

# Analytical Report 527665

for  
**Talon LPE**

**Project Manager: Sheldon Hitckcock**

**Cal AB Launcher**

**06-APR-16**

Collected By: Client



**1211 W. Florida Ave, Midland TX 79701**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-15-19), Arizona (AZ0765), Florida (E871002), Louisiana (03054)  
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)

Xenco-San Antonio: Texas (T104704534-15-1)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)

Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)



06-APR-16

Project Manager: **Sheldon Hitckcock**

**Talon LPE**

408 W. Texas St.

Artesia, NM 88210

Reference: XENCO Report No(s): **527665**

**Cal AB Launcher**

Project Address: NM

**Sheldon Hitckcock:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 527665. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 527665 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Kelsey Brooks**

Project Manager

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## Talon LPE, Artesia, NM

Cal AB Launcher

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
C-1 1'	S	03-30-16 13:04	- 1 ft	527665-001
C-2 1'	S	03-30-16 13:06	- 1 ft	527665-002
C-3 1'	S	03-30-16 13:08	- 1 ft	527665-003
C-4 1'	S	03-30-16 13:12	- 1 ft	527665-004
C-5 1'	S	03-30-16 13:15	- 1 ft	527665-005
C-6 1'	S	03-30-16 13:18	- 1 ft	527665-006
C-7 1'	S	03-30-16 13:23	- 1 ft	527665-007

*Client Name: Talon LPE**Project Name: Cal AB Launcher*

Project ID:  
Work Order Number(s): 527665

Report Date: 06-APR-16  
Date Received: 03/31/2016

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**Sample receipt non conformances and comments:**

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**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-991555 BTEX by EPA 8021B

Lab Sample ID 527665-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 527665-001, -002, -003, -004, -005, -006, -007.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.



# Certificate of Analysis Summary 527665

Talon LPE, Artesia, NM

Project Name: Cal AB Launcher



Project Id:

Contact: Sheldon Hitckcock

Project Location: NM

Date Received in Lab: Thu Mar-31-16 09:42 am

Report Date: 06-APR-16

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	527665-001	527665-002	527665-003	527665-004	527665-005	527665-006
	<i>Field Id:</i>	C-1 1'	C-2 1'	C-3 1'	C-4 1'	C-5 1'	C-6 1'
	<i>Depth:</i>	-1 ft	-1 ft	-1 ft	-1 ft	-1 ft	-1 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-30-16 13:04	Mar-30-16 13:06	Mar-30-16 13:08	Mar-30-16 13:12	Mar-30-16 13:15	Mar-30-16 13:18
<b>TCLP Mercury by SW 7470A SUB: E871002</b>	<i>Extracted:</i>	Apr-05-16 12:10	Apr-05-16 12:10	Apr-05-16 12:10	Apr-05-16 12:10	Apr-05-16 12:10	Apr-05-16 12:10
	<i>Analyzed:</i>	Apr-05-16 15:48	Apr-05-16 15:52	Apr-05-16 15:53	Apr-05-16 15:55	Apr-05-16 15:59	Apr-05-16 16:00
	<i>Units/RL:</i>	mg/L RL	mg/L RL	mg/L RL	mg/L RL	mg/L RL	mg/L RL
Mercury		ND 0.000200	ND 0.000200	ND 0.000200	ND 0.000200	ND 0.000200	ND 0.000200
<b>TCLP Metals by SW846 6010B SUB: E871002</b>	<i>Extracted:</i>	Apr-05-16 11:30	Apr-05-16 11:30	Apr-05-16 11:30	Apr-05-16 11:30	Apr-05-16 11:30	Apr-05-16 11:30
	<i>Analyzed:</i>	Apr-05-16 17:05	Apr-05-16 17:19	Apr-05-16 17:24	Apr-05-16 17:29	Apr-05-16 17:42	Apr-05-16 17:47
	<i>Units/RL:</i>	mg/L RL	mg/L RL	mg/L RL	mg/L RL	mg/L RL	mg/L RL
Arsenic		ND 0.0500	ND 0.0500	ND 0.0500	ND 0.0500	ND 0.0500	ND 0.0500
Barium		0.254 0.0500	0.365 0.0500	0.402 0.0500	0.705 0.0500	0.318 0.0500	0.186 0.0500
Cadmium		ND 0.0250	ND 0.0250	ND 0.0250	ND 0.0250	ND 0.0250	ND 0.0250
Chromium		ND 0.0500	ND 0.0500	ND 0.0500	ND 0.0500	ND 0.0500	ND 0.0500
Lead		ND 0.0500	ND 0.0500	ND 0.0500	ND 0.0500	ND 0.0500	ND 0.0500
Selenium		ND 0.100	ND 0.100	ND 0.100	ND 0.100	ND 0.100	ND 0.100
Silver		ND 0.100	ND 0.100	ND 0.100	ND 0.100	ND 0.100	ND 0.100

