.0											
Toluene	ND	1.0											
I oluene Ethylbenzene	ND	1.0											

Qualifiers:

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

Page 2 of 2

WO#: 1503D63 01-Apr-15

ENVIRONMENTAL ANALYSIS LABORATORY	Albu TEL: 565-345-39754 Website: www.hal		107	ple Log-In Cl	neck List
Client Name: BLAGG	Work Order Number:	1503D63		RcptNo:	1
Received by/date: AT	0331115				
ogged By: Celina Sessa	3/31/2015 8:45:00 AM		Celin S Celin S	ma	
Completed By: Celina Sessa	3/31/2015 9:00:39 AM		Celina S		
Reviewed By.	on malin		and y		
hain of Custody					
1. Custody seals intact on sample bottles?		Yes	No	Not Present V	
2. Is Chain of Custody complete?		Yes 🗸	No	Not Present	
3. How was the sample delivered?		Courier			
og la					
<u>.og In</u> 4. Was an attempt made to cool the sample	is?	Yes 🗸	No	NA	
,					
Were all samples received at a temperature.	are of >0° C to 6.0°C	Yes 🖌	No	NA	
6. Sample(s) in proper container(s)?		Yes 🗸	No		
7. Sufficient sample volume for indicated tes	st(s)?	Yes 🗸	No		
8. Are samples (except VOA and ONG) prop	perly preserved?	Yes 🗸	No		
9. Was preservative added to bottles?		Yes	No 🗸	NA	
0.VOA vials have zero headspace?		Yes 🗸	No	No VOA Vials	
1. Were any sample containers received bri	oken?	Yes	No 🔽	the forecomment	
			_	# of preserved bottles checked	
2. Does paperwork match bottle labels?		Yes 🗸	No	for pH: (<2 o	r >12 unless n
(Note discrepancies on chain of custody)	of Custoria?	Yes 🗸	No	Adjusted?	1.12 0110331
 Are matrices correctly identified on Chain Is it clear what analyses were requested? 		Yes 🗸	No		
 S. Were all holding times able to be met? 		Yes 🗸	No 🗌	Checked by:	
(If no, notify customer for authorization.)					
pecial Handling (if applicable)					
6. Was client notified of all discrepancies with	th this order?	Yes	No	NA 🖌	
Person Notified:	Date				
By Whom:	Via:	cMail P	hone 🗌 Fax	In Person	
Regarding:					
Client Instructions:					
17. Additional remarks:					
Cooler Information Cooler No Temp °C Condition	Seal Intact Seal No S	Seal Date	Signed By	1	

С	hain-o	of-Cus	stody Record	Turn-Around	Time:					ŀ	14	ш	E	N١	/16	20	N	ME	NT/	AL	
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush				5										то		
				Project Name													.com				
Mailing A	ddress:	P.O. BO	X 87	IRV	12 com	ΨE	4901 Hawkins NE - Albuquerque, NM 873														
		BLOOM	FIELD, NM 87413	Project #:			Tel. 505-345-3975 Fax 505-345									-345					
Phone #:		(505) 63	2-1199						Analysis Request												
email or F	ax#:			Project Manag	ger:		-							4)						Τ	Т
QA/QC Pa	-		Level 4 (Full Validation)	JEFF BLAGG Sampler: NELSON VELEZ 915				+ TPH (Gas only)	DRO / MRO)			S)		PO4,50						a	
Accreditat				Sampler: N	ELSON VE	LEZ 915	1	Gas	RO /	1)	1)	SIM		102,1	lids	red)	z			sample	
		D Other		On Ice:	Yes	□ No	1	HU	1	118.	504.	3270		03,N	1 Sol	filte	rite			e sa	
	Type)			Sample Temp	erature: 10	2		÷	GRC	pod 4	po	or 8	stals	N'N	lveo	us (/ Nitrite		d	osit	
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX +-MTB	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	Total Dissolved Solids	Iron, Ferrous (filtered)	Nitrate N /		Grab sample	5 pt. composite	1
3/30/15	1405	WATER	MW 76	40ml-2	Helf COOL		\checkmark												v	/	
																		$\left \right $		+	+
																					\pm
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Date;	Time:	Relinquish	ed by:	Received by:	1	Date Time	Rer	nark	s:												
3/30/15 Date:	1445 Time:	Relinquish	dra f	Beceived by	hagter"	30/15 1445 Date Time			DIRE				Cour	rt, Fa	irmin	igtor	n. NM	18740	1		
3/20/14	1855				Received by: Aman Alt 31/15 1445 Jan Alt 31/15 0345					ZE	VHO:	1REM	ME	-							



June 01, 2015

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-1183 FAX (505) 632-3903

RE: IRVIN COM #1E

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

OrderNo.: 1505B77

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 5/28/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environ	mental Analysi	s Laborat	tory, Inc.		Lab Order: 1505B77 Date Reported: 6/1/2015
	Blagg Engineering RVIN COM #1E				Lab Order: 1505B77
Lab ID:	1505B77-001			Collection I	Date: 5/27/2015 10:45:00 AM
Client Sample ID:	MW #3			Ma	atrix: AQUEOUS
Analyses		Result	RL Qu	al Units	DF Date Analyzed Batch
EPA METHOD 802	21B: VOLATILES				Analyst: NS
Benzene		ND	1.0	µg/L	1 5/28/2015 12:38:33 PM R26
Toluene		ND	1.0	µg/L	1 5/28/2015 12:38:33 PM R26
Ethylbenzene		ND	1.0	µg/L	1 5/28/2015 12:38:33 PM R26
Xylenes, Total		ND	2.0	µg/L	1 5/28/2015 12:38:33 PM R26
Surr: 4-Bromoflu	orobenzene	95.0	80-120	%REC	1 5/28/2015 12:38:33 PM R26
Lab ID:	1505B77-002			Collection I	Date: 5/27/2015 12:45:00 PM
Client Sample ID:	MW #4			Ma	atrix: AQUEOUS
Analyses		Result	RL Qu	al Units	DF Date Analyzed Batch
EPA METHOD 802	21B: VOLATILES				Analyst: NS
Benzene		2.0	1.0	µg/L	1 5/28/2015 1:03:43 PM R26
Toluene		ND	1.0	µg/L	1 5/28/2015 1:03:43 PM R26
Ethylbenzene		ND	1.0	µg/L	1 5/28/2015 1:03:43 PM R26
Xylenes, Total		ND	2.0	µg/L	1 5/28/2015 1:03:43 PM R26
Surr: 4-Bromoflu	orobenzene	108	80-120	%REC	1 5/28/2015 1:03:43 PM R26
Lab ID:	1505B77-003			Collection I	Date: 5/27/2015 11:45:00 AM
Client Sample ID:	MW #5			Ma	atrix: AQUEOUS
Analyses		Result	RL Qu	al Units	DF Date Analyzed Batch
EPA METHOD 802	21B: VOLATILES				Analyst: NS
Benzene		ND	1.0	µg/L	1 5/28/2015 1:28:48 PM R26
Toluene		ND	1.0	µg/L	1 5/28/2015 1:28:48 PM R26
Ethylbenzene		ND	1.0	µg/L	1 5/28/2015 1:28:48 PM R26
Xylenes, Total		ND	2.0	µg/L	1 5/28/2015 1:28:48 PM R26
Surr: 4-Bromoflu	orobenzene	98.0	80-120	%REC	1 5/28/2015 1:28:48 PM R26

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

Qualifiers: *

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank

Analytical Report

H Holding times for preparation or analysis exceeded

Page 1 of 3

- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

Analytical H	Report
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Lao 01001. 1505077	Lab Order:	1505B77
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Date Reported: 6/1/2015

CLIENT: Project:	Blagg Engineering IRVIN COM #1E					Lab O	rder: 150	5B77	
Lab ID:	1505B77-004			C	ollection I	Date: 5/2	7/2015 1:45:00	PM	
Client Sample	e ID: MW #6				Ma	trix: AQ	UEOUS		
Analyses		Result	RL (Qual	Units	DF	Date Analyzed	B	atch ID
EPA METHO	D 8021B: VOLATILES						A	nalyst	NSB
Benzene		ND	1.0		µg/L	1	5/28/2015 1:54:1	9 PM	R26473
Toluene		ND	1.0		µg/L	1	5/28/2015 1:54:1	9 PM	R26473
Ethylbenzene	9	2.7	1.0		µg/L	1	5/28/2015 1:54:1	9 PM	R26473
Xylenes, Tota	al	69	2.0		µg/L	1	5/28/2015 1:54:1	9 PM	R26473
Surr: 4-Bro	omofluorobenzene	127	80-120	S	%REC	1	5/28/2015 1:54:1	9 PM	R26473

Hall Environmental Analysis Laboratory, Inc.

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

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

Page 2 of 3

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

Client:	Blagg Engineering
Project:	IRVIN COM #1E

Sample ID B9	SampType: MBLK TestCode: EPA Method 8021B: Volatiles										
Client ID: PBW	Batch	Batch ID: R26473 RunNo: 26473									
Prep Date:	Analysis D)ate: 5/	28/2015	S	eqNo: 7	86785	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	1.0									
Toluene	ND	1.0									
Ethylbenzene	ND	1.0									
Xylenes, Total	ND	2.0									
Surr: 4-Bromofluorobenzene	20		20.00		99.9	80	120				
Sample ID 100NG BTEX LC	S SampT	ype: LC		Tes			8021B: Volat	iles			
Sample ID 100NG BTEX LC3 Client ID: LCSW		ype: LC	S			PA Method		iles			
		n ID: R2	S	R	tCode: El	PA Method 6473		iles			
Client ID: LCSW	Batch	n ID: R2	S 6473 28/2015	R	tCode: El RunNo: 2	PA Method 6473	8021B: Volat	iles %RPD	RPDLimit	Qual	
Client ID: LCSW Prep Date:	Batch Analysis D	n ID: R2 Date: 5/	S 6473 28/2015	R	tCode: El RunNo: 2 GeqNo: 7	PA Method 6473 86790	8021B: Volat Units: μg/L		RPDLimit	Qual	
Client ID: LCSW Prep Date: Analyte	Batch Analysis D Result	n ID: R2 Date: 5/ PQL	S 6473 28/2015 SPK value	R S SPK Ref Val	tCode: El tunNo: 2 GeqNo: 7 %REC	PA Method 6473 86790 LowLimit	8021Β: Volat Units: μg/L HighLimit		RPDLimit	Qual	
Client ID: LCSW Prep Date: Analyte Benzene Toluene	Batch Analysis D Result 20	n ID: R2 Date: 5/ PQL 1.0	S 6473 28/2015 SPK value 20.00	R S SPK Ref Val 0	tCode: El tunNo: 2 GeqNo: 7 %REC 98.0	PA Method 6473 86790 LowLimit 80	8021Β: Volat Units: μg/L HighLimit 120		RPDLimit	Qual	
Client ID: LCSW Prep Date: Analyte Benzene	Batch Analysis D Result 20 23	n ID: R2 Date: 5/ PQL 1.0 1.0	S 6473 28/2015 SPK value 20.00 20.00	R S SPK Ref Val 0 0	Code: El RunNo: 2 GeqNo: 7 %REC 98.0 115	PA Method 6473 86790 LowLimit 80 80	8021Β: Volat Units: μ g/L HighLimit 120 120		RPDLimit	Qual	

Qualifiers:

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

WO#: 1505B77 01-Jun-15

Page 3 of 3



Tall Environmental Analysis Euborulory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: BLAGG	Work Order Numbe	1505B77		RcptNo:	1
Received by/date:	05/28/1	5			
Logged By Ashley Gallegos	5/28/2015 7:00:00 AN	4	AJ		
Completed By: Ashley Gallegos	5/28/2015 7:31:28 AN	1	AZ		
Reviewed By: OS/28/15			4		
Chain of Custody					
1. Custody seals intact on sample bottles?	1	Yes	No	Not Present 🗸	
2. Is Chain of Custody complete?		Yes 🗸	No	Not Present	
3. How was the sample delivered?		Courier			
Log In					
4. Was an attempt made to cool the same	les?	Yes 🗸	No	NA	
5. Were all samples received at a tempera	ture of >0° C to 6.0°C	Yes 🗸	No	NA	
6. Sample(s) in proper container(s)?		Yes 🗸	No		
7. Sufficient sample volume for indicated to	est(s)?	Yes 🗸	No		
8. Are samples (except VOA and ONG) pr	operly preserved?	Yes 🖌	No		
9. Was preservative added to bottles?		Yes	No 🗸	NA	
10.VOA vials have zero headspace?		Yes 🗹	No	No VOA Vials	
11. Were any sample containers received b	proken?	Yes	No 🗸	# of preserved bottles checked	
12. Does paperwork match bottle labels?		Yes 🗸	No	for pH:	
(Note discrepancies on chain of custody				(<2 or Adjusted?	>12 unless not
13. Are matrices correctly identified on Chai		Yes V	No No	Agastoo	
14. Is it clear what analyses were requested	17		NO	Checked by:	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	I.	Yes 🗸	NO	Checked by.	
Special Handling (if applicable)					
16. Was client notified of all discrepancies v	with this order?	Yes	No	NA 🗸	
Person Notified:	Date				
By Whom:	Via:	eMail 6	Phone Fax	In Person	
Regarding:					
Client Instructions:					
17. Additional remarks:					
18. Cooler Information					
Cooler No Temp °C Condition	Seal Intact Seal No	Seal Date	Signed By		
1 1.7 Good	Yes				

CI	hain-c	of-Cus	tody Record	Turn-Around T	ime:			1		ŀ	łA	LL	E	N١	/IF	20	Nľ	MEN	NT/	L
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush			255										RA		
				Project Name:											nme					
Mailing Ad	ddress:	P.O. BO	K 87	- I	RVIN COM	# 1E		49	01⊦									7109		
		BLOOM	FIELD, NM 87413	Project #:					Tel. 505-345-3975 Fax 505-345-4107											
Phone #:		(505) 63	2-1199						Analysis Request											
email or F	ax#:			Project Manag	ier:									4)				1)		
QA/QC Pac			Level 4 (Full Validation)		JEFF BLAG	5	80218)	(ylno	MRO)			IS)		04,50	PCB's			er - 300.1)		e
Accreditat				Sampler:	NELSON VE	ELEZ 925	8(Gas	RO /	1	1)	SIN		02,1	/ 8082			/ water		sample
	b	Other		On Ice:	Yes	D No	TANG!	Hd	/ DRO	118.	504.	8270SIMS)		03,N	s / 8		(A)	300.0 /		e sa
	Type)			Sample Tempe	erature: 1	1.		+	GRC	po	po	or	tals	N'N	cide	A)	i-VC	11 - 30	le	osit
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1505BT	BTEX +MT8	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil -	Grab sample	5 pt. composite
5/27/15	1045	WATER	MW # 3	40 ml VOA - 2	HCI & Cool	· 001	٧												V	
5/27/15	1245	WATER	MW # 4	40 ml VOA - 2	HCI & Cool	-002	٧												V	
5/27/15	11.45	WATER	MW # 5	40 ml VOA - 2	HCI & Cool	- 003	v												V	
5/27/15	1345	WATER	MW # 6	40 ml VOA - 2	HCI & Cool	- 00 4	V												V	
-							-							-						+
												-							+	
Date:	Time:	Relinquishe	agoy: 1 C.	Received by:	()	Date Time	Rer	nark	s:			-			-					
5/27/15 Date:	1720 Time:	Relinquish	la f	Received by:	Walta	Dates Time					Ener		ourt,	Farr	ningt	ion, N	NM 8	7401		
5/21/15	1745	1 MA	1. t. Wheles	Received by: ADMANILLOWAS 05 28 15 ADMANILLOWAS 0700					: _2	ZEVH	H01F	REM	E							



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

September 03, 2015

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-1183 FAX (505) 632-3903

RE: Irvin COM #1E

OrderNo.: 1508E34

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/28/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1508E34** Date Reported: **9/3/2015**

CLIENT: Blagg Engineering Project: Irvin COM #1E	Client Sample ID: MW # 3 Collection Date: 8/27/2015 10:25:00 AM								
Lab ID: 1508E34-001	Matrix: AQUEOUS		Received	Received Date: 8/28/2015 8:25:00 AM					
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch			
EPA METHOD 8260: VOLATILES S	HORT LIST				Analys	t: DJF			
Benzene	ND	1.0	µg/L	1	9/2/2015 1:15:05 PM	A28626			
Toluene	ND	1.0	μg/L	1	9/2/2015 1:15:05 PM	A28626			
Ethylbenzene	ND	1.0	µg/L	1	9/2/2015 1:15:05 PM	A28626			
Xylenes, Total	ND	1.5	µg/L	1	9/2/2015 1:15:05 PM	A28626			
Surr: 1,2-Dichloroethane-d4	102	70-130	%REC	1	9/2/2015 1:15:05 PM	A28626			
Surr: 4-Bromofluorobenzene	106	70-130	%REC	1	9/2/2015 1:15:05 PM	A28626			
Surr: Dibromofluoromethane	113	70-130	%REC	1	9/2/2015 1:15:05 PM	A28626			
Surr: Toluene-d8	97.0	70-130	%REC	1	9/2/2015 1:15:05 PM	A28626			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 1 of 5
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	ruge rors
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix			

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1508E34** Date Reported: **9/3/2015**

CLIENT: Blagg Engineering Project: Irvin COM #1E	Client Sample ID: MW # 4 Collection Date: 8/27/2015 12:30:00 PM									
Lab ID: 1508E34-002	Matrix:	AQUEOUS	Received	Date: 8/2	28/2015 8:25:00 AM					
Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch				
EPA METHOD 8260: VOLATILES S	HORT LIST				Analys	t: DJF				
Benzene	1.6	1.0	µg/L	1	9/2/2015 2:37:52 PM	A28626				
Toluene	ND	1.0	µg/L	1	9/2/2015 2:37:52 PM	A28626				
Ethylbenzene	ND	1.0	µg/L	1	9/2/2015 2:37:52 PM	A28626				
Xylenes, Total	ND	1.5	µg/L	1	9/2/2015 2:37:52 PM	A28626				
Surr: 1,2-Dichloroethane-d4	91.4	70-130	%REC	1	9/2/2015 2:37:52 PM	A28626				
Surr: 4-Bromofluorobenzene	110	70-130	%REC	1	9/2/2015 2:37:52 PM	A28626				
Surr: Dibromofluoromethane	108	70-130	%REC	1	9/2/2015 2:37:52 PM	A28626				
Surr: Toluene-d8	94.0	70-130	%REC	1	9/2/2015 2:37:52 PM	A28626				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 2 of 5
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 2 01 5
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix			

Analytical Report Lab Order 1508E34

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/3/2015

CLIENT: Blagg Engineering Project: Irvin COM #1E	Client Sample ID: MW # 5 Collection Date: 8/27/2015 11:20:00 AM								
Lab ID: 1508E34-003	Matrix: AQUEOUS		Received Date: 8/28/2015 8:25:00 AM						
Analyses	Result	RL Qua	Units DF		Date Analyzed	Batch			
EPA METHOD 8260: VOLATILES S	HORT LIST				Analys	t: DJF			
Benzene	ND	1.0	µg/L	1	9/2/2015 3:05:29 PM	A28626			
Toluene	ND	1.0	µg/L	1	9/2/2015 3:05:29 PM	A28626			
Ethylbenzene	ND	1.0	µg/L	1	9/2/2015 3:05:29 PM	A28626			
Xylenes, Total	ND	1.5	µg/L	1	9/2/2015 3:05:29 PM	A28626			
Surr: 1,2-Dichloroethane-d4	94.6	70-130	%REC	1	9/2/2015 3:05:29 PM	A28626			
Surr: 4-Bromofluorobenzene	103	70-130	%REC	1	9/2/2015 3:05:29 PM	A28626			
Surr: Dibromofluoromethane	111	70-130	%REC	1	9/2/2015 3:05:29 PM	A28626			
Surr: Toluene-d8	97.6	70-130	%REC	1	9/2/2015 3:05:29 PM	A28626			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 5
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1508E34** Date Reported: **9/3/2015**

CLIENT: Blagg Engineering	Client Sample ID: MW # 6								
Project: Irvin COM #1E			Collection	Date: 8/2	27/2015 1:20:00 PM				
Lab ID: 1508E34-004	Matrix:	Received	Received Date: 8/28/2015 8:25:00 AM						
Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch			
EPA METHOD 8260: VOLATILES S	HORT LIST				Analys	t: DJF			
Benzene	ND	1.0	μg/L	1	9/2/2015 3:33:05 PM	A28626			
Toluene	ND	1.0	µg/L	1	9/2/2015 3:33:05 PM	A28626			
Ethylbenzene	ND	1.0	µg/L	1	9/2/2015 3:33:05 PM	A28626			
Xylenes, Total	45	1.5	µg/L	1	9/2/2015 3:33:05 PM	A28626			
Surr: 1,2-Dichloroethane-d4	95.6	70-130	%REC	1	9/2/2015 3:33:05 PM	A28626			
Surr: 4-Bromofluorobenzene	102	70-130	%REC	1	9/2/2015 3:33:05 PM	A28626			
Surr: Dibromofluoromethane	111	70-130	%REC	1	9/2/2015 3:33:05 PM	A28626			
Surr: Toluene-d8	98.6	70-130	%REC	1	9/2/2015 3:33:05 PM	A28626			

Contraction of the second s					
Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method E	Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 4 of 5
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 4 01 5
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix			

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering Project: Irvin COM #1E

Sample ID rb	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8260: Volatil	es Short L	.ist	
Client ID: PBW	Batc	h ID: A2	8626	F	RunNo: 2	8626				
Prep Date:	Analysis E	Date: 9/	2/2015	S	SeqNo: 8	66329	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			
Sample ID 100ng Ics	SampT	ype: LC	s	Tes	tCode: El	PA Method	8260: Volatile	es Short L	.ist	
Client ID: LCSW	Batch	h ID: A2	8626	R	RunNo: 2	8626				
Prep Date:	Analysis D	Date: 9/	2/2015	S	eqNo: 8	66330	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.9	70	130			
Toluene	19	1.0	20.00	0	97.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.7		10.00		97.2	70	130			

