

# **ERIE APARTMENTS**

## **“Balcolm Flats”**

**4060 East County Line Road  
Erie, Colorado 80516**

### **Town of Erie Sketch Plan Review**

#### **Steppe Development, LLC**

6333 Apples' Way, Suite 115  
Lincoln, NE 68516  
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**August 21, 2015  
(Revised Submittal April 21, 2016)**

RH 14-174



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September 17, 2013

INA Group, LLC  
6333 Apples' Way, Suite 115  
Lincoln, NE 68516

Attention: Tom Beckius

Subject: Supplemental Phase II Environmental Site Assessment  
4060 County Line Road, Erie, Colorado  
CTL | T Project No. FC05859.001

## **INTRODUCTION**

This report presents the analytical results for soil and groundwater samples collected during the Supplemental Phase II Environmental Site Assessment (ESA) of 4060 County Line Road in Erie, Colorado, hereafter known as "the site". The site is developed with an abandoned former pre-cast concrete manufacturing plant.

## **BACKGROUND**

CTL | Thompson (CTL) conducted a limited Phase II ESA of 4060 County Line Road in Erie, Colorado (CTL Project No. FC05859.001, final report dated April 12, 2013). Among the findings of the investigation, petroleum hydrocarbons were identified in soils within the former pre-cast concrete manufacturing building on the site. The limited assessment performed within the building was not intended to allow for horizontal or vertical delineation of the extent of contamination.

The objective of the Supplemental Phase II ESA was to better delineate the horizontal and vertical extent of petroleum hydrocarbons inside the building. In addition, representative building materials were sampled, composited, and analyzed for disposal characteristics.

## **DRILLING AND SAMPLING**

On July 19, 2013, Mr. Dana Harris of CTL mobilized to the site with subcontractor DrillPro, Inc.. A truck-mounted direct push drill rig was used to advance eight borings (GP-9 through GP-16).

Two hand-excavated surficial soil samples (S-17 and S-18) were collected using a disposable plastic trowel from the trench inside the pre-cast building. Boring and sample locations are shown on Figure 1.



During advancement of each boring, soil samples were collected continuously in 4-foot teflon cores down to a maximum depth of 20 feet below grade.

Soils from core samples were observed in the field using disposable vinyl examination gloves changed after every sample. After the soils were visually inspected, the soil sample from each core was divided. A portion of the sample was transferred into a plastic zip-loc bag and sealed; the other portion of the sample was promptly placed into a uniquely identified glass jar and packed tightly to minimize voids. Samples were containerized for potential laboratory analysis at approximate 5-foot intervals. Sample jars were then placed into a cooler chilled with ice for in-field storage and transit to the laboratory. The samples in the plastic bags were warmed and allowed to sit undisturbed to allow possible volatile organic compounds (VOCs) in the soils to vaporize into the headspace of the bags. A photoionization detector (PID) was used to determine the field concentration of VOCs of the headspace in the zip-loc bags.

Following completion of soil sampling, 1-inch PVC casings with slotted screen were inserted into the boreholes as temporary wells to facilitate groundwater sampling. Groundwater samples were collected using check-ball sampling device and clean disposable tubing. Upon completion of sampling, the temporary wells were removed and each borehole was backfilled with cuttings and hydrated bentonite pellets.

Samples collected for laboratory analysis were delivered under chain of custody protocol to ALS laboratory in Fort Collins, Colorado, an independent analytical laboratory.

## **FIELD OBSERVATIONS**

Boring logs are presented in Appendix A. Soils generally consisted of sandy clays and clayey sands underlain by weathered claystone/sandstone bedrock (generally observed as sand, gravel, pebbles, and cobbles) at depths between 15 and 20 feet below grade. Saturated soils were encountered in several borings within weathered bedrock at depths of approximately 18 to 20 feet below grade.

The interior of the building had a moderate to strong ambient petroleum odor, making it difficult to assess soils for odors during drilling. However, as shown on the boring logs, PID measurements were generally less than, or very slightly higher than, 10 parts per million by volume (ppmv), which is typically indicative of background (ambient PID readings inside the building ranged from 0.5 to 1.2 ppmv). Light surficial staining was observed on soils in various locations inside the building. The trench inside the pre-cast building was partially filled with dumped wastes, but visible soils inside the trench generally appeared similar to those of the dirt floor elsewhere in the building, with light staining and a petroleum odor.

## **LABORATORY ANALYTICAL RESULTS**

### **Soils**

An iterative approach was designed for laboratory analysis of samples collected from soil borings (shallow soils collected from the trench were all analyzed, as planned). The





agreed strategy would be to initially analyze each sample collected from the depth of 5 feet below grade. Because the form oil was believed to have been spray-applied at the surface, it was reasonable to assume that contamination would have entered at the ground surface and migrated downward. If no significant contamination was present at 5 feet depth below grade, it would be reasonable to assume that significant contamination would not be found at deeper depths from the form oil application. Therefore, each soil sample from the 5-foot below grade depth level was initially submitted to be analyzed for oil & grease by EPA Method 9071 and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260; remaining samples were held at the laboratory. Following receipt of initial analytical results, selected deeper samples were analyzed for oil & grease and BTEX, based on initial analytical results. Due to accelerated laboratory turnaround, all sample analyses were completed within the EPA-established method holding times for oil & grease and BTEX. Laboratory analytical results are included in Appendix B, and soil results are summarized on Table 1 below.

<b>Table 1</b> <b>Soil Analytical Results – Inside Pre-Cast Building</b>							
Boring No.	Depth (feet)	Sample Date	O&G <sup>1,2</sup> (mg/kg <sup>3</sup> )	Benzene (µg/kg <sup>3</sup> )	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Xylenes (µg/kg)
GP-2	21-22	3/26/2013	< 50	< 10	< 10	< 10	< 10
GP-9 <sup>4</sup>	5	7/19/2013	< 110	< 5.4	< 5.4	< 5.4	< 5.4
GP-10 <sup>4</sup>	5	7/19/2013	< 110	< 5.0	< 5.0	< 5.0	< 5.0
GP-11 <sup>4</sup>	5	7/19/2013	< 110	< 5.2	< 5.2	< 5.2	< 5.2
GP-12 <sup>4</sup>	5	7/19/2013	< 110	< 5.2	< 5.2	< 5.2	< 5.2
GP-13 <sup>4</sup>	5	7/19/2013	< 110	< 4.8	< 4.8	< 4.8	< 4.8
GP-14 <sup>4</sup>	5	7/19/2013	< 110	< 5.4	< 5.4	< 5.4	< 5.4
GP-15 <sup>4</sup>	5	7/19/2013	< 110	< 5.2	< 5.2	< 5.2	< 5.2
GP-16	5	7/19/2013	380	< 5.4	< 5.4	< 5.4	< 5.4
	10	7/19/2013	< 120	< 5.7	< 5.7	< 5.7	< 5.7
	15	7/19/2013	< 100	< 4.7	< 4.7	< 4.7	< 4.7
	20	7/19/2013	< 110	< 5.2	< 5.2	< 5.2	< 5.2
S-8	1-2	3/26/2013	316	< 10	< 10	< 10	< 10
S-17	1-2	7/19/2013	<b>5800</b>	< 5.1	< 5.1	< 5.1	< 5.1
S-18	1-2	7/19/2013	<b>1500</b>	< 4.8	< 4.8	< 4.8	< 4.8
Colorado OPS Limit <sup>5</sup>			500	260	140000	190000	260000

1. Results in bold exceed regulatory comparison value
2. Total petroleum hydrocarbons as Oil & Grease by EPA Method 9071
3. mg/kg = milligrams per kilogram. µg/kg = micrograms per kilogram
4. Samples collected at 5-foot intervals, but only the samples from 5-foot depth were analyzed.
5. Colorado Department of Labor and Employment, Division of Oil and Public Safety, Tier I Risk Based Screening Levels, 2005.



With the exception of boring GP-16, none of the 5-foot depth soil samples contained oil & grease or BTEX above laboratory method detection limits (MDLs). The 5-foot depth sample from GP-16 contained an oil & grease concentration of 380 milligrams per kilogram (mg/kg), which is less than the Colorado limit of 500 milligrams per kilogram (mg/kg) for USTs, which is not directly applicable to releases from the pre-cast operation but is the most relevant regulatory standard. BTEX were not detected above MDLs. The soil samples from 10 feet, 15 feet and 20 feet below grade at GP-16 were also analyzed, but neither oil and grease nor BTEX were detected above MDLs.

The surficial soil samples S-17 and S-18, collected from the trench inside the building, contained oil & grease at concentrations of 5,800 mg/kg and 1,500 mg/kg, respectively, both exceeding the OPS limit; neither sample contained BTEX above MDLs. Analysis for PAHs was not performed.

### **Groundwater**

Limited amounts of groundwater were present in each temporary well; however, four of the wells (GP-10, GP-12, GP-13, and GP-16) went dry while attempting to purge and a sample could not be collected. Groundwater samples were collected from temporary wells GP-9, GP-11, GP-14, and GP-15 and were analyzed for oil & grease by EPA Method 1664 and BTEX by EPA method 8260. Laboratory analytical results are included in Appendix B and are summarized on Table 2 below.

<b>Table 2</b> <b>Groundwater Analytical Results – Inside Pre-Cast Building</b>						
Sample No.	Sample Date	Oil & Grease (mg/l <sup>1</sup> )	Benzene (µg/l <sup>1</sup> )	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)
GP-9	7/19/2013	< 5.7	< 1	7.6	< 1	< 1
GP-11	7/19/2013	< 5.3	< 1	2.6	< 1	< 1
GP-14	7/19/2013	< 5.6	< 1	1.3	< 1	< 1
GP-15	7/19/2013	< 5.6	< 1	0.56	< 1	< 1
Colorado GWS <sup>2</sup>		None established	5	560	700	1,400

1. mg/l = milligrams per liter. µg/liter = micrograms per liter

2. Colorado Department of Health and Environment, Water Quality Control Division, The Basic Standards for Groundwater (Regulation 41). 5 CCR 1002-41, January 31, 2013.

Toluene was detected in all four groundwater samples, at concentrations up to 7.6 µg/l, which is well below the Colorado groundwater standard of 560 µg/l. None of the other target analytes were detected above MDLs.



## **BUILDING WASTE CHARACTERIZATION**

CTL collected representative samples of building materials that were visibly stained (presumably with form oil). Materials sampled included wood (approximately 70 percent of the sample by weight) and metal. The materials were composited in a clean 5-gallon bucket and submitted to ALS laboratory to be analyzed for polychlorinated biphenyls (PCBs) and toxicity characteristic leaching procedure (TCLP) benzene. As shown on the lab report in Appendix B, PCBs were not detected above MDLs and the TCLP benzene concentration was less than 10 µg/l, which is less than the hazardous waste limit of 500 µg/l. Therefore, the building debris will not be considered a characteristic hazardous waste.

## **CONCLUSIONS AND RECOMMENDATIONS**

Based on the results of this investigation, oil-contaminated soil within the pre-cast building appears to be limited to the area of the trench and depths of less than 10 feet immediately north of the east end of the trench (where boring GP-16 was advanced). Groundwater under the building contained low levels of toluene, at concentrations well below Colorado groundwater standards. Following demolition, the building debris stained with form oil will not be considered characteristically hazardous due to benzene content.

If it is desired to enter into the Colorado Voluntary Cleanup (VCUP) program, we recommend that a final site development plan be prepared and that a work plan be developed to address the concerns identified during this and prior investigations. Depending on the proposed development and use of the property, limited soil or other remedial actions may be warranted. CTL would be happy to assist with remedial design, work plan development, and the VCUP application and project management process.

## **LIMITATIONS**

The subsurface investigation and chemical analysis were performed for specific parameters, as detailed in this letter. The accuracy and reliability of environmental studies are a reflection of the number and type of samples taken and extent of the analyses conducted, and are thus inherently limited and dependent upon the resources expended. An independent laboratory performed laboratory analysis. We are not responsible for the accuracy of data presented by others. The services performed should not be interpreted as providing any guarantee that the materials are free and clear of all hazardous or toxic materials.

We believe that our services were conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the locality of the project. No warranty, express or implied, is made.



Thank you for choosing us to assist you with this project. If you have any questions or would like further clarification regarding this letter, please contact us.

Very truly yours,

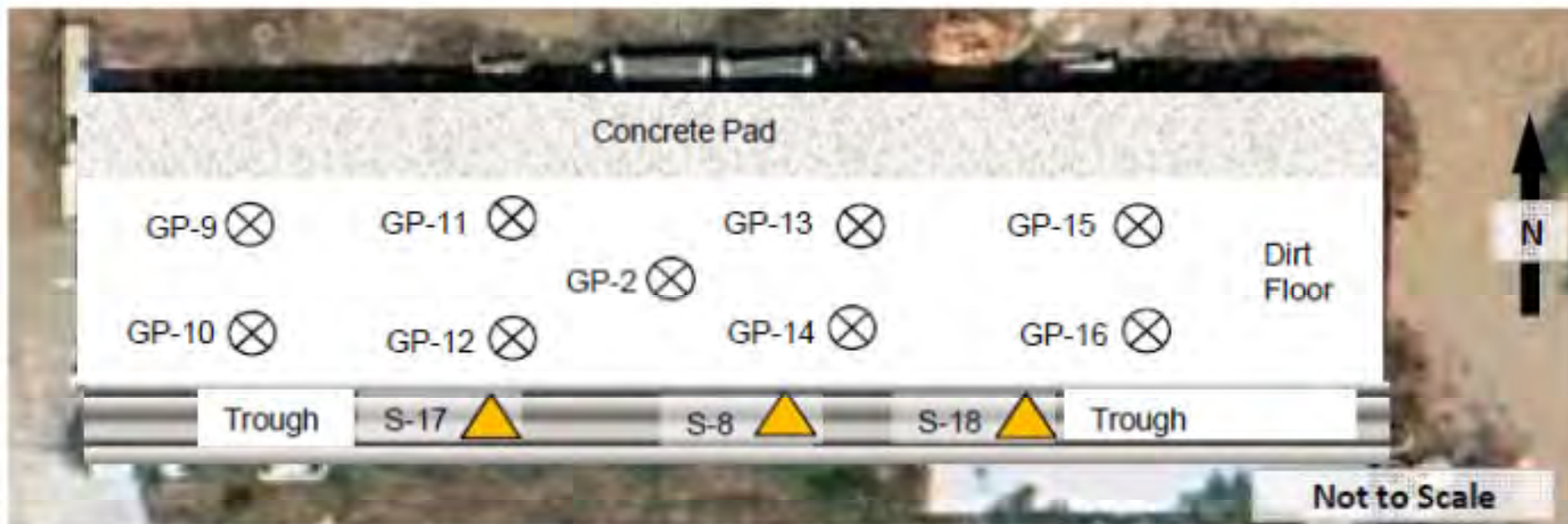
**CTL | THOMPSON, INC.**

A handwritten signature in blue ink, reading "Dana L. Harris".