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 527665



Talon LPE, Artesia, NM

Project Name: Cal AB Launcher

Project Id:

Contact: Sheldon Hitckcock

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Date Received in Lab: Thu Mar-31-16 09:42 am

Report Date: 06-APR-16

Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	527665-001	527665-002	527665-003	527665-004	527665-005	527665-006
	<i>Field Id:</i>	C-1 1'	C-2 1'	C-3 1'	C-4 1'	C-5 1'	C-6 1'
	<i>Depth:</i>	1 ft	1 ft	1 ft	1 ft	1 ft	1 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-30-16 13:04	Mar-30-16 13:06	Mar-30-16 13:08	Mar-30-16 13:12	Mar-30-16 13:15	Mar-30-16 13:18
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Mar-31-16 12:00	Mar-31-16 12:00	Mar-31-16 12:00	Mar-31-16 12:00	Mar-31-16 12:00	Mar-31-16 12:00
	<i>Analyzed:</i>	Mar-31-16 14:06	Mar-31-16 14:23	Mar-31-16 14:39	Mar-31-16 14:56	Mar-31-16 15:12	Mar-31-16 15:29
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0.00150	ND 0.00150	ND 0.00149	ND 0.00150	ND 0.00149	ND 0.00150
Toluene		ND 0.00200	ND 0.00200	ND 0.00198	ND 0.00200	ND 0.00199	ND 0.00200
Ethylbenzene		0.00329 0.00200	ND 0.00200	ND 0.00198	ND 0.00200	ND 0.00199	ND 0.00200
m,p-Xylenes		0.00410 0.00200	ND 0.00200	ND 0.00198	ND 0.00200	ND 0.00199	ND 0.00200
o-Xylene		ND 0.00299	ND 0.00299	ND 0.00298	ND 0.00299	ND 0.00298	ND 0.00299
Total Xylenes		0.00410 0.00200	ND 0.00200	ND 0.00198	ND 0.00200	ND 0.00199	ND 0.00200
Total BTEX		0.00739 0.00150	ND 0.00150	ND 0.00149	ND 0.00150	ND 0.00149	ND 0.00150
<b>Inorganic Anions by EPA 300/300.1</b>	<i>Extracted:</i>	Apr-03-16 17:50	Apr-03-16 17:50	Apr-03-16 17:50	Apr-03-16 17:50	Apr-03-16 17:50	Apr-03-16 17:50
	<i>Analyzed:</i>	Apr-04-16 07:55	Apr-04-16 08:15	Apr-04-16 08:36	Apr-04-16 08:56	Apr-04-16 09:16	Apr-04-16 10:17
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		259 100	106 40.0	24.5 20.0	3.12 2.00	303 100	748 100
<b>TPH By SW8015B Mod</b>	<i>Extracted:</i>	Mar-31-16 14:00	Mar-31-16 14:00	Mar-31-16 14:00	Mar-31-16 14:00	Mar-31-16 14:00	Mar-31-16 14:00
	<i>Analyzed:</i>	Mar-31-16 17:32	Mar-31-16 18:41	Mar-31-16 19:03	Mar-31-16 19:25	Mar-31-16 19:47	Mar-31-16 20:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C10 Gasoline Range Hydrocarbons		27.2 15.0	ND 14.9	ND 15.0	ND 14.9	ND 15.0	ND 15.0
C10-C28 Diesel Range Hydrocarbons		1220 15.0	33.8 14.9	ND 15.0	ND 14.9	ND 15.0	ND 15.0
C28-C35 Oil Range Hydrocarbons		ND 15.0	ND 14.9	ND 15.0	ND 14.9	ND 15.0	ND 15.0
Total TPH		1250 15.0	33.8 14.9	ND 15.0	ND 14.9	ND 15.0	ND 15.0