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

R RPD outside accepted recovery limits

- 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 Detection Limit

Page 5 of 5



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

Sample Log-In Check List

Client Name:	BLAGG	Work Order Number:	1508E	34		RcptNo:	1
Received by/dat	e: SA Lindsay Mangin	08/28/15 8/28/2015 8:25:00 AM			stinesky HlappyD		
Completed By:	Lindsay Mangin	8/31/2015 6:19:08 AM			Anaku Alalan		
Reviewed By:		· · · · · · · · · · · · · · · · · · ·			0 grade		
Napologiani ne. Unopologia di nen 201 mente 101	Ju Ju	08/31/15					. 1
Chain of Cus				_			
1. Custody sea	als intact on sample bottle	s?	Yes		No 🗌	Not Present	
2. Is Chain of C	Custody complete?		Yes		No 📙	Not Present	
3. How was the	e sample delivered?		Couri	er			
Log In							
4. Was an atte	empt made to cool the sar	nples?	Yes		No 🗌		
5. Were all sar	mples received at a tempe	erature of >0° C to 6.0°C	Yes		No 🗌	NA 🗌	
6. Sample(s) i	n proper container(s)?		Yes		No		
7. Sufficient sa	mple volume for indicated	test(s)?	Yes		No 🗌		
8. Are samples	s (except VOA and ONG)	properly preserved?	Yes		No		
9. Was presen	vative added to bottles?		Yes		No 🛃	NA 🗌	
10.VOA vials h	ave zero headspace?		Yes		No 🗌	No VOA Vials	
11. Were any s	ample containers received	d broken?	Yes		No 💌	# of preserved	
						bottles checked	
	work match bottle labels? pancies on chain of custo		Yes		No 🗌	for pH: (<2 c	r >12 unless noted)
	s correctly identified on Ch	- ,	Yes		No 🗌	Adjusted?	
	nat analyses were request	•	Yes		No 🗌		
15. Were all hol	ding times able to be met customer for authorizatio	?	Yes		No 🗌	Checked by:	а 4 г

Special Handling (if applicable)

16.1	Was client notified of all d	liscrepancies with this order?		Yes []	No 🗌	NA 🛃
	Person Notified:		Date:		a an		
	By Whom:	NAMES OF THE DESCRIPTION OF THE	Via:	eMail	Phone	🗌 Fax	In Person
	Regarding:		it lift lift of solar and				
	Client Instructions:						an a
4-							

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Yes			

CI	hain-c	of-Cus	tody Record	Turn-Around T	ime:					ŀ	łA	LL	E	NV	/IF	20	NI	ME	NT	AL	
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush		Г		F										TO		
			nyn y gener y gener fan de skielde skie	Project Name:								w.ha									-
Mailing Ad	ddress:	P.O. BO	X 87	i I		# 1E		49	01 H	ławk	ins l	NE -	Alb	uqu	ierqu	ue, N	IM 8	37109	l		
	a harring a part of the	BLOOM	FIELD, NM 87413	Project #:				Te	el. 50	05-34	45-3	975	I	Fax	505-	-345	-410)7			
Phone #:	dan sekara meti Mangaran perinti karan t	(505) 63	2-1199	1								F	Anal	ysis	Red	ques	st				
email or F	ax#:			Project Manag	er:									4)				1)	T	Τ	Т
QA/QC Pad	-		Level 4 (Full Validation)		JEFF BLAGO	9	4846 (80218)	only)	MRO)			IS)		04,SO	PCB's			er - 300.1)			9
Accreditat		•		Sampler:	NELSON VE	LEZ Z	8	(Gas	RO /	1)	1)	NISC		102,1	/ 8082			/ wat			sample
	,	D Other		On Ice:	X Yes			HdT	0/0	418.	504	827(5	03, 1	s / 8		(YC	300.0 / water			le sa
	ype)			Sample Tempo	rature: 2.31	0.9CF = 2.6	ł	3E +	(GRI	por	pou) or	etal	CI,N	icide	(A)	ni-V(1 1	4	al i	lsoc
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. / 1508F34/	BTEX	BTEX + MTBE + TPH (Gas only)	TPH 80158 (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil		aldillas dal	5 pt. composite
3/27/15	1025	WATER	MW # 3	40 ml VOA - 2	HCI & Cool	$-\infty^{\prime}$	V		-											1	T
																				1	+
3/27/15	1230	WATER	MW # 4	40 ml VOA - 2	HCI & Cool	-002	۷												<u>'</u>	/	1
8/27/15	1120	WATER	MW # 5	40 ml VOA - 2	HCI & Cool	-005	٧												-	1	-
3/27/15	132.0	WATER	MW # 6	40 ml VOA - 2	HCI & Cool	-004	V												-	1	+
																			+	+	+
						· · · · · · · · · · · · · · · · · · ·															+
Deter	Times	Dolinguish		Despined by:		Date Time	D														
Date:	Time: 1600	Relinquishe	Invi	Received by:	Whet	8/21/15 140	BI	nark LL DI ff Pei	RECT				ourt.	Farn	ninet	on. N	VM 8	7401			
Date: 8/37/17	Time: 1916	Relinquishe	ed by: (alto	Received by:	14 0 E	Date Time 126/190825						EME				, '					



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

December 11, 2015

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-1183 FAX (505) 632-3903

RE: Irvin Com #1E

OrderNo.: 1512205

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/4/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1512205** Date Reported: **12/11/2015**

CLIENT: Blagg Engineering	Client Sample ID: MW #4										
Project: Irvin Com #1E			Collection 1	Date: 12/.	3/2015 2:00:00 PM						
Lab ID: 1512205-001	Matrix: A	AQUEOUS	Received 1	Date: 12/4	4/2015 8:00:00 AM						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch					
EPA METHOD 8021B: VOLATILES					Analys	st: NSB					
Benzene	ND	1.0	µg/L	1	12/10/2015 2:30:32 AI	M B30727					
Toluene	ND	1.0	µg/L	1	12/10/2015 2:30:32 AI	M B30727					
Ethylbenzene	ND	1.0	µg/L	1	12/10/2015 2:30:32 AI	M B30727					
Xylenes, Total	ND	2.0	µg/L	1	12/10/2015 2:30:32 AI	A B30727					
Aylenes, Total			1.5								

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method E	Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 1 of 3
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 1 01 5
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix			

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1512205 Date Reported: 12/11/2015

CLIENT: Blagg Engineering Project: Irvin Com #1E				e ID: MW #6 Date: 12/3/2015 3:00:00 PM	А
Lab ID: 1512205-002	Matrix:	AQUEOUS	Received	Date: 12/4/2015 8:00:00 AM	M
Analyses	Result	RL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES				Ana	alyst: NSB
Benzene	2.5	1.0	µg/L	1 12/10/2015 2:55:02	AM B30727
Toluene	70	1.0	µg/L	1 12/10/2015 2:55:02	AM B30727
Ethylbenzene	110	50	µg/L	50 12/10/2015 10:34:5	0 AM C30766
Xylenes, Total	3900	100	µg/L	50 12/10/2015 10:34:5	0 AM C30766
Surr: 4-Bromofluorobenzene	213	65-127	S %REC	1 12/10/2015 2:55:02	AM B30727

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method H	Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 2 of 3
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 2 01 5
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix			

.

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering Project: Irvin Com #1E

		1#1E									
Sample ID	5ML RB	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	PBW	Batch	h ID: B3	0727	F	RunNo: 3	0727				
Prep Date:		Analysis D	Date: 12	2/9/2015	S	SeqNo: 9	38935	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Brom	nofluorobenzene	23		20.00		117	65	127			
Sample ID	100NG BTEX LCS	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	LCSW	Batch	h ID: B3	0727	R	RunNo: 3	0727				
Prep Date:		Analysis D	Date: 12	2/9/2015	S	eqNo: 9	38936	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		20	1.0	20.00	0	102	80	120			
Toluene		19	1.0	20.00	0	95.9	80	120			
Ethylbenzene		20	1.0	20.00	0	101	80	120			
Xylenes, Total		59	2.0	60.00	0	97.9	80	120			
Surr: 4-Brom	nofluorobenzene	28		20.00		141	65	127			S
Sample ID	5ML RB	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	PBW	Batch	n ID: C3	0766	R	anNo: 3	0766				
Prep Date:		Analysis D	Date: 12	2/10/2015	S	eqNo: 9	39775	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Brom	ofluorobenzene	25		20.00		125	65	127			
Sample ID	100NG BTEX LCS	SampT	ype: LC	S	Test	Code: El	PA Method	8021B: Volat	iles		
Client ID:	LCSW	Batch	n ID: C3	0766	R	unNo: 3	0766				
onone ib.		Analysis F	Date: 12	2/10/2015	S	eqNo: 9	39776	Units: µg/L			
Prep Date:		Analysis									
		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Prep Date: Analyte				SPK value 20.00	SPK Ref Val 0	%REC 95.4	LowLimit 80	HighLimit 120	%RPD	RPDLimit	Qual
Prep Date:		Result	PQL						%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
- R RPD outside accepted recovery limits
- 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 Detection Limit

1512205 11-Dec-15

WO#:

Page 3 of 3

HALL ENVIRONMENTAL ANALYSIS LABORATORY		4901 nerque 4X: 50	Hawkins NF: 2. NM 87109 05-345-4107	Sar	nple Log-In (Check List
Client Name: BLAGG	Work Order Number: 1	5122	05		RcptNo	p: 1
Received by/date:	12/04/15					
Logged By: Joe Archuleta 12	/4/2015 8:00:00 AM					
Completed By: Joe Archuleta 12	/4/2015 11:09:58 AM		× 3	Ŷ		
Reviewed By:	12/04/15					
Chain of Custody						
1. Custody seals intact on sample bottles?		Yes		No	Not Present	3
2. Is Chain of Custody complete?		Yes		No []	Not Present]
3. How was the sample delivered?		Cour	er			
<u>Log In</u>						
4. Was an attempt made to cool the samples?		Yes		No	NA	
5. Were all samples received at a temperature of	>0° C to 6.0°C	Yes		No []	NA 🗆]
6. Sample(s) in proper container(s)?		Yes		No	ļ	
7. Sufficient sample volume for indicated test(s)?		Yes		No		
$\boldsymbol{8}_{\cdot}$ Are samples (except VOA and ONG) properly \boldsymbol{p}	preserved?	Yes		No []		_
9. Was preservative added to bottles?		Yes	[]	No 🕷	NA	<u> </u>
10.VOA vials have zero headspace?		Yes	[_]	No []	No VOA Vials 🖌	Ð
11. Were any sample containers received broken?	,	Yes		No 🗖	# of preserved	
					bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes		No	for pH: (<	2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Cu	istody?	Yes		No []	Adjusted?	
14. Is it clear what analyses were requested?		Yes		No []		
15. Were all holding times able to be met?		Yes		No	Checked by	<i>1</i> .
(If no, notify customer for authorization.)						
16. Was client notified of all discrepancies with this	order?	Yes		No []	NA	
Person Notified:	Date:			terior theodo to	-	
By Whom:	Via:	eMa	il 📑 Phon	e [] Fa	x in Person	
Regarding:			[_]		x ()	
Client Instructions:	.). الدين من التي <u>منذ كلم بمومن ال</u> اد مور ما الله موريد.		كالمطحابين وتشتمش ووجعا تشتري		ىرىىيە بىرىمان قورومانىڭ بورىمىغ بوس	
17. Additional remarks:						
18. <u>Cooler Information</u>						
	Intact Seal No Se	eal Da	ate Sig	ned By	-	

hain-	of-Cus	stody Record	Turn-Around T	ime:				5	F	łA	ш	E	NV	/TF	20	N	МΕ	NT		L	
BLA	GG ENGR.	/ BP AMERICA	Standard	Rush		Г		5	_			_			-		R/				
			Project Name:												ntal						
ddress:	P.O. BO	X 87	- i	RVIN COM	# 1E		49	01 ⊦									3710	9			
	BLOOM	FIELD, NM 87413	Project #:)5-34						-345						
	(505) 63	2-1199	1				1.11					1. (m.			ques						
Fax#:			Project Manag	er:									-				E.				
ackage: dard		Level 4 (Full Validation)		JEFF BLAG	G	48's (8021B)	only)	MRO)			IS)		04,SO4	PCB's			er - 300.1)			a	
ation:			Sampler:	NELSON VE	ELEZ 97V	8 (8)	(Gas	RO /	1)	1)	SIN		102,4	3082			/ water			sample	
P	Other		On Ice:	X Yes	🗆 No		Hd1	0/0	418.1)	504.	8270SIMS)	5	0 ^{3, N}	3 / Sc		(VC	0.00				(N)
Type)	1		Sample Tempe	erature: 1, 3			BE +	(GR(por	pou		etal	CI,N	icide	(Y)	ni-V(oil - 3		ble	posit	(γ ο
Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MIT	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO	TPH (Method	EDB (Method 504.1)	PAH (8310 or	RCRA 8 Metals	Anions [F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil - 300.0 /		Grab sample	5 pt. composite	Air Bubbles (Y or N)
1400	WATER	MW # 4	40 ml VOA - 2	HCI & Cool	-001	٧													٧		
1500	WATER	MW # 6	40 ml VOA - 2	HCI & Cool	-002	٧													V		
																				_	
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Tarr	Balinaulat	ad hur	Perchadibus		Data Time	0															
Time:	Relinquish	In J	Received by:	att	Date Time	BI		RECT	TLY T								_				
Time:	Relinquish	ed by: () the Califs	Received by:	1.04 12	Date Time 104/15 0800		00 Er D:	-	у Со <u>НІХ(</u>			-	ton,	ΝM	874	01 /	Attn.	: S. N	losk	al	
1 117	1 QV		Mrc. C	10 14	04/15 0000												-	e helena	-		



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

January 25, 2016

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 320-1183 FAX

RE: Irvin Com #1E

OrderNo.: 1601778

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/21/2016 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 <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

ander

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1601778** Date Reported: **1/25/2016**

CLIENT: Blagg Engineering Project: Irvin Com #1E	Client Sample ID: MW #6 Collection Date: 1/20/2016 3:40:00 PM											
Lab ID: 1601778-001	Matrix:	AQUEOUS	Received	Date: 1/2	1/2016 8:15:00 AM							
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch						
EPA METHOD 8021B: VOLATILES					Analyst	NSB						
Benzene	ND	2.0	µg/L	2	1/22/2016 4:45:22 PM	A31631						
Toluene	ND	2.0	µg/L	2	1/22/2016 4:45:22 PM	A31631						
Ethylbenzene	14	2.0	µg/L	2	1/22/2016 4:45:22 PM	A31631						
Xylenes, Total	450	100	µg/L	50	1/22/2016 3:31:28 PM	A31631						
Surr: 4-Bromofluorobenzene	150	65-127	S %REC	2	1/22/2016 4:45:22 PM	A31631						

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 1 of 2
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	rage rorz
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix			

QC SUMMARY REPORT	
Hall Environmental Analysis Laboratory, Inc.	

Client: Blagg Engineering **Project:** Irvin Com #1E

•											
Sample ID SML RB SampType: MBLK TestCode: EPA Method 8021B: Volatiles											
Client ID: P	РВW	Batch	n ID: A3	1631	F	RunNo: 3	1631				
Prep Date:		Analysis D)ate: 1/	22/2016	5	SeqNo: 9	67908	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Bromofl	luorobenzene	20		20.00		100	65	127			
Sample ID 1	00NG BTEX LCS	SampT	ype: LC	s	Tes	tCode: E	PA Method	8021B: Volati	iles		
Client ID: L	.CSW	Batch	n ID: A3	1631	F	RunNo: 3	1631				
Prep Date:		Analysis D	ate: 1/	22/2016	S	BeqNo: 9	67909	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		20	1.0	20.00	0	98.3	80	120			
Toluene		20	1.0	20.00	0	101	80	120			
Ethylbenzene		19	1.0	20.00	0	96.0	80	120			
Xylenes, Total		60	2.0	60.00	0	100	80	120			
Surr: 4-Bromofi	luorobenzene	24		20.00		120	65	127			
Sample ID 1	601778-001AMS	SampT	ype: MS	6	Tes	tCode: E	PA Method	8021B: Volati	iles		
Client ID: M	NW #6	Batch	n ID: A3	1631	R	RunNo: 3	1631				
Prep Date:		Analysis D	ate: 1/	22/2016	S	SeqNo: 9	67922	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1000	50	1000	0	103	50.9	146			
Toluene		1100	50	1000	0	108	71.7	136			
Ethylbenzene		1000	50	1000	16.00	103	74.2	132			
Xylenes, Total		3700	100	3000	452.3	109	75.7	130			
Surr: 4-Bromofl	luorobenzene	1200		1000		117	65	127			
Sample ID 1	601778-001AMSD	SampT	ype: MS	SD	Tes	tCode: E	PA Method	8021B: Volati	les		
Client ID: M	/IW #6	Batch	n ID: A3	1631	RunNo: 31631						
Prep Date:		Analysis D	ate: 1/	22/2016	S	eqNo: 9	67923	Units: µg/L			

Prep Date:	Analysis D	Date: 1/	22/2016	SeqNo: 967923			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1000	50	1000	0	102	50.9	146	1.56	20	
Toluene	1100	50	1000	0	108	71.7	136	0.390	20	
Ethylbenzene	1000	50	1000	16.00	102	74.2	132	0.615	20	
Xylenes, Total	3700	100	3000	452.3	108	75.7	130	1.39	20	
Surr: 4-Bromofluorobenzene	1200		1000		119	65	127	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits J
- Р Sample pH Not In Range
- RL Reporting Detection Limit

WO#: 1601778

Page 2 of 2

HALL ENVIRONMENTAL ANALYSIS LABORATORY	TEL: 505-345-3975	4901 Hawkins NE querque, NM 87109	Sam	ple Log-In C	heck List
Client Name: BLAGG	Work Order Number:	1601778		ReptNo	1
Received by/date	01/21/14				
Logged By: Michelle Garcia	1/21/2016 8:15:00 AM	7	Mirue Ga Mirue Ga	une	
Completed By: Michelle Garcia	1/21/2016 p:31:15 AM	-	Mirell Ga	ruia	
Reviewed By:	01/21/11	P			
Chain of Custody	, ,				
1. Custody seals intact on sample bottles?		Yes	No	Not Present V	
2. Is Chain of Custody complete?		Yes 🖌	No	Not Present	
3. How was the sample delivered?		Courier			
Log In					
 Was an attempt made to cool the samples? 	2	Yes 🖌	No	NA	
 was an altempt made to cool the samples. 	f.	ies v			
5. Were all samples received at a temperature	of >0° C to 6.0°C	Yes 🗸	No	NA	
6. Sample(s) in proper container(s)?		Yes 🗸	No		
7. Sufficient sample volume for indicated test(s)7	Yes 🗸	No		
8. Are samples (except VOA and ONG) proper	rly preserved?	Yes 🗸	No		
9. Was preservative added to bottles?		Yes	No 🗸	NA	
10. VOA vials have zero headspace?		Yes 🖌	No	No VOA Vials	
11. Were any sample containers received broke	en?	Yes	No 🗸	# of preserved	
12. Does paperwork match bottle labels?		Yes 🗸	No	bottles checked for pH:	a > 12 union a stady
(Note discrepancies on chain of custody) 13. Are matrices correctly identified on Chain of	Custody2	Yes 🗸	No	Adjusted?	or >12 unless noted)
14. Is it clear what analyses were requested?	ousiod) i	Yes 🖌	No		
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No	Checked by:	
Special Handling (if applicable)					
16. Was client notified of all discrepancies with	this order?	Yes	No	NA V	
Person Notified:	Date				
By Whom	Via:	eMail Pho	ne Fax	In Person	
Regarding:					
Client Instructions:					
17. Additional remarks:					

18. Cooler Information

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

Chain-of-Custody Record			Turn-Around T	ime:					н	A	LL	E	NV		20	N	ИE	NT	AL		
lient:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush			2011											то		r
				Project Name:					12.5			w.ha									
/ailing Au	ddress:	P.O. BO	X 87		RVIN COM	# 1F		40	<u>о</u> 1 ц									7109	2		
		the second s		Project #:	com com														,		
			FIELD, NM 87413	-			it St.	IE	1.50)5-34	15-3	1	2 6 4 4 4	No. of Lot	No.		-410		1 1		10000
'hone #:		(505) 63	2-1199	Decision			Lenis			in the		4	nai	ysis	Rec	ques	ST.	12			
email or F				Project Manag	er:									04)	s			300.1)			
AVQC Pa			Level 4 (Full Validation)	JEFF BLAGG			MB¹9 (8021B)	021B) only) (MRO)						PO4,5	2 PCB's					0	
Accreditat	tion:			Sampler: NELSON VELEZ NY			8) 6	+ TPH (Gas	DRO /	1)	.1)	8270SIMS)		VO2,	8082			/ water		sample	2
D NELAP	, ,	D Other		On Ice: XYes DNo			140	TPH	~	418	504.1)	827(O3, h			(AC	300.0			Î
EDD (Type)			Sample Tempe	erature: 1.0				(GR(po	pou	or	etals	CI'N	cide	(A)	i-V		4	osit	(^ O
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX +MTB	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method	PAH (8310 or	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	Chloride (soil	Cerb com	5 pt. composite	
1/20/16	1540	WATER	MW # 6	40 ml VOA - 2	HCI & Cool	-001	V													1	
																				-	+
																				+	+
																				+	
																-				+	+
															-	-	-			+	+
															-	-					
														-		-	-		-	+	+
								-					-	-	-		-			+	+
													-	-	-	-	-			+-	+
Date:	Time:	Relinquishe	ad by:	Received by:		Date Time	Ron	nark	<u> </u>							1					
1/20/16	1819	M	la y	Pur Wal	lb	120/16/819	BI	LL DI	RECT				ning	ton.	NM	874	01 /	Attn.:	: S. Ma	oskal	
Date:	Time: [844	Relinquishe	hut Walle	Received by:	it of	Date Time 121/16 0.915	VI	D: <u>V</u>	HIXO	NEV	RM	WB	IS Ele	eme	nt: L	1-00	136-	E:IRV	INCON	11E	-



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

March 14, 2016

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: Irvin Com #1E

OrderNo.: 1603536

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/10/2016 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 <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1603536** Date Reported: **3/14/2016**

CLIENT: Blagg Engineering Project: Irvin Com #1E Lab ID: 1603536-001	Client Sample ID: MW # 4 Collection Date: 3/9/2016 10:40:00 AM Matrix: AQUEOUS Received Date: 3/10/2016 7:25:00 AM									
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch				
EPA METHOD 8021B: VOLATILES					Analyst	NSB				
Benzene	ND	1.0	µg/L	1	3/10/2016 6:13:55 PM	D32696				
Toluene	ND	1.0	µg/L	1	3/10/2016 6:13:55 PM	D32696				
Ethylbenzene	ND	1.0	µg/L	1	3/10/2016 6:13:55 PM	D32696				
Xylenes, Total	ND	2.0	µg/L	1	3/10/2016 6:13:55 PM	D32696				
Surr: 4-Bromofluorobenzene	114	65-127	%Rec	1	3/10/2016 6:13:55 PM	D32696				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 3
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1603536** Date Reported: **3/14/2016**