Dana L. Harris  
Environmental Department Manager, Fort Collins

A handwritten signature in blue ink, reading "Matthew L. Wardlow".

Matthew L. Wardlow, P.E.  
Environmental Department Manager, Denver



⊗ Boring location

▲ Shallow soil sample location

**Figure 1**  
**Warehouse Sample Locations**  
**Supplemental Phase II Environmental Site Assessment**  
**4060 County Line Road, Erie, Colorado**  
**CTL No. FC05859.001**

## Appendix A

### Boring Logs

# Field Boring Log

Lat: \_\_\_\_\_ Long: \_\_\_\_\_



CTLITHOMPSON

Date: 7/19/13 Project #: \_\_\_\_\_ Project Name: 4060 CLR Eric Hole#: GP-9  
 CTL Representative: DH Hole Location: \_\_\_\_\_ Elevation: \_\_\_\_\_ Start: \_\_\_\_\_ Finish: \_\_\_\_\_  
 Drill Company: \_\_\_\_\_ Rig / Hammer / Auger Type: CME 45 55 Other: Geoprobe / Manual Auto / 4"SS 6"HS Other

Depth	Hatch Pattern	Sample 1	Sample 2	PID Block Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES					Depth	
							Primary	Modifier	Moisture	Consistency	Color	Notes	
0													0
				<del>2.1</del> 3.1								Gray clayey sand w/ gravel, pebbles, rubber-chy, odor	
												Grader to red-brown clayey sand, dry, no odor	
5	x 0810			3.1								Grader to red-yellow clayey sand, dry, no odor	5
10	x 0810			1.0								SAA, becoming moist, no odor	10
15	x 0810			2.1									15
				2.1								Grader to weathered bedrock, becomes saturated	
20	x 0810											Drive to 25' + set keys well	20
25													25
30													30
35													35



Split Spoon  
California  
Bulk



Clay



Sand



Gravel



Claystone



Sandstone

Piezometer seal

Depth to Bedrock

Groundwater During Drilling

Groundwater After Drilling

Date

Ambient PID → 0.5 - 1.2 ppm



# Field Boring Log



CTL THOMPSON

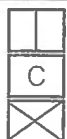
Lat: \_\_\_\_\_ Long: \_\_\_\_\_

Date: 7/19/13 Project #: \_\_\_\_\_ Project Name: Y061 CLR Eric Hole#: GP-10

CTL Representative: DH Hole Location: \_\_\_\_\_ Elevation: \_\_\_\_\_ Start: \_\_\_\_\_ Finish: \_\_\_\_\_

Drill Company: \_\_\_\_\_ Rig / Hammer / Auger Type: CME 45 55 Other: Geoprobe / Manual Auto / 4"SS 6"HS Other: \_\_\_\_\_

Depth	Hatch Pattern	Sample 1	Sample 2	Blow Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES						Depth
							Primary	Modifier	Moisture	Consistency	Color	Notes	
0													0
				11.4								Gray clayey sand, dry, slight odor	
												Gray - brown clayey sand, gravel, cobbles, dry, sl. odor	
5	x 0850											Grader to red-brown clayey soil, dry, no odor	5
				3.7								Grader to yellow-brown clayey sand, dry, sl. odor	
												↓	
10	x 0855			4.9								clay grades out - still slight odor,	10
												↓ becoming moist	
15	x 0905			3.7									15
20	x 0915			7.2								Grader to wk bdrx + saturated, odor grades out	20
												push to 25' pl keep well	
25													25
30													30
35													35



Split Spoon  
California  
Bulk



Clay



Sand



Gravel



Claystone



Sandstone

Piezometer set: Y N

Depth to Bedrock \_\_\_\_\_

Groundwater During Drilling \_\_\_\_\_ Groundwater After Drilling \_\_\_\_\_ Date \_\_\_\_\_



# Field Boring Log

Lat: \_\_\_\_\_ Long: \_\_\_\_\_



Date: 7/19/13 Project #: \_\_\_\_\_ Project Name: 4060 CLR Ene Hole#: GP-11  
 CTL Representative: DM Hole Location: \_\_\_\_\_ Elevation: \_\_\_\_\_ Start: \_\_\_\_\_ Finish: \_\_\_\_\_  
 Drill Company: \_\_\_\_\_ Rig / Hammer / Auger Type: CME 45 55 Other: Geopac / Manual Auto / 4"SS 6"HS Other

Depth	Hatch Pattern	Sample 1	Sample 2	Blow Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES						Depth
							Primary	Modifier	Moisture	Consistency	Color	Notes	
0													0
				3.0								Gray clayey sand, dry, slight odor	
												Red-brown clay sand, gravel, cobbles, dry, sl. odor	
												Red-brown clayey sand, dry, sl. odor	
5		X0930		2.3								Gravel to red-yellow clayey sand, dry, sl. odor	5
10		X0935		3.7									10
							SAA						
												↓ becoming moist	
15		X0945		2.5									15
												Gravel to wk bdry, become saturated, sl. odor still present	
20		X0955		4.2									20
												Purk to 25', set well	
25													25
30													30
35													35



Split Spoon  
California  
Bulk



Clay



Sand



Gravel



Claystone



Sandstone

Piezometer set: Y N

Depth to Bedrock: \_\_\_\_\_

Groundwater During Drilling

Groundwater After Drilling \_\_\_\_\_ Date

# Field Boring Log

Lat: \_\_\_\_\_ Long: \_\_\_\_\_



**CTL THOMPSON**

Date: 7/19/17 Project #: \_\_\_\_\_ Project Name: 4060 CLR Eric Hole#: GP-12  
 CTL Representative: DH Hole Location: \_\_\_\_\_ Elevation: \_\_\_\_\_ Start: \_\_\_\_\_ Finish: \_\_\_\_\_  
 Drill Company: \_\_\_\_\_ Rig / Hammer / Auger Type: CME 45 55 Other: Geoprobe / Manual Auto / 4"SS 6"HS Other

Depth	Hatch Pattern	Sample 1	Sample 2	Blow Count <u>PD</u>	% Fines	USC Symbol	DESCRIPTIONS / NOTES						Depth
							Primary	Modifier	Moisture	Consistency	Color	Notes	
0													0
				8.1			Gray	clayey	sand				
							Brown	clayey	sand, gravel, cobbles, dry, moderate odor				
							Gravel to brown	clayey	red, dry, sl. odor				
5		X 1000		6.6									5
							Gravel to yellow-red	clayey	red, dry, sl. odor				
10		X 1005		10.0									10
				9.3									
15		X 1015											15
				6.7			Gravel to wa	bedrock, dry, sl. odor					
20		X 1025											20
25													25
30													30
35													35



Split Spoon

California

Bulk



Clay



Sand



Gravel



Claystone



Sandstone

Piezometer set: Y N

Groundwater During Drilling

Depth to Bedrock

Groundwater After Drilling

Date

# Field Boring Log

CTLITHOMPSON

Lat: \_\_\_\_\_ Long: \_\_\_\_\_

Date: 7/19/17 Project #: \_\_\_\_\_ Project Name: Y060 CLR ERIE Hole#: GP-17  
 CTL Representative: DM Hole Location: \_\_\_\_\_ Elevation: \_\_\_\_\_ Start: \_\_\_\_\_ Finish: \_\_\_\_\_  
 Drill Company: \_\_\_\_\_ Rig / Hammer / Auger Type: CME 45 55 Other: Geoprobe / Manual Auto / 4"SS 6"HS Other \_\_\_\_\_

Depth	Hatch Pattern	Sample 1	Sample 2	Flow Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES						Depth
0							Primary	Modifier	Moisture	Consistency	Color	Notes	0
				7.0			Gray sandy clay, clay, moderate odor Brown sandy clay, clay, moderate odor						
5	X 1040			4.3			Grader to tan sandy clay, clay, slight odor						5
10	X 1045			6.2			Grader to tan clay, stiff, moist, moderate odor						10
				5.1			Grader to tan clayey sand, clay, sl. odor						
15	X 1050			3.1			Grader to w <sub>x</sub> bedrock, clay, moist, no odor						15
20	X 1105						not scheduled push to 21' set well						20
25													25
30													30
35													35



Split Spoon  
California  
Bulk



Clay



Sand



Gravel



Claystone



Sandstone

Piezometer set: ☒ Y ☐ N

Groundwater During Drilling

Depth to Bedrock \_\_\_\_\_

Groundwater After Drilling \_\_\_\_\_ Date \_\_\_\_\_

# Field Boring Log



CTL THOMPSON

Lat: \_\_\_\_\_ Long: \_\_\_\_\_

Date: 7/19/17 Project #: \_\_\_\_\_ Project Name: 4060 CLR Case Hole#: GP-14  
 CTL Representative: DM Hole Location: \_\_\_\_\_ Elevation: \_\_\_\_\_ Start: \_\_\_\_\_ Finish: \_\_\_\_\_  
 Drill Company: \_\_\_\_\_ Rig / Hammer / Auger Type: CME 45 55 Other: Geoprobe / Manual Auto / 4"SS 6"HS Other \_\_\_\_\_

Depth	Hatch Pattern	Sample 1	Sample 2	Blow Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES						Depth
							Primary	Modifier	Moisture	Consistency	Color	Notes	
0							Gray sandy clay, dry, no odor						0
				51.4			Brown sandy clay, clay, sl. odor						
5	X 1110			6.1									5
10	X 1115			11.3			Gravel to sand, dry, sl. odor						10
15	X 1125			4.4									15
20	X 1135			7.7			Gravel to wa. bdr, clay, no odor						20
							Push to 25', set well						
25													25
30													30
35													35



Split Spoon  
 California  
 Bulk



Clay



Sand



Gravel



Claystone



Sandstone

Piezometer set: Y N

Depth to Bedrock: \_\_\_\_\_

Groundwater During Drilling

Groundwater After Drilling \_\_\_\_\_ Date \_\_\_\_\_

# Field Boring Log

CTLITHOMPSON

Lat: \_\_\_\_\_ Long: \_\_\_\_\_

Date: 7/19/17 Project #: \_\_\_\_\_ Project Name: 4060 CLR EDC Hole#: GP-15  
 CTL Representative: DM Hole Location: \_\_\_\_\_ Elevation: \_\_\_\_\_ Start: \_\_\_\_\_ Finish: \_\_\_\_\_  
 Drill Company: \_\_\_\_\_ Rig / Hammer / Auger Type: CME 45 55 Other: Geoprobe /Manual Auto / 4"SS 6"HS Other

Depth	Hatch Pattern	Sample 1	Sample 2	Blow Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES						Depth
							Primary	Modifier	Moisture	Consistency	Color	Notes	
0							G Gr Sandy clay, gravel, cobbles, chg, sl. odor						0
				2.4			Brown sandy clay, chg, no odor						
5	X1140			2.7			Gravel to fine sandy clay, chg, no odor						5
10	X1145			2.5			Became more cl. odor						10
				2.0			Gravel to sand + gravel, chg, no odor						
15	X1155			2.9			Gravel to clay, moist, no odor						15
							Gravel to w. bedrock, moist, sl. odor						
20	X1200						no sch.						20
							Rph to 28' set well						
25													25
30													30
35													35



Split Spoon  
California  
Bulk



Clay



Sand



Gravel



Claystone



Sandstone

Piezometer set: Y N

Depth to Bedrock: \_\_\_\_\_

Groundwater During Drilling

Groundwater After Drilling \_\_\_\_\_ Date: \_\_\_\_\_



# Field Boring Log

CTL THOMPSON

Lat: \_\_\_\_\_ Long: \_\_\_\_\_

Date: 7/19/13 Project #: \_\_\_\_\_ Project Name: 4060 CLR Erie Hole#: GP-16  
 CTL Representative DM Hole Location: \_\_\_\_\_ Elevation: \_\_\_\_\_ Start: \_\_\_\_\_ Finish: \_\_\_\_\_  
 Drill Company \_\_\_\_\_ Rig / Hammer / Auger Type: CME 45 55 Other: Legix / Manual Auto / 4"SS 6"HS Other \_\_\_\_\_

Depth	Hatch Pattern	Sample 1	Sample 2	P10 Flow Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES						Depth
							Primary	Modifier	Moisture	Consistency	Color	Notes	
0													0
				6.2			Tan. sand, gravel, cobbles, dry, no odor						
							Grades to brown sandy clay, dry, no odor						
5		x1210		4.7			Grades to tan clay, sand, dry, no odor						5
							Grades to tan clay, stiff, dry, no odor						
10		x1215		3.0									10
				6.8			Grades to tan clay, sand, moist, no odor						
15		x1220		4.8			Grades to tan sandy clay, dry, no odor						15
							Grades to tan to red sand, gravel, pebbles, cobbles, dry, no odor (w/ gravel)						
20		x1230											20
							Pull to 25' set well						
25													25
30													30
35													35



Split Spoon  
California  
Bulk



Clay



Sand



Gravel



Claystone



Sandstone

Piezometer set: Y N

Depth to Bedrock: \_\_\_\_\_

Groundwater During Drilling

Groundwater After Drilling \_\_\_\_\_ Date: \_\_\_\_\_



## Appendix B

### Laboratory Analytical Results



## 1307328

### GC/MS Volatiles:

The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All acceptance criteria were met with the following exceptions:

1. Sample 1307328-35, provided for volatiles, had a pH > 2 at the time of analysis. All other samples had a pH < 2 at the time of analysis.
2. All internal standard recoveries were within acceptance criteria with the following exception:

Internal Standard	Sample	Direction
1,4-Dichlorobenzene-d4	1307328-9MS	Low

No further action was taken.

### Oil and Grease:

The water samples were prepared and analyzed according to EPA Method 1664A procedures utilizing the current revision of SOP 671.

The soil samples were prepared and analyzed according to SW-846, 3<sup>rd</sup> Edition procedures based on Method SW-9071 and utilizing the current revision of SOP 640.

All acceptance criteria were met.