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 527665

Talon LPE, Artesia, NM

Project Name: Cal AB Launcher



Project Id:

Contact: Sheldon Hitckcock

Project Location: NM

Date Received in Lab: Thu Mar-31-16 09:42 am

Report Date: 06-APR-16

Project Manager: Kelsey Brooks

<b>Analysis Requested</b>	<b>Lab Id:</b>	527665-007					
	<b>Field Id:</b>	C-7 1'					
	<b>Depth:</b>	-1 ft					
	<b>Matrix:</b>	SOIL					
	<b>Sampled:</b>	Mar-30-16 13:23					
<b>TCLP Mercury by SW 7470A SUB: E871002</b>	<b>Extracted:</b>	Apr-05-16 12:10					
	<b>Analyzed:</b>	Apr-05-16 16:02					
	<b>Units/RL:</b>	mg/L RL					
Mercury		ND 0.000200					
<b>TCLP Metals by SW846 6010B SUB: E871002</b>	<b>Extracted:</b>	Apr-05-16 11:30					
	<b>Analyzed:</b>	Apr-05-16 17:52					
	<b>Units/RL:</b>	mg/L RL					
Arsenic		ND 0.0500					
Barium		0.136 0.0500					
Cadmium		ND 0.0250					
Chromium		ND 0.0500					
Lead		ND 0.0500					
Selenium		ND 0.100					
Silver		ND 0.100					

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<b>Analysis Requested</b>	<b>Lab Id:</b>	527665-007					
	<b>Field Id:</b>	C-7 1'					
	<b>Depth:</b>	1 ft					
	<b>Matrix:</b>	SOIL					
	<b>Sampled:</b>	Mar-30-16 13:23					
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Mar-31-16 12:00					
	<b>Analyzed:</b>	Mar-31-16 15:45					
	<b>Units/RL:</b>	mg/kg RL					
Benzene		ND 0.00149					
Toluene		ND 0.00198					
Ethylbenzene		ND 0.00198					
m,p-Xylenes		ND 0.00198					
o-Xylene		ND 0.00298					
Total Xylenes		ND 0.00198					
Total BTEX		ND 0.00149					
<b>Inorganic Anions by EPA 300/300.1</b>	<b>Extracted:</b>	Apr-03-16 17:50					
	<b>Analyzed:</b>	Apr-04-16 11:02					
	<b>Units/RL:</b>	mg/kg RL					
Chloride		1050 100					
<b>TPH By SW8015B Mod</b>	<b>Extracted:</b>	Mar-31-16 14:00					
	<b>Analyzed:</b>	Mar-31-16 20:32					
	<b>Units/RL:</b>	mg/kg RL					
C6-C10 Gasoline Range Hydrocarbons		ND 15.0					
C10-C28 Diesel Range Hydrocarbons		ND 15.0					
C28-C35 Oil Range Hydrocarbons		ND 15.0					
Total TPH		ND 15.0					

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- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **SQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



## Form 2 - Surrogate Recoveries

Project Name: Cal AB Launcher

Work Orders : 527665,

Lab Batch #: 991555

Sample: 527665-001 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 14:06

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 991555

Sample: 527665-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 14:23

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0280	0.0300	93	80-120	

Lab Batch #: 991555

Sample: 527665-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 14:39

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0353	0.0300	118	80-120	

Lab Batch #: 991555

Sample: 527665-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 14:56

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0286	0.0300	95	80-120	

Lab Batch #: 991555

Sample: 527665-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 15:12

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Cal AB Launcher

Work Orders : 527665,

Lab Batch #: 991555

Sample: 527665-006 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 15:29

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 991555

Sample: 527665-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 15:45

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 991537

Sample: 527665-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 17:32

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.8	110	70-135	
o-Terphenyl	52.7	49.9	106	70-135	

Lab Batch #: 991537

Sample: 527665-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 18:41

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.8	99.6	99	70-135	
o-Terphenyl	46.6	49.8	94	70-135	

Lab Batch #: 991537

Sample: 527665-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 19:03

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.7	102	70-135	
o-Terphenyl	49.2	49.9	99	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Cal AB Launcher