CLIENT: Blagg Engineering Project: Irvin Com #1E	Client Sample ID: MW # 6 Collection Date: 3/9/2016 11:40:00 AM										
Lab ID: 1603536-002	Matrix:	AQUEOUS	contention	Date: 3/10/2016 7:25:00 AM							
Analyses	Result	PQL Qu	al Units	DF Date Analyzed	Batch						
EPA METHOD 8021B: VOLATILES				Analys	t: NSB						
Benzene	ND	1.0	µg/L	1 3/10/2016 6:38:14 PM	D32696						
Toluene	ND	1.0	µg/L	1 3/10/2016 6:38:14 PM	D32696						
Ethylbenzene	2.2	1.0	µg/L	1 3/10/2016 6:38:14 PM	D32696						
Xylenes, Total	83	2.0	µg/L	1 3/10/2016 6:38:14 PM	D32696						
Surr: 4-Bromofluorobenzene	130	65-127	S %Rec	1 3/10/2016 6:38:14 PM	D32696						

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 3
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Client: Blagg Engineering **Project:** Irvin Com #1E

Sample ID 5ML RB	SampT	ype: ME	BLK	Tes	Code: E	PA Method	8021B: Volat	iles		
Client ID: PBW	Batch	n ID: D3	2696	R	unNo: 3	2696				
Prep Date:	Analysis D	ate: 3/	10/2016	S	eqNo: 1	001389	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	22		20.00		110	65	107			
Sun. 4-bromonuorobenzene	22		20.00		110	60	127			
Sample ID 100NG BTEX LCS		ype: LC		Tesi			8021B: Volat	iles		
	SampT	ype: LC	S			PA Method		iles		
Sample ID 100NG BTEX LCS	SampT	n ID: D3	S 2696	R	Code: E	PA Method 2696		iles		
Sample ID 100NG BTEX LCS Client ID: LCSW	SampT Batch	n ID: D3	S 2696 10/2016	R	Code: El	PA Method 2696	8021B: Volat	iles %RPD	RPDLimit	Qual
Sample ID 100NG BTEX LCS Client ID: LCSW Prep Date:	SampT Batch Analysis D	n ID: D3 Date: 3/	S 2696 10/2016	R	Code: El tunNo: 3 teqNo: 1	PA Method 2696 001390	8021Β: Volat Units: μg/L		RPDLimit	Qual
Sample ID 100NG BTEX LCS Client ID: LCSW Prep Date: Analyte	5 SampT Batch Analysis D Result	n ID: D3 Pate: 3/ PQL	S 2696 10/2016 SPK value	R S SPK Ref Val	Code: El lunNo: 3 leqNo: 1 %REC	PA Method 2696 001390 LowLimit	8021Β: Volat Units: μ g/L HighLimit		RPDLimit	Qual
Sample ID 100NG BTEX LCS Client ID: LCSW Prep Date: Analyte Benzene Toluene	SampT Batch Analysis D Result 18	n ID: D3 Date: 3/ PQL 1.0	S 2696 10/2016 SPK value 20.00	R S SPK Ref Val 0	Code: El tunNo: 3 teqNo: 1 %REC 89.6	PA Method 2696 001390 LowLimit 80	8021Β: Volat Units: μg/L HighLimit 120		RPDLimit	Qual
Sample ID 100NG BTEX LCS Client ID: LCSW Prep Date: Analyte Benzene	5 SampT Batch Analysis D Result 18 19	Date: 3/ PQL 1.0 1.0	S 2696 10/2016 SPK value 20.00 20.00	R S SPK Ref Val 0 0	Code: El JunNo: 3 JeqNo: 1 %REC 89.6 94.1	PA Method 2696 001390 LowLimit 80 80	8021B: Volat Units: μ g/L HighLimit 120 120		RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Η
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- 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 Detection Limit
- W Sample container temperature is out of limit as specified

Page 3 of 3

WO#: 1603536

14-Mar-16

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name:	BLAGG	Work Order Number:	1603536		RcptNo:	1
Received by/date	e: 37	03/10/16				
Logged By:	Lindsay Mangin	3/10/2016 7:25:00 AM		Junky Hopp		
Completed By:	Lindsay Mangin	3/10/2016 9:13:49 AM		Junky Hlopp		
Reviewed By:	Ch	03/10/16				
Chain of Cus	tody					
1. Custody sea	Is intact on sample b	ottles?	Yes	No 🗌	Not Present 🗹	
2. Is Chain of C	Sustody complete?		Yes 🖌	No 🗌	Not Present	
3. How was the	sample delivered?		Courier			
Log In						
	mpt made to cool the	e samples?	Yes 🗹	No 🗌	NA 🗌	
5. Were all sam	nples received at a te	emperature of >0° C to 6.0°C	Yes 🔽	No	NA	
6. Sample(s) in	n proper container(s)?	?	Yes 🔽	No		
7. Sufficient sar	mple volume for indic	cated test(s)?	Yes 🗹	No 🗌		
8. Are samples	(except VOA and ON	VG) properly preserved?	Yes 🗹	No 🗌		
9. Was preserv	ative added to bottles	s?	Yes 🗌	No 🗹	NA	
10. VOA vials ha	ave zero headspace?		Yes 🗸	No 🗌	No VOA Vials	
11. Were any sa	ample containers rece	eived broken?	Yes	No 🗹	# of proposed	
	vork match bottle labe pancies on chain of c		Yes 🗹	No 🗆	# of preserved bottles checked for pH: (<2 or	>12 unless noted)
	correctly identified o		Yes 🔽	No 🗌	Adjusted?	
	at analyses were req		Yes 🖌	No 🗌		
15. Were all hold	ding times able to be customer for authoriz	met?	Yes 🗹	No 🗌	Checked by:	
Special Hand	lling (if applicab	le)				
	otified of all discrepa		Yes 🗌	No 🗌	NA 🗹	
Persor	n Notified:	Date		51560 8 at 1 at		
By Wh	iom:	Via:	eMail	Phone Fax	In Person	
Regard	ding:		E E . Z. Hot of Fich & Ada D	THE OWNER OF ALL THE THE THE THE AND	N & DAY I THE REPORT OF AN ADDRESS PROVIDED BY	
Client	Instructions:		<u></u>	1911		
17. Additional re	emarks:					
18. Cooler Info	ormation					
Cooler No	1 1	dition Seal Intact Seal No	Seal Date	Signed By		
1	1.0 Good	Yes				
Page 1 or	f 1	a harana ang Parandan sa Sanadan s	<u> </u>		<u> </u>	

С	hain-c	of-Cus	stody Record	Turn-Around T	ime:			I	1 1	F	A	LL	E	NV	/16	20	N	MЕ	NT	AL	_
Client:	BLAG	G ENGR.	/ BP AMERICA	K. Standard	Rush				F	_									TC		
				Project Name:					194					viro							
Vailing A	ddress:	P.O. BO	X 87	1 1	RVIN COM	# 1E		49	01 F										2		
			FIELD, NM 87413	Project #:							Fax 505-345-4107										
hone #:		(505) 63		-				7	1. 50	55-5-	49-3			ysis		trans.					
email or F	ax#:	(505) 05		Project Manager:												1 11.5	dista - 2				
AVQC Pa	ckage:		Level 4 (Full Validation)	JEFF BLAGG			1815 (8021B)	only)	MRO)			S)		04,504)	PCB's			er - 300.1)			
Accreditat				Sampler:	NELSON VI	ELEZ nr	• (80	Gas	DRO /	1	1)	8270SIMS)		0 ₂ ,P	8082			water			nple
		□ Other		On Ice: Urres DNo			1	TPH (Gas	~	418.1)	04.	270		N,E	1		A)	0.0			Sal
	Гуре)			Sample Temp		新國主義主	1	+	GRO	od 4	od 5	or 8	tals	NC NC	cides	A	01-	1 - 30		: ا <u>به</u>	osite
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MIB	BTEX + MTBE	TPH 8015B (GRO	TPH (Method	EDB (Method 504.1)	PAH (8310 or	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)	Chloride [soil - 300.0		Grab sample	5 pt. composite sample Air Bubbles (Y or M)
3/9/16	1040	WATER	MW # 4	40 ml VOA - 2	HCI & Cool	-001	V													V	
																			-		
3/9/16	1140	WATER	MW # 6	40 ml VOA - 2	HCI & Cool	-002	٧													v	
															1						
Date	Time	Relinquish	ed by:	Received by:		Date Time	Rer	nark	s:		I	I		1	1	1					
3/9/16 1427 Min J			Christin	wheten	3/9/10 1427				Cour			ngtor	. NN	1874	101	Attr	n.: Jo	hn Rit	tchie	e	
Date: 3/9/16	Time: [8]4	Relinquish	bt Walter	Received by:	Colact 031	Date Time 10/16 0725		D:		VRIT				_							



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

June 29, 2016

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: Irvin Com 1E

OrderNo.: 1606C20

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/22/2016 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 <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

ander

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1606C20** Date Reported: **6/29/2016**

CLIENT: Blagg Engineering Project: Irvin Com 1E	Client Sample ID: MW #4 Collection Date: 6/21/2016 7:15:00 AM									
Lab ID: 1606C20-001				ved Date: 6/22/2016 8:10:00 AM						
Analyses	Result	PQL Qual	Units	DF	Date Analyzed	Batch				
EPA METHOD 8260: VOLATILES S	HORT LIST				Analyst	DJF				
Benzene	ND	1.0	µg/L	1	6/26/2016 9:42:22 PM	C35190				
Toluene	ND	1.0	µg/L	1	6/26/2016 9:42:22 PM	C35190				
Ethylbenzene	ND	1.0	µg/L	1	6/26/2016 9:42:22 PM	C35190				
Xylenes, Total	ND	1.5	µg/L	1	6/26/2016 9:42:22 PM	C35190				
Surr: 1,2-Dichloroethane-d4	102	70-130	%Rec	1	6/26/2016 9:42:22 PM	C35190				
Surr: 4-Bromofluorobenzene	105	70-130	%Rec	1	6/26/2016 9:42:22 PM	C35190				
Surr: Dibromofluoromethane	100	70-130	%Rec	1	6/26/2016 9:42:22 PM	C35190				
Surr: Toluene-d8	91.9	70-130	%Rec	1	6/26/2016 9:42:22 PM	C35190				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 4
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1606C20

Date Reported: 6/29/2016

Hall Environmental Analysis Laboratory, Inc.

ale ID: MW #6

CLIENT: Blagg Engineering Project: Irvin Com 1E Lab ID: 1606C20-002	Matrix:	AQUEOUS		contention	Date: 6/2	W #6 21/2016 8:20:00 AM 22/2016 8:10:00 AM	
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES S	HORT LIST					Analyst	DJF
Benzene	ND	1.0		µg/L	1	6/26/2016 10:10:46 PM	C35190
Toluene	4.3	1.0		µg/L	1	6/26/2016 10:10:46 PM	C35190
Ethylbenzene	15	1.0		µg/L	1	6/26/2016 10:10:46 PM	C35190
Xylenes, Total	920	15		µg/L	10	6/27/2016 3:06:57 PM	B35244
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%Rec	1	6/26/2016 10:10:46 PM	C35190
Surr: 4-Bromofluorobenzene	131	70-130	S	%Rec	1	6/26/2016 10:10:46 PM	C35190
Surr: Dibromofluoromethane	89.7	70-130		%Rec	1	6/26/2016 10:10:46 PM	C35190
Surr: Toluene-d8	98.6	70-130		%Rec	1	6/26/2016 10:10:46 PM	C35190

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 4
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Client: Blagg Engineering Project: Irvin Com 1E

rroject: nvin C									
Sample ID rb	SampType: N	IBLK	Tes	tCode: E	PA Method	8260: Volatile	es Short L	_ist	
Client ID: PBW	Batch ID: C	35190	RunNo: 35190						
Prep Date:	Analysis Date:	6/26/2016	5	SeqNo: 1	088895	Units: µg/L			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND 1.0)							
Toluene	ND 1.0)							
Ethylbenzene	ND 1.0)							
Xylenes, Total	ND 1.5	5							
Surr: 1,2-Dichloroethane-d4	10	10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10	10.00		101	70	130			
Surr: Dibromofluoromethane	9.9	10.00		98.6	70	130			
Surr: Toluene-d8	9.1	10.00		91.4	70	130			
Sample ID 100ng Ics	SampType: L	CS	Tes	tCode: E	PA Method	8260: Volatile	es Short L	_ist	
Client ID: LCSW	Batch ID: C	35190	F	RunNo: 3	5190				
Prep Date:	Analysis Date:	6/26/2016	9	SeqNo: 1	089164	Units: µg/L			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23 1.0	20.00	0	114	70	130			
Toluene	20 1.0	20.00	0	99.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.8	10.00		98.2	70	130			
Surr: 4-Bromofluorobenzene	10	10.00		101	70	130			
Surr: Dibromofluoromethane	9.8	10.00		97.6	70	130			
Surr: Toluene-d8	9.3	10.00		93.3	70	130			
Sample ID rb	SampType: N	IBLK	Tes	tCode: E	PA Method	8260: Volatile	es Short L	ist	
Client ID: PBW	Batch ID: B	35244	F	RunNo: 3	5244				
Prep Date:	Analysis Date:	6/27/2016	5	SeqNo: 1	089959	Units: µg/L			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND 1.5	5							
Surr: 1,2-Dichloroethane-d4	9.8	10.00		98.2	70	130			
Surr: 4-Bromofluorobenzene	10	10.00		99.8	70	130			
Surr: Dibromofluoromethane	9.9	10.00		98.7	70	130			
Surr: Toluene-d8	9.4	10.00		93.9	70	130			
Sample ID 100ng Ics	SampType: L	CS	Tes	tCode: El	PA Method	8260: Volatile	es Short L	ist	
Client ID: LCSW	Batch ID: B	35244	F	RunNo: 3	5244				
Prep Date:	Analysis Date:	6/27/2016	S	SeqNo: 1	089960	Units: %Rec	:		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.7	10.00		96.7	70	130			
Surr: 4-Bromofluorobenzene	10	10.00		99.5	70	130			
Surr: Dibromofluoromethane	9.9	10.00		99.1	70	130			

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
- R RPD outside accepted recovery limits
- 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
- Page 3 of 4

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: 1606C20 29-Jun-16

Client: Blagg Engineering Irvin Com 1E **Project:**

Sample ID 100ng Ics	SampType: L	CS	Tes	Code: El	PA Method	8260: Volatile	es Short L	.ist	
Client ID: LCSW	Batch ID: B	35244	R	unNo: 3	5244				
Prep Date:	Analysis Date:	6/27/2016	S	eqNo: 1	089960	Units: %Red	;		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	9.1	10.00		90.9	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

TALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	BLAGG	Work Order Numbe	r: 1606C20		RcptNo:	1
Received by/dat	te:	00/22	10			
Logged By:	Ashley Gallegos	6/22/2016 8:10:00 AM	1	AF		
Completed By:	Ashley Gallegos	6/22/2016 12:22:44 P	M	AF		
Reviewed By:	IO	06/22/16		U		
Chain of Cus	stody	001-01-				
1. Custody sea	als intact on sample bott	es?	Yes	No 🗌	Not Present	
2. Is Chain of (Custody complete?		Yes 🖌	No	Not Present	
3. How was the	e sample delivered?		Courier			
Log In						
4. Was an atte	empt made to cool the sa	amples?	Yes 🗹	No 🗌	NA 🗌	
5. Were all sar	mples received at a temp	perature of >0° C to 6.0°C	Yes ⊻	No 🗌		
6. Sample(s) i	in proper container(s)?		Yes 🖌	No		
7. Sufficient sa	ample volume for indicate	ed test(s)?	Yes 🗹	No		
8. Are samples	s (except VOA and ONG) properly preserved?	Yes 🗹	No 🗌		
9. Was presen	vative added to bottles?		Yes	No 🗹	NA 🗌	
10.VOA vials h	ave zero headspace?		Yes 🗸	No	No VOA Viais	
11. Were any s	ample containers receive	ed broken?	Yes	No 🗹	# of preserved	
12.Does paper	work match bottle labels	?	Yes 🗸	No 🗌	bottles checked for pH:	
(Note discre	epancies on chain of cust	tody)		_		r >12 unless noted)
13. Are matrices	s correctly identified on C	Chain of Custody?	Yes 🖌	No	Adjusted?	
	hat analyses were reque		Yes 🗹	No	0	
	Iding times able to be me customer for authorizati		Yes 🗹	No	Checked by:	
Special Hand	dling (if applicable)				_	
16. Was client r	notified of all discrepance	es with this order?	Yes	No 🗌	NA 🗹	7
Perso	n Notified:	Date				
By WI	hom:	Via:	eMail	Phone 🗌 Fax	In Person	
Regar	rding:				and any construction of a second s	
Client	Instructions:					
17. Additional r	remarks:					-

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.3	Good	Yes			

C	Chain-of-Custody Record			Turn-Around T	ime:		ſ	T	I I	н			E	NV	TR	20	N	E	NT		L
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush														ATC		
	· · · · · · · · ·	1,		Project Name:										viror							
Mailing A	ddress:	P.O. BO	X 87	- 	RVIN COM	# 1E		49	01 H					ouque					9		
			FIELD, NM 87413	Project #:	Project #:			Tel. 505-345-3975 Fax 505-345-4107													
vhone #:		(505) 63		1									-	ysis							
email or F	ax#:			Project Manag	roject Manager:																T
	/QC Package: Level 4 (Full Validation)		JEFF BLAGG		0'o (8021B)	(yluc	/ MRO)			5)		04,SO4									
Accreditat				Sampler:	NELSON VI	ELEZ 97V	(80)	Gas (1/0	-	-	SIM		D2,P				nce			nple
		□ Other		On Ice:			ł	+ TPH (Gas only)	/ DRO	18.1	04.1	270) ^{3,} N(olids		A)	Bala			sar N)
				Sample Temp			1	E + T	GRO	od 4	od 5	or 8	tals	I'NC	red S	A)	07-	ions		e	osite (V or
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. NONGC2D	BTEXMTB	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		Grab sample	5 pt. composite sample Air Bubbles (Y or N)
6/8/16	0715	WATER	MW # 4	40 ml VOA - 2	HCI & Cool	-001	V													V	
~																					
6/8/16	0820	WATER	MW # 6	40 ml VOA - 2	HCI & Cool	-002	۷													V	
		1																		1	
																				1	-
			Turner 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																	1	
											-										
											_									-	
)ate: ;/z//16	Time: 2510	Relinquish	the J	Received by: Mustur	e Welter	Date Time 1/21/16 2010	ві		RECT								L	I		k	
Date:	Time:	Relinquish	ed by:	Received by:	1 4 4	Date Time								, NM	874	01	Attr	ol::Jo	hn R	itchi	е
121/10	ZO40	1/JM	IST Walte	M.C. G	alert 06	2 7/6 09/0 as. This serves as notice of		D:		VDR				dil bo		Inctat	od on	the en	alvtical	renor	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

September 02, 2016

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: Irvin Com #1E

OrderNo.: 1608H58

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/31/2016 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 <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1608H58** Date Reported: **9/2/2016**

CLIENT: Blagg Engineering Project: Irvin Com #1E Lab ID: 1608H58-001	Matrix:	AQUEOUS	controll .	Date: 8/3	W#4 30/2016 11:00:00 AM 31/2016 7:20:00 AM	
Analyses	Result	PQL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES S	HORT LIST				Analys	t: DJF
Benzene	ND	1.0	µg/L	1	9/1/2016 1:31:53 PM	SLW369
Toluene	ND	1.0	µg/L	1	9/1/2016 1:31:53 PM	SLW369
Ethylbenzene	ND	1.0	µg/L	1	9/1/2016 1:31:53 PM	SLW369
Xylenes, Total	ND	1.5	µg/L	1	9/1/2016 1:31:53 PM	SLW369
Surr: 1,2-Dichloroethane-d4	99.5	70-130	%Rec	1	9/1/2016 1:31:53 PM	SLW369
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	9/1/2016 1:31:53 PM	SLW369
Surr: Dibromofluoromethane	99.9	70-130	%Rec	1	9/1/2016 1:31:53 PM	SLW369
Surr: Toluene-d8	99.0	70-130	%Rec	1	9/1/2016 1:31:53 PM	SLW369

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 3
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1608H58** Date Reported: **9/2/2016**

CLIENT:Blagg EngineeringProject:Irvin Com #1ELab ID:1608H58-002	Matrix:	AQUEOUS	Control .	Date: 8/3	W#6 30/2016 12:00:00 PM 31/2016 7:20:00 AM	
Analyses	Result	PQL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES S	HORT LIST				Analyst	DJF
Benzene	ND	1.0	µg/L	1	9/1/2016 12:34:17 PM	SLW369
Toluene	ND	1.0	µg/L	1	9/1/2016 12:34:17 PM	SLW369
Ethylbenzene	4.6	1.0	µg/L	1	9/1/2016 12:34:17 PM	SLW369
Xylenes, Total	570	15	µg/L	10	9/1/2016 3:56:05 PM	SLW369
Surr: 1,2-Dichloroethane-d4	93.2	70-130	%Rec	1	9/1/2016 12:34:17 PM	SLW369
Surr: 4-Bromofluorobenzene	125	70-130	%Rec	1	9/1/2016 12:34:17 PM	SLW369
Surr: Dibromofluoromethane	89.3	70-130	%Rec	1	9/1/2016 12:34:17 PM	SLW369
Surr: Toluene-d8	98.2	70-130	%Rec	1	9/1/2016 12:34:17 PM	SLW369

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 3
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Client:	Blagg Engineering
Project:	Irvin Com #1E

Sample ID rb	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8260: Volatile	es Short L	_ist	
Client ID: PBW	Batch	n ID: SL	W36947	F	RunNo: 3	6947				
Prep Date:	Analysis D	ate: 9/	1/2016	S	SeqNo: 1	144999	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		99.7	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.7	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	9.8		10.00		97.9	70	130			
Sample ID 100ng lcs	SampT	ype: LC	S	Tes	tCode: E	PA Method	8260: Volatile	es Short L	.ist	
Client ID: LCSW	Batch	n ID: SL	W36947	F	RunNo: 3	6947				
Prep Date:	Analysis D	ate: 9/	1/2016	S	eqNo: 1	145000	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.6	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.1	70	130			
Surr: Dibromofluoromethane	10		10.00		99.5	70	130			
Surr: Toluene-d8	9.9		10.00		99.1	70	130			