### PCBs:

The extract was analyzed using GC/ECD (electron capture detectors) with an RTX-5 capillary column according to the current revision of SOP 409 based on SW-846 Method 8082. All positive results were then confirmed on an RTX-CLPesticidesII column. Unless interferences were present, the quantitation of each analyte is the higher of the concentrations obtained from each column that met initial and continuing calibration criteria. Note that analyst raw data annotation may provide further clarification.

All surrogate recoveries were within acceptable limits with the following exception:

Surrogate	Sample	Direction
Decachlorobiphenyl	39	Low





It is the practice of ALS to evaluate the recovery of both surrogates in samples and associated quality control samples, but to control on only one of the two surrogates for this test.

# ALS Environmental -- FC

## Sample Number(s) Cross-Reference Table

**OrderNum:** 1307328

**Client Name:** CTL Thompson

**Client Project Name:** 4060 CLR Erie

**Client Project Number:** FC05859.001-205

**Client PO Number:**

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
GP-9 (5')	1307328-1		SOIL	19-Jul-13	8:05
GP-10 (5')	1307328-2		SOIL	19-Jul-13	8:50
GP-11 (5')	1307328-3		SOIL	19-Jul-13	9:30
GP-12 (5')	1307328-4		SOIL	19-Jul-13	10:00
GP-13 (5')	1307328-5		SOIL	19-Jul-13	10:40
GP-14 (5')	1307328-6		SOIL	19-Jul-13	11:10
GP-15 (5')	1307328-7		SOIL	19-Jul-13	11:40
GP-16 (5')	1307328-8		SOIL	19-Jul-13	12:10
S-17	1307328-9		SOIL	19-Jul-13	14:10
S-18	1307328-10		SOIL	19-Jul-13	14:20
GP-9 (10')	1307328-11		SOIL	19-Jul-13	8:10
GP-9 (15')	1307328-12		SOIL	19-Jul-13	8:20
GP-9 (20')	1307328-13		SOIL	19-Jul-13	8:30
GP-10 (10')	1307328-14		SOIL	19-Jul-13	8:55
GP-10 (15')	1307328-15		SOIL	19-Jul-13	9:05
GP-10 (20')	1307328-16		SOIL	19-Jul-13	9:15
GP-11 (10')	1307328-17		SOIL	19-Jul-13	9:35
GP-11 (15')	1307328-18		SOIL	19-Jul-13	9:45
GP-11 (20')	1307328-19		SOIL	19-Jul-13	9:55
GP-12 (10')	1307328-20		SOIL	19-Jul-13	10:05
GP-12 (15')	1307328-21		SOIL	19-Jul-13	10:15
GP-12 (20')	1307328-22		SOIL	19-Jul-13	10:25
GP-13 (10')	1307328-23		SOIL	19-Jul-13	10:45
GP-13 (15')	1307328-24		SOIL	19-Jul-13	10:55
GP-13 (20')	1307328-25		SOIL	19-Jul-13	11:05
GP-14 (10')	1307328-26		SOIL	19-Jul-13	11:15
GP-14 (15')	1307328-27		SOIL	19-Jul-13	11:25
GP-14 (20')	1307328-28		SOIL	19-Jul-13	11:35
GP-15 (10')	1307328-29		SOIL	19-Jul-13	11:45
GP-15 (15')	1307328-30		SOIL	19-Jul-13	11:55

# ALS Environmental -- FC

## Sample Number(s) Cross-Reference Table

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**OrderNum:** 1307328

**Client Name:** CTL Thompson

**Client Project Name:** 4060 CLR Erie

**Client Project Number:** FC05859.001-205

**Client PO Number:**

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Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
GP-15 (20')	1307328-31		SOIL	19-Jul-13	12:00
GP-16 (10')	1307328-32		SOIL	19-Jul-13	12:15
GP-16 (15')	1307328-33		SOIL	19-Jul-13	12:20
GP-16 (20')	1307328-34		SOIL	19-Jul-13	12:30
GP-9	1307328-35		WATER	19-Jul-13	13:30
GP-11	1307328-36		WATER	19-Jul-13	14:00
GP-14	1307328-37		WATER	19-Jul-13	14:15
GP-15	1307328-38		WATER	19-Jul-13	14:25
BW-19	1307328-39		SOLID	19-Jul-13	17:30
BW-19	1307328-40		LEACHAT	19-Jul-13	17:30
Trip Blank	1307328-41		WATER	19-Jul-13	



# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202r8

PROJECT NAME 4060 CLR Erie		SAMPLER Dana Harris		DATE 7/19/13		WORKORDER 1307328	
PROJECT NO. FC 05859 .001-205		SITE ID -		TURNAROUND standard/1wk.		PAGE 1 of 1	
COMPANY NAME CTL Thompson		EDD FORMAT -				DISPOSAL	
SEND REPORT TO Dana Harris		PURCHASE ORDER -					
ADDRESS 351 Linden St #140		BILL TO COMPANY SAA					
CITY/STATE/ZIP Fort Collins, CO 80524		INVOICE ATTN TO					
PHONE 970-206-9455		ADDRESS					
FAX		CITY/STATE/ZIP					
E-MAIL dharris@ctlthompson.com		PHONE					
		FAX					
		E-MAIL					

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
①	GP-9 (5')	S	7/19/13	1505	2		
②	GP-10 (5')	S	7/19/13	1505	2		
③	GP-11 (5')	S	7/19/13	1505	2		
④	GP-12 (5')	S	7/19/13	1505	2		
⑤	GP-13 (5')	S	7/19/13	1505	2		
⑥	GP-14 (5')	S	7/19/13	1505	2		
⑦	GP-15 (5')	S	7/19/13	1505	2		
⑧	GP-16 (5')	S	7/19/13	1505	2		
⑨	S-17	S	7/19/13	1505	2		
⑩	S-18	S	7/19/13	1505	2		

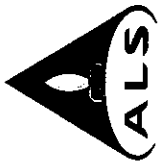
OIL + Grease  
BTX  
9071  
8260

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)	
	<input checked="" type="checkbox"/> LEVEL II (Standard QC)	
	<input type="checkbox"/> LEVEL III (Std QC + forms)	
	<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)	
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY	Dana Harris	Dana Harris	7/20/13	0935
RELINQUISHED BY		Lawrence Schmitz	7/20/13	0940
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202-8

PROJECT NAME 4060 CLR Erie		SAMPLER SITE ID		DATE 7/19/13		WORKORDER # 1307328	
PROJECT NO. F05859.001-205		EDD FORMAT		TURNAROUND		PAGE 2 of 4	
COMPANY NAME CTL Thompson		PURCHASE ORDER				DISPOSAL By Lab or Return to Client	
SEND REPORT TO		BILL TO COMPANY					
ADDRESS		INVOICE ATTN TO					
CITY / STATE / ZIP		ADDRESS					
PHONE		CITY / STATE / ZIP					
FAX		PHONE					
E-MAIL		FAX					
E-MAIL		E-MAIL					

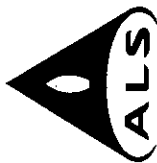
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
11	GP-9 (10')	S	7/19/13	0810	2		HOLD
12	GP-9 (15')	S	7/19/13	0820	2		HOLD
13	GP-9 (20')	S	7/19/13	0830	2		HOLD
14	GP-10 (10')	S	7/19/13	0855	2		HOLD
15	GP-10 (15')	S	7/19/13	0905	2		HOLD
16	GP-10 (20')	S	7/19/13	0915	2		HOLD
17	GP-11 (10')	S	7/19/13	0935	2		HOLD
18	GP-11 (15')	S	7/19/13	0945	2		HOLD
19	GP-11 (20')	S	7/19/13	0955	2		HOLD
20	GP-12 (10')	S	7/19/13	1005	2		HOLD

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filler

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)			
	LEVEL II (Standard QC)			
	LEVEL III (Std QC + forms)			
	LEVEL IV (Std QC + forms + raw data)			
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035				

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY	<i>[Signature]</i>	Dana Harass	7/20/13	0935
RELINQUISHED BY		Lawrence Schmitz	7/20/13	0940
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202a

PROJECT NAME 4060 CLR Ede		SAMPLER Dane Harris		DATE 7/19/13		WORKORDER # 1307328	
PROJECT NO. FC05859.001-205		SITE ID		TURNAROUND		PAGE 3 of 9	
COMPANY NAME CIL Thompson		EDD FORMAT				DISPOSAL By Lab or Return to Client	
SEND REPORT TO		PURCHASE ORDER					
ADDRESS		BILL TO COMPANY					
CITY / STATE / ZIP		INVOICE ATTN TO					
PHONE		ADDRESS					
FAX		CITY / STATE / ZIP					
E-MAIL		PHONE					
		FAX					
		E-MAIL					

Lab ID	Field ID	Matrix	Sample Date Time	Sample Time Date	# Bottles	Pres.	QC
21	GP-12 (15')	S	1015	7/19/13	2		HOLD
22	GP-12 (20')	S	1025	7/19/13	2		HOLD
23	GP-13 (10')	S	1045	7/19/13	2		HOLD
24	GP-13 (15')	S	1055	7/19/13	2		HOLD
25	GP-13 (20')	S	1105	7/19/13	2		HOLD
26	GP-14 (10')	S	1115	7/19/13	2		HOLD
27	GP-14 (15')	S	1125	7/19/13	2		HOLD
28	GP-14 (20')	S	1135	7/19/13	2		HOLD
29	GP-15 (10')	S	1145	7/19/13	2		HOLD
30	GP-15 (15')	S	1155	7/19/13	2		HOLD

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)		SIGNATURE Dane Harris Lauren Schmitz	PRINTED NAME Dane Harris Lauren Schmitz	DATE 7/20/13	TIME 0935
	LEVEL II (Standard QC)					
	LEVEL III (Std QC + forms)					
	LEVEL IV (Std QC + forms + raw data)					
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035						



## Chain-of-Custody

WORKORDER	1307328
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\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

**For metals or anions, please detail analytes below.**

8 of 39

**Preservative Key:**  
1-HCl 2-HNO<sub>3</sub> 3-H<sub>2</sub>SO<sub>4</sub> 4-NaOH 5-NaHSO<sub>4</sub> 7-Other 8-4 degrees C 9-5035



ALS Environmental - Fort Collins  
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: CTL Thompson

Workorder No: 1307328

Project Manager: ARW

Initials: LAS Date: 7/20/13

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<u>NO</u>
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are Custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<u>YES</u>	NO
5. Are the COC and bottle labels complete and legible?		<u>YES</u>	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
7. Were airbills / shipping documents present and/or removable?	<u>DROP OFF</u>	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	<u>N/A</u>	YES	<u>NO</u>
9. Are all aqueous non-preserved samples pH 4-9?	<u>N/A</u>	YES	NO
10. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
11. Were all samples placed in the proper containers for the requested analyses?		<u>YES</u>	NO
12. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<u>YES</u>	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____ > green pea	<u>N/A</u>	<u>YES</u>	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____ heavy	<u>N/A</u>	YES	<u>NO</u>
16. Were the samples shipped on ice?		<u>YES</u>	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <u>#2</u> #4 RAD ONLY		<u>YES</u>	NO
Cooler #: <u>1</u> <u>2</u> <u>3</u>			
Temperature (°C): <u>4.8</u> <u>1.2</u> <u>3.0</u>			
No. of custody seals on cooler: <u>0</u> →			
External µR/hr reading: <u>N/A</u> →			
Background µR/hr reading: <u>10</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / <u>NA</u> (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

\*please see page 2

If applicable, was the client contacted? YES / NO / NA Contact: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager Signature / Date: [Signature] 7/20/13





ALS Environmental - Fort Collins  
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: CTL

Workorder No: 1307328

Project Manager: ARW

Initials: UAS Date: 7/20/13

**Additional Information:**

(\*) 6 Trip Blank not listed on COC. Arrived  
in cooler #1 added to W.O. as 1307328-41  
(2 vials)

**NOTE:**

No pH adjustments shall be made without prior consent of Project Manager. After pH adjustments, hold metals and radchem samples  $\geq 24$  hrs. before analysis.

Was the pH of any sample adjusted by the laboratory? YES (See Table below) / NO

**pH Excursion:**

ALS Sample ID	Client Sample ID	Initial pH	Final pH	Reagent Used	Volume Added (mL)	Lot No. of Reagent	Requested Analysis	Initials / Date / Time
1307328-35-4	GP-9	7	<2	H <sub>2</sub> SO <sub>4</sub>	1.0	50048	04G	UAS 7/20/13 0940
↓ 36-4	GP-11	4	↓	↓	↓	↓	↓	↓
↓ 37-4	GP-14	3	↓	↓	↓	↓	↓	↓
↓ 38-4	GP-15	4	↓	↓	↓	↓	↓	↓

If applicable, was the client contacted? YES / NO / NA Contact: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager Signature / Date: C. W. 7/20/13

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-9 (5')  
**Legal Location:**  
**Collection Date:** 7/19/2013 08:05

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-1  
**Matrix:** SOIL  
**Percent Moisture:** 7.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260</b>		Prep Date: 7/23/2013	PrepBy: SDW
BENZENE	ND		5.4	UG/KG	1	7/23/2013 18:46
TOLUENE	ND		5.4	UG/KG	1	7/23/2013 18:46
ETHYLBENZENE	ND		5.4	UG/KG	1	7/23/2013 18:46
M+P-XYLENE	ND		5.4	UG/KG	1	7/23/2013 18:46
O-XYLENE	ND		5.4	UG/KG	1	7/23/2013 18:46
Surr: DIBROMOFLUOROMETHANE	100		61-134	%REC	1	7/23/2013 18:46
Surr: TOLUENE-D8	98		57-135	%REC	1	7/23/2013 18:46
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	7/23/2013 18:46
<b>OIL &amp; GREASE, GRAVIMETRIC</b>			<b>SW9071</b>		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-10 (5')  
**Legal Location:**  
**Collection Date:** 7/19/2013 08:50

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-2  
**Matrix:** SOIL  
**Percent Moisture:** 7.1