Work Orders : 527665,

Lab Batch #: 991537

Sample: 527665-004 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 19:25

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.6	102	70-135	
o-Terphenyl	48.9	49.8	98	70-135	

Lab Batch #: 991537

Sample: 527665-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 19:47

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.8	106	70-135	
o-Terphenyl	52.0	49.9	104	70-135	

Lab Batch #: 991537

Sample: 527665-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 20:09

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.8	105	70-135	
o-Terphenyl	50.8	49.9	102	70-135	

Lab Batch #: 991537

Sample: 527665-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 20:32

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.7	101	70-135	
o-Terphenyl	48.4	49.9	97	70-135	

Lab Batch #: 991555

Sample: 707193-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/31/16 13:50

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	80-120	
4-Bromofluorobenzene	0.0266	0.0300	89	80-120	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Cal AB Launcher

Work Orders : 527665,

Lab Batch #: 991537

Sample: 707182-1-BLK / BLK

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/31/16 16:22

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	53.4	50.0	107	70-135	

Lab Batch #: 991555

Sample: 707193-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/31/16 12:27

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 991537

Sample: 707182-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/31/16 16:46

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	100	122	70-135	
o-Terphenyl	51.2	50.0	102	70-135	

Lab Batch #: 991555

Sample: 707193-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/31/16 12:44

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 991537

Sample: 707182-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/31/16 17:10

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Cal AB Launcher

Work Orders : 527665,

Lab Batch #: 991555

Sample: 527665-001 S / MS

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 13:00

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 991537

Sample: 527665-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 17:54

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	99.9	125	70-135	
o-Terphenyl	51.9	50.0	104	70-135	

Lab Batch #: 991555

Sample: 527665-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 13:17

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 991537

Sample: 527665-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/31/16 18:17

### SURROGATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	99.9	128	70-135	
o-Terphenyl	54.4	50.0	109	70-135	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.



# BS / BSD Recoveries



Project Name: Cal AB Launcher

Work Order #: 527665

Analyst: PJB

Date Prepared: 03/31/2016

Project ID:

Date Analyzed: 03/31/2016

Lab Batch ID: 991555

Sample: 707193-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00150	0.100	0.0932	93	0.100	0.0890	89	5	70-130	35	
Toluene	<0.00200	0.100	0.0944	94	0.100	0.0916	92	3	70-130	35	
Ethylbenzene	<0.00200	0.100	0.105	105	0.100	0.101	101	4	71-129	35	
m,p-Xylenes	<0.00200	0.200	0.204	102	0.200	0.197	99	3	70-135	35	
o-Xylene	<0.00300	0.100	0.0976	98	0.100	0.0946	95	3	71-133	35	

Analyst: MNR

Date Prepared: 04/03/2016

Date Analyzed: 04/04/2016

Lab Batch ID: 991677

Sample: 707259-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>Inorganic Anions by EPA 300/300.1</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Chloride	<2.00	50.0	53.3	107	50.0	50.6	101	5	90-110	20	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



## BS / BSD Recoveries



**Project Name:** Cal AB Launcher

**Work Order #:** 527665

**Analyst:** BHRE

**Date Prepared:** 04/05/2016

**Project ID:**

**Date Analyzed:** 04/05/2016

**Lab Batch ID:** 991786

**Sample:** 707323-1-BKS

**Batch #:** 1

**Matrix:** Water

**Units:** mg/L

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP Mercury by SW 7470A	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Mercury	<0.000200	0.00200	0.00190	95	0.00200	0.00222	111	16	80-120	20	

**Analyst:** BHRE

**Date Prepared:** 04/05/2016

**Date Analyzed:** 04/05/2016

**Lab Batch ID:** 991790

**Sample:** 707325-1-BKS

**Batch #:** 1

**Matrix:** Water

**Units:** mg/L

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP Metals by SW846 6010B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Arsenic	<0.0100	1.00	0.971	97	1.00	0.978	98	1	80-120	20	
Barium	<0.0100	1.00	0.935	94	1.00	0.940	94	1	80-120	20	
Cadmium	<0.00500	1.00	0.946	95	1.00	0.950	95	0	80-120	20	
Chromium	<0.0100	1.00	1.04	104	1.00	1.05	105	1	80-120	20	
Lead	<0.0100	1.00	0.996	100	1.00	0.998	100	0	80-120	20	
Selenium	<0.0200	1.00	0.972	97	1.00	0.977	98	1	80-120	20	
Silver	<0.0200	0.500	0.580	116	0.500	0.583	117	1	80-120	20	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes