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
- R RPD outside accepted recovery limits
- 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 Detection Limit
- W Sample container temperature is out of limit as specified

WO#: 1608H58

02-Sep-16

Page 3 of 3

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG	Work Order Numbe	er: 1608H58		RcptNo:	1
Received by/date: 1++ 08/=	zilla				
Logged By: Anne Thorne	8/31/2016 7:20:00 AI	VI	Anne Hom	-	
Completed By: Anne Thorne	8/31/2016		anne Am	~	
Reviewed By:	DX 31/14				
Chain of Custody	00,				
1. Custody seals intact on sample bottles	?	Yes	No 🗔	Not Present	
2. Is Chain of Custody complete?		Yes 🖌	No 🗌	Not Present	
3. How was the sample delivered?		Courier			
Log In					
4. Was an attempt made to cool the same	ples?	Yes 🗹	No 🗌	NA 🗔	
5. Were all samples received at a temper	rature of >0° C to 6.0°C	Yes 🗹	No	NA 🗌	
6. Sample(s) in proper container(s)?		Yes 🗹	No		
7. Sufficient sample volume for indicated	test(s)?	Yes 🗸	No 🗌		
8. Are samples (except VOA and ONG) p	properly preserved?	Yes 🗸	No 🗌		
9. Was preservative added to bottles?		Yes	No 🗹	NA	
10.VOA vials have zero headspace?		Yes 🔽	No 🗌	No VOA Vials 🗌	
11. Were any sample containers received	broken?	Yes	No 🗹	# of preserved	
			N- 🗖	bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custor	tv)	Yes 🔽	No	for pH: (<2 c	or >12 unless noted)
13. Are matrices correctly identified on Ch		Yes 🗹	No 🗌	Adjusted?	······
14. Is it clear what analyses were requested	ed?	Yes 🗹	No 🗌		
15. Were all holding times able to be met? (If no, notify customer for authorization		Yes 🗹	No 🗌	Checked by:	
(in no, notiny customer for authorization					
Special Handling (if applicable)					
16. Was client notified of all discrepancies	with this order?	Yes 🗌	No 🗌	NA 🗹	
Person Notified:	Date				
By Whom:	Via:	eMail	Phone E Fax	In Person	
Regarding:			an a set consideration of	·	
Client Instructions:	The second se	and the second	SATU MEANALY.		
17. Additional remarks:					
18. Cooler Information	50 F MD			-	
Cooler No Temp °C Condition		Seal Date	Signed By		
1 1.6 Good	Yes			-	

1

С	hain-o	of-Cus	stody Record	Turn-Around T	ime:			,	1	н	Δ		EN	IV	TR	0	NN	1E	NT	AL	
lient:	BLAG	G ENGR.	/ BP AMERICA	Standard	🗌 Rush _														TC		
				Project Name:					- 1.44		vwv	v.hal	lenv	iron	mei	ntal.	.com	ı			
1ailing A	ddress:	P.O. BO	X 87	1	RVIN COM	# 1E		49	01 H	awki	ns N	IE -	Albu	ique	erqu	ie, N	IM 8	7109	9		
	- 14.18.1 . DOM: A. DO	BLOOM	FIELD, NM 87413	Project #:				Te	el. 50	5-34	5-39	975	Fa	ax 5	505-	345	-410	7			
hone #:		(505) 63	2-1199	1								Ar	nalys	sis F	Req	ues	t				
mail or F	ax#:			Project Manag	er:						Τ		1.	4)							
A/QC Pa			Level 4 (Full Validation)		JEFF BLAG	G	B's (8021B)	only)	(MRO)			1S)		PO4,SO							υ
ccreditat		Other		Sampler: On Ice:	NELSON VE	ELEZ ???	1410-6	PH (Gas	/ DRO	18.1)	04.1)	8270SIMS)		03,NO2,	olids		A)	Balance			e sample
) EDD (Гуре)			AUDIONIC CONTRACTOR OF A CONTRACT OF A CONTR	erature:		I	E + T	GRO	od 4	od 5	or 8	tals	N,N	/ed S	(A)	2	ions		e le	(Y or
Date 30 P	Time Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALNO.	BTEX +-MTB	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance			a pt. composite se
B/29/16		WATER	MW # 4	40 mi VOA - 2	HCI & Cool	-001	٧			-										V	
30																					
3/ 28/ 16	12.00	WATER	MW # 6	40 mi VOA - 2	HCI & Cool	702	۷													V	
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ate:	Time:	Relinguishe	ed by:	Received by:		Date Time	Ren	nark	s:												
ate: \$/30/16	1710	70	In y	Christ	Walto	8/30/16 1710	BI	LL DI	RECT				44.5		074	01	A ++		hn Di	tahi-	
ate:	Time:	Relinquishe	Nort	Received by:	708	Date Time	20 VI			Court /DRII		_	ton,	NIVI	8/4	UI	Atth	i': 10	hn Ri	ichie	
2	17 10	any samples s	ubmitted to Hall Environmental may be s	ubcontracted to other	accredited laboratoria	c This server as notice of	this n	oeeihil	ity Ar	u cub c	ontra	atod d	ata will	l bo ol	loorly	notate	ad on t	the and	alutical	anot	

necessarv	samples submitted to Hall	Environmental may be s	bcontracted to other accre	edited laboratories. T	his serves as notice of this possibility.	Any sub-contracted data will be clearly notated of	on the analytical report.



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

December 27, 2016

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: IRVIN COM #1E

OrderNo.: 1612A49

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/20/2016 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 <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1612A49 Date Reported: 12/27/2016

CLIENT:Blagg EngineeringProject:IRVIN COM #1ELab ID:1612A49-001	Matrix:	C AQUEOUS		Date: 12	W #4 /19/2016 10:40:00 AM /20/2016 8:10:00 AM	
Analyses	Result	PQL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SI	HORT LIST				Analyst	RAA
Benzene	1.8	1.0	µg/L	1	12/21/2016 9:44:00 PM	SLW395
Toluene	ND	1.0	µg/L	1	12/21/2016 9:44:00 PM	SLW395
Ethylbenzene	ND	1.0	µg/L	1	12/21/2016 9:44:00 PM	SLW395
Xylenes, Total	ND	1.5	µg/L	1	12/21/2016 9:44:00 PM	SLW395
Surr: 1,2-Dichloroethane-d4	95.2	70-130	%Rec	1	12/21/2016 9:44:00 PM	SLW395
Surr: 4-Bromofluorobenzene	99.8	70-130	%Rec	1	12/21/2016 9:44:00 PM	SLW395
Surr: Dibromofluoromethane	93.6	70-130	%Rec	1	12/21/2016 9:44:00 PM	SLW395
Surr: Toluene-d8	99.2	70-130	%Rec	1	12/21/2016 9:44:00 PM	SLW395

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 o	f_4
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	T
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specifie	d

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1612A49** Date Reported: **12/27/2016**

CLIENT: Blagg Engineering Project: IRVIN COM #1E			Client Sampl Collection		W #6 /19/2016 11:40:00 A	М
Lab ID: 1612A49-002	Matrix:	AQUEOUS	Received	Date: 12/	/20/2016 8:10:00 AN	1
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES S	HORT LIST				Analy	st: RAA
Benzene	ND	2.0	µg/L	2	12/22/2016 12:40:00	PM SLW395
Toluene	ND	2.0	µg/L	2	12/22/2016 12:40:00	PM SLW395
Ethylbenzene	ND	2.0	µg/L	2	12/22/2016 12:40:00	PM SLW395
Xylenes, Total	9.5	3.0	µg/L	2	12/22/2016 12:40:00	PM SLW395
Surr: 1,2-Dichloroethane-d4	95.9	70-130	%Rec	2	12/22/2016 12:40:00	PM SLW395
Surr: 4-Bromofluorobenzene	104	70-130	%Rec	2	12/22/2016 12:40:00	PM SLW395
Surr: Dibromofluoromethane	94.7	70-130	%Rec	2	12/22/2016 12:40:00	PM SLW395
Surr: Toluene-d8	99.5	70-130	%Rec	2	12/22/2016 12:40:00	PM SLW395

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of	1
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	Ŧ
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

QC SUMMARY REPORT	
Hall Environmental Analysis Laboratory,	Inc.

Blagg Engineering

WO#:	1612A49
	27-Dec-16

Project: IRVIN	COM #1E								
Sample ID 100ng LCS	SampType: LCS		Test	Code: El	PA Method	8260: Volatile	es Short L	_ist	
Client ID: LCSW	Batch ID: SLW3	39559	R	unNo: 3	9559				
Prep Date:	Analysis Date: 12/21	1/2016	S	eqNo: 1	239951	Units: µg/L			
Analyte	Result PQL SI	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18 1.0	20.00	0	92.5	70	130			
Toluene	19 1.0	20.00	0	94.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.7	10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	10	10.00		101	70	130			
Surr: Dibromofluoromethane	9.5	10.00		94.6	70	130			
Surr: Toluene-d8	9.9	10.00		99.5	70	130			
Sample ID rb	SampType: MBLK	(Test	Code: EF	PA Method	8260: Volatile	es Short L	_ist	
Client ID: PBW	Batch ID: SLW3	39559	R	unNo: 3	9559				
Prep Date:	Analysis Date: 12/21	1/2016	S	eqNo: 12	239952	Units: µg/L			
Analyte	Result PQL SF	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND 1.0								
Toluene	ND 1.0								
Ethylbenzene	ND 1.0								
Xylenes, Total	ND 1.5								
Surr: 1,2-Dichloroethane-d4	9.8	10.00		98.0	70	130			
Surr: 4-Bromofluorobenzene	10	10.00		100	70	130			
Surr: Dibromofluoromethane	9.6	10.00		95.7	70	130			
Surr: Toluene-d8	10	10.00		100	70	130			
Sample ID 100ng Ics	SampType: LCS		Test	Code: EF	PA Method	8260: Volatile	es Short L	ist	
Client ID: LCSW	Batch ID: SLW3	9586	R	unNo: 39	9586				
Prep Date:	Analysis Date: 12/22	2/2016	S	eqNo: 12	240940	Units: µg/L			
Analyte	Result PQL SF	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19 1.0	20.00	0	95.8	70	130			
Toluene	20 1.0	20.00	0	99.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.5	10.00		95.0	70	130			
Surr: 4-Bromofluorobenzene	10	10.00		101	70	130			
Surr: Dibromofluoromethane	9.4	10.00		93.5	70	130			
Surr: Toluene-d8	10	10.00		99.6	70	130			
Sample ID rb	SampType: MBLK	(Test	Code: EF	PA Method	8260: Volatile	es Short L	.ist	
Client ID: PBW	Batch ID: SLW3	9586	R	unNo: 39	9586				
Prep Date:	Analysis Date: 12/22	2/2016	S	eqNo: 12	240943	Units: µg/L			
Analyte		PK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND 1.0								
Toluene	ND 1.0								

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
- R RPD outside accepted recovery limits
- 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
- Page 3 of 4

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Client: Blagg Engineering **Project: IRVIN COM #1E**

Sample ID rb	SampType: MBLK TestCode: EPA Method 8260: Volatiles Short List												
Client ID: PBW	Batch	ID: SL	W39586	F	RunNo: 3	9586							
Prep Date:	Analysis Date: 12/22/2016 SeqNo: 1240943 Units: μg/L												
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Ethylbenzene	ND	1.0											
Xylenes, Total	ND	1.5											
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130						
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130						
Surr: Dibromofluoromethane	9.2		10.00		92.5	70	130						
Surr: Toluene-d8	10		10.00		100	70	130						

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
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

- Value above quantitation range

- Page 4 of 4

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: BLAGG	Work Order Numb	er: 1612A49		RcptNo:	1
Received by/date: A G					
Logged By: Linds ey Concha	12/20/2016 8:10:00	AM			
Completed By: Lindsey Concha	12/20/16				
Reviewed By:	12/20/11				
Chain of Custody	10/10/116				
1. Custody seals intact on sample bottles?		Yes	No 🗌	Not Present	
2. Is Chain of Custody complete?		Yes 🖌	No 🗌	Not Present	
3. How was the sample delivered?		Courier			
Log In					
4. Was an attempt made to cool the samples?		Yes 🗹	No 🗌	NA 🗌	
5. Were all samples received at a temperature	of >0° C to 6.0°C	Yes 🔽	No	NA	
6. Sample(s) in proper container(s)?		Yes 🗸	No 🗌		
7. Sufficient sample volume for indicated test(s	:)?	Yes 🖌	No 🗌		
8. Are samples (except VOA and ONG) proper	ly preserved?	Yes 🔽	No 🗌		
9. Was preservative added to bottles?		Yes	No 🖌	NA	
10. VOA vials have zero headspace?		Yes 🗹	No 🗆	No VOA Vials	
11. Were any sample containers received broke	en?	Yes	No 🔽	# of preserved	
				bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No	for pH: (<2 or	>12 unless noted)
13. Are matrices correctly identified on Chain of	Custody?	Yes 🗹	No 🗌	Adjusted?	
14. Is it clear what analyses were requested?		Yes 🗹	No 🗌		
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🖌	No 🗌	Checked by:	
Special Handling (if applicable)					
16. Was client notified of all discrepancies with	this order?	Yes	No	NA 🗹	
Person Notified:	Date		ALL PARTY OF		
By Whom:	Via:	eMail P	hone 🗌 Fax	In Person	
Regarding:	and a stand of the second s			A	
Client Instructions:					

17. Additional remarks:

18. Cooler Information

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

State of the second state		THE COMPANY	tody Record	-						Η	A		EN	VI	RO	N	ME	NTA	L	
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	🗌 Rush					A	N	AL	YS.	IS	LA	BO	RA	TO	RY	,
				Project Name:				-		,	www	v.hall	lenvi	ronm	enta	l.con	n			
Mailing Ad	ddress:	P.O. BO	X 87	I	RVIN COM	# 1E		49	01 H	awki	ns N	E	Albu	quero	que, l	NM 8	37109			
		BLOOM	FIELD, NM 87413	Project #:			1	Τe	l. 50	5-34	5-39	975	Fa	x 50	5-345	5-410)7			
Phone #:		(505) 63	2-1199	1.									nalys	is Re	ques	st				
email or F	ax#:			Project Manag	er:	1649 da ¹							-	-						
QA/QC Pad	-				JEFF BLAG	G	18)	(ylı	MRO)				5	4,504						
Standa			Level 4 (Full Validation)				802	as or	1			WS)		D.			8		ple	
Accreditat				Sampler:	NELSON VE		MB¹5 (8021B)	H (6	DRO	8.1)	4.1)	8270SIMS)		DN I			alan		am	-
		□ Other		On lce:	the state of the s	AND A DESCRIPTION OF A		H	10	41	50	82	s s	L Sol		OA)	ns B		ite s	Dr N
	ype)		and the second	Sample Tempe	rature			BE	3 (GF	thoc	thoc	0.0	feta	in, U,	(YO	ni-\	atio	ple	sod	S (Y
Date	Time	Matrix	Sample Request ID	Container	Preservative	HEAL NO.	IŦ	LW +	015	Met	Met	831	8 2	Disse	BZ	(Sei	s/c	sam	com	hhle
Date	Fartic	INGUIX	Gample Request ID	Type and #	Туре	1612A49	BTEX	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or	RCRA 8 Metals	Anions (F,U,NU3,NU2,PU4,SU4) Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance	Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
2/19/6	1040	WATER	MW # 4	40 m! VOA - 2	HCI & Cool	-001	٧											V		
lializ	440										_	_			-				-	-
2/19/16	1140	WATER	MW # 6	40 ml VOA - 2	HCI & Cool	-002	۷				-+				+			V	+	-
											_				+					
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Date:	Time:	Relinquishe	ed by:	Received by:		Date Time	Ren	nark	s:							1	LL			1
2/19/16	1740	2	Thurl	PLAN	not 1	2/19/11 Invit			RECT		BP:									
Date:		Relinquishe	ed by:	Received by:		Date Time	ł.						ton, M	VM 87	401	Attr	n.: Joh	n Ritcl	nie	
19/11	1931	14	Wat	102	7 13	1 1.	W	D:	V	/DRI	NKW	/JA1								
11 10		I samiles e	ubmitted to Hall Environmental may be s	ubcontracted to other	F 1	TUD	1U	ossibil	ity An	vent	antra	ated da	afa witt	ha alca	the pote	ted on	the anal	dical rea	orf	_



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquergue, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

March 17, 2017

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: Irvin Com 1E

OrderNo.: 1703816

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/15/2017 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 <u>www.hallenvironmental.com</u> 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1703816

Date Reported: 3/17/2017

3/16/2017 5:16:28 PM R41422

CLIENT: Blagg Engineering Project: Irvin Com 1E		(nple ID: MW #6 n Date: 3/14/2017 11:30:00 AM
Lab ID: 1703816-001	Matrix:	AQUEOUS	Received	d Date: 3/15/2017 7:20:00 AM
Analyses	Result	PQL Qual	Units	DF Date Analyzed Batch
EPA METHOD 8021B: VOLATILES				Analyst: NSB
Benzene	ND	1.0	µg/L	1 3/16/2017 5:16:28 PM R4142
Toluene	ND	1.0	µg/L	1 3/16/2017 5:16:28 PM R4142
Ethylbenzene	3.2	1.0	µg/L	1 3/16/2017 5:16:28 PM R4142
Xylenes, Total	220	2.0	µg/L	1 3/16/2017 5:16:28 PM R4142

80-120

%Rec

1

96.6

Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 2
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Client:	Blagg Engineering
Project:	Irvin Com 1E

Sample ID	RB	SampT	ype: ME	BLK	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	PBW	Batch	1D: R4	1422	F	RunNo:	41422				
Prep Date:		Analysis D	ate: 3/	16/2017	S	SeqNo:	1299249	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Brom	ofluorobenzene	22		20.00		109	80	120			
Sample ID	100NG BTEX LCS	SampT	ype: LC	S	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	LCSW	Batch	ID: R4	1422	F	RunNo:	1422				
Prep Date:		Analysis D	ate: 3/	16/2017	S	eqNo:	1299250	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		19	1.0	20.00	0	95.9	71.7	126			
Toluene		20	1.0	20.00	0	99.1	73.3	119			
Ethylbenzene		20	1.0	20.00	0	102	80	120			
Xylenes, Total		63	2.0	60.00	0	106	80	120			
Surr: 4-Brom	ofluorobenzene	22		20.00		111	80	120			

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
- R RPD outside accepted recovery limits
- 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 Detection Limit
- W Sample container temperature is out of limit as specified

Page 2 of 2

WO#: **1703816** *17-Mar-17*

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

		incrititi onmerne	1		
Client Name: BLAGG	Work Order Number	1703816		RcptNo: 1	
Received by/date: AT	03/15/17				
Logged By: Ashley Gallegos	3/15/2017 7:20:00 AM		AJ		
Completed By: Ashley Gallegos	3/15/2017 3:11:42 PM		AZ		
Reviewed By: and	03/15/17		0		
Chain of Custody					
1. Custody seals intact on sample bottles?		Yes	No	Not Present 🗸	
2. Is Chain of Custody complete?		Yes 🗸	No	Not Present	
3. How was the sample delivered?		Courier			
Log In					
4. Was an attempt made to cool the samp	les?	Yes 🗸	No	NA	
5. Were all samples received at a tempera	ture of >0° C to 6.0°C	Yes 🗸	No	NA	
6. Sample(s) in proper container(s)?		Yes 🗸	No		
7. Sufficient sample volume for indicated to	est(s)?	Yes 🗸	No		
8. Are samples (except VOA and ONG) pro	operly preserved?	Yes 🗸	No		
9. Was preservative added to bottles?		Yes	No 🗸	NA	
10.VOA vials have zero headspace?		Yes 🗸	No	No VOA Vials	
11. Were any sample containers received b	roken?	Yes	No 🗸		
			1	# of preserved bottles checked	
12. Does paperwork match bottle labels?	`	Yes 🗸	No	for pH: (<2 or >12 unles	s noted
(Note discrepancies on chain of custody 13. Are matrices correctly identified on Chai		Yes 🗸	No	Adjusted?	55 110100
14. Is it clear what analyses were requested		Yes 🗸	No		
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗸	No	Checked by:	
Special Handling (if applicable)					
16. Was client notified of all discrepancies w	vith this order?	Yes	No	NA 🗸	
Person Notified:	Date		in lin industrial and a state of a company		
By Whom:	Via:	eMail	Phone Fax	In Person	
Regarding:	መመጠው የመመስ መስከት በመስከት የሚያስት መስከት የመስከት የመስከት የመስከት የመስከት የመስከት መስከት የመስከት መስከት የመስከት የመስከት የመስከት የመስከት የመስከት የ የመስከት የመስከት የመስከ	ang ang ngi nanggalakang kang kang sa	an a	n-and an ann an Anna an Anna an Anna Anna	
Client Instructions:					
17. Additional remarks:					
18. <u>Cooler Information</u> Cooler No Temp °C Condition		Seal Date	Signed By		
1 1.0 Good	Yes				

Page 1 of 1

Cł	nain-o	of-Cus	tody Record	Turn-Around T	Time:				1	ŀ	44		F	NV	ידנ	20	N	ME	NT		1	
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush				R	-							BO					
				Project Name:			1		85								.com					
Mailing Ad	dress:	P.O. BO	X 87	1 1	RVIN COM	# 1E		49	01 F								NM 8		9			
		BLOOM	FIELD, NM 87413	Project #:)5-34					505-345-4107							
Phone #:		(505) 63	2-1199	1								-		ysis			-					
email or Fa	ax#:			Project Manag	er:																T	
QA/QC Pad Standa	-		Level 4 (Full Validation)		JEFF BLAG	G	218)	only)	MRO)			5)		O4, SO4								
Accreditati			Level 4 (Full Validation)	Sampler:	NELSON VI	ELEZ 97V	80218	Gas (-	(1	[]	8270SIMS)		O2,P				nce			nple	
D NELAP		□ Other_		On Ice:	X Yes	D No		TPH (Gas	/ DRO	118.1	04.	\$270		N'cO	olids		(A)	Balance			e sar	î
	ype)			Sample Temp	erature:	5	II	+	GRO	pod 4	poi	or 8	etals	CI,NC	ved S	A	i-VO	tions		B	osite	(Y or
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1703814	BTEX + MTB	BTEX + MTBE	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
3/14/17	130	WATER	MW # 6	40 ml VOA - 2	HCI & Cool	-001	V													V		
	1.10																				+	
																				-	+	
																			1	-	+	
																			-	+	+	-
																			-	+	+	-
													-						-	+	+	-
																			+	+	+	-
								-					-						-+	+	+	-
																-			\rightarrow	+	+	_
								-							-				-	+	\rightarrow	_
								-	-						-	-			\rightarrow	+	+	_
Date:	Time:	Relinguishe	ad hur -	Received by:		Date Time	Don															\neg
3/14/17	t	all	i va	A las	1 laul	21 1		nark														
1.1	Time	Poliosust	NI PUL D	Received by:	Walt](4)(7) (6/6 Date Time				Cour			gton	, NM	1874	101	Attr	n.: Jo	hn R	itchi	e	
Date:	Time:	Relinquishe	the blacks	Clarked by:	" Ac	5/157/7 0720		D: _		VDR				_								