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260</b>		Prep Date: 7/23/2013	PrepBy: SDW
BENZENE	ND		5	UG/KG	1	7/23/2013 19:09
TOLUENE	ND		5	UG/KG	1	7/23/2013 19:09
ETHYLBENZENE	ND		5	UG/KG	1	7/23/2013 19:09
M+P-XYLENE	ND		5	UG/KG	1	7/23/2013 19:09
O-XYLENE	ND		5	UG/KG	1	7/23/2013 19:09
Surr: DIBROMOFLUOROMETHANE	97		61-134	%REC	1	7/23/2013 19:09
Surr: TOLUENE-D8	96		57-135	%REC	1	7/23/2013 19:09
Surr: 4-BROMOFLUOROBENZENE	95		52-151	%REC	1	7/23/2013 19:09
<b>OIL &amp; GREASE, GRAVIMETRIC</b>			<b>SW9071</b>		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-11 (5')  
**Legal Location:**  
**Collection Date:** 7/19/2013 09:30

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-3  
**Matrix:** SOIL  
**Percent Moisture:** 7.3

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260</b>		Prep Date: 7/23/2013	PrepBy: SDW
BENZENE	ND		5.2	UG/KG	1	7/23/2013 19:33
TOLUENE	ND		5.2	UG/KG	1	7/23/2013 19:33
ETHYLBENZENE	ND		5.2	UG/KG	1	7/23/2013 19:33
M+P-XYLENE	ND		5.2	UG/KG	1	7/23/2013 19:33
O-XYLENE	ND		5.2	UG/KG	1	7/23/2013 19:33
Surr: DIBROMOFLUOROMETHANE	98		61-134	%REC	1	7/23/2013 19:33
Surr: TOLUENE-D8	97		57-135	%REC	1	7/23/2013 19:33
Surr: 4-BROMOFLUOROBENZENE	95		52-151	%REC	1	7/23/2013 19:33
<b>OIL &amp; GREASE, GRAVIMETRIC</b>			<b>SW9071</b>		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-12 (5')  
**Legal Location:**  
**Collection Date:** 7/19/2013 10:00

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-4  
**Matrix:** SOIL  
**Percent Moisture:** 8.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260</b>		Prep Date: 7/23/2013	PrepBy: SDW
BENZENE	ND		5.2	UG/KG	1	7/23/2013 19:56
TOLUENE	ND		5.2	UG/KG	1	7/23/2013 19:56
ETHYLBENZENE	ND		5.2	UG/KG	1	7/23/2013 19:56
M+P-XYLENE	ND		5.2	UG/KG	1	7/23/2013 19:56
O-XYLENE	ND		5.2	UG/KG	1	7/23/2013 19:56
Surr: DIBROMOFLUOROMETHANE	99		61-134	%REC	1	7/23/2013 19:56
Surr: TOLUENE-D8	97		57-135	%REC	1	7/23/2013 19:56
Surr: 4-BROMOFLUOROBENZENE	95		52-151	%REC	1	7/23/2013 19:56
<b>OIL &amp; GREASE, GRAVIMETRIC</b>			<b>SW9071</b>		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-13 (5')  
**Legal Location:**  
**Collection Date:** 7/19/2013 10:40

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-5  
**Matrix:** SOIL  
**Percent Moisture:** 7.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GC/MS VOLATILES</b>						
			<b>SW8260</b>		Prep Date: 7/23/2013	PrepBy: SDW
BENZENE	ND		4.8	UG/KG	1	7/23/2013 20:20
TOLUENE	ND		4.8	UG/KG	1	7/23/2013 20:20
ETHYLBENZENE	ND		4.8	UG/KG	1	7/23/2013 20:20
M+P-XYLENE	ND		4.8	UG/KG	1	7/23/2013 20:20
O-XYLENE	ND		4.8	UG/KG	1	7/23/2013 20:20
Surr: DIBROMOFLUOROMETHANE	100		61-134	%REC	1	7/23/2013 20:20
Surr: TOLUENE-D8	97		57-135	%REC	1	7/23/2013 20:20
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	7/23/2013 20:20
<b>OIL &amp; GREASE, GRAVIMETRIC</b>						
			<b>SW9071</b>		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-14 (5')  
**Legal Location:**  
**Collection Date:** 7/19/2013 11:10

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-6  
**Matrix:** SOIL  
**Percent Moisture:** 9.1

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GC/MS VOLATILES</b>						
			<b>SW8260</b>		Prep Date: 7/23/2013	PrepBy: SDW
BENZENE	ND		5.4	UG/KG	1	7/23/2013 20:44
TOLUENE	ND		5.4	UG/KG	1	7/23/2013 20:44
ETHYLBENZENE	ND		5.4	UG/KG	1	7/23/2013 20:44
M+P-XYLENE	ND		5.4	UG/KG	1	7/23/2013 20:44
O-XYLENE	ND		5.4	UG/KG	1	7/23/2013 20:44
Surr: DIBROMOFLUOROMETHANE	98		61-134	%REC	1	7/23/2013 20:44
Surr: TOLUENE-D8	97		57-135	%REC	1	7/23/2013 20:44
Surr: 4-BROMOFLUOROBENZENE	95		52-151	%REC	1	7/23/2013 20:44
<b>OIL &amp; GREASE, GRAVIMETRIC</b>						
			<b>SW9071</b>		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-15 (5')  
**Legal Location:**  
**Collection Date:** 7/19/2013 11:40

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-7  
**Matrix:** SOIL  
**Percent Moisture:** 7.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260</b>		Prep Date: 7/24/2013	PrepBy: SDW
BENZENE	ND		5.2	UG/KG	1	7/24/2013 14:46
TOLUENE	ND		5.2	UG/KG	1	7/24/2013 14:46
ETHYLBENZENE	ND		5.2	UG/KG	1	7/24/2013 14:46
M+P-XYLENE	ND		5.2	UG/KG	1	7/24/2013 14:46
O-XYLENE	ND		5.2	UG/KG	1	7/24/2013 14:46
Surr: DIBROMOFLUOROMETHANE	99		61-134	%REC	1	7/24/2013 14:46
Surr: TOLUENE-D8	96		57-135	%REC	1	7/24/2013 14:46
Surr: 4-BROMOFLUOROBENZENE	96		52-151	%REC	1	7/24/2013 14:46
<b>OIL &amp; GREASE, GRAVIMETRIC</b>			<b>SW9071</b>		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013



## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-16 (5')  
**Legal Location:**  
**Collection Date:** 7/19/2013 12:10

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-8  
**Matrix:** SOIL  
**Percent Moisture:** 8.5

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260</b>		Prep Date: 7/24/2013	PrepBy: SDW
BENZENE	ND		5.4	UG/KG	1	7/24/2013 15:09
TOLUENE	ND		5.4	UG/KG	1	7/24/2013 15:09
ETHYLBENZENE	ND		5.4	UG/KG	1	7/24/2013 15:09
M+P-XYLENE	ND		5.4	UG/KG	1	7/24/2013 15:09
O-XYLENE	ND		5.4	UG/KG	1	7/24/2013 15:09
Surr: DIBROMOFLUOROMETHANE	99		61-134	%REC	1	7/24/2013 15:09
Surr: TOLUENE-D8	98		57-135	%REC	1	7/24/2013 15:09
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	7/24/2013 15:09
<b>OIL &amp; GREASE, GRAVIMETRIC</b>			<b>SW9071</b>		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	380		110	MG/KG	1	7/26/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** S-17  
**Legal Location:**  
**Collection Date:** 7/19/2013 14:10

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-9  
**Matrix:** SOIL  
**Percent Moisture:** 2.8

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GC/MS VOLATILES</b>						
			<b>SW8260</b>		Prep Date: 7/25/2013	PrepBy: SDW
BENZENE	ND		5.1	UG/KG	1	7/25/2013 13:29
TOLUENE	ND		5.1	UG/KG	1	7/25/2013 13:29
ETHYLBENZENE	ND		5.1	UG/KG	1	7/25/2013 13:29
M+P-XYLENE	ND		5.1	UG/KG	1	7/25/2013 13:29
O-XYLENE	ND		5.1	UG/KG	1	7/25/2013 13:29
Surr: DIBROMOFLUOROMETHANE	100		61-134	%REC	1	7/25/2013 13:29
Surr: TOLUENE-D8	97		57-135	%REC	1	7/25/2013 13:29
Surr: 4-BROMOFLUOROBENZENE	94		52-151	%REC	1	7/25/2013 13:29
<b>OIL &amp; GREASE, GRAVIMETRIC</b>						
			<b>SW9071</b>		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	5800		100	MG/KG	1	7/26/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** S-18  
**Legal Location:**  
**Collection Date:** 7/19/2013 14:20

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-10  
**Matrix:** SOIL  
**Percent Moisture:** 0.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GC/MS VOLATILES</b>						
			<b>SW8260</b>		Prep Date: 7/24/2013	PrepBy: SDW
BENZENE	ND		4.8	UG/KG	1	7/24/2013 15:56
TOLUENE	ND		4.8	UG/KG	1	7/24/2013 15:56
ETHYLBENZENE	ND		4.8	UG/KG	1	7/24/2013 15:56
M+P-XYLENE	ND		4.8	UG/KG	1	7/24/2013 15:56
O-XYLENE	ND		4.8	UG/KG	1	7/24/2013 15:56
Surr: DIBROMOFLUOROMETHANE	102		61-134	%REC	1	7/24/2013 15:56
Surr: TOLUENE-D8	104		57-135	%REC	1	7/24/2013 15:56
Surr: 4-BROMOFLUOROBENZENE	89		52-151	%REC	1	7/24/2013 15:56
<b>OIL &amp; GREASE, GRAVIMETRIC</b>						
OIL AND GREASE	1500		<b>SW9071</b>	100 MG/KG	Prep Date: 7/25/2013	PrepBy: TLB
					1	7/26/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-9  
**Legal Location:**  
**Collection Date:** 7/19/2013 13:30

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-35  
**Matrix:** WATER  
**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260_25</b>		Prep Date: 7/21/2013	PrepBy: SDW
BENZENE	ND		1	UG/L	1	7/21/2013 16:21
ETHYLBENZENE	ND		1	UG/L	1	7/21/2013 16:21
M+P-XYLENE	ND		1	UG/L	1	7/21/2013 16:21
O-XYLENE	ND		1	UG/L	1	7/21/2013 16:21
<b>TOLUENE</b>	<b>7.6</b>		<b>1</b>	<b>UG/L</b>	1	7/21/2013 16:21
Surr: 4-BROMOFLUOROBENZENE	99		85-115	%REC	1	7/21/2013 16:21
Surr: DIBROMOFLUOROMETHANE	99		84-118	%REC	1	7/21/2013 16:21
Surr: TOLUENE-D8	101		85-115	%REC	1	7/21/2013 16:21
<b>HEXANE EXTRACTABLE MATERIAL--GRAVIMETRIC</b>			<b>EPA1664</b>		Prep Date: 7/25/2013	PrepBy: BCH
OIL AND GREASE	ND		5.7	MG/L	1	7/25/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-11  
**Legal Location:**  
**Collection Date:** 7/19/2013 14:00

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-36  
**Matrix:** WATER  
**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260_25</b>		Prep Date: 7/21/2013	PrepBy: SDW
BENZENE	ND		1	UG/L	1	7/21/2013 17:08
ETHYLBENZENE	ND		1	UG/L	1	7/21/2013 17:08
M+P-XYLENE	ND		1	UG/L	1	7/21/2013 17:08
O-XYLENE	ND		1	UG/L	1	7/21/2013 17:08
<b>TOLUENE</b>	<b>2.6</b>		<b>1</b>	<b>UG/L</b>	1	7/21/2013 17:08
Surr: 4-BROMOFLUOROBENZENE	96		85-115	%REC	1	7/21/2013 17:08
Surr: DIBROMOFLUOROMETHANE	100		84-118	%REC	1	7/21/2013 17:08
Surr: TOLUENE-D8	102		85-115	%REC	1	7/21/2013 17:08
<b>HEXANE EXTRACTABLE MATERIAL--GRAVIMETRIC</b>			<b>EPA1664</b>		Prep Date: 7/25/2013	PrepBy: BCH
OIL AND GREASE	ND		5.3	MG/L	1	7/25/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-14  
**Legal Location:**  
**Collection Date:** 7/19/2013 14:15

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-37  
**Matrix:** WATER  
**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260_25</b>		Prep Date: 7/21/2013	PrepBy: SDW
BENZENE	ND		1	UG/L	1	7/21/2013 17:55
ETHYLBENZENE	ND		1	UG/L	1	7/21/2013 17:55
M+P-XYLENE	ND		1	UG/L	1	7/21/2013 17:55
O-XYLENE	ND		1	UG/L	1	7/21/2013 17:55
<b>TOLUENE</b>	<b>1.3</b>		<b>1</b>	<b>UG/L</b>	1	7/21/2013 17:55
Surr: 4-BROMOFLUOROBENZENE	99		85-115	%REC	1	7/21/2013 17:55
Surr: DIBROMOFLUOROMETHANE	99		84-118	%REC	1	7/21/2013 17:55
Surr: TOLUENE-D8	101		85-115	%REC	1	7/21/2013 17:55
<b>HEXANE EXTRACTABLE MATERIAL--GRAVIMETRIC</b>			<b>EPA1664</b>		Prep Date: 7/25/2013	PrepBy: BCH
OIL AND GREASE	ND		5.6	MG/L	1	7/25/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-15  
**Legal Location:**  
**Collection Date:** 7/19/2013 14:25

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-38  
**Matrix:** WATER  
**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>GC/MS VOLATILES</b>						
			<b>SW8260_25</b>		Prep Date: 7/21/2013	PrepBy: SDW
BENZENE	ND		1	UG/L	1	7/21/2013 18:42
ETHYLBENZENE	ND		1	UG/L	1	7/21/2013 18:42
M+P-XYLENE	ND		1	UG/L	1	7/21/2013 18:42
O-XYLENE	ND		1	UG/L	1	7/21/2013 18:42
<b>TOLUENE</b>	<b>0.56</b>	J	<b>1</b>	<b>UG/L</b>	1	7/21/2013 18:42
Surr: 4-BROMOFLUOROBENZENE	99		85-115	%REC	1	7/21/2013 18:42
Surr: DIBROMOFLUOROMETHANE	99		84-118	%REC	1	7/21/2013 18:42
Surr: TOLUENE-D8	103		85-115	%REC	1	7/21/2013 18:42
<b>HEXANE EXTRACTABLE MATERIAL--GRAVIMETRIC</b>						
			<b>EPA1664</b>		Prep Date: 7/25/2013	PrepBy: BCH
OIL AND GREASE	ND		5.6	MG/L	1	7/25/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** BW-19  
**Legal Location:**  
**Collection Date:** 7/19/2013 17:30