## BS / BSD Recoveries



**Project Name: Cal AB Launcher**

**Work Order #: 527665**

**Project ID:**

**Analyst: ARM**

**Date Prepared: 03/31/2016**

**Date Analyzed: 03/31/2016**

**Lab Batch ID: 991537**

**Sample: 707182-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

### BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>TPH By SW8015B Mod</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
C6-C10 Gasoline Range Hydrocarbons	<15.0	1000	844	84	1000	828	83	2	70-135	35	
C10-C28 Diesel Range Hydrocarbons	<15.0	1000	934	93	1000	866	87	8	70-135	35	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS Recoveries

Project Name: Cal AB Launcher



Work Order #: 527665

Lab Batch #: 991677

Date Analyzed: 04/04/2016

QC- Sample ID: 527809-001 S

Reporting Units: mg/kg

Date Prepared: 04/03/2016

Batch #: 1

Project ID:

Analyst: MNR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	734	2500	3380	106	80-120	

Lab Batch #: 991677

Date Analyzed: 04/04/2016

QC- Sample ID: 527822-001 S

Reporting Units: mg/kg

Date Prepared: 04/04/2016

Batch #: 1

Analyst: MNR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	1010	2500	3670	106	80-120	

Matrix Spike Percent Recovery [D] =  $100 \times (C-A)/B$   
Relative Percent Difference [E] =  $200 \times (C-A)/(C+B)$   
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



# Form 3 - MS / MSD Recoveries



Project Name: Cal AB Launcher

Work Order # : 527665

Project ID:

Lab Batch ID: 991555

QC- Sample ID: 527665-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/31/2016

Date Prepared: 03/31/2016

Analyst: PJB

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00150	0.0998	0.0596	60	0.0992	0.0579	58	3	70-130	35	X
Toluene	<0.00200	0.0998	0.0603	60	0.0992	0.0559	56	8	70-130	35	X
Ethylbenzene	0.00329	0.0998	0.0647	62	0.0992	0.0587	56	10	71-129	35	X
m,p-Xylenes	0.00410	0.200	0.125	60	0.198	0.112	54	11	70-135	35	X
o-Xylene	<0.00299	0.0998	0.0628	63	0.0992	0.0544	55	14	71-133	35	X

Lab Batch ID: 991786

QC- Sample ID: 527665-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/05/2016

Date Prepared: 04/05/2016

Analyst: BHRE

Reporting Units: mg/L

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP Mercury by SW 7470A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Mercury	<0.000200	0.00200	0.00188	94	0.00200	0.00175	88	7	75-125	20	

Matrix Spike Percent Recovery  $[D] = 100 * (C - A) / B$   
Relative Percent Difference  $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.



# Form 3 - MS / MSD Recoveries



Project Name: Cal AB Launcher

Work Order #: 527665

Project ID:

Lab Batch ID: 991790

QC- Sample ID: 527665-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04/05/2016

Date Prepared: 04/05/2016

Analyst: BHRE

Reporting Units: mg/L

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP Metals by SW846 6010B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	<0.0500	5.00	5.20	104	5.00	5.24	105	1	80-120	20	
Barium	0.254	5.00	5.05	96	5.00	5.08	97	1	80-120	20	
Cadmium	<0.0250	5.00	4.95	99	5.00	4.98	100	1	80-120	20	
Chromium	<0.0500	5.00	5.34	107	5.00	5.38	108	1	80-120	20	
Lead	<0.0500	5.00	4.96	99	5.00	5.01	100	1	80-120	20	
Selenium	<0.100	5.00	5.21	104	5.00	5.31	106	2	80-120	20	
Silver	<0.100	2.50	2.98	119	2.50	2.97	119	0	80-120	20	

Lab Batch ID: 991537

QC- Sample ID: 527665-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/31/2016

Date Prepared: 03/31/2016

Analyst: ARM

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C10 Gasoline Range Hydrocarbons	27.2	999	889	86	999	1010	98	13	70-135	35	
C10-C28 Diesel Range Hydrocarbons	1220	999	2270	105	999	2340	112	3	70-135	35	