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



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

July 11, 2017

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: Irvin Com 1E

OrderNo.: 1707048

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/1/2017 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 <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1707048** Date Reported: **7/11/2017**

CLIENT: Blagg Engineering Project: Irvin Com 1E Lab ID: 1707048-001	Client Sample ID: MW #6Collection Date: 6/30/2017 11:30:00 AMMatrix: AQUEOUSReceived Date: 7/1/2017 10:30:00 AM												
Analyses	Result	PQL ()ual	Units	DF	Date Analyzed	Batch						
EPA METHOD 8260: VOLATILES S	HORT LIST					Analyst	DJF						
Benzene	ND	1.0	Ρ	µg/L	1	7/10/2017 2:56:26 PM	B44109						
Toluene	ND	1.0	Ρ	µg/L	1	7/10/2017 2:56:26 PM	B44109						
Ethylbenzene	ND	1.0	Ρ	µg/L	1	7/10/2017 2:56:26 PM	B44109						
Xylenes, Total	12	1.5	Ρ	µg/L	1	7/10/2017 2:56:26 PM	B44109						
Surr: 1,2-Dichloroethane-d4	110	70-130	Ρ	%Rec	1	7/10/2017 2:56:26 PM	B44109						
Surr: 4-Bromofluorobenzene	97.2	70-130	Ρ	%Rec	1	7/10/2017 2:56:26 PM	B44109						
Surr: Dibromofluoromethane	108	70-130	Ρ	%Rec	1	7/10/2017 2:56:26 PM	B44109						
Surr: Toluene-d8	98.6	70-130	Ρ	%Rec	1	7/10/2017 2:56:26 PM	B44109						

Oualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank			
Quinteror	D	Sample Diluted Due to Matrix	E	Value above quantitation range			
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 2			
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range			
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit			
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified			

Client:	Blagg Engineering					
Project:	Irvin Com 1E					

Sample ID rb	SampT	SampType: MBLK			TestCode: EPA Method 8260: Volatiles Short List							
Client ID: PBW	Batch	n ID: B4	4109	F	RunNo: 4	4109						
Prep Date:	Analysis D	ate: 7/	10/2017	S	SeqNo: 1	391811	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	1.0										
Toluene	ND	1.0										
Ethylbenzene	ND	1.0										
Xylenes, Total	ND	1.5										
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130					
Surr: 4-Bromofluorobenzene	9.5		10.00		95.0	70	130					
Surr: Dibromofluoromethane	10		10.00		101	70	130					
Surr: Toluene-d8	11		10.00		105	70	130					
Sample ID 100ng Ics	Sample ID 100ng Ics SampType: LCS TestCode: EPA Meth							d 8260: Volatiles Short List				
Client ID: LCSW	Batch	n ID: B4	4109	F	RunNo: 4	4109						
Prep Date:	Analysis D	ate: 7/	10/2017	S	SeqNo: 1	391812	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	22	1.0	20.00	0	109	70	130					
Toluene	21	1.0	20.00	0	106	70	130					
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.5	70	130					
Surr: 4-Bromofluorobenzene	9.7		10.00		96.6	70	130					
Surr: Dibromofluoromethane	10		10.00		104	70	130					
Surr: Toluene-d8	10		10.00		104	70	130					

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 Detection Limit
- W Sample container temperature is out of limit as specified

Page 2 of 2

WO#: 1707048 11-Jul-17

ANAL	RONMENTAI YSIS RATORY		TEL: 505-345-3	ntal Analysis Labora 4901 Hawkins Albuquerque, NM 87 975 FAX: 505-345-4 hallenvironmental.	NE 109 Sam	ple Log-In Check List
Client Name:	BLAGG		Work Order Num	ber: 1707048		RcptNo: 1
Received By:	Andy Freem	ian	7/1/2017 10:30:00 /	AM	andy	
Completed By:	Ashley Gall	egos	7/3/2017 11:54:51 /	MA	AZ	
Reviewed By:	ENM		7/23/17		U	
Chain of Cus	tody					
1. Custody sea	als intact on sar	nple bottles?		Yes	No 🗌	Not Present
2. Is Chain of (Custody comple	ete?		Yes 🗹	No 🗌	Not Present
3. How was the	e sample delive	red?		Courier		
Log In						
4. Was an atte	empt made to c	ool the sample	es?	Yes 🗹	No 🗌	
5. Were all sar	mples received	at a temperati	ure of >0° C to 6.0°C	Yes 🗹	No 🗌	NA 🗌
6. Sample(s) in	n proper contai	ner(s)?		Yes 🗹	No 🗌	
7. Sufficient sa	imple volume fo	or indicated tes	st(s)?	Yes 🔽	No 🗌	
8. Are samples	s (except VOA a	and ONG) prop	perly preserved?	Yes 🖌	No	
9. Was presen	vative added to	bottles?		Yes	No 🔽	NA 🗔
10.VOA vials ha	ave zero heads	pace?		Yes 🗹	No 🗌	No VOA Vials
11. Were any sa	ample containe	rs received bro	oken?	Yes	No 🔽	# of preserved
12. Does paperv (Note discre	work match bot pancies on cha			Yes 🗹	No 🗌	bottles checked for pH: (<2 or >12 unless no
13. Are matrices	s correctly ident	ified on Chain	of Custody?	Yes 🗹	No 🗌	Adjusted?
14. Is it clear wh	at analyses we	re requested?		Yes 🗹	No 🗌	
15. Were all hole (If no, notify	ding times able customer for a			Yes 🗹	No 🗌	Checked by:
pecial Hand	lling (if appl	icable)				
16. Was client n	otified of all dis	crepancies wi	h this order?	Yes	No 🗌	NA 🗹
Persor By Wh	n Notified:		Date Via:	34	Phone 🗌 Fax	☐ In Person
Regard	ding:					
	Instructions:					
17. Additional re						
18. <u>Cooler Info</u> Cooler No	o Temp °C		Seal Intact Seal No	Seal Date	Signed By	
1	3.8	Good	'es		ere en e	

Cł	nain-c	of-Cus	tody Record	Turn-Around	Time:					н			FI	NV	/TE	20	N	ME	п		1	
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush				_													
				Project Name													l.con			~~~		
Mailing A	ddress:	P.O. BO	X 87	I	RVIN COM	# 1E		490)1 H									 87109	9			
	nigen – Oderst, Dirker Henrie M	BLOOM	FIELD, NM 87413	Project #:						5-34							-410		-			
Phone #:		(505) 63	2-1199	1								1.00	nal	ysis	Ree	que	st					
email or F	ax#:			Project Manag	ger:															T		
QA/QC Pa			Level 4 (Full Validation)		JEFF BLAG	G	(8021B)	+ MTBE + TPH (Gas only)	(MRO)			5)		O4, SO.							0	
Accredita				Sampler:	NELSON V	ELEZ nr	₩ 100	(Gas	RO	1)	1	or 82705IM5		102,1	ls			ance			dm	
	>	D Other		On Ice:	XYes	D No	TMB	HdT	0/0	418.	504.	3270		O3, N	Solic		(A)	s Bal			e sa	L N
	Гуре)	1		Sample Temp	erature: 3.8	°C		θE +	(GR(pou	pou	or §	etals	CI'N	lved	(A)	i-VC	tion		a	osit	140
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Τγ pe	HEAL NO. 1767048	BTEX + MTBE	BTEX + MTI	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		Grab sample	5 pt. composite sample	Air Bubbles (Y or N)
6/30/17	1130	WATER	MW # 6	40 ml VOA - 2	HCI & Cool	-001	V													V		
																			-	+		
																				-	1	
																			-	+		
																			+	+	+	_
									1							-			+	+	+	-
								-	-	-+	-					-			+	+	+	-
										-	\neg				-	-		\vdash	+	+	+	-
								-		-	\neg				-	-		\vdash	+	+	+	-
										+	-				-	-	-		+	+	+	-
										-	-			-	-	+	-	\vdash	\rightarrow	+	\rightarrow	-
		1									-			-	-		-	\vdash	\rightarrow	+	+	_
Date:, ,	Time:	Relinquishe	ad by:	Received by:	1	Date Time	Rem	narks	5:													_
6/30/17	1710	n	lavj	Chri	Wal	4/30/n 1710	BIL	LL DI	RECT				arto	n M	VI 87	401	Att	n · St	eve l	Most	cal	
Date:	Time:	Reinquishe	ad by:	Received by:	U Bul	Date Time 7/1/17 10:30													VINC			
4/30/17	1815			Vhinn	Oldery	-																

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



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

September 14, 2017

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: IRVIN COM 1E

OrderNo.: 1709439

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/8/2017 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 <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1709439

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/14/2017

CLIENT: Blagg Engineering Project: IRVIN COM 1E				Date: 9/7	7/2017 1:50:00 PM	
Lab ID: 1709439-001	Matrix:	AQUEOUS	Received	Date: 9/8	3/2017 7:00:00 AM	
Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	1.0	μg/L	1	9/14/2017 12:36:35 A	M B45593
Toluene	ND	1.0	µg/L	1	9/14/2017 12:36:35 A	M B45593
Ethylbenzene	ND	1.0	µg/L	1	9/14/2017 12:36:35 A	M B45593
Xylenes, Total	ND	2.0	µg/L	1	9/14/2017 12:36:35 A	M B45593
Surr: 4-Bromofluorobenzene	106	72.5-140	%Rec	1	9/14/2017 12:36:35 A	M B45593

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 2	2
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	-
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

Client:	Blagg Engineering
Project:	IRVIN COM 1E

Sample ID	RB	SampT	ype: ME	BLK	Test	Code: E	PA Method	8021B: Volati	les		
Client ID:	PBW	Batch	ID: B4	5593	R	unNo:	15593				
Prep Date:		Analysis D	ate: 9/	13/2017	S	eqNo:	446434	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Brom	ofluorobenzene	21		20.00		103	72.5	140			
Sample ID	100NG BTEX LCS	B SampT	ype: LC	S	Test	Code: E	PA Method	8021B: Volati	les		
Client ID:	LCSW	Batch	ID: B4	5593	R	unNo:	45593				
Prep Date:		Analysis D	ate: 9/	13/2017	S	eqNo:	1446435	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		20	1.0	20.00	0	101	71.7	126			
		20	1.0	20.00	0	99.6	73.3	119			
Toluene		20	1.0	20.00	0	00.0	10.0	110			
		20	1.0	20.00	0	102		120			
Toluene Ethylbenzene Xylenes, Total							80				

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 Detection Limit
- W Sample container temperature is out of limit as specified

WO#: 1709439

14-Sep-17

Page 2 of 2

ANAL	CONMENTAL YSIS Ratory	Hall Environmental Albi TEL: 505-345-3975 Website: www.ha	4901 uquerqu 5 FAX: 5	Hawkins N e, NM 8710 05-345-410	^E 9 Sam	ple Log-In C			
Client Name:	BLAGG	Work Order Number	17094	439		RcptNo	1		
Received By:	Anne Thome	9/8/2017 7:00:00 AM			Arre H	_			
Completed By: Reviewed By:	Anne Thome	9/8/2017 2:47:40 PM ?[11			Arre H.	_			
Chain of Cus	tody								
1. Custody sea	ils intact on sample bottles?		Yes		No	Not Present 🖌			
2. Is Chain of C	Custody complete?		Yes	\checkmark	No 🗌	Not Present			
3. How was the	e sample delivered?		Cour	rier					
Log In									
4. Was an atte	mpt made to cool the sample	\$?	Yes	\checkmark	No 🗌	NA			
5. Were all san	nples received at a temperatu	re of >0° C to 6.0°C	Yes	\checkmark	No 🗌				
6. Sample(s) in	n proper container(s)?		Yes		No 🗌				
7. Sufficient sa	mple volume for indicated test	:(s)?	Yes		No 🗌				
8. Are samples	(except VOA and ONG) prop	erly preserved?	Yes		No				
9. Was preserv	vative added to bottles?		Yes		No 🖌	NA			
10. VOA vials ha	ave zero headspace?		Yes		No 🗌	No VOA Vials			
11. Were any sa	ample containers received bro	ken?	Yes		No 🗹	# of preserved			
	vork match bottle labels?		Yes	\checkmark	No 🗌	bottles checked for pH:	or >12 unless noted)		
	pancies on chain of custody)	e Custodu?	Yes		No 🗌	Adjusted?			
	s correctly identified on Chain of at analyses were requested?	of Custody?	Yes						
15. Were all hold	ding times able to be met?		Yes		No 🗌	Checked by:			
(If no, notify	customer for authorization.)								
	Iling (if applicable) otified of all discrepancies with	this order?	Yes		No 🗌	NA 🔽			
			103						
	Notified:	Date	—						
By Wh	2 	Via:	eMa	all Pho	one 🗌 Fax	In Person			
Regard	and the second	antada 1949-8-900 tetera basil any attanti any ang				an an tao an tao amin'ny amin'n			
17. Additional re	Instructions:						99 90 X		
18. <u>Cooler Info</u> Cooler No	rmation D Temp °C Condition		Seal Da	ate S	igned By				
l1	2.6 Good Y	es			1				
Page 1 of	fl					· · · · · · · · · · · · · · · · · · ·			

CI	nain-c	of-Cus	tody Record	Tum-Around	inne.					ы	ALL	F	NN	/TC	20	R.I.P		NIT	A I	
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush						NAI									
				Project Name							ww.h									•
Mailing A	ddress:	P.O. BO	X 87	1	RVIN COM	# 1E		490)1 Ha		s NE							9		
		BLOOM	FIELD, NM 87413	Project #:							-3975					-410				
Phone #:		(505) 63	2-1199	1			Contraction of the second					Anal	ysis	Red	que	st				
email or F	Fax#:			Project Manag	ger:								4)							
QA/QC Pa	-		Level 4 (Full Validation)		JEFF BLAG	G	(8021B)	+ TPH (Gas only)	/ MRO)		15)		PO4, 50							υ
Accredita	tion:			Sampler:	NELSON V	ELEZ 97V	% (8	(Ga:	/ DRO	11	8270SIMS)		VO2,	ds			Balance		olumes	1
	>	Other		On Ice:	VY Yes	🗆 No	I	TPH	1/0	418.	8270SI	6	03, 1	Soli		(AC			0.0	N)
	Type)	1		Sample Temp	erature:	2.6	4	BE +	GR	por .	DOL JOG	etal	CI,N	lved	(H)	i-VC	lion		01e	Nen (
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1709439	BTEX +	BTEX + MTBE	TPH 80158 (GRO	TPH (Method 418.1)	PAH (8310 or	RCRA 8 Metals	Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations	-	Grab sample	a pt. composite sa Air Bubbles (Y or N)
9/7/17	1350	WATER	MW # 6	40 ml VOA - 2	HCI & Cool	-201	V												V	
															•					
																			1	
																			1	
										-								1	+	
Date: 9/7/14 Date: 9/2/2	Time: 1447 Time:	Relinquishe Relinquishe	In V2	Received by:	-Valt	Date Time 9/7/12 1647 Date Time 09/03/17	BIL 20	D En	RECT	LY TO Court	Farm	-						eve M		_
1/7/17	1810	1/m		hoostracted to other		This serves as police	of this r	ossih				ed dal	a will)	ne cles	arly no	tated	on the	analytic	al read	

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 record.



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

January 03, 2018

Jeff Blagg Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: IRVIN COM 1E

OrderNo.: 1712F42

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/29/2017 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 <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1712F42 Date Reported: 1/3/2018

CLIENT: Blagg Engineering Project: IRVIN COM 1E		(Client Samp Collection		W #6 /28/2017 1:10:00 PM	
Lab ID: 1712F42-001	Matrix:	AQUEOUS	Received	Date: 12/	/29/2017 8:00:00 AM	
Analyses	Result	PQL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES S	HORT LIST				Analys	t: AG
Benzene	ND	1.0	µg/L	1	1/2/2018 2:59:36 PM	R4813
Toluene	ND	1.0	µg/L	1	1/2/2018 2:59:36 PM	R4813
Ethylbenzene	ND	1.0	µg/L	1	1/2/2018 2:59:36 PM	R4813
Xylenes, Total	ND	1.5	µg/L	1	1/2/2018 2:59:36 PM	R4813
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	1/2/2018 2:59:36 PM	R4813
Surr: Toluene-d8	105	70-130	%Rec	1	1/2/2018 2:59:36 PM	R4813

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 2	,
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

Client: Blagg Engineering Project: IRVIN COM 1E

Sample ID 100ng btex lcs	SampT	ype: LC	S	Tes	tCode: El	PA Method	8260: Volatile	es Short L	.ist	
Client ID: LCSW	Batch	n ID: R4	8137	R	RunNo: 4	8137				
Prep Date:	Analysis D)ate: 1/	2/2018	S	SeqNo: 1	544158	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	70	130			
Toluene	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	0		10.00		0	70	130			S
Surr: 4-Bromofluorobenzene	9.0		10.00		90.3	70	130			
Surr: Dibromofluoromethane	0		10.00		0	70	130			S
Surr: Toluene-d8	11		10.00		108	70	130			
Sample ID rb	SampT	ype: ME	BLK	Test	tCode: El	PA Method	8260: Volatile	es Short L	.ist	
Sample ID rb Client ID: PBW		ype: ME			tCode: El RunNo: 4		8260: Volatile	es Short L	.ist	
		n ID: R4	8137	R		8137	8260: Volatile Units: μg/L	es Short L	ist	
Client ID: PBW	Batch	n ID: R4	8137 2/2018	R	RunNo: 4	8137		95 Short L %RPD	.ist RPDLimit	Qual
Client ID: PBW Prep Date:	Batch Analysis D	n ID: R4 Date: 1 /	8137 2/2018	R	RunNo: 4 SeqNo: 1	8137 544159	Units: µg/L			Qual
Client ID: PBW Prep Date: Analyte	Batch Analysis D Result	n ID: R4 Date: 1 / PQL	8137 2/2018	R	RunNo: 4 SeqNo: 1	8137 544159	Units: µg/L			Qual
Client ID: PBW Prep Date: Analyte Benzene	Batch Analysis D Result ND	n ID: R4 Date: 1 / PQL 1.0	8137 2/2018	R	RunNo: 4 SeqNo: 1	8137 544159	Units: µg/L			Qual
Client ID: PBW Prep Date: Analyte Benzene Toluene Ethylbenzene	Batch Analysis D Result ND ND	Date: 1 / PQL 1.0 1.0	8137 2/2018	R	RunNo: 4 SeqNo: 1	8137 544159	Units: µg/L			Qual
Client ID: PBW Prep Date: Analyte Benzene Toluene	Batch Analysis D Result ND ND ND	Date: 1 / PQL 1.0 1.0 1.0	8137 2/2018	R	RunNo: 4 SeqNo: 1	8137 544159	Units: µg/L			Qual
Client ID: PBW Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Batch Analysis D Result ND ND ND ND	Date: 1 / PQL 1.0 1.0 1.0	8137 2/2018 SPK value	R	RunNo: 4 SeqNo: 1 %REC	8137 544159 LowLimit	Units: µg/L HighLimit			
Client ID: PBW Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 1,2-Dichloroethane-d4	Batch Analysis D Result ND ND ND ND 0	Date: 1 / PQL 1.0 1.0 1.0	8137 2/2018 SPK value 10.00	R	RunNo: 4 SeqNo: 1 %REC	8137 544159 LowLimit 70	Units: µg/L HighLimit 130			

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 Detection Limit
- W Sample container temperature is out of limit as specified

Page 2 of 2

WO#: 1712F42 03-Jan-18

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental A Albuq TEL: 505-345-3975 F Website: www.hall	4901 querqu FAX: 5	Hawkins NE e, NM 87109 05-345-4107	s S	amp	ole Log-In C	heck List
Client Name: BLAGG	Work Order Number:	17126	-42			RcptNo:	1
Received By: Sophia Campuzano Completed By: Sophia Campuzano Reviewed By: DDS/ SML	12/29/2017 8:00:00 AM 12/29/2017 9:30:25 AM しててター(つ			Sopher : Sopher :			
Chain of Custody1. Custody seals intact on sample bottles?2. Is Chain of Custody complete?3. How was the sample delivered?		Yes Yes <u>Cour</u>		No No		Not Present 🗹 Not Present 🗌	
Log In 4. Was an attempt made to cool the samples?		Yes		No			
5. Were all samples received at a temperature	of >0° C to 6.0°C	Yes		No			
6. Sample(s) in proper container(s)?		Yes		No			
7. Sufficient sample volume for indicated test(s)?	Yes	\checkmark	No			
8. Are samples (except VOA and ONG) properl	y preserved?	Yes	\checkmark	No			
9. Was preservative added to bottles?		Yes		No	\checkmark	NA 🗌	
10.VOA vials have zero headspace?		Yes	\checkmark	No		No VOA Vials	
11. Were any sample containers received broke	n?	Yes		No		# of preserved bottles checked	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes		No		for pH:	or >12 unless noted)
13. Are matrices correctly identified on Chain of	Custody?	Yes	\checkmark	No		Adjusted?	
14. Is it clear what analyses were requested?		Yes	\checkmark	No			
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes		No		Checked by:	
Special Handling (if applicable)							
16. Was client notified of all discrepancies with the	nis order?	Yes		No		NA 🗹	-
Person Notified: By Whom: Regarding: Client Instructions:	Date: T Via:] eMa	iil 📋 Pho	ne 🗌	Fax [In Person	
17. Additional remarks:				6379¥			2
18. Cooler Information	al Intact Seal No	eal Da	ite Si	gned B	y		