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-39  
**Matrix:** SOLID  
**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>PCBS</b>			<b>SW8082</b>		Prep Date: 7/25/2013	PrepBy: TLB
AROCLOR-1016	ND		33	UG/KG	1	7/26/2013 18:44
AROCLOR-1221	ND		67	UG/KG	1	7/26/2013 18:44
AROCLOR-1232	ND		33	UG/KG	1	7/26/2013 18:44
AROCLOR-1242	ND		33	UG/KG	1	7/26/2013 18:44
AROCLOR-1248	ND		33	UG/KG	1	7/26/2013 18:44
AROCLOR-1254	ND		33	UG/KG	1	7/26/2013 18:44
AROCLOR-1260	ND		33	UG/KG	1	7/26/2013 18:44
Surr: TETRACHLORO-M-XYLENE	77		61-120	%REC	1	7/26/2013 18:44
Surr: DECACHLOROBIPHENYL	30	*	56-130	%REC	1	7/26/2013 18:44



## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** BW-19  
**Legal Location:**  
**Collection Date:** 7/19/2013 17:30

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-40  
**Matrix:** LEACHATE  
**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260_25</b>		Prep Date: <b>7/26/2013</b>	PrepBy: <b>SDW</b>
BENZENE	ND		10	UG/L	10	7/26/2013 19:05
Surr: DIBROMOFLUOROMETHANE	101		84-118	%REC	10	7/26/2013 19:05
Surr: TOLUENE-D8	104		85-115	%REC	10	7/26/2013 19:05
Surr: 4-BROMOFLUOROBENZENE	101		85-115	%REC	10	7/26/2013 19:05

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** Trip Blank  
**Legal Location:**  
**Collection Date:** 7/19/2013

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-41  
**Matrix:** WATER  
**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260_25</b>		Prep Date: 7/21/2013	PrepBy: SDW
BENZENE	ND		1	UG/L	1	7/21/2013 15:34
ETHYLBENZENE	ND		1	UG/L	1	7/21/2013 15:34
M+P-XYLENE	ND		1	UG/L	1	7/21/2013 15:34
O-XYLENE	ND		1	UG/L	1	7/21/2013 15:34
TOLUENE	ND		1	UG/L	1	7/21/2013 15:34
Surr: 4-BROMOFLUOROBENZENE	97		85-115	%REC	1	7/21/2013 15:34
Surr: DIBROMOFLUOROMETHANE	100		84-118	%REC	1	7/21/2013 15:34
Surr: TOLUENE-D8	103		85-115	%REC	1	7/21/2013 15:34

# ALS Environmental -- FC

# SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** Trip Blank  
**Legal Location:**  
**Collection Date:** 7/19/2013

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-41  
**Matrix:** WATER  
**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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## Explanation of Qualifiers

### Radiochemistry:

U or ND - Result is less than the sample specific MDC.  
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.  
Y2 - Chemical Yield outside default limits.  
W - DER is greater than Warning Limit of 1.42  
\* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.  
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.  
G - Sample density differs by more than 15% of LCS density.  
D - DER is greater than Control Limit  
M - Requested MDC not met.  
LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.  
L - LCS Recovery below lower control limit.  
H - LCS Recovery above upper control limit.  
P - LCS, Matrix Spike Recovery within control limits.  
N - Matrix Spike Recovery outside control limits  
NC - Not Calculated for duplicate results less than 5 times MDC  
B - Analyte concentration greater than MDC.  
B3 - Analyte concentration greater than MDC but less than Requested MDC.

### Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).  
U or ND - Indicates that the compound was analyzed for but not detected.  
E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.  
M - Duplicate injection precision was not met.  
N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.  
Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.  
\* - Duplicate analysis (relative percent difference) not within control limits.

### Organics:

U or ND - Indicates that the compound was analyzed for but not detected.  
B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.  
E - Analyte concentration exceeds the upper level of the calibration range.  
J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).  
A - A tentatively identified compound is a suspected aldol-condensation product.  
X - The analyte was diluted below an accurate quantitation level.  
\* - The spike recovery is equal to or outside the control criteria used.  
+ - The relative percent difference (RPD) equals or exceeds the control criteria.

### Diesel Range Organics:

# ALS Environmental -- FC

# SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** Trip Blank  
**Legal Location:**  
**Collection Date:** 7/19/2013

**Date:** 29-Jul-13  
**Work Order:** 1307328  
**Lab ID:** 1307328-41  
**Matrix:** WATER  
**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<p>G - A pattern resembling gasoline was detected in this sample.  D - A pattern resembling diesel was detected in this sample.  M - A pattern resembling motor oil was detected in this sample.  C - A pattern resembling crude oil was detected in this sample.  4 - A pattern resembling JP-4 was detected in this sample.  5 - A pattern resembling JP-5 was detected in this sample.  H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.  L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.  Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:  - gasoline  - JP-8  - diesel  - mineral spirits  - motor oil  - Stoddard solvent  - bunker C</p>						

# ALS Environmental -- FC

Client: CTL Thompson

Work Order: 1307328

Project: FC05859.001-205 4060 CLR Erie

Date: 7/29/2013 2:11:

## QC BATCH REPORT

Batch ID: **EX130725-3-1** Instrument ID **Balance** Method: **EPA1664**

LCS	Sample ID: EX130725-3				Units: MG/L		Analysis Date: 7/25/2013			
Client ID:	Run ID: EX130725-3A						Prep Date: 7/25/2013		DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	39.9	5	39.9		100	78-114			18	

LCSD	Sample ID: EX130725-3				Units: MG/L		Analysis Date: 7/25/2013			
Client ID:	Run ID: EX130725-3A				Prep Date: 7/25/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	40.5	5	39.9		102	78-114	39.9	1	18	

MB	Sample ID: EX130725-3				Units: MG/L			Analysis Date: 7/25/2013		
Client ID:	Run ID: EX130725-3A				Prep Date: 7/25/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	ND	5								

The following samples were analyzed in this batch:

1307328-35	1307328-36	1307328-37
1307328-38		

Client: CTL Thompson  
Work Order: 1307328  
Project: FC05859.001-205 4060 CLR Erie

## QC BATCH REPORT

Batch ID: **EX130725-8-1** Instrument ID **Balance** Method: **SW9071**

<b>LCS</b>	Sample ID: <b>EX130725-8</b>			Units: <b>MG/KG</b>			Analysis Date: <b>7/26/2013</b>			
Client ID:	Run ID: <b>EX130725-8A</b>			Prep Date: <b>7/25/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2050	100	2060		100	80-120			20	

<b>LCSD</b>	Sample ID: <b>EX130725-8</b>			Units: <b>MG/KG</b>			Analysis Date: <b>7/26/2013</b>			
Client ID:	Run ID: <b>EX130725-8A</b>			Prep Date: <b>7/25/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2040	100	2060		99	80-120	2050	1	20	

<b>MB</b>	Sample ID: <b>EX130725-8</b>			Units: <b>MG/KG</b>			Analysis Date: <b>7/26/2013</b>			
Client ID:	Run ID: <b>EX130725-8A</b>			Prep Date: <b>7/25/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	ND	100								

<b>MS</b>	Sample ID: <b>1307328-3</b>			Units: <b>MG/KG</b>			Analysis Date: <b>7/26/2013</b>			
Client ID: <b>GP-11 (5')</b>	Run ID: <b>EX130725-8A</b>			Prep Date: <b>7/25/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2200	107	2210	110	97	80-120			20	

<b>MSD</b>	Sample ID: <b>1307328-3</b>			Units: <b>MG/KG</b>			Analysis Date: <b>7/26/2013</b>			
Client ID: <b>GP-11 (5')</b>	Run ID: <b>EX130725-8A</b>			Prep Date: <b>7/25/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2230	107	2220	110	98	80-120	2200	1	20	

The following samples were analyzed in this batch:

1307328-1	1307328-2	1307328-3
1307328-4	1307328-5	1307328-6
1307328-7	1307328-8	1307328-9
1307328-10		

Client: CTL Thompson  
 Work Order: 1307328  
 Project: FC05859.001-205 4060 CLR Erie

## QC BATCH REPORT

Batch ID: **EX130725-7-1** Instrument ID **Pest-1** Method: **SW8082**

<b>LCS</b>	Sample ID: <b>EX130725-7</b>			Units: <b>UG/KG</b>			Analysis Date: <b>7/26/2013 17:36</b>			
Client ID:	Run ID: <b>PT130726-11</b>			Prep Date: <b>7/25/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	130	33.3	133		97	64-126			50	
AROCLOR-1260	141	33.3	133		106	60-130			50	
Surr: TETRACHLORO-M-XYLEN	15.5		16.7		93	61-120				
Surr: DECACHLOROBIPHENYL	15.1		16.7		91	56-130				

<b>LCSD</b>	Sample ID: <b>EX130725-7</b>			Units: <b>UG/KG</b>			Analysis Date: <b>7/26/2013 17:59</b>			
Client ID:	Run ID: <b>PT130726-11</b>			Prep Date: <b>7/25/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	128	33.3	133		96	64-126	130	1	50	
AROCLOR-1260	141	33.3	133		105	60-130	141	1	50	
Surr: TETRACHLORO-M-XYLEN	15.3		16.7		92	61-120		1		
Surr: DECACHLOROBIPHENYL	15.3		16.7		92	56-130		1		

<b>MB</b>	Sample ID: <b>EX130725-7</b>			Units: <b>UG/KG</b>			Analysis Date: <b>7/26/2013 16:28</b>			
Client ID:	Run ID: <b>PT130726-11</b>			Prep Date: <b>7/25/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	ND	33								
AROCLOR-1221	ND	67								
AROCLOR-1232	ND	33								
AROCLOR-1242	ND	33								
AROCLOR-1248	ND	33								
AROCLOR-1254	ND	33								
AROCLOR-1260	ND	33								
Surr: TETRACHLORO-M-XYLEN	15.3		16.7		92	61-120				
Surr: DECACHLOROBIPHENYL	14.9		16.7		89	56-130				

The following samples were analyzed in this batch:

1307328-39

**Client:** CTL Thompson  
**Work Order:** 1307328  
**Project:** FC05859.001-205 4060 CLR Erie

# QC BATCH REPORT

Batch ID: **VL130721-4-1**      Instrument ID **HPV1**      Method: **SW8260\_25**

LCS	Sample ID: VL130721-4				Units: %REC		Analysis Date: 7/21/2013 14:24			
Client ID:		Run ID: VL130721-4A				Prep Date: 7/21/2013			DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZE	25.1		25		100	85-115				
Surr: DIBROMOFLUOROMETHA	24.8		25		99	84-118				
Surr: TOLUENE-D8	25.5		25		102	85-115				
BENZENE	9.55	1	10		96	83-117			20	
ETHYLBENZENE	9.8	1	10		98	81-113			20	
M+P-XYLENE	19.9	1	20		100	82-115			20	
O-XYLENE	10	1	10		100	81-115			20	
TOLUENE	9.56	1	10		96	82-113			20	

LCSD	Sample ID: VL130721-4				Units: %REC		Analysis Date: 7/21/2013 14:47			
Client ID:	Run ID: VL130721-4A				Prep Date: 7/21/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZE	24.9		25		100	85-115		1		
Surr: DIBROMOFLUOROMETHA	25.1		25		100	84-118		1		
Surr: TOLUENE-D8	25.4		25		102	85-115		0		
BENZENE	9.65	1	10		96	83-117	9.55	1	20	
ETHYLBENZENE	9.62	1	10		96	81-113	9.8	2	20	
M+P-XYLENE	19.6	1	20		98	82-115	19.9	2	20	
O-XYLENE	9.95	1	10		99	81-115	10	1	20	
TOLUENE	9.38	1	10		94	82-113	9.56	2	20	

MB		Sample ID: VL130721-4			Units: %REC		Analysis Date: 7/21/2013 15:10			
Client ID:		Run ID: VL130721-4A					Prep Date: 7/21/2013		DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZE	24.5		25		98	85-115				
Surr: DIBROMOFLUOROMETHA	24.9		25		99	84-118				
Surr: TOLUENE-D8	25.6		25		102	85-115				
BENZENE	ND	1								
ETHYLBENZENE	ND	1								
M+P-XYLENE	ND	1								
O-XYLENE	ND	1								
TOLUENE	ND	1								

The following samples were analyzed in this batch:

1307328-35	1307328-36	1307328-37
1307328-38	1307328-41	



Client: CTL Thompson  
 Work Order: 1307328  
 Project: FC05859.001-205 4060 CLR Erie

## QC BATCH REPORT

Batch ID: **VL130723-2-4** Instrument ID **HPV1** Method: **SW8260**

<b>LCS</b>	Sample ID: <b>VL130723-2</b>			Units: <b>UG/KG</b>			Analysis Date: <b>7/23/2013 11:34</b>			
Client ID:	Run ID: <b>VL130723-2A</b>			Prep Date: <b>7/23/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	40.1	5	40		100	73-126			30	
TOLUENE	37.9	5	40		95	71-127			30	
ETHYLBENZENE	37.2	5	40		93	74-127			30	
M+P-XYLENE	75.4	5	80		94	79-126			30	
O-XYLENE	37.6	5	40		94	77-125			30	
Surr: DIBROMOFLUOROMETHA	50.2		50		100	61-134				
Surr: TOLUENE-D8	48.5		50		97	57-135				
Surr: 4-BROMOFLUOROBENZE	50.6		50		101	52-151				

<b>LCSD</b>	Sample ID: <b>VL130723-2</b>			Units: <b>UG/KG</b>			Analysis Date: <b>7/23/2013 11:56</b>			
Client ID:	Run ID: <b>VL130723-2A</b>			Prep Date: <b>7/23/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	37.3	5	40		93	73-126	40.1	7	30	
TOLUENE	34.8	5	40		87	71-127	37.9	9	30	
ETHYLBENZENE	34.2	5	40		85	74-127	37.2	8	30	
M+P-XYLENE	69.5	5	80		87	79-126	75.4	8	30	
O-XYLENE	34.8	5	40		87	77-125	37.6	8	30	
Surr: DIBROMOFLUOROMETHA	50.6		50		101	61-134		1		
Surr: TOLUENE-D8	48.8		50		98	57-135		1		
Surr: 4-BROMOFLUOROBENZE	50.8		50		102	52-151		0		