Matrix Spike Percent Recovery  $[D] = 100 * (C - A) / B$   
Relative Percent Difference  $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

# ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

☐ 4143 Greenbriar Drive, Stafford, TX 77477 281-240-4200  
☐ 5332, Blackberry Drive, San Antonio, TX 78238 210-509-3334

☐ 9701 Harry Hines Blvd., Dallas, TX 75220 214-902-0300  
☐ 12600 West I-20 East, Odessa, TX 79765 432-563-1800

Page of  
 Serial #: 330849



**Company-City** Talon/LPE Artesia, NM **Phone** 505-684-5198  
**Project Name-Location** Previously done at XENCO **Project ID**  
**Col AB Lancher**  
**Proj. State:** TX, AL, FL, GA, LA, MS, NC, **Proj. Manager (PM)**  
 NJ, PA, SC, TN, UT Other **Sheldon Hitchcock**  
**E-mail Results to** EPM and **Fax No:**  
**Shitchcock@talonlpc.com**  
**Invoice to** ☐ Accounting ☐ Inc. Invoice with Final Report ☐ Invoice must have a P.O.  
**Bill to:** Rachel Johnson - ETP  
**Quote/Pricing:** P.O. No: ☐ Call for P.O.  
**Reg Program:** UST DRY-CLEAN Land-Fill Waste-Disp NPDES DW TRRP  
 QAPP Per-Contract CLP AGCEE NAVY DOE DOD USACE OTHER:  
 Special DLs (GW DW QAPP MDLs RLs See Lab PM Included Call PM)

**Lab Only:** 52705  
**TAT:** ASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d Standard TAT is project specific.  
 It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.

Sample ID	Sampling Date	Time	Depth ft in 3	Matrix Composite	Grab	# Containers	Container Size	Container Type	Preservatives
G-1'	3/30/16	13:04	1	S	X	1	4	C	C
G-2'		13:04	1	S	X	1	4	C	C
G-3'		13:08	1	S	X	1	4	C	C
G-4'		13:12	1	S	X	1	4	C	C
G-5'		13:15	1	S	X	1	4	C	C
G-6'		13:18	1	S	X	1	4	C	C
G-7'		13:23	1	S	X	1	4	C	C

**Sampler Name** Sheldon Hitchcock **Signature** *Sheldon Hitchcock*

Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time	Total Containers per COC:	Temp: 2.9° IR ID: R-8
1) Sheldon Hitchcock	3/30/16 13:33	2) Johnnie Goodford	3/30/16 13:25	8	Otherwise agreed on writing. Reports are C/F:0
3) Johnnie Goodford	3/30/16 09:42	4) Rachel Johnson	3/31/16 09:42	8	Samples will be held 30 days at Corrected Temp:
5)		6)		8	hereby requested. Rush Charges and Collection Fees are pre-approved in invoice.

**Preservatives:** Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO3 pH<2 (N), Asbc Acid&NaOH (A), ZnAc&NaOH (Z), (Cool, <4C) (C), None (NA), See Label (L), Other (O)  
**Cont. Size:** 4oz (4), 8oz (8), 32oz (32), 40ml VOA (40), 1L (1), 500ml (5), Tedlar Bag (B), Various (V), Other \_\_\_\_\_  
**Matrix:** Air (A), Product (P), Solid (S), Water (W), Liquid (L)  
**Cont. Type:** Glass Amb (A), Glass Clear (C), Plastic (P), Various (V)  
 Notice: Signature of this document and relinquishment of these samples constitutes a valid purchase order from client company to Xenco Laboratories and its affiliates, subcontractors and assigns under Xenco's standard terms and conditions of service unless previously negotiated under a fully executed client contract.  
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# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



Client: Talon LPE

Date/ Time Received: 03/31/2016 09:42:00 AM

Work Order #: 527665

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.9
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	Yes
#5 *Custody Seals intact on shipping container/ cooler?	Yes
#6 Custody Seals intact on sample bottles?	Yes
#7 *Custody Seals Signed and dated?	Yes
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	No
#21 VOC samples have zero headspace (less than 1/4 inch bubble)?	N/A
#22 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	N/A
#23 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	N/A

**\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:

Minerva Rios

Date: 03/31/2016

Checklist reviewed by:

Kelsey Brooks

Date: 03/31/2016