CI	Chain-of-Custody Record			Turn-Around Time:						F	IA	LL	E	NV	'IF	20	N	ме	NT			
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush_														T			
				Project Name:			www.hallenvironmental.com															
Mailing Ac	ddress:	P.O. BO	X 87	IRVIN COM # 1E				4901 Hawkins NE - Albuquerque, NM 87109														
		BLOOM	FIELD, NM 87413	Project #:			Tel. 505-345-3975 Fax 505-345-4107															
Phone #:		(505) 63	2-1199	-				Analysis Request														
email or Fax#:			Project Manag	er:																		
QA/QC Package: Standard Level 4 (Full Validation)			JEFF BLAG	5	181 (8021B)	(yino	MRO)			IS)		04,50										
	Accreditation:		Sampler:	NELSON VE	ELEZ nr	♦ (8((Gas	RO/	1)	1)	SIM		10 ₂ ,F	in the			ance			mpl		
	NELAP Other		On Ice:	X Yes	🗆 No	1	HdT	0/0	418.	504.	8270		0 ₃ ,N	Solid		(A)	8 Bal			e sa	(N	
EDD (1	ype)	,		Sample Temperature: Z_Y			+ 3	(GRC	pou	pou	or	etals	CI'N	ved	A)	-VC	tions		al	osit	(Y o	
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX - MATG	BTEX + MTBE + TPH (Gas only)	TPH 80158 (GRO / DRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	Total Dissolved Solids	8260B (VOA)	8270 (Semi-VOA)	Anions / Cations Balance		rab	5 pt. composite sample	Air Bubbles (Y or N)
12/28/17	1310	WATER	MW # 6	40 ml VOA - 2	HCI & Cool	-001	V	-	-	-	-	-	-	-	-					V		-
																				1	+	_
																					1	
Date: 12/28/17	Time: \{{}D	Relinquishe	Mar VI	Received by	I. SALA	Date Time 12/15/17 1810	1	LL DI	RECT													
Date:	Time:	Relinguish	ed by	Received by	C 12	Date Time 129/17 0300													eve N RVINC			_

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



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

April 12, 2018

Steve Moskal Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: Irvin Com 1E

OrderNo.: 1803G12

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/30/2018 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 <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1803G12** Date Reported: **4/12/2018**

CLIENT: Blagg Engineering		(lient Sar	nple ID: MW #6
Project: Irvin Com 1E			Collectio	on Date: 3/29/2018 2:15:00 PM
Lab ID: 1803G12-001	Matrix:	AQUEOUS	Receive	ed Date: 3/30/2018 8:00:00 AM
Analyses	Result	PQL Qual	Units	DF Date Analyzed Batch
EPA METHOD 8260B: VOLATILES				Analyst: RAA
Benzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Toluene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Ethylbenzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
1,2,4-Trimethylbenzene	1.6	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
1,3,5-Trimethylbenzene	1.5	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
1,2-Dichloroethane (EDC) 1,2-Dibromoethane (EDB)	ND ND	1.0 1.0	µg/L µg/L	1 4/11/2018 11:30:00 AM R50485 1 4/11/2018 11:30:00 AM R50485
Naphthalene	ND	2.0	μg/L μg/L	1 4/11/2018 11:30:00 AM R50485
1-Methylnaphthalene	ND	4.0	μg/L	1 4/11/2018 11:30:00 AM R50485
2-Methylnaphthalene	ND	4.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Acetone	ND	10	µg/L	1 4/11/2018 11:30:00 AM R50485
Bromobenzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Bromodichloromethane	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Bromoform	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Bromomethane	ND	3.0	µg/L	1 4/11/2018 11:30:00 AM R50485
2-Butanone	ND	10	µg/L	1 4/11/2018 11:30:00 AM R50485
Carbon disulfide	ND	10	µg/L	1 4/11/2018 11:30:00 AM R50485
Carbon Tetrachloride	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Chlorobenzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Chloroethane	ND	2.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Chloroform	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Chloromethane	ND	3.0	µg/L	1 4/11/2018 11:30:00 AM R50485
2-Chlorotoluene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
4-Chlorotoluene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
cis-1,2-DCE	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
cis-1,3-Dichloropropene 1,2-Dibromo-3-chloropropane	ND ND	1.0 2.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Dibromochloromethane	ND	1.0	μg/L μg/L	1 4/11/2018 11:30:00 AM R50485 1 4/11/2018 11:30:00 AM R50485
Dibromomethane	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
1,2-Dichlorobenzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
1,3-Dichlorobenzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
1,4-Dichlorobenzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
Dichlorodifluoromethane	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
1,1-Dichloroethane	ND	1.0	μg/L	1 4/11/2018 11:30:00 AM R50485
1,1-Dichloroethene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
1,2-Dichloropropane	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
1,3-Dichloropropane	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM R50485
2,2-Dichloropropane	ND	2.0	µg/L	1 4/11/2018 11:30:00 AM R50485

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
H Holding times for preparation of		Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 5
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1803G12** Date Reported: **4/12/2018**

CLIENT: Blagg Engineering Project: Irvin Com 1E	Client Sample ID: MW #6 Collection Date: 3/29/2018 2:15:00 PM									
Lab ID: 1803G12-001	Matrix:	AQUEOUS	Receiv	ed Date: 3/30/2018 8:00:00 AM						
Analyses	Result	PQL Qual	Units	DF Date Analyzed	Batch					
EPA METHOD 8260B: VOLATILES				Analyst:	RAA					
1,1-Dichloropropene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
Hexachlorobutadiene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
2-Hexanone	ND	10	µg/L	1 4/11/2018 11:30:00 AM	R50485					
Isopropylbenzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
4-Isopropyltoluene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
4-Methyl-2-pentanone	ND	10	µg/L	1 4/11/2018 11:30:00 AM	R50485					
Methylene Chloride	ND	3.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
n-Butylbenzene	ND	3.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
n-Propylbenzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
sec-Butylbenzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
Styrene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
tert-Butylbenzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
Tetrachloroethene (PCE)	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
trans-1,2-DCE	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
trans-1,3-Dichloropropene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
1,1,1-Trichloroethane	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
1,1,2-Trichloroethane	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
Trichloroethene (TCE)	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
Trichlorofluoromethane	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
1,2,3-Trichloropropane	ND	2.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
Vinyl chloride	ND	1.0	µg/L	1 4/11/2018 11:30:00 AM	R50485					
Xylenes, Total	ND	1.5	µg/L	1 4/11/2018 11:30:00 AM	R50485					
Surr: 1,2-Dichloroethane-d4	77.7	70-130	%Rec	1 4/11/2018 11:30:00 AM	R50485					
Surr: 4-Bromofluorobenzene	122	70-130	%Rec	1 4/11/2018 11:30:00 AM	R50485					
Surr: Dibromofluoromethane	90.9	70-130	%Rec	1 4/11/2018 11:30:00 AM	R50485					
Surr: Toluene-d8	103	70-130	%Rec	1 4/11/2018 11:30:00 AM	R50485					

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank		
	D	Sample Diluted Due to Matrix	E	Value above quantitation range		
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 5		
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range		
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit		
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified		

Client: Blagg Engineering

Irvin Com 1E

Project:

Sample ID rb	SampT	ype: MBLK	Tes	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch	ID: R50485	F	RunNo: 50485								
Prep Date:	Analysis D	ate: 4/11/2018	S	SeqNo: 1636941	Units: µg/L							
Analyte	Result	PQL SPK valu	e SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	ND	1.0										
Toluene	ND	1.0										
Ethylbenzene	ND	1.0										
Methyl tert-butyl ether (MTBE)	ND	1.0										
1,2,4-Trimethylbenzene	ND	1.0										
1,3,5-Trimethylbenzene	ND	1.0										
1,2-Dichloroethane (EDC)	ND	1.0										
1,2-Dibromoethane (EDB)	ND	1.0										
Naphthalene	ND	2.0										
1-Methylnaphthalene	ND	4.0										
2-Methylnaphthalene	ND	4.0										
Acetone	ND	10										
Bromobenzene	ND	1.0										
Bromodichloromethane	ND	1.0										
Bromoform	ND	1.0										
Bromomethane	ND	3.0										
2-Butanone	ND	10										
Carbon disulfide	ND	10										
Carbon Tetrachloride	ND	1.0										
Chlorobenzene	ND	1.0										
Chloroethane	ND	2.0										
Chloroform	ND	1.0										
Chloromethane	ND	3.0										
2-Chlorotoluene	ND	1.0										
4-Chlorotoluene	ND	1.0										
cis-1,2-DCE	ND	1.0										
cis-1,2-DCL	ND	1.0										
1,2-Dibromo-3-chloropropane	ND	2.0										
Dibromochloromethane	ND	1.0										
Dibromocnoromethane	ND	1.0										
	ND	1.0										
1,2-Dichlorobenzene 1,3-Dichlorobenzene	ND	1.0										
1,3-Dichlorobenzene	ND	1.0										
	ND	1.0										
Dichlorodifluoromethane	ND	1.0 1.0										
1,1-Dichloroethane												
1,1-Dichloroethene	ND	1.0										
1,2-Dichloropropane	ND	1.0										
1,3-Dichloropropane	ND	1.0										
2,2-Dichloropropane	ND	2.0										

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 Detection Limit
- W Sample container temperature is out of limit as specified

WO#: 1803G12

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12-Apr-18

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

Client: Blagg Engineering

Project:	Irvin Com 1E

Sample ID rb	SampT	уре: МЕ	BLK	Test	tCode: El	PA Method	8260B: VOL	ATILES		
Client ID: PBW	Batch ID: R50485 RunNo: 50485									
Prep Date:	Analysis D				eqNo: 1		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
lsopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.7	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.9	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.1	70	130			
Surr: Toluene-d8	8.7		10.00		87.0	70	130			
Sample ID 100ng Ics	SampT	ype: LC	s	Tes	tCode: El	PA Method	8260B: VOL	ATILES		
Client ID: LCSW	Batch	n ID: R5	0485	R	RunNo: 5	0485				
Prep Date:	Analysis D	ate: 4/	11/2018	S	SeqNo: 1	636977	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	84.1	70	130			
Toluene	19	1.0	20.00	0	95.9	70	130			
Chlorobenzene	19	1.0	20.00	0	97.2	70	130			
enter openation of			20.00							

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- 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 E
 - Value above quantitation range
- Analyte detected below quantitation limits J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 4 of 5

WO#: 1803G12 12-Apr-18

Client:	Blagg Engineering
Project:	Irvin Com 1E

Sample ID 100ng lcs	S	TestCode: EPA Method 8260B: VOLATILES								
Client ID: LCSW	Batch ID: R50485			RunNo: 50485						
Prep Date:	Analysis D	ate: 4/	11/2018	S	SeqNo: 1	636977	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19	1.0	20.00	0	95.0	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		82.8	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.5	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.3	70	130			
Surr: Toluene-d8	9.8		10.00		97.6	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- 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
- Analyte detected in the associated Method Blank В
- Value above quantitation range Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

WO#: 1803G12

Page 5 of 5

HALL ENVIRONMENTAL ANALYSIS LABORATORY	TEL: 505-345-397.	4901 Hawkin buquerque, NM 8	NE 57109 Sam	ample Log-In Check List				
Client Name: BLAGG	Work Order Number	: 1803G12		RcptNo:	1			
Received By: Sophia Campuzano	3/30/2018 8:00:00 AN		Sophie Compo-	-				
Completed By: Erin Melendrez Reviewed By: DDS	3/30/2018 8:37:34 AN 3/30/18		Ma	5				
LB: <u>MW 3</u> 3018 Chain of Custody								
1. Is Chain of Custody complete?		Yes 🖌	No 🗌	Not Present				
2. How was the sample delivered?		Courier						
Log In 3. Was an attempt made to cool the samp	les?	Yes 🗹	No 🗌					
4. Were all samples received at a tempera	ture of >0° C to 6.0°C	Yes 🗹	No					
5. Sample(s) in proper container(s)?		Yes 🗹	No 🗌					
6. Sufficient sample volume for indicated to	est(s)?	Yes 🗹	No 🗌		*			
7, Are samples (except VOA and ONG) pro	operly preserved?	Yes 🗹	No 🗌					
8. Was preservative added to bottles?		Yes	No 🗹	NA 🗌				
9. VOA vials have zero headspace?		Yes	No 🗌	No VOA Vials 🗹				
10. Were any sample containers received b	roken?	Yes	No 🗹	# of preserved bottles checked	0/18			
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗌	for pH:	12 unless noted)			
12. Are matrices correctly identified on Chai		Yes 🗹	No 🗌	Adjusted?				
13. Is it clear what analyses were requested	?	Yes 🗹	No 🗌					
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🖌	No L	Checked by:				
Special Handling (if applicable)								
15. Was client notified of all discrepancies	with this order?	Yes	No 🗌	NA 🔽				
Person Notified:	. Date:	ann an an Anna br>'						
By Whom:	Via: [eMail P	hone 🗌 Fax	In Person				
Regarding:	. A A MARKET AND AND AND AN AND A DESCRIPTION OF A	104		1766.0050.0000.0000.0000.0000.0000.0000.0				
Client Instructions:				and in the local data in the second				
16. Additional remarks:								
17. <u>Cooler Information</u> Cooler No Temp °C Condition 1 1.9 Good	Seal Intact Seal No S Yes	Seal Date	Signed By					

C	hain-o	of-Cus	tody Record	Turn-Around T	ìme:						AL		-		/T 1	20				-	
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush																
		5		Project Name:		Ren and a second se															
Mailing A	ddress:	P.O. BO	X 87	- 	RVIN COM	# 1E	4901 Hawkins NE - Albuquerque, NM 87109														
			FIELD, NM 87413	Project #:			1	Tel. 505-345-3975 Fax 505-345-4107				2									
Phone #:		(505) 63						16	1. 50	5-54	43-3		Anal			1997 I. 1997 IV	-	,,			
email or F	ax#:	(000) 00		Project Manag	ier:									y 010				(Å)			
QA/QC Pa			۵۵۵۵ ۵۰۰ ۵۰۰ ۵۰۰ ۵۰۰ ۵۰۰ ۵۰۰ ۵۰۰ ۵۰۰ ۵۰	1			18)											conductivity)			
Standa			Level 4 (Full Validation)		STEVE MO	OSKAL	(8021B)	(Aluo	/ MRO)			s)						cond			
Accreditat	ion:			Sampler:	NELSON	VELEZ	TMB's		RO/	,	1)	SIM		е	ids		z	S, pH,			mple
)	D Other		On Ice:	X Yes	E No	- TV	+ TPH (Gas	0/0	118.	504.	3270		alan	Sol		rite	de TD			e sai
	ype)			Sample Tempe	erature 9.0-0	11.(cr)=1.9	BE +	L + H	GRO	7 po	po	or 8	tals	on B	lveo	A	Nitu	inclu		e	osite
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 1803G11Z	BTEX + MTBE	BTEX + MTBE	TPH 8015B (GRO / DRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Cation / Anion Balance	Total Dissolved Solids	8260B (VOA)	Nitrate N / Nitrite N	API Water (include TDS, pH,		Grab sample	5 pt. composite sample
3/29/18	1415	WATER	MW # 6	40 ml VOA - 2	HCI & Cooi	-001										V				V	
Constant of the local sector of the local sect								1												+	-
propulsion and planta and an and a second																			-		+
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Date: 3/29/18	Time:	Relinquishe	the VZ	Received by:	chit	Date Time 3/29/15 1650	BI		RECT												×
Date: Time: Relinquished by: 29/16 1745 WA Walt		Received by:	_ 03/30/	Date Time		BILL DIRECTLY TO BP: 200 Energy Court, Farmington, NM 87401 Attn.: Steve Moskal WBS ELEMENT: L1-001CV-E:IRVINCOM1E															



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

July 06, 2018

Steve Moskal Blagg Engineering P. O. Box 87 Bloomfield, NM 87413 TEL: (505) 632-1199 FAX (505) 632-3903

RE: Irvin Come 1E

OrderNo.: 1806B92

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/20/2018 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 <u>www.hallenvironmental.com</u> 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

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1806B92** Date Reported: **7/6/2018**

CLIENT:	Blagg Engineering		Cl	ient Sa	mple ID	: M	W#7	
Project:	Irvin Come 1E		(Collect	ion Date:	: 6/1	8/2018 2:15:00 PM	
Lab ID:	1806B92-001	Matrix: AQUEO	OUS	Receiv	ed Date:	: 6/2	20/2018 7:15:00 AM	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS						Analyst	MRA
Fluoride		0.27	0.10		mg/L	1	7/3/2018 12:20:31 PM	R52476
Chloride		56	10		mg/L	20	6/20/2018 11:48:29 AM	R52126
Nitrogen	, Nitrite (As N)	ND	0.10		mg/L	1	6/20/2018 11:35:37 AM	R52126
Bromide		0.41	0.10		mg/L	1	6/20/2018 11:35:37 AM	R52126
	, Nitrate (As N)	2.9	0.10		mg/L	1	6/20/2018 11:35:37 AM	R52126
	rus, Orthophosphate (As P)	ND	0.50		mg/L	1	6/20/2018 11:35:37 AM	R52126
Sulfate		580	10		mg/L	20	6/20/2018 11:48:29 AM	R52126
SM2510E	SECIFIC CONDUCTANCE						Analyst:	JRR
Conducti	vity	1700	5.0		µmhos/c	1	6/21/2018 7:17:18 PM	R52161
SM2320B	B: ALKALINITY						Analyst:	JRR
Bicarbon	ate (As CaCO3)	357.2	20.00		mg/L Ca	1	6/21/2018 7:17:18 PM	R52161
Carbona	te (As CaCO3)	ND	2.000		mg/L Ca	1	6/21/2018 7:17:18 PM	R52161
Total Alk	alinity (as CaCO3)	357.2	20.00		mg/L Ca	1	6/21/2018 7:17:18 PM	R52161
SM2540C	MOD: TOTAL DISSOLVED SOL	IDS					Analyst:	KS
Total Dis	solved Solids	1320	100	*D	mg/L	1	6/25/2018 4:16:00 PM	38842
EPA MET	HOD 6010B: DISSOLVED META	LS					Analyst:	JLF
Calcium		240	5.0		mg/L	5	6/22/2018 4:25:35 PM	A52172
Magnesi	um	39	1.0		mg/L	1	6/22/2018 3:54:13 PM	A52172
Potassiu	m	1.8	1.0		mg/L	1	6/22/2018 3:54:13 PM	A52172
Sodium		110	5.0		mg/L	5	6/22/2018 4:25:35 PM	A52172
EPA MET	HOD 8260B: VOLATILES						Analyst:	RAA
Benzene		ND	1.0		µg/L	1	6/22/2018 11:08:00 AM	B52236
Toluene		ND	1.0		µg/L	1	6/22/2018 11:08:00 AM	B52236
Ethylben		ND	1.0		µg/L	1	6/22/2018 11:08:00 AM	B52236
,	ert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/22/2018 11:08:00 AM	B52236
	methylbenzene	ND	1.0		µg/L	1	6/22/2018 11:08:00 AM	B52236
	methylbenzene	ND	1.0		µg/L	1	6/22/2018 11:08:00 AM	
	oroethane (EDC)	ND	1.0		µg/L	1	6/22/2018 11:08:00 AM	
	omoethane (EDB)	ND	1.0		µg/L	1	6/22/2018 11:08:00 AM	
Naphthal	naphthalene	ND ND	2.0		µg/L	1 1	6/22/2018 11:08:00 AM 6/22/2018 11:08:00 AM	B52236 B52236
,	naphthalene	ND	4.0 4.0		µg/L µg/L	1	6/22/2018 11:08:00 AM	B52236
Acetone	napittiaiene	ND	4.0		µg/L	1	6/22/2018 11:08:00 AM	B52236
Bromobe	nzene	ND	1.0		µg/L	1	6/22/2018 11:08:00 AM	B52236
	chloromethane	ND	1.0		µg/L	1	6/22/2018 11:08:00 AM	B52236
Bromofor		ND	1.0		µg/L	1	6/22/2018 11:08:00 AM	B52236
Bromome		ND	3.0		µg/L	1	6/22/2018 11:08:00 AM	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 17
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Lab Order 1806B92

Date Reported: 7/6/2018

Analyses		Re	esult PQ	QL Qual	Units	DF Date Analyzed	Batch
Lab ID:	1806B92-001	Matrix:	AQUEOUS	Receiv	ed Dat	e: 6/20/2018 7:15:00	AM
Project:	Irvin Come 1E			Collect	ion Dat	e: 6/18/2018 2:15:00	PM
CLIENT:	Blagg Engineering			Client Sa	mple II	D: MW#7	

Hall Environmental Analysis Laboratory, Inc.