<b>MB</b>	Sample ID: <b>VL130723-2</b>			Units: <b>UG/KG</b>			Analysis Date: <b>7/23/2013 12:17</b>			
Client ID:	Run ID: <b>VL130723-2A</b>			Prep Date: <b>7/23/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	ND	5								
TOLUENE	ND	5								
ETHYLBENZENE	ND	5								
M+P-XYLENE	ND	5								
O-XYLENE	ND	5								
Surr: DIBROMOFLUOROMETHA	49.2		50		98	61-134				
Surr: TOLUENE-D8	48.5		50		97	57-135				
Surr: 4-BROMOFLUOROBENZE	49.3		50		99	52-151				

The following samples were analyzed in this batch:

1307328-1	1307328-2	1307328-3
1307328-4	1307328-5	1307328-6

Client: CTL Thompson  
 Work Order: 1307328  
 Project: FC05859.001-205 4060 CLR Erie

## QC BATCH REPORT

Batch ID: **VL130724-2-2** Instrument ID **HPV1** Method: **SW8260**

LCS	Sample ID: VL130724-2				Units: UG/KG		Analysis Date: 7/24/2013 13:39			
Client ID:	Run ID: VL130724-2A				Prep Date: 7/24/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	40.9	5	40		102	73-126			30	
TOLUENE	39	5	40		97	71-127			30	
ETHYLBENZENE	38.3	5	40		96	74-127			30	
M+P-XYLENE	77.2	5	80		96	79-126			30	
O-XYLENE	38.6	5	40		97	77-125			30	
Surr: DIBROMOFLUOROMETHA	50.2		50		100	61-134				
Surr: TOLUENE-D8	48.8		50		98	57-135				
Surr: 4-BROMOFLUOROBENZE	51.1		50		102	52-151				

LCSD	Sample ID: VL130724-2				Units: UG/KG		Analysis Date: 7/24/2013 14:01			
Client ID:	Run ID: VL130724-2A				Prep Date: 7/24/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	41.4	5	40		103	73-126	40.9	1	30	
TOLUENE	38.4	5	40		96	71-127	39	1	30	
ETHYLBENZENE	37.6	5	40		94	74-127	38.3	2	30	
M+P-XYLENE	76	5	80		95	79-126	77.2	2	30	
O-XYLENE	38.3	5	40		96	77-125	38.6	1	30	
Surr: DIBROMOFLUOROMETHA	51.2		50		102	61-134		2		
Surr: TOLUENE-D8	49.3		50		99	57-135		1		
Surr: 4-BROMOFLUOROBENZE	50.5		50		101	52-151		1		

MB	Sample ID: VL130724-2			Units: UG/KG			Analysis Date: 7/24/2013 14:23			
Client ID:	Run ID: VL130724-2A			Prep Date: 7/24/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	ND	5								
TOLUENE	ND	5								
ETHYLBENZENE	ND	5								
M+P-XYLENE	ND	5								
O-XYLENE	ND	5								
Surr: DIBROMOFLUOROMETHA	49.5		50		99	61-134				
Surr: TOLUENE-D8	48.3		50		97	57-135				
Surr: 4-BROMOFLUOROBENZE	49.2		50		98	52-151				

Client: CTL Thompson  
 Work Order: 1307328  
 Project: FC05859.001-205 4060 CLR Erie

## QC BATCH REPORT

Batch ID: **VL130724-2-2** Instrument ID **HPV1** Method: **SW8260**

<b>MS</b>	Sample ID: <b>1307328-10</b>			Units: <b>UG/KG</b>			Analysis Date: <b>7/24/2013 16:20</b>			
Client ID: <b>S-18</b>	Run ID: <b>VL130724-2A</b>			Prep Date: <b>7/24/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	22.6	4.66	37.3	4.8	61	73-126			30	*
TOLUENE	17.7	4.66	37.3	4.8	47	71-127			30	*
ETHYLBENZENE	13.1	4.66	37.3	4.8	35	74-127			30	*
M+P-XYLENE	25.5	4.66	74.6	4.8	34	79-126			30	*
O-XYLENE	13	4.66	37.3	4.8	35	77-125			30	*
Surr: DIBROMOFLUOROMETHA	48.1		46.6		103	61-134				
Surr: TOLUENE-D8	45.7		46.6		98	57-135				
Surr: 4-BROMOFLUOROBENZE	46.1		46.6		99	52-151				

<b>MSD</b>	Sample ID: <b>1307328-10</b>			Units: <b>UG/KG</b>			Analysis Date: <b>7/24/2013 16:42</b>			
Client ID: <b>S-18</b>	Run ID: <b>VL130724-2A</b>			Prep Date: <b>7/24/2013</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	24.4	4.88	39	4.8	62	73-126	22.6	8	30	*
TOLUENE	19.1	4.88	39	4.8	49	71-127	17.7	8	30	*
ETHYLBENZENE	14	4.88	39	4.8	36	74-127	13.1	7	30	*
M+P-XYLENE	27.8	4.88	78.1	4.8	36	79-126	25.5	8	30	*
O-XYLENE	14	4.88	39	4.8	36	77-125	13	7	30	*
Surr: DIBROMOFLUOROMETHA	50.2		48.8		103	61-134		4		
Surr: TOLUENE-D8	47.6		48.8		98	57-135		4		
Surr: 4-BROMOFLUOROBENZE	47.8		48.8		98	52-151		4		

The following samples were analyzed in this batch:

1307328-7	1307328-8	1307328-10
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Client: CTL Thompson  
 Work Order: 1307328  
 Project: FC05859.001-205 4060 CLR Erie

## QC BATCH REPORT

Batch ID: **VL130725-2-1** Instrument ID **HPV1** Method: **SW8260**

LCS	Sample ID: VL130725-2			Units: UG/KG		Analysis Date: 7/25/2013 12:20				
Client ID:	Run ID: VL130725-2A					Prep Date: 7/25/2013			DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	41.2	5	40		103	73-126			30	
TOLUENE	39.1	5	40		98	71-127			30	
ETHYLBENZENE	38.4	5	40		96	74-127			30	
M+P-XYLENE	77.6	5	80		97	79-126			30	
O-XYLENE	39	5	40		98	77-125			30	
Surr: DIBROMOFLUOROMETHA	50.1		50		100	61-134				
Surr: TOLUENE-D8	48.6		50		97	57-135				
Surr: 4-BROMOFLUOROBENZE	50.5		50		101	52-151				

LCSD	Sample ID: VL130725-2			Units: UG/KG			Analysis Date: 7/25/2013 12:44			
Client ID:	Run ID: VL130725-2A						Prep Date: 7/25/2013		DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	40.1	5	40		100	73-126	41.2	3	30	
TOLUENE	37.9	5	40		95	71-127	39.1	3	30	
ETHYLBENZENE	37.1	5	40		93	74-127	38.4	4	30	
M+P-XYLENE	75.2	5	80		94	79-126	77.6	3	30	
O-XYLENE	38.1	5	40		95	77-125	39	2	30	
Surr: DIBROMOFLUOROMETHA	50.7		50		101	61-134		1		
Surr: TOLUENE-D8	48.1		50		96	57-135		1		
Surr: 4-BROMOFLUOROBENZE	50.1		50		100	52-151		1		

MB	Sample ID: VL130725-2			Units: UG/KG			Analysis Date: 7/25/2013 13:05			
Client ID:	Run ID: VL130725-2A						Prep Date: 7/25/2013		DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	ND	5								
TOLUENE	ND	5								
ETHYLBENZENE	ND	5								
M+P-XYLENE	ND	5								
O-XYLENE	ND	5								
Surr: DIBROMOFLUOROMETHA	49.5		50		99	61-134				
Surr: TOLUENE-D8	48		50		96	57-135				
Surr: 4-BROMOFLUOROBENZE	48.9		50		98	52-151				

Client: CTL Thompson  
 Work Order: 1307328  
 Project: FC05859.001-205 4060 CLR Erie

## QC BATCH REPORT

Batch ID: **VL130725-2-1** Instrument ID **HPV1** Method: **SW8260**

MS	Sample ID: 1307328-9				Units: UG/KG		Analysis Date: 7/25/2013 13:51			
Client ID: S-17		Run ID: VL130725-2A				Prep Date: 7/25/2013		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	35.2	5.04	40.4	5.1	87	73-126			30	
TOLUENE	34	5.04	40.4	5.1	84	71-127			30	
ETHYLBENZENE	25.5	5.04	40.4	5.1	63	74-127			30	*
M+P-XYLENE	50.7	5.04	80.7	5.1	63	79-126			30	*
O-XYLENE	24.2	5.04	40.4	5.1	60	77-125			30	*
Surr: DIBROMOFLUOROMETHA	53.9		50.4		107	61-134				
Surr: TOLUENE-D8	53.9		50.4		107	57-135				
Surr: 4-BROMOFLUOROBENZE	41.8		50.4		83	52-151				

MSD		Sample ID: 1307328-9				Units: UG/KG		Analysis Date: 7/25/2013 14:15		
Client ID: S-17		Run ID: VL130725-2A				Prep Date: 7/25/2013		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	24.2	5.02	40.2	5.1	60	73-126	35.2	37	30	*+
TOLUENE	18	5.02	40.2	5.1	45	71-127	34	61	30	*+
ETHYLBENZENE	12.2	5.02	40.2	5.1	30	74-127	25.5	71	30	*+
M+P-XYLENE	23.4	5.02	80.4	5.1	29	79-126	50.7	74	30	*+
O-XYLENE	11.5	5.02	40.2	5.1	29	77-125	24.2	71	30	*+
Surr: DIBROMOFLUOROMETHA	53.7		50.2		107	61-134		0		
Surr: TOLUENE-D8	50.4		50.2		100	57-135		7		
Surr: 4-BROMOFLUOROBENZE	47.9		50.2		95	52-151		14		

The following samples were analyzed in this batch:

1307328-9

Client: CTL Thompson  
Work Order: 1307328  
Project: FC05859.001-205 4060 CLR Erie

## QC BATCH REPORT

Batch ID: **VL130726-4-3** Instrument ID **HPV1** Method: **SW8260\_25**

LCS	Sample ID: VL130726-4				Units: UG/L		Analysis Date: 7/26/2013 17:30			
Client ID:		Run ID: VL130726-4A				Prep Date: 7/26/2013		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	9.72	1	10		97	83-117			20	
Surr: DIBROMOFLUOROMETHA	25.8		25		103	84-118				
Surr: TOLUENE-D8	25.2		25		101	85-115				
Surr: 4-BROMOFLUOROBENZE	24.4		25		98	85-115				

LCSD		Sample ID: VL130726-4				Units: UG/L		Analysis Date: 7/26/2013 17:53			
Client ID:		Run ID: VL130726-4A				Prep Date: 7/26/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	9.33	1	10		93	83-117	9.72	4	20		
Surr: DIBROMOFLUOROMETHA	25.9		25		104	84-118		0			
Surr: TOLUENE-D8	25.8		25		103	85-115		3			
Surr: 4-BROMOFLUOROBENZE	25		25		100	85-115		3			

MB		Sample ID: EX130725-4				Units: UG/L		Analysis Date: 7/26/2013 18:41			
Client ID:		Run ID: VL130726-4A				Prep Date: 7/26/2013		DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	ND	10									
Surr: DIBROMOFLUOROMETHA	256		250		102	84-118					
Surr: TOLUENE-D8	258		250		103	85-115					
Surr: 4-BROMOFLUOROBENZE	251		250		100	85-115					

MB		Sample ID: VL130726-4				Units: UG/L		Analysis Date: 7/26/2013 18:17			
Client ID:		Run ID: VL130726-4A				Prep Date: 7/26/2013		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	ND	1									
Surr: DIBROMOFLUOROMETHA	25.8		25		103	84-118					
Surr: TOLUENE-D8	25.9		25		104	85-115					
Surr: 4-BROMOFLUOROBENZE	24.6		25		99	85-115					

The following samples were analyzed in this batch:

1307328-40



**1307521**

**GC/MS Volatiles:**

The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All acceptance criteria were met.

**Oil and Grease:**

The samples were prepared and analyzed according to SW-846, 3<sup>rd</sup> Edition procedures based on Method SW-9071 and utilizing the current revision of SOP 640.

All acceptance criteria were met.

# ALS Environmental -- FC

## Sample Number(s) Cross-Reference Table

---

**OrderNum:** 1307521

**Client Name:** CTL Thompson

**Client Project Name:** 4060 CLR Erie

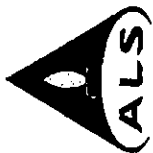
**Client Project Number:** FC05859.001-205

**Client PO Number:**

---

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
GP-16 (10')	1307521-1		SOIL	19-Jul-13	12:15
GP-16 (15')	1307521-2		SOIL	19-Jul-13	12:20
GP-16 (20')	1307521-3		SOIL	19-Jul-13	12:30





# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202/6

PROJECT NAME	4060 CLR Erie	SAMPLER	Dana Harris	DATE	7/19/13	Form 202/6	WORKORDER #	1307328
PROJECT NO.	FC 05859.001-205	SITE ID	-	TURNAROUND	Standard/1 wk.		PAGE	1 of 4
COMPANY NAME	CTL Thompson	EDD FORMAT	-				DISPOSAL	By Lab or Return to Client
SEND REPORT TO	Dana Harris	PURCHASE ORDER	-					
ADDRESS	351 Linden St. #140	BILL TO COMPANY	SAA					
CITY/STATE/ZIP	Fort Collins, CO 80524	INVOICE ATTN TO						
PHONE	970-206-9455	ADDRESS						
FAX		CITY/STATE/ZIP						
E-MAIL	dharris@ctlthompson.com	PHONE						
		FAX						
		E-MAIL						

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
①	GP-9 (5')	S	7/19/13	0805	2		
②	GP-10 (5')	S	7/19/13	0810	2		
③	GP-11 (5')	S	7/19/13	0815	2		
④	GP-12 (5')	S	7/19/13	0820	2		
⑤	GP-13 (5')	S	7/19/13	0825	2		
⑥	GP-14 (5')	S	7/19/13	0830	2		
⑦	GP-15 (5')	S	7/19/13	0835	2		
⑧	GP-16 (5')	S	7/19/13	0840	2		
⑨	S-17	S	7/19/13	0845	2		
⑩	S-18	S	7/19/13	0850	2		

\*Time Zone (Circle): EST CST MST PST Matrix: O=oil S=soil NS=non-soil solid W=water L=liquid E=extract F=filter