EPA METHOD 8260B: VOLATILES					Analyst	RAA
2-Butanone	ND	10	µg/L	1	6/22/2018 11:08:00 AM	B5223
Carbon disulfide	ND	10	µg/L	1	6/22/2018 11:08:00 AM	B52236
Carbon Tetrachloride	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52236
Chlorobenzene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52236
Chloroethane	ND	2.0	µg/L	1	6/22/2018 11:08:00 AM	B52236
Chloroform	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52236
Chloromethane	ND	3.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
2-Chlorotoluene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
4-Chlorotoluene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52236
cis-1,2-DCE	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
cis-1,3-Dichloropropene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
Dibromochloromethane	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
Dibromomethane	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
1,2-Dichlorobenzene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
1,3-Dichlorobenzene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
1,4-Dichlorobenzene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
Dichlorodifluoromethane	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
1,1-Dichloroethane	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
1,1-Dichloroethene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
1,2-Dichloropropane	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
1,3-Dichloropropane	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
2,2-Dichloropropane	ND	2.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
1,1-Dichloropropene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
Hexachlorobutadiene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
2-Hexanone	ND	10	µg/L	1	6/22/2018 11:08:00 AM	B5223
Isopropylbenzene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
4-Isopropyltoluene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
4-Methyl-2-pentanone	ND	10	µg/L	1	6/22/2018 11:08:00 AM	B5223
Methylene Chloride	ND	3.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
n-Butylbenzene	ND	3.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
n-Propylbenzene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
sec-Butylbenzene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
Styrene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
tert-Butylbenzene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
Tetrachloroethene (PCE)	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B5223
trans-1,2-DCE	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52230
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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 17
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1806B92 Date Reported: 7/6/2018

CLIENT:Blagg EngineeringProject:Irvin Come 1ELab ID:1806B92-001	Client Sample ID: MW#7Collection Date: 6/18/2018 2:15:00 PMMatrix: AQUEOUSReceived Date: 6/20/2018 7:15:00 AM									
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch				
EPA METHOD 8260B: VOLATILES					Analyst	RAA				
trans-1,3-Dichloropropene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52236				
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52236				
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52236				
1,1,1-Trichloroethane	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52236				
1,1,2-Trichloroethane	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52236				
Trichloroethene (TCE)	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52236				
Trichlorofluoromethane	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52236				
1,2,3-Trichloropropane	ND	2.0	µg/L	1	6/22/2018 11:08:00 AM	B52236				
Vinyl chloride	ND	1.0	µg/L	1	6/22/2018 11:08:00 AM	B52236				
Xylenes, Total	ND	1.5	µg/L	1	6/22/2018 11:08:00 AM	B52236				
Surr: 1,2-Dichloroethane-d4	98.1	70-130	%Rec	1	6/22/2018 11:08:00 AM	B52236				
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	6/22/2018 11:08:00 AM	B52236				
Surr: Dibromofluoromethane	90.9	70-130	%Rec	1	6/22/2018 11:08:00 AM	B52236				
Surr: Toluene-d8	88.1	70-130	%Rec	1	6/22/2018 11:08:00 AM	B52236				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 3 of 17
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1806B92** Date Reported: **7/6/2018**

CLIENT:	Blagg Engineering		C	lient Sa	mple ID	: M	W#8	
	Irvin Come 1E						8/2018 3:15:00 PM	
0	1806B92-002	Matrix: AQUEC					20/2018 7:15:00 AM	
Lau ID.	1800192-002	Matrix: AQUEC	105	Receiv	veu Date	: 0/2	20/2018 7.15.00 AM	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METH	HOD 300.0: ANIONS						Analyst:	MRA
Fluoride		ND	0.50		mg/L	5	7/3/2018 12:59:05 PM	R5247
Chloride		60	10		mg/L	20	6/20/2018 12:33:07 PM	R5213
	Nitrite (As N)	ND	0.10		mg/L	1	6/20/2018 12:20:42 PM	R5213
Bromide		0.41	0.10		mg/L	1	6/20/2018 12:20:42 PM	R5213
	Nitrate (As N)	2.1	0.10		mg/L	1	6/20/2018 12:20:42 PM	R5213
	us, Orthophosphate (As P)	ND	0.50		mg/L	1	6/20/2018 12:20:42 PM	R5213
Sulfate		870	25		mg/L	50	7/3/2018 1:11:57 PM	R5247
SM2510B:	SPECIFIC CONDUCTANCE						Analyst:	JRR
Conductiv	ity	2400	5.0		µmhos/c	1	6/21/2018 7:32:35 PM	R5216
SM2320B:	ALKALINITY						Analyst:	JRR
Bicarbona	ate (As CaCO3)	377.8	20.00		mg/L Ca	1	6/21/2018 7:32:35 PM	R5216
	e (As CaCO3)	ND	2.000		mg/L Ca		6/21/2018 7:32:35 PM	R5216
Total Alka	linity (as CaCO3)	377.8	20.00		mg/L Ca	1	6/21/2018 7:32:35 PM	R5216
SM2540C	MOD: TOTAL DISSOLVED SC	LIDS					Analyst:	KS
Total Diss	olved Solids	2030	100	*D	mg/L	1	6/25/2018 4:16:00 PM	38842
EPA METH	HOD 6010B: DISSOLVED MET	ALS					Analyst:	JLF
Calcium		450	5.0		mg/L	5	6/22/2018 4:27:26 PM	A5217
Magnesiur	m	39	1.0		mg/L	1	6/22/2018 3:55:54 PM	A5217
Potassium	1	1.1	1.0		mg/L	1	6/22/2018 3:55:54 PM	A5217
Sodium		100	5.0		mg/L	5	6/22/2018 4:27:26 PM	A5217
EPA METH	HOD 8260B: VOLATILES						Analyst:	RAA
Benzene		ND	1.0		µg/L	1	6/22/2018 11:32:00 AM	
Toluene		ND	1.0		µg/L	1	6/22/2018 11:32:00 AM	
Ethylbenze		ND	1.0		µg/L	1	6/22/2018 11:32:00 AM	B5223
	t-butyl ether (MTBE)	ND	1.0		µg/L	1	6/22/2018 11:32:00 AM	B5223
	nethylbenzene	ND	1.0		µg/L	1	6/22/2018 11:32:00 AM	B5223
	nethylbenzene	ND	1.0		µg/L	1	6/22/2018 11:32:00 AM	
	proethane (EDC) moethane (EDB)	ND ND	1.0		µg/L	1	6/22/2018 11:32:00 AM 6/22/2018 11:32:00 AM	B5223 B5223
Naphthale		ND	1.0 2.0		µg/L µg/L	1 1	6/22/2018 11:32:00 AM	B5223
	aphthalene	ND	4.0		µg/L	1	6/22/2018 11:32:00 AM	B5223
	aphthalene	ND	4.0		µg/L	1	6/22/2018 11:32:00 AM	B5223
Acetone		ND	10		µg/L	1	6/22/2018 11:32:00 AM	B5223
Bromoben	izene	ND	1.0		µg/L	1	6/22/2018 11:32:00 AM	B5223
Bromodich	hloromethane	ND	1.0		µg/L	1	6/22/2018 11:32:00 AM	B5223
Bromoform	n	ND	1.0		µg/L	1	6/22/2018 11:32:00 AM	B5223
Bromomet	thane	ND	3.0		µg/L	1	6/22/2018 11:32:00 AM	B5223

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 4 of 17
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Lab Order 1806B92

Date Reported: 7/6/2018

CLIENT: Blagg Engineering Client Sample ID: MW#8 Irvin Come 1E Collection Date: 6/18/2018 3:15:00 PM **Project:** Lab ID: 1806B92-002 Matrix: AQUEOUS Received Date: 6/20/2018 7:15:00 AM Result PQL Qual Units Analyses **DF** Date Analyzed Batch EPA METHOD 8260B: VOLATILES Analyst: RAA

Hall Environmental Analysis Laboratory, Inc.

EFA WETHOD 0200D. VOLATILES					Analyst.	NAA
2-Butanone	ND	10	µg/L	1	6/22/2018 11:32:00 AM	B52236
Carbon disulfide	ND	10	µg/L	1	6/22/2018 11:32:00 AM	B52236
Carbon Tetrachloride	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
Chlorobenzene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
Chloroethane	ND	2.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
Chloroform	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
Chloromethane	ND	3.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
2-Chlorotoluene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
4-Chlorotoluene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
cis-1,2-DCE	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
cis-1,3-Dichloropropene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
Dibromochloromethane	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
Dibromomethane	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
1,2-Dichlorobenzene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
1,3-Dichlorobenzene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
1,4-Dichlorobenzene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
Dichlorodifluoromethane	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
1,1-Dichloroethane	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
1,1-Dichloroethene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
1,2-Dichloropropane	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
1,3-Dichloropropane	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
2,2-Dichloropropane	ND	2.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
1,1-Dichloropropene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
Hexachlorobutadiene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
2-Hexanone	ND	10	µg/L	1	6/22/2018 11:32:00 AM	B52236
Isopropylbenzene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
4-Isopropyltoluene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
4-Methyl-2-pentanone	ND	10	µg/L	1	6/22/2018 11:32:00 AM	B52236
Methylene Chloride	ND	3.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
n-Butylbenzene	ND	3.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
n-Propylbenzene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
sec-Butylbenzene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
Styrene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
tert-Butylbenzene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
Tetrachloroethene (PCE)	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236
trans-1,2-DCE	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 5 of 17
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report Lab Order 1806B92

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/6/2018

CLIENT: Blagg Engineering	Client Sample ID: MW#8 Collection Date: 6/18/2018 3:15:00 PM								
Project: Irvin Come 1E									
Lab ID: 1806B92-002	Matrix: AQUEO	US	Received Dat	e: 6/2	20/2018 7:15:00 AM				
Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch			
EPA METHOD 8260B: VOLATILES					Analyst	RAA			
trans-1,3-Dichloropropene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236			
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236			
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236			
1,1,1-Trichloroethane	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236			
1,1,2-Trichloroethane	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236			
Trichloroethene (TCE)	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236			
Trichlorofluoromethane	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236			
1,2,3-Trichloropropane	ND	2.0	µg/L	1	6/22/2018 11:32:00 AM	B52236			
Vinyl chloride	ND	1.0	µg/L	1	6/22/2018 11:32:00 AM	B52236			
Xylenes, Total	ND	1.5	µg/L	1	6/22/2018 11:32:00 AM	B52236			
Surr: 1,2-Dichloroethane-d4	98.1	70-130	%Rec	1	6/22/2018 11:32:00 AM	B52236			
Surr: 4-Bromofluorobenzene	105	70-130	%Rec	1	6/22/2018 11:32:00 AM	B52236			
Surr: Dibromofluoromethane	91.9	70-130	%Rec	1	6/22/2018 11:32:00 AM	B52236			
Surr: Toluene-d8	79.7	70-130	%Rec	1	6/22/2018 11:32:00 AM	B52236			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 6 of 17
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT	
Hall Environmental Analysis Laboratory, Inc	•

Client: Blagg Engineering

	me 1E									
Sample ID MB	SampT	ype: ME	BLK	Test	Code: El	PA Method	300.0: Anions	;		
Client ID: PBW	Batch	1D: R5	2126	R	unNo: 5	2126				
Prep Date:	Analysis D	ate: 6/	20/2018	S	eqNo: 1	706575	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Sample ID LCS	SampT	ype: LC	S	Test	Code: El	PA Method	300.0: Anions	i		
Client ID: LCSW	Batch	1D: R5	2126	R	unNo: 5	2126				
Prep Date:	Analysis D	ate: 6/	20/2018	S	eqNo: 1	706576	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.8	90	110			
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	98.0	90	110			
Bromide	2.5	0.10	2.500	0	99.3	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.2	90	110			
Sulfate	9.5	0.50	10.00	0	95.2	90	110			
Sample ID MB	SampT	ype: ME	BLK	Test	Code: El	PA Method	300.0: Anions			
Client ID: PBW	Batch	n ID: R5	2126	R	tunNo: 5	2126				
Prep Date:	Analysis D	ate: 6/	20/2018	S	eqNo: 1	706628	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogon Nitrito (Ac NI)	ND	AS2 24 25								
Nill ogen, Nill le (AS N)	110	0.10								
	ND	0.10 0.10								
Bromide										
Bromide Nitrogen, Nitrate (As N)	ND	0.10								
Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P	ND ND	0.10 0.10								
Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sulfate Sample ID LCS	ND ND ND ND	0.10 0.10 0.50	S	Test	tCode: El	PA Method	300.0: Anions	;		
Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sulfate	ND ND ND SampT	0.10 0.10 0.50 0.50			tCode: El RunNo: 5		300.0: Anions	 i		
Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sulfate Sample ID LCS	ND ND ND SampT	0.10 0.10 0.50 0.50 ype: LC	2126	R		2126	300.0: Anions Units: mg/L	5		
Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sulfate Sample ID LCS Client ID: LCSW	ND ND ND SampT Batch Analysis D Result	0.10 0.10 0.50 0.50 ype: LC n ID: R5 pate: 6/	2126 20/2018 SPK value	R S SPK Ref Val	RunNo: 5 SeqNo: 1 %REC	2126 706629 LowLimit	Units: mg/L HighLimit	%RPD	RPDLimit	Qual
Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sulfate Sample ID LCS Client ID: LCSW Prep Date: Analyte	ND ND ND SampT Batch Analysis D Result 5.0	0.10 0.10 0.50 0.50 ype: LC n ID: R5 pate: 6/ PQL 0.50	2126 20/2018 SPK value 5.000	R SPK Ref Val 0	2unNo: 5 SeqNo: 1 %REC 101	2126 706629 LowLimit 90	Units: mg/L HighLimit 110		RPDLimit	Qual
Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sulfate Sample ID LCS Client ID: LCSW Prep Date:	ND ND ND SampT Batch Analysis D Result	0.10 0.10 0.50 0.50 ype: LC n ID: R5 pate: 6/	2126 20/2018 SPK value 5.000 1.000	R S SPK Ref Val	RunNo: 5 SeqNo: 1 <u>%REC</u> 101 101	2126 706629 LowLimit 90 90	Units: mg/L HighLimit 110 110		RPDLimit	Qual
Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sulfate Sample ID LCS Client ID: LCSW Prep Date: Analyte Chloride	ND ND ND SampT Batch Analysis D Result 5.0	0.10 0.10 0.50 0.50 ype: LC n ID: R5 pate: 6/ PQL 0.50	2126 20/2018 SPK value 5.000	R SPK Ref Val 0	2unNo: 5 SeqNo: 1 %REC 101	2126 706629 LowLimit 90	Units: mg/L HighLimit 110		RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- Sample Diluted Due to Matrix D
- Holding times for preparation or analysis exceeded Н
- 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
- Reporting Detection Limit RL
- W Sample container temperature is out of limit as specified

Page 7 of 17

WO#: 1806B92

WO#:	1806B92

06-Jul-18

Client: Blagg E Project: Irvin Co	ngineering ome 1E									
Sample ID LCS	Samp	Type: LC	s	Tes	tCode: E	PA Method	300.0: Anions	5		
Client ID: LCSW	Batc	h ID: R5	52126	F	RunNo: 5	2126				
Prep Date:	Analysis E	Date: 6/	20/2018	S	SeqNo: 1	706629	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	101	90	110			
Sulfate	9.8	0.50	10.00	0	98.0	90	110			
Sample ID MB	SampT	Гуре: М	BLK	Tes	tCode: E	PA Method	300.0: Anions	6		
Client ID: PBW	Batc	h ID: R5	2134	F	RunNo: 5	2134				
Prep Date:	Analysis E	Date: 6/	20/2018	5	SegNo: 1	707308	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Sample ID LCS	SampT	ype: LC	S	Tes	tCode: El	PA Method	300.0: Anions	6		
Sample ID LCS Client ID: LCSW	•	Type: LC h ID: R5			tCode: El RunNo: 5		300.0: Anions	6		
	•	h ID: R5	2134	F		2134	300.0: Anions Units: mg/L	5		
Client ID: LCSW	Batcl	h ID: R5	2134 20/2018	F	RunNo: 5	2134		%RPD	RPDLimit	Qual
Client ID: LCSW Prep Date:	Batcl Analysis D	h ID: R5 Date: 6/	2134 20/2018	F	RunNo: 5 SeqNo: 1	2134 707309	Units: mg/L		RPDLimit	Qual
Client ID: LCSW Prep Date: Analyte	Batcl Analysis D Result	h ID: R5 Date: 6/	2134 20/2018 SPK value	F S SPK Ref Val	RunNo: 5 SeqNo: 1 %REC	2134 707309 LowLimit	Units: mg/L HighLimit		RPDLimit	Qual
Client ID: LCSW Prep Date: Analyte Chloride	Batcl Analysis D Result 4.8	h ID: R5 Date: 6 / PQL 0.50	2134 20/2018 SPK value 5.000	F SPK Ref Val 0	RunNo: 5 SeqNo: 1 %REC 96.8	2134 707309 LowLimit 90	Units: mg/L HighLimit 110		RPDLimit	Qual
Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N)	Batcl Analysis D Result 4.8 0.98	h ID: R5 Date: 6 / PQL 0.50 0.10	2134 20/2018 SPK value 5.000 1.000	F SPK Ref Val 0 0	RunNo: 5 SeqNo: 1 %REC 96.8 98.5	2134 707309 LowLimit 90 90	Units: mg/L HighLimit 110 110		RPDLimit	Qual
Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide	Batcl Analysis E Result 4.8 0.98 2.6	h ID: R5 Date: 6 / <u>PQL</u> 0.50 0.10 0.10	2134 20/2018 SPK value 5.000 1.000 2.500	F SPK Ref Val 0 0 0	RunNo: 5 SeqNo: 1 <u>%REC</u> 96.8 98.5 105	2134 707309 LowLimit 90 90 90	Units: mg/L HighLimit 110 110 110		RPDLimit	Qual
Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N)	Batcl Analysis E Result 4.8 0.98 2.6 2.5 5.1	h ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10	2134 20/2018 SPK value 5.000 1.000 2.500 2.500 5.000	F SPK Ref Val 0 0 0 0 0 0	RunNo: 5 SeqNo: 1 %REC 96.8 98.5 105 102 101	2134 707309 LowLimit 90 90 90 90 90 90	Units: mg/L HighLimit 110 110 110 110	%RPD	RPDLimit	Qual
Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P	Batcl Analysis D Result 4.8 0.98 2.6 2.5 5.1 SampT	h ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10 0.10 0.50	22134 20/2018 SPK value 5.000 1.000 2.500 2.500 5.000 BLK	F SPK Ref Val 0 0 0 0 0 0 Tes	RunNo: 5 SeqNo: 1 %REC 96.8 98.5 105 102 101	2134 707309 LowLimit 90 90 90 90 90 90	Units: mg/L HighLimit 110 110 110 110 110 110	%RPD	RPDLimit	Qual
Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sample ID MB	Batcl Analysis D Result 4.8 0.98 2.6 2.5 5.1 SampT	h ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10 0.50 0.50 0.50	22134 20/2018 SPK value 5.000 1.000 2.500 2.500 5.000 SLK 22134	F SPK Ref Val 0 0 0 0 0 0 0 Tes F	RunNo: 5 SeqNo: 1 %REC 96.8 98.5 105 102 101 tCode: El	2134 707309 LowLimit 90 90 90 90 90 PA Method 2134	Units: mg/L HighLimit 110 110 110 110 110 110	%RPD	RPDLimit	Qual
Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sample ID MB Client ID: PBW	Batcl Analysis D Result 4.8 0.98 2.6 2.5 5.1 SampT Batcl	h ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10 0.50 0.50 0.50	22134 20/2018 SPK value 5.000 1.000 2.500 2.500 5.000 3LK 2134 20/2018	F SPK Ref Val 0 0 0 0 0 0 0 Tes F	RunNo: 5 SeqNo: 1 %REC 96.8 98.5 105 102 101 tCode: El RunNo: 5 SeqNo: 1	2134 707309 LowLimit 90 90 90 90 90 PA Method 2134	Units: mg/L HighLimit 110 110 110 110 110 300.0: Anions	%RPD	RPDLimit	Qual
Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sample ID MB Client ID: PBW Prep Date:	Batcl Analysis D Result 4.8 0.98 2.6 2.5 5.1 SampT Batcl Analysis D	h ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10 0.10 0.50 Fype: ME h ID: R5 Date: 6/	22134 20/2018 SPK value 5.000 1.000 2.500 2.500 5.000 3LK 2134 20/2018	F SPK Ref Val 0 0 0 0 0 Tes F S	RunNo: 5 SeqNo: 1 %REC 96.8 98.5 105 102 101 tCode: El RunNo: 5 SeqNo: 1	2134 707309 LowLimit 90 90 90 90 90 90 90 90 90 2134 707362	Units: mg/L HighLimit 110 110 110 110 300.0: Anions Units: mg/L	%RPD		
Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sample ID MB Client ID: PBW Prep Date: Analyte	Batcl Analysis D Result 4.8 0.98 2.6 2.5 5.1 SampT Batcl Analysis D Result	h ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10 0.50 Vype: ME h ID: R5 Date: 6/ PQL	22134 20/2018 SPK value 5.000 1.000 2.500 2.500 5.000 3LK 2134 20/2018	F SPK Ref Val 0 0 0 0 0 Tes F S	RunNo: 5 SeqNo: 1 %REC 96.8 98.5 105 102 101 tCode: El RunNo: 5 SeqNo: 1	2134 707309 LowLimit 90 90 90 90 90 90 90 90 90 2134 707362	Units: mg/L HighLimit 110 110 110 110 300.0: Anions Units: mg/L	%RPD		
Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sample ID MB Client ID: PBW Prep Date: Analyte Chloride	Batcl Analysis D Result 4.8 0.98 2.6 2.5 5.1 SampT Batcl Analysis D Result ND	h ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10 0.10 0.50 Fype: ME h ID: R5 Date: 6/ PQL 0.50	22134 20/2018 SPK value 5.000 1.000 2.500 2.500 5.000 3LK 22134 20/2018	F SPK Ref Val 0 0 0 0 0 Tes F S	RunNo: 5 SeqNo: 1 %REC 96.8 98.5 105 102 101 tCode: El RunNo: 5 SeqNo: 1	2134 707309 LowLimit 90 90 90 90 90 90 90 90 90 2134 707362	Units: mg/L HighLimit 110 110 110 110 300.0: Anions Units: mg/L	%RPD		
Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sample ID MB Client ID: PBW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N)	Batcl Analysis D Result 4.8 0.98 2.6 2.5 5.1 SampT Batcl Analysis D Result ND ND	h ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10 0.10 0.50 fype: ME h ID: R5 Date: 6/ PQL 0.50 0.10	22134 20/2018 SPK value 5.000 1.000 2.500 2.500 5.000 3LK 22134 20/2018	F SPK Ref Val 0 0 0 0 0 Tes F S	RunNo: 5 SeqNo: 1 %REC 96.8 98.5 105 102 101 tCode: El RunNo: 5 SeqNo: 1	2134 707309 LowLimit 90 90 90 90 90 90 90 90 90 2134 707362	Units: mg/L HighLimit 110 110 110 110 300.0: Anions Units: mg/L	%RPD		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- 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
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified W

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Client:	Blagg Engineering

Project: Irvin (Come	1E
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					the second s					
Sample ID LCS	SampT	ype: LC	s	Tes	tCode: E	PA Method	300.0: Anions	;		
Client ID: LCSW	Batch ID: R52134			F	2134					
Prep Date:	Analysis D	Date: 6/	20/2018	5	SeqNo: 1	707363	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.8	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	96.1	90	110			
Bromide	2.5	0.10	2.500	0	102	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.5	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.2	90	110			
Sample ID MB	SampT	уре: МЕ	BLK	Tes	tCode: E	PA Method	300.0: Anions			
Client ID: PBW	Batch	h ID: R5	2134	F	RunNo: 5	2134				
Prep Date:	Analysis D	Date: 6/	21/2018	5	SeqNo: 1	707395	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
(110									
Sample ID LCS		ype: LC	S	Tes	tCode: E	PA Method	300.0: Anions			
	SampT				tCode: El RunNo: 5		300.0: Anions			
Sample ID LCS	SampT	ype: LC	2134	F		2134	300.0: Anions Units: mg/L			
Sample ID LCS Client ID: LCSW	SampT Batch	ype: LC	2134 21/2018	F	RunNo: 5	2134	Units: mg/L HighLimit	%RPD	RPDLimit	Qual
Sample ID LCS Client ID: LCSW Prep Date: Analyte	SampT Batch Analysis D	ype: LC n ID: R5 Date: 6/	2134 21/2018	F	RunNo: 5 SeqNo: 1 %REC 94.4	2134 707396 LowLimit 90	Units: mg/L HighLimit 110		RPDLimit	Qual
Sample ID LCS Client ID: LCSW Prep Date: Analyte Chloride	SampT Batch Analysis D Result	ype: LC n ID: R5 Date: 6/	2134 21/2018 SPK value	F S SPK Ref Val	RunNo: 5 SeqNo: 1 %REC 94.4 96.8	2134 707396 LowLimit	Units: mg/L HighLimit 110 110		RPDLimit	Qual
Sample ID LCS Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N)	SampT Batch Analysis D Result 4.7	ype: LC n ID: R5 Date: 6/ PQL 0.50	2134 21/2018 SPK value 5.000	F SPK Ref Val 0	RunNo: 5 SeqNo: 1 %REC 94.4	2134 707396 LowLimit 90	Units: mg/L HighLimit 110		RPDLimit	Qual
Sample ID LCS Client ID: LCSW Prep Date:	SampT Batch Analysis D Result 4.7 0.97	ype: LC n ID: R5 Date: 6/ PQL 0.50 0.10	2134 21/2018 SPK value 5.000 1.000	F S SPK Ref Val 0 0	RunNo: 5 SeqNo: 1 %REC 94.4 96.8	2134 707396 LowLimit 90 90	Units: mg/L HighLimit 110 110		RPDLimit	Qual
Sample ID LCS Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N)	SampT Batch Analysis D Result 4.7 0.97 2.6	ype: LC n ID: R5 Date: 6/ PQL 0.50 0.10 0.10	2134 21/2018 SPK value 5.000 1.000 2.500	F S SPK Ref Val 0 0 0	RunNo: 5 SeqNo: 1 <u>%REC</u> 94.4 96.8 103	2134 707396 LowLimit 90 90 90	Units: mg/L HighLimit 110 110 110		RPDLimit	Qual
Sample ID LCS Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide	SampT Batch Analysis D Result 4.7 0.97 2.6 2.5 5.0	ype: LC n ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10 0.10	2134 21/2018 SPK value 5.000 1.000 2.500 2.500 5.000	F SPK Ref Val 0 0 0 0 0	RunNo: 5 SeqNo: 1 %REC 94.4 96.8 103 99.3 99.5	2134 707396 LowLimit 90 90 90 90 90 90	Units: mg/L HighLimit 110 110 110 110	%RPD	RPDLimit	Qual
Sample ID LCS Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P	SampT Batch Analysis D Result 4.7 0.97 2.6 2.5 5.0 SampT	ype: LC n ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10 0.10 0.50	2134 21/2018 SPK value 5.000 1.000 2.500 2.500 5.000	F SPK Ref Val 0 0 0 0 0 0 Tes	RunNo: 5 SeqNo: 1 %REC 94.4 96.8 103 99.3 99.5	2134 707396 LowLimit 90 90 90 90 90 90	Units: mg/L HighLimit 110 110 110 110 110 110	%RPD	RPDLimit	Qual
Sample ID LCS Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sample ID MB	SampT Batch Analysis D Result 4.7 0.97 2.6 2.5 5.0 SampT	Type: LC n ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10 0.10 0.50 0.10 0.50 0.10 0.50 0.10 0.50 0.10 0.50 0.10	2134 21/2018 SPK value 5.000 1.000 2.500 2.500 5.000 Dlk 2476	F SPK Ref Val 0 0 0 0 0 0 Tes F	RunNo: 5 SeqNo: 1 %REC 94.4 96.8 103 99.3 99.3 99.5	2134 707396 LowLimit 90 90 90 90 90 PA Method 2476	Units: mg/L HighLimit 110 110 110 110 110 110	%RPD	RPDLimit	Qual
Sample ID LCS Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sample ID MB Client ID: PBW Prep Date: Analyte	SampT Batch Analysis D Result 4.7 0.97 2.6 2.5 5.0 SampT Batch Analysis D Result	Type: LC n ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10 0.50 Type: mt n ID: R5 Date: 7/ PQL	2134 21/2018 SPK value 5.000 1.000 2.500 2.500 5.000 Dlk 2476 3/2018	F SPK Ref Val 0 0 0 0 0 0 Tes F	RunNo: 5 SeqNo: 1 <u>%REC</u> 94.4 96.8 103 99.3 99.5 tCode: El RunNo: 5 SeqNo: 1	2134 707396 LowLimit 90 90 90 90 90 PA Method 2476	Units: mg/L HighLimit 110 110 110 110 110 300.0: Anions	%RPD	RPDLimit	Qual
Sample ID LCS Client ID: LCSW Prep Date: Analyte Chloride Nitrogen, Nitrite (As N) Bromide Nitrogen, Nitrate (As N) Phosphorus, Orthophosphate (As P Sample ID MB Client ID: PBW Prep Date:	SampT Batch Analysis D Result 4.7 0.97 2.6 2.5 5.0 SampT Batch Analysis D	ype: LC n ID: R5 Date: 6/ PQL 0.50 0.10 0.10 0.10 0.50 Type: mt n ID: R5 Date: 7/	2134 21/2018 SPK value 5.000 1.000 2.500 2.500 5.000 Dlk 2476 3/2018	F SPK Ref Val 0 0 0 0 0 Tes F S	RunNo: 5 SeqNo: 1 <u>%REC</u> 94.4 96.8 103 99.3 99.5 tCode: El RunNo: 5 SeqNo: 1	2134 707396 LowLimit 90 90 90 90 90 90 90 90 90 2476 720725	Units: mg/L HighLimit 110 110 110 110 300.0: Anions Units: mg/L	%RPD		

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
- Page 9 of 17

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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QC SUMMARY REPORT	
Hall Environmental Analysis Laboratory, Inc.	

Client:	Blagg Engineering
Project:	Irvin Come 1E

Sample ID LCS-b	SampType: Ics			Test	Code: El	6				
Client ID: LCSW	Batch	ID: R5	2476	RunNo: 52476						
Prep Date:	Analysis Date: 7/3/2018			S	eqNo: 1	720731	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.9	90	110			
Sulfate	9.1	0.50	10.00	0	90.8	90	110			

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
- Analyte detected in the associated Method Blank В
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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WO#: 1806B92 06-Jul-18

Client: Blagg Engineering

Project: Irvin (Come 1E											
Sample ID 100ng Ics2	SampT	ype: LC	S	Test	TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch	h ID: B5	2236	RunNo: 52236								
Prep Date:	Analysis D	Date: 6/	22/2018	S	SeqNo: 1	711792	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	20	1.0	20.00	0	99.0	70	130					
Toluene	19	1.0	20.00	0	95.3	70	130					
Chlorobenzene	18	1.0	20.00	0	91.7	70	130					
1,1-Dichloroethene	20	1.0	20.00	0	99.4	70	130					
Trichloroethene (TCE)	18	1.0	20.00	0	92.4	70	130					
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.6	70	130					
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130					
Surr: Dibromofluoromethane	9.2		10.00		91.5	70	130					
Surr: Toluene-d8	9.4		10.00		94.3	70	130					
Sample ID rb3	SampT	уре: МЕ	LK	Test	tCode: E	PA Method	8260B: VOL	ATILES				
Client ID: PBW	Batch	n ID: B5	2236	R	RunNo: 5	2236						
Prep Date:	Analysis D	Date: 6/	22/2018	S	SeqNo: 1	711793	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	1.0										
Toluene	ND	1.0										
Ethylbenzene	ND	1.0										
Methyl tert-butyl ether (MTBE)	ND	1.0										
1,2,4-Trimethylbenzene	ND	1.0										
1,3,5-Trimethylbenzene	ND	1.0										
1,2-Dichloroethane (EDC)	ND	1.0										
1,2-Dibromoethane (EDB)	ND	1.0										
Naphthalene	ND	2.0										
1-Methylnaphthalene	ND	4.0										
2-Methylnaphthalene	ND	4.0										
Acetone	ND	10										
Bromobenzene	ND	1.0										
Bromodichloromethane	ND	1.0										
Bromoform	ND	1.0										
Bromomethane	ND	3.0										
2-Butanone	ND	10										
Carbon disulfide	ND	10										
Carbon Tetrachloride	ND	1.0										
Chlorobenzene	ND	1.0										
Chloroethane	ND	2.0										
Chloroform	ND	1.0										
Chloromethane	ND	3.0										
2-Chlorotoluene	ND	1.0										

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 Detection Limit
- W Sample container temperature is out of limit as specified

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WO#: 1806B92

Client: Blagg Engineering Irvin Come 1E

Project:

	Type: MBLK		ICOUP FP	A Method	8260B: VOL/	ATILES		
	ch ID: B52236		RunNo: 52		-100D. TOL			
	Date: 6/22/2018		SeqNo: 17		Units: µg/L			
						0/ 000		Qual
Analyte Result 4-Chlorotoluene ND	PQL SPK value	e SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	1.0							
cis-1,3-Dichloropropene ND 1,2-Dibromo-3-chloropropane ND	1.0 2.0							
1,2-Dibromo-3-chloropropane ND Dibromochloromethane ND	1.0							
Dibromomethane ND	1.0							
1,2-Dichlorobenzene ND	1.0							
1,3-Dichlorobenzene ND	1.0							
1,4-Dichlorobenzene ND	1.0							
Dichlorodifluoromethane ND	1.0							
1,1-Dichloroethane ND	1.0							
1,1-Dichloroethene ND	1.0							
1,2-Dichloropropane ND	1.0							
1,3-Dichloropropane ND	1.0							
2,2-Dichloropropane ND	2.0							
1,1-Dichloropropene ND	1.0							
Hexachlorobutadiene ND	1.0							
2-Hexanone ND	10							
Isopropylbenzene ND	1.0							
4-Isopropyltoluene ND	1.0							
4-Methyl-2-pentanone ND	10							
Methylene Chloride ND	3.0							
n-Butylbenzene ND	3.0							
n-Propylbenzene ND	1.0							
sec-Butylbenzene ND	1.0							
Styrene ND	1.0							
tert-Butylbenzene ND	1.0							
1,1,1,2-Tetrachloroethane ND	1.0							
1,1,2,2-Tetrachloroethane ND	2.0							
Tetrachloroethene (PCE) ND	1.0							
trans-1,2-DCE ND	1.0							
trans-1,3-Dichloropropene ND	1.0							
1,2,3-Trichlorobenzene ND	1.0							
1,2,4-Trichlorobenzene ND	1.0							
1,1,1-Trichloroethane ND	1.0							
1,1,2-Trichloroethane ND	1.0							
Trichloroethene (TCE) ND	1.0							
Trichlorofluoromethane ND	1.0							
1,2,3-Trichloropropane ND	2.0							

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- Sample Diluted Due to Matrix D
- Η 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
- Analyte detected in the associated Method Blank В
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

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WO#: 1806B92

Client:	Blagg Engineering
Project:	Irvin Come 1E

Sample ID rb3	SampT	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID: PBW	Batch ID: B52236			R	2236					
Prep Date:	Analysis D	ate: 6/	22/2018	S	SeqNo: 1	711793	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	9.1		10.00		90.7	70	130			
Surr: Toluene-d8	9.4		10.00		93.5	70	130			

- Value exceeds Maximum Contaminant Level. *
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit ND
- 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 Detection Limit
- Sample container temperature is out of limit as specified W

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WO#: 1806B92

Client: Blagg Engineering Project: Irvin Come 1E

Sample ID Ics-1 ~20uS eC	SampType: Ics			Test	TestCode: SM2510B: Specific Conductance					
Client ID: LCSW	Batch	ID: R5	2161	R	unNo: 5	2161				
Prep Date:	Analysis Da	ate: 6/	21/2018	S	eqNo: 1	708753	Units: µmho	os/cm		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	22	5.0	19.98	0	112	80	120			

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- В
- E
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Analyte detected in the associated Method Blank

- Value above quantitation range

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WO#: 1806B92 06-Jul-18

Client: Blagg Engineering Irvin Come 1E **Project:**

Sample ID	MB	SampTy	pe: ME	BLK	TestCode: EPA Method 6010B: Dissolved Metals						
Client ID:	PBW	Batch	ID: A5	2172	RunNo: 52172						
Prep Date:		Analysis Da	ate: 6/	22/2018	SeqNo: 1709121			Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		ND	1.0								
Magnesium		ND	1.0								
Potassium		ND	1.0								
Sodium		ND	1.0								
Sample ID	LCS	SampTy	pe: LC	s	Tes	tCode: E	PA Method	6010B: Disso	lved Meta	als	
Client ID:	LCSW	Batch ID: A52172			RunNo: 52172						
Prep Date:		Analysis Da	Analysis Date: 6/22/2018			SeqNo: 1709123					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		50	1.0	50.00	0	101	80	120			
Magnesium		51	1.0	50.00	0	101	80	120			
Potassium		49	1.0	50.00	0	98.6	80	120			
Sodium		51	1.0	50.00	0	102	80	120			
Sample ID	LCSD	SampTy	pe: LC	SD	Tes	tCode: E	PA Method	6010B: Disso	lved Meta	als	
Client ID:	LCSS02	Batch	ID: A5	2172	F	RunNo:	52172				
Prep Date:		Analysis Da	ate: 6/	22/2018	5	SeqNo: 1	1709124	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		49	1.0	50.00	0	97.4	80	120	3.54	20	
Magnesium		49	1.0	50.00	0	97.7	80	120	3.53	20	
Potassium		48	1.0	50.00	0	95.2	80	120	3.55	20	
Sodium		50	1.0	50.00	0	101	80	120	1.24	20	

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
- Page 15 of 17

- Р Sample pH Not In Range RL Reporting Detection Limit
- W
 - Sample container temperature is out of limit as specified

WO#: 1806B92 06-Jul-18

y, Inc.

WO#:	1806B92	2
	AC 1 1 1	•

06-Jul-18

Client: Project:	Blagg Engi Irvin Come	0								
Sample ID m	nb-1 alk	SampType	e: mblk	Tes	tCode: SM2	320B: All	kalinity			
Client ID: P	BW	Batch ID	R52161	F	RunNo: 5216	61				
Prep Date:	A	nalysis Date	6/21/2018	S	SeqNo: 1708	8707	Units: mg/L	CaCO3		
Analyte Total Alkalinity (as			PQL SPK value	SPK Ref Val	%REC L	owLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID Ic	cs-1 alk	SampType	e: Ics	Tes	tCode: SM2	320B: All	kalinity			
Client ID: L	CSW	Batch ID	R52161	F	RunNo: 5216	61				
Prep Date:	A	nalysis Date	6/21/2018	5	SeqNo: 1708	8708	Units: mg/L	CaCO3		
Analyte		Result P	QL SPK value	SPK Ref Val	%REC L	owLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as	s CaCO3)	79.16 2	0.00 80.00	0	99.0	90	110			
Sample ID m	nb-2 alk	SampType	e: mblk	Tes	tCode: SM2	320B: All	kalinity			
Client ID: P	BW	Batch ID	R52161	F	RunNo: 5216	61				
Prep Date:	A	nalysis Date	6/21/2018	5	SeqNo: 1708	8730	Units: mg/L	CaCO3		
Analyte		Result P	QL SPK value	SPK Ref Val	%REC L	owLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as	s CaCO3)	ND 2	0.00							
Sample ID Ic	cs-2 alk	SampType	e: Ics	Tes	tCode: SM2	320B: All	kalinity			
Client ID: L	CSW	Batch ID	R52161	F	RunNo: 5216	61				
Prep Date:	A	nalysis Date	6/21/2018	S	SeqNo: 1708	8731	Units: mg/L	CaCO3		
Analyte		Result P	QL SPK value	SPK Ref Val	%REC L	owLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as	s CaCO3)	79.52 2	0.00 80.00	0	99.4	90	110			

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 Detection Limit
- W Sample container temperature is out of limit as specified

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Client: Blagg Engineering **Project:** Irvin Come 1E

Sample ID MB-38842	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids				
Client ID: PBW	Batch ID: 38842	RunNo: 52218				
Prep Date: 6/22/2018	Analysis Date: 6/25/2018	SeqNo: 1710741	Units: mg/L			
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual			
Total Dissolved Solids	ND 20.0					
Sample ID LCS-38842	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids				
Client ID: LCSW	Batch ID: 38842	RunNo: 52218				
Prep Date: 6/22/2018	Analysis Date: 6/25/2018	SeqNo: 1710742	Units: mg/L			
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual			
Total Dissolved Solids	1020 20.0 1000	0 102 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
- Analyte detected in the associated Method Blank В
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

HALL Hall Environmental Analysis Laboratory 4901 Hawkins NE Aibuquerque, NM 87109 Sample ANALYSIS LABORATORY TEL: 505-345-3975 FAX: 505-345-4107 Website. www.halienvironmental.com Sample Client Name: BLAGG Work Order Number: 1806B92 Received By: Isalah Ortiz 6/20/2018 7:15:00 AM Image: Michelle Garcia Completed By: Michelle Garcia 6/20/2018 9:20:00 AM Michelle Garcia

		.		
Sample	Log-In	Check	L	1

RoptNo: 1

Received By:	Isaiah Ortiz	6/20/2018 7:15:00 AM	л	IGh	-
Completed By:	Michelle Garcia	6/20/2018 9:20:00 AM	4	minu G	aue)
Reviewed By:	ny	04/20/11	(
Chain of Cus	tody				
1 Is Chain of Cu	ustody complete?		Yes 🗹	No 🗌	Not Present
2. How was the	sample delivered?		Courier		
Log In 3. Was an attem	pt made to cool the samp	iles?	Yes 🔽	No 🗌	NA 🗌
4. Were all samp	les received at a tempera	iture of >0° C to 6 0°C	Yes 🗸	No 🛄	NA 🗌
5. Sample(s) in p	proper container(s)?		Yes 🗹	No	
6. Sufficient sam	ple volume for indicated t	est(s)?	Yes 🔽		
7, Are samples (e	except VOA and ONG) pr	operly preserved?	Yes 🖌	Na	
8. Was preservat	tive added to bottles?		Yes	No 🗹	NA
9. VOA vials have	e zero headspace?		Yes 🖌	No	No VOA Vials
10. Were any sam	nple containers received t	proken?	Yes	No 🗸	# of preserved
	rk match bottle labels? incics on chain of custody	0	Yes 🖌	No	for pH (<2 or >12 unless noted)
12 Are matrices c	crrectly identified on Cha	in of Custody?	Yes 🖌	No 🗌	Adjusted?
13. Is it clear what	analyses were requested	12	Yes 🗸	No	
	ng times able to be met? Istomer for authorization	1	Yes 🖌	No	Checked by:
Special Handl	ing (if applicable)				
15. Was client no	tified of all discrepancies	with this order?	Yes	No 🗌	NA 🗹
Person	Notified:	Date			
By Who	en 🗌	Via:	eMail	Phone Fax	In Person
Regardi	ng	andra al al di al angenera di shekara			
Client In	structions:				

16. Additional remarks for metals analysis: poured CEF from provided SCO ME HDPE into a 250me with HDPE 4- added approx. 0.4 MEHNO3 for acceptable ritt

17	Cooler Inform	and the second second second		,				
	Cooler No	Temp *C	Condition	Seal Intact	Seal No	Seal Date	Signed By	Held For 24hrs
	1	1.4	Good	Not Present				mu 10/20/18 @/100
								mue cepto conto

Chain-of-Custody Record			Turn-Around Time:						н	۸1		FN	vı	тс	20	NI	ME	N				
Client:	BLAG	G ENGR.	/ BP AMERICA	Standard	Rush				_							-						
				Project Name:				ANALYSIS LABORATORY														
Mailing Address: P.O. BOX 87 BLOOMFIELD, NM 87413 Phone #: (505) 632-1199			IRVIN COM # 1E																			
			Project #:				4901 Hawkins NE - Albuquerque, NM 871D9 Tel. 505-345-3975 Fax 505-345-4107															
							le	1. 50	5-34	5-39)/					
Phone #: (505) 632-1199 email or Fax#:			Project Manager:				Analysis Request															
QA/QC Package:			STEVE MOSKAL			(80218)	(Aluo	MRO)					04,504)	/ 8082 PCB's								
Accreditation:			Sampler: NELSON VELEZ					2	_		SIM		02,PI	382		nce	ds			sample	N)	
			On Ice: Xres I No				TPH (Gas	/DR	18.1	04.1	8270SIMS)		3, NC	/ 81		Balance	Solids			san		
EDD (Type)				Sample Temperature: 1.4				+	GRO	pd 4	s po	or 8	tals	N,	ides	2	Anion	ved		a	osite	Y or
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE	BTEX + MTBE	TPH 8015B (GRO / DRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310	RCRA 8 Metals	Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄)	8081 Pesticides	8260B (VOA)	Cation / An	Total Dissolved		Grab sample	5 pt. composite	Air Bubbles (Y or N)
6/18/18	1415	WATER	MW # 7	40 ml VOA - 2	HCI & Cool	1806892 CUI	8	8	H	Ŧ		à	ž	Ā	8(∞ V	ŭ	ř	-+	<u>⊽</u> √	5	Ai
6/18/18		WATER	MW # 7	500 ml - 1	Cool	201		-	-+	+	+	+	-+	-		•	V	V	\rightarrow	v	-	_
0/10/10	1415	WATER		500 111-1	000			-	-		+	+	-	-	_	_	V	V	-+	V	-	_
6/14/18	1515	WATER	MW # 8	40 ml VOA - 2	HCI & Cool	ar			-	+	+	+	+			v	-		\neg	V	-	
6/14/18	1515	WATER	MW # 8	500 ml - 1	Cool												٧	٧		V		
																						_
								_	_	-	+		-	_		_				+	+	
			<u> </u>					_			+	+	-	_						-	+	-
Date: 6/19/18	™e: 1509	Relinquishe	In y	Received by Date Time Mistublity U/19/18-1505 Received by Date Time				Remarks: BILL DIRECTLY TO BP: 200 Energy Court, Farmington, NM 87401 Attn.: Steve Moskal														
Date: 6/19/15	19/18 1810 Relinquished by.			Received by.	SIC)#:	1900	40007	7685	5												