Comments:	SIGNATURE	PRINTED NAME	DATE	TIME
	Dana Harris	Dana Harris	7/20/13	0935
	Lauren Schmitz	Lauren Schmitz	7/20/13	0940

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035



# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
TF: (907) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202-8

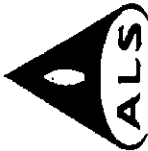
PROJECT NAME	4060 CLR Erie	SAMPLER	Dana Harris	DATE	7/19/13	TURNAROUND	DATE	7/19/13	WORKORDER #	1307328
PROJECT No.	FC05859.001-205	SITE ID		EDD FORMAT			By Lab or	2 of 4	PAGE	1307328
COMPANY NAME	CTL Thompson	PURCHASE ORDER		BILL TO COMPANY			DISPOSAL	Return to Client		
SEND REPORT TO		INVOICE ATTN TO		ADDRESS						
ADDRESS		CITY / STATE / ZIP		PHONE						
CITY / STATE / ZIP		FAX		E-MAIL						
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC			
(11)	GP-9 (10')	S	7/19/13	0810	2		HOLD			
(12)	GP-9 (15')	S	7/19/13	0820	2		HOLD			
(13)	GP-9 (20')	S	7/19/13	0830	2		HOLD			
(14)	GP-10 (10')	S	7/19/13	0855	2		HOLD			
(15)	GP-10 (15')	S	7/19/13	0905	2		HOLD			
(16)	GP-10 (20')	S	7/19/13	0915	2		HOLD			
(17)	GP-11 (10')	S	7/19/13	0935	2		HOLD			
(18)	GP-11 (15')	S	7/19/13	0945	2		HOLD			
(19)	GP-11 (20')	S	7/19/13	0955	2		HOLD			
(20)	GP-12 (10')	S	7/19/13	1005	2		HOLD			

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)
	LEVEL II (Standard OC)
	LEVEL III (Std OC + forms)
	LEVEL IV (Std OC + forms + raw data)
Preservative Key:	1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY		Dana Harris	7/20/13	0935
RELINQUISHED BY		Dana Harris	7/20/13	0940
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202-6

PROJECT NAME	4060 CLR ENE	SAMPLER	Dave Harris	DATE	7/19/13	TURNAROUND		WORKORDER #	1307328
PROJECT NO.	FC05851.001-205	SITE ID						PAGE	3 of 4
EDU FORMAT								DISPOSAL	By Lab or Return to Client
PURCHASE ORDER									
BILL TO COMPANY									
INVOICE ATTN TO									
ADDRESS									
CITY / STATE / ZIP									
PHONE									
FAX									
E-MAIL									
Lab ID	Field ID	Matrix	Sample Date/Time	Sample Time/Date	# Bottles	Pres.	QC		
(21)	GP-12 (15')	S	1015	7/19/13	2				
(22)	GP-12 (20')	S	1025	7/19/13	2				
(23)	GP-13 (10')	S	1045	7/19/13	2				
(24)	GP-13 (15')	S	1055	7/19/13	2				
(25)	GP-13 (20')	S	1105	7/19/13	2				
(26)	GP-14 (10')	S	1115	7/19/13	2				
(27)	GP-14 (15')	S	1125	7/19/13	2				
(28)	GP-14 (20')	S	1135	7/19/13	2				
(29)	GP-15 (10')	S	1145	7/19/13	2				
(30)	GP-15 (15')	S	1155	7/19/13	2				

\*Time Zone (Circle): EST CST MST PST Matrix O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filler

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)
Preservative Key:	1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NH4SO4 7-Other 8-4 degrees C 9-50/55

SIGNATURE	PRINTED NAME	DATE	TIME
Dave Harris	Dave Harris	7/19/13	0935
Lauren Schmitt	Lauren Schmitt	7/20/13	0940



# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202B

PROJECT NAME	4068 CLR E&E	SAMPLER	Dave Harris	DATE	7/19/13	PAGE	4 of 4	WORKORDER	1307328
PROJECT No.	FC05859.001-205	SITE ID		TURNAROUND		DISPOSAL		By Lab or	Return to Client
COMPANY NAME	CTL Thompson	EDO FORMAT							
SEND REPORT TO		PURCHASE ORDER							
ADDRESS		BILL TO COMPANY							
CITY / STATE / ZIP		INVOICE ATTN TO							
PHONE		ADDRESS							
FAX		CITY / STATE / ZIP							
E-MAIL		PHONE							
		FAX							
		E-MAIL							
Lab ID	Field ID	Matrix	Sample Detection Time	Sample Time Date	* Bottles	Pres.	QC		
(31)	GP-15 (20')	S	1200	7/19/13	2		HOLD		
(32)	GP-16 (10')	S	1215	7/19/13	2		HOLD		
(33)	GP-16 (15')	S	1230	7/19/13	2		HOLD		
(34)	GP-16 (20')	S	1270	7/19/13	2		HOLD		
(35)	GP-9	W	1330	7/19/13	4				
(36)	GP-11	W	1400	7/19/13	4				
(37)	GP-14	W	1415	7/19/13	4				
(38)	GP-15	W	1425	7/19/13	4				
(39)	BN-19	NS	1730	7/19/13	2				

added per Dave Harris email 7/31/13

Oil & Grease  
PCBs  
TCLP Benzene  
BTEX  
8260  
907/11/14

40

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	(41) TB
QC PACKAGE (check below)	
LEVEL II (Standard QC)	
LEVEL III (Std QC + forms)	
LEVEL IV (Std QC + forms + raw data)	
Preservative Key:	1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

RELINQUISHED BY: Dave Harris  
RECEIVED BY: Lauren Schmitz  
DATE: 7/20/13 0940



ALS Environmental - Fort Collins  
CONDITION OF SAMPLE UPON RECEIPT FORM

1307521 / 7/13/13

Client: CTL Thompson

Workorder No: 1307328

Project Manager: ARW

Initials: LAS Date: 7/20/13

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<u>NO</u>
2. Are custody seals on shipping containers intact?	<u>NONE</u>	YES	NO
3. Are Custody seals on sample containers intact?	<u>NONE</u>	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<u>YES</u>	NO
5. Are the COC and bottle labels complete and legible?		<u>YES</u>	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
7. Were airbills / shipping documents present and/or removable?	<u>PROP OFF</u>	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	<u>N/A</u>	YES	<u>NO</u>
9. Are all aqueous non-preserved samples pH 4-9?	<u>N/A</u>	YES	NO
10. Is there sufficient sample for the requested analyses?		<u>YES</u>	NO
11. Were all samples placed in the proper containers for the requested analyses?		<u>YES</u>	NO
12. Are all samples within holding times for the requested analyses?		<u>YES</u>	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<u>YES</u>	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____ > green pea	<u>N/A</u>	<u>YES</u>	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____ heavy	<u>N/A</u>	YES	<u>NO</u>
16. Were the samples shipped on ice?		<u>YES</u>	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <u>#2</u> #4 RAD ONLY		<u>YES</u>	NO
Cooler #: <u>1</u> <u>2</u> <u>3</u>			
Temperature (°C): <u>4.8</u> <u>1.2</u> <u>3.0</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>N/A</u>			
Background µR/hr reading: <u>10</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / <u>NA</u> (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

\*please see page 2

If applicable, was the client contacted? YES / NO / NA Contact: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager Signature / Date: C. Wolf 7/20/13



**ALS Environmental - Fort Collins**  
**CONDITION OF SAMPLE UPON RECEIPT FORM**

Client: CLE

Workorder No: 1304828

Project Manager: ARW

Initials: U/S Date: 7/20/13

**Additional Information:**

\*6 Trip Blank not listed on COC. Arrived  
in cooler #1 added to W.O. as 1307328-41  
(2 vials)

**NOTE:**

**No pH adjustments shall be made without prior consent of Project Manager. After pH adjustments, hold metals and radchem samples  $\geq 24$  hrs. before analysis.**

Was the pH of any sample adjusted by the laboratory? (YES (See Table below) / NO

### pH Excursion:

[illegible]

If applicable, was the client contacted? YES / NO / NA Contact: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager Signature / Date: [Signature] 7/20/13

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-16 (10')  
**Legal Location:**  
**Collection Date:** 7/19/2013 12:15

**Date:** 05-Aug-13  
**Work Order:** 1307521  
**Lab ID:** 1307521-1  
**Matrix:** SOIL  
**Percent Moisture:** 14.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260</b>		Prep Date: 7/30/2013	PrepBy: SDW
BENZENE	ND		5.7	UG/KG	1	7/30/2013 17:30
TOLUENE	ND		5.7	UG/KG	1	7/30/2013 17:30
ETHYLBENZENE	ND		5.7	UG/KG	1	7/30/2013 17:30
M+P-XYLENE	ND		5.7	UG/KG	1	7/30/2013 17:30
O-XYLENE	ND		5.7	UG/KG	1	7/30/2013 17:30
Surr: DIBROMOFLUOROMETHANE	104		61-134	%REC	1	7/30/2013 17:30
Surr: TOLUENE-D8	94		57-135	%REC	1	7/30/2013 17:30
Surr: 4-BROMOFLUOROBENZENE	101		52-151	%REC	1	7/30/2013 17:30
<b>OIL &amp; GREASE, GRAVIMETRIC</b>			<b>SW9071</b>		Prep Date: 7/31/2013	PrepBy: BCH
OIL AND GREASE	ND		120	MG/KG	1	8/1/2013

## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-16 (15')  
**Legal Location:**  
**Collection Date:** 7/19/2013 12:20

**Date:** 05-Aug-13  
**Work Order:** 1307521  
**Lab ID:** 1307521-2  
**Matrix:** SOIL  
**Percent Moisture:** 3.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260</b>		Prep Date: <b>7/30/2013</b>	PrepBy: <b>SDW</b>
BENZENE	ND		4.7	UG/KG	1	7/30/2013 17:53
TOLUENE	ND		4.7	UG/KG	1	7/30/2013 17:53
ETHYLBENZENE	ND		4.7	UG/KG	1	7/30/2013 17:53
M+P-XYLENE	ND		4.7	UG/KG	1	7/30/2013 17:53
O-XYLENE	ND		4.7	UG/KG	1	7/30/2013 17:53
Surr: DIBROMOFLUOROMETHANE	101		61-134	%REC	1	7/30/2013 17:53
Surr: TOLUENE-D8	96		57-135	%REC	1	7/30/2013 17:53
Surr: 4-BROMOFLUOROBENZENE	99		52-151	%REC	1	7/30/2013 17:53
<b>OIL &amp; GREASE, GRAVIMETRIC</b>			<b>SW9071</b>		Prep Date: <b>7/31/2013</b>	PrepBy: <b>BCH</b>
OIL AND GREASE	ND		100	MG/KG	1	8/1/2013



## ALS Environmental -- FC

## SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-16 (20')  
**Legal Location:**  
**Collection Date:** 7/19/2013 12:30

**Date:** 05-Aug-13  
**Work Order:** 1307521  
**Lab ID:** 1307521-3  
**Matrix:** SOIL  
**Percent Moisture:** 6.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>GC/MS VOLATILES</b>			<b>SW8260</b>		Prep Date: 7/30/2013	PrepBy: SDW
BENZENE	ND		5.2	UG/KG	1	7/30/2013 18:15
TOLUENE	ND		5.2	UG/KG	1	7/30/2013 18:15
ETHYLBENZENE	ND		5.2	UG/KG	1	7/30/2013 18:15
M+P-XYLENE	ND		5.2	UG/KG	1	7/30/2013 18:15
O-XYLENE	ND		5.2	UG/KG	1	7/30/2013 18:15
Surr: DIBROMOFLUOROMETHANE	100		61-134	%REC	1	7/30/2013 18:15
Surr: TOLUENE-D8	95		57-135	%REC	1	7/30/2013 18:15
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	7/30/2013 18:15
<b>OIL &amp; GREASE, GRAVIMETRIC</b>			<b>SW9071</b>		Prep Date: 7/31/2013	PrepBy: BCH
OIL AND GREASE	ND		110	MG/KG	1	8/1/2013

# ALS Environmental -- FC

# SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-16 (20')  
**Legal Location:**  
**Collection Date:** 7/19/2013 12:30

**Date:** 05-Aug-13  
**Work Order:** 1307521  
**Lab ID:** 1307521-3  
**Matrix:** SOIL  
**Percent Moisture:** 6.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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## Explanation of Qualifiers

### Radiochemistry:

U or ND - Result is less than the sample specific MDC.  
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.  
Y2 - Chemical Yield outside default limits.  
W - DER is greater than Warning Limit of 1.42  
\* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.  
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.  
G - Sample density differs by more than 15% of LCS density.  
D - DER is greater than Control Limit  
M - Requested MDC not met.  
LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.  
L - LCS Recovery below lower control limit.  
H - LCS Recovery above upper control limit.  
P - LCS, Matrix Spike Recovery within control limits.  
N - Matrix Spike Recovery outside control limits  
NC - Not Calculated for duplicate results less than 5 times MDC  
B - Analyte concentration greater than MDC.  
B3 - Analyte concentration greater than MDC but less than Requested MDC.

### Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).  
U or ND - Indicates that the compound was analyzed for but not detected.  
E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.  
M - Duplicate injection precision was not met.  
N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.  
Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.  
\* - Duplicate analysis (relative percent difference) not within control limits.

### Organics:

U or ND - Indicates that the compound was analyzed for but not detected.  
B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.  
E - Analyte concentration exceeds the upper level of the calibration range.  
J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).  
A - A tentatively identified compound is a suspected aldol-condensation product.  
X - The analyte was diluted below an accurate quantitation level.  
\* - The spike recovery is equal to or outside the control criteria used.  
+ - The relative percent difference (RPD) equals or exceeds the control criteria.

### Diesel Range Organics:

# ALS Environmental -- FC

# SAMPLE SUMMARY REPORT

**Client:** CTL Thompson  
**Project:** FC05859.001-205 4060 CLR Erie  
**Sample ID:** GP-16 (20')  
**Legal Location:**  
**Collection Date:** 7/19/2013 12:30

**Date:** 05-Aug-13  
**Work Order:** 1307521  
**Lab ID:** 1307521-3  
**Matrix:** SOIL  
**Percent Moisture:** 6.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<p>G - A pattern resembling gasoline was detected in this sample.  D - A pattern resembling diesel was detected in this sample.  M - A pattern resembling motor oil was detected in this sample.  C - A pattern resembling crude oil was detected in this sample.  4 - A pattern resembling JP-4 was detected in this sample.  5 - A pattern resembling JP-5 was detected in this sample.  H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.  L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.  Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:  - gasoline  - JP-8  - diesel  - mineral spirits  - motor oil  - Stoddard solvent  - bunker C</p>						

## ALS Environmental -- FC

Date: 8/5/2013 10:19:

Client: CTL Thompson

## QC BATCH REPORT

Work Order: 1307521

Project: FC05859.001-205 4060 CLR Erie

Batch ID: EX130731-6-1 Instrument ID: Balance Method: SW9071

<b>LCS</b>	Sample ID: EX130731-6			Units: MG/KG			Analysis Date: 8/1/2013			
Client ID:	Run ID: EX130731-6A			Prep Date: 7/31/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2060	100	2060		100	80-120			20	

<b>LCSD</b>	Sample ID: EX130731-6			Units: MG/KG			Analysis Date: 8/1/2013			
Client ID:	Run ID: EX130731-6A			Prep Date: 7/31/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2040	100	2060		99	80-120	2060	1	20	

<b>MB</b>	Sample ID: EX130731-6			Units: MG/KG			Analysis Date: 8/1/2013			
Client ID:	Run ID: EX130731-6A			Prep Date: 7/31/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	100	100								

<b>MS</b>	Sample ID: 1307521-2			Units: MG/KG			Analysis Date: 8/1/2013			
Client ID: GP-16 (15')	Run ID: EX130731-6A			Prep Date: 7/31/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2090	102	2110	100	99	80-120			20	

<b>MSD</b>	Sample ID: 1307521-2			Units: MG/KG			Analysis Date: 8/1/2013			
Client ID: GP-16 (15')	Run ID: EX130731-6A			Prep Date: 7/31/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2090	102	2100	100	100	80-120	2090	0	20	

The following samples were analyzed in this batch:

1307521-1	1307521-2	1307521-3
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Client: CTL Thompson  
 Work Order: 1307521  
 Project: FC05859.001-205 4060 CLR Erie

## QC BATCH REPORT

Batch ID: **VL130730-2-1** Instrument ID **HPV1** Method: **SW8260**

LCS	Sample ID: VL130730-2			Units: UG/KG		Analysis Date: 7/30/2013 16:19				
Client ID:	Run ID: VL130730-2A					Prep Date: 7/30/2013			DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	43.6	5	40		109	73-126			30	
TOLUENE	40.1	5	40		100	71-127			30	
ETHYLBENZENE	39.2	5	40		98	74-127			30	
M+P-XYLENE	78.3	5	80		98	79-126			30	
O-XYLENE	39.9	5	40		100	77-125			30	
Surr: DIBROMOFLUOROMETHA	51.9		50		104	61-134				
Surr: TOLUENE-D8	48		50		96	57-135				
Surr: 4-BROMOFLUOROBENZE	51.4		50		103	52-151				

LCSD	Sample ID: VL130730-2			Units: UG/KG			Analysis Date: 7/30/2013 16:43			
Client ID:	Run ID: VL130730-2A			Prep Date: 7/30/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	43.2	5	40		108	73-126	43.6	1	30	
TOLUENE	40	5	40		100	71-127	40.1	0	30	
ETHYLBENZENE	39.1	5	40		98	74-127	39.2	0	30	
M+P-XYLENE	79.9	5	80		100	79-126	78.3	2	30	
O-XYLENE	40.3	5	40		101	77-125	39.9	1	30	
Surr: DIBROMOFLUOROMETHA	51.9		50		104	61-134		0		
Surr: TOLUENE-D8	48.5		50		97	57-135		1		
Surr: 4-BROMOFLUOROBENZE	52.1		50		104	52-151		1		

MB	Sample ID: VL130730-2			Units: UG/KG			Analysis Date: 7/30/2013 17:06			
Client ID:	Run ID: VL130730-2A						Prep Date: 7/30/2013		DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	ND	5								
TOLUENE	ND	5								
ETHYLBENZENE	ND	5								
M+P-XYLENE	ND	5								
O-XYLENE	ND	5								
Surr: DIBROMOFLUOROMETHA	50.9		50		102	61-134				
Surr: TOLUENE-D8	47.7		50		95	57-135				
Surr: 4-BROMOFLUOROBENZE	50.8		50		102	52-151				

Client: CTL Thompson  
 Work Order: 1307521  
 Project: FC05859.001-205 4060 CLR Erie

## QC BATCH REPORT

Batch ID: **VL130730-2-1** Instrument ID **HPV1** Method: **SW8260**

<b>MS</b>		Sample ID: <b>1307521-3</b>		Units: <b>UG/KG</b>		Analysis Date: <b>7/30/2013 18:38</b>				
Client ID: <b>GP-16 (20')</b>		Run ID: <b>VL130730-2A</b>		Prep Date: <b>7/30/2013</b>		DF: <b>1</b>				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	41.4	5.12	40.9	5.2	101	73-126			30	
TOLUENE	37.4	5.12	40.9	5.2	91	71-127			30	
ETHYLBENZENE	36.7	5.12	40.9	5.2	90	74-127			30	
M+P-XYLENE	73.4	5.12	81.9	5.2	90	79-126			30	
O-XYLENE	37.4	5.12	40.9	5.2	91	77-125			30	
Surr: DIBROMOFLUOROMETHA	53.3		51.2		104	61-134				
Surr: TOLUENE-D8	48.4		51.2		95	57-135				
Surr: 4-BROMOFLUOROBENZE	51.7		51.2		101	52-151				

<b>MSD</b>		Sample ID: <b>1307521-3</b>		Units: <b>UG/KG</b>		Analysis Date: <b>7/30/2013 19:02</b>				
Client ID: <b>GP-16 (20')</b>		Run ID: <b>VL130730-2A</b>		Prep Date: <b>7/30/2013</b>		DF: <b>1</b>				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	41.7	5.15	41.2	5.2	101	73-126	41.4	1	30	
TOLUENE	37.4	5.15	41.2	5.2	91	71-127	37.4	0	30	
ETHYLBENZENE	35.5	5.15	41.2	5.2	86	74-127	36.7	3	30	
M+P-XYLENE	72.2	5.15	82.3	5.2	88	79-126	73.4	2	30	
O-XYLENE	36	5.15	41.2	5.2	88	77-125	37.4	4	30	
Surr: DIBROMOFLUOROMETHA	52.4		51.5		102	61-134		2		
Surr: TOLUENE-D8	48.9		51.5		95	57-135		1		
Surr: 4-BROMOFLUOROBENZE	51.1		51.5		99	52-151		1		

The following samples were analyzed in this batch:

1307521-1	1307521-2	1307521-3
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## 1. Project Narrative:

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On behalf of Steppe Development we are pleased to provide this narrative in support of the proposed Sketch Plan for Erie Apartments “Balcolm Flats”. The purpose of this request is for the review and approval of the Sketch Plan for the Erie Apartments.

### General Project Information:



Steppe Development is pleased to present Balcolm Flats, a 32 unit multi-family residential redevelopment located in the Old Town neighborhood of Erie, Colorado. Modeled after the bungalows, cottages and front-gabled homes found throughout Old Town, Balcolm Flats evokes memories of the past while bringing new housing units to the core. Special design elements along with varied façade treatments create the sense of single family homes popping forward from simpler brick backgrounds reminiscent of the storefronts found along Briggs Street. Four smaller apartment buildings blend well with the style and scale of the existing neighborhood while wider sidewalks, enhanced landscaping and a neighborhood park add new elements to the mix.

Steppe Development has worked with the residents, community stakeholders and Town staff of Erie to create Balcolm Flats. The Sketch Plan presented here reflects several hours of study, meetings, community open houses and public hearings. This proposal reflects a 20% reduction in the number of housing units as well as reduced massing and reduced building height since our last submittal to better reflect the character, charm and spirit of Old Town.

Subject property is located at 4060 County Line Road, Erie Colorado and is 2.73 gross acres and is zoned OTR. The primary cross streets are County Line Road to the west and Balcom Street to the south of the property. The general project concept consists of (4) new apartment buildings that will provide 8 apartment units in each building for a total on site of 32 units. The proposed buildings are two stories and are intended to be architecturally sensitive to the surrounding residential neighborhoods and evoke the image of a single family residence. The buildings are sited to “front” County line road and Balcom Street and

use the site to the north and east to buffer between the existing residential neighborhoods. The site is entered from Balcom Street via two drive isles that align with Lawley Street to the south. Parking is internal on the site and includes 15 covered garage parking spaces which provide a screening buffer between the adjacent single family residential and parking. Additionally, a Pocket Park will be provided on the Southeast corner of the project not only creating an amenity for the surrounding neighborhood but also sited to act as a buffer on the east.

Availability and adequacy of existing infrastructure and other necessary services including schools, fire protection, water/sewer service, and utility providers.

Xcel Energy provides electric and gas service in this area. There are overhead electric lines on all four sides of this project with the line on County Line Road being a high voltage line. The utility pole and overhead line from the public alley to the street light located on Balcom Street will be removed, the line buried and street light moved to allow for the construction of an entrance to the property. All service within the property will be underground. There are gas lines located under County Line Road and Balcom Street to provide gas service to the project.

The Town of Erie provides services for domestic water, waste water and storm water drainage. There are 8" water lines located under County Line Road and Balcom Street for water delivery to this project. There are 8" sewer lines under County Line Road and Balcom Street to access for waste water drainage. If in this process it is determined the County Line Road sewer line is at capacity because of recent development, the applicant will design a plan to use the Balcom Street sewer line for this project. There is an underground storm water line located on the south side of the project under Balcom Street.

The project entrances would be via Balcom Street. Balcom Street is a secondary street for snow removal; County Line Road is a primary street for snow removal.

Fire protection service is provided by Mountain View Fire Rescue and the nearest station is located within two miles of the project. There is one fire hydrant located on County Line Road and two fire hydrants located on Balcom Street.

The project is located in the St Vrain Valley School District. Students in this project could attend Erie Elementary School which at last count was at 73% capacity, Erie Middle School which was at 97% capacity and Erie High School which was at 89% capacity. Erie Elementary and Erie Middle School are within walking distance of the project. Erie High School students will need private or bus transportation to the high school.

Residents of the project have access to the recreational trail system at County Line Road and Balcom Street which will provide foot or bicycle traffic access to the Library, Recreation Center and Park.



The location, function and ownership/maintenance of public and private open space, parks, trails, common areas, common buildings.

The project includes a Pocket Park of approximately 11,000 square feet located in the Southeast corner of the project site adjoining Balcolm Street and a public alley that runs parallel to the Eastern border of the project site. The Pocket Park complies with the Unified Development Code Section 10.6.3. The developer will pay a fee-in-lieu to satisfy the requirement for the Neighborhood Park, Community Park and Open Space since this in-fill project site is only approximately 2.58 net acres. The Pocket Park will be owned by the fee simple owner of the apartment community and will be maintained as a valued amenity for the residents and the neighborhood in general. The Pocket Park will be maintained by the community manager consistent with all amenities and onsite landscaping.

The project also includes detached sidewalks adjoining Balcolm Street and a 30 foot landscaping and detached sidewalk buffer adjoining East County Line Road as required by the Unified Development Code. The sidewalks and landscaping will be maintained by the fee simple owner of the apartment community through its management company.

Existing or proposed covenants, special conditions, grants of easements, or other restrictions applying to the proposed subdivision.

There are no existing or proposed covenants or special conditions impacting the project site. The property will be developed and operated as a multi-family apartment community. The community will be subject to reasonable Rules and Regulations customary to multi-family communities of this size and in-fill location. The project is not subject to any current or proposed declarations or covenants.

The property development will include the dedication of customary utility easements, right-of-way designation, and Pocket Park provisions as determined with the Town of Erie during the planning process. The Rules and Regulations will include reasonable restrictions to govern the use and maintenance of the Pocket Park by apartment residents and neighborhood citizens. The terms and conditions of the Rules and Regulations will be determined with the Town of Erie during the planning process.

The project is a market rate, for rent multi-family community and will not include any affordable housing restrictions or covenants.



## TOWN OF ERIE

Community Development Department – Planning Division  
645 Holbrook Street – PO Box 750 – Erie, CO 80516  
Tel: 303.926.2770 – Fax: 303.926.2706 – Web: [www.erieco.gov](http://www.erieco.gov)

### LAND USE APPLICATION

Please fill in this form completely. Incomplete applications will not be processed.

#### STAFF USE ONLY

FILE NAME:

FILE NO:

DATE SUBMITTED:

FEES PAID:

PROJECT/BUSINESS NAME: Steppe Development, LLC

PROJECT ADDRESS: 4060 County Line Road, Erie Colorado 80516

PROJECT DESCRIPTION: New apartment units consisting of (2) buildings with on-site surface parking and covered parking in (4) garages and a 1/4 acre pocket park.

#### LEGAL DESCRIPTION (attach legal description if Metes & Bounds)

Subdivision Name: See attached ALTA survey for legal description

Filing #: Lot #: Block #: Section: Township: Range:

#### OWNER (attach separate sheets if multiple)

Name/Company:

Contact Person: Michael Green / Tom Beckius

Address: 6333 Apples Way, Suite 115

City/State/Zip: Lincoln, Nebraska 68516

Phone: 402-473-5307 Fax: 402-435-0088

E-mail: [mgreen@theinagroup.com](mailto:mgreen@theinagroup.com)

#### AUTHORIZED REPRESENTATIVE

Company/Firm: Rhadius Architects P.C.

Contact Person: Brad Reichert

Address: 8701 W. Parmer Unit 2118

City/State/Zip: Austin, Texas 78729

Phone: 970-689-4541 Fax:

E-mail: [breichert@radiuspc.com](mailto:breichert@radiuspc.com)

#### MINERAL RIGHTS OWNER (attach separate sheets if multiple)

Name/Company:

Address:

City/State/Zip:

#### MINERAL LEASE HOLDER (attach separate sheets if multiple)

Name/Company:

Address:

City/State/Zip:

#### LAND-USE & SUMMARY INFORMATION

Present Zoning: OTR (OLD TOWN RESIDENTIAL)

Proposed Zoning: NO CHANGE

Gross Acreage: 2.73

Gross Site Density (du/ac): 14.65 du/ac

# Lots/Units Proposed: 40 Dwelling Units in (2) buildings

Gross Floor Area: T.B.D.

#### SERVICE PROVIDERS

Electric:

Metro District:

Water (if other than Town):

Gas:

Fire District:

Sewer (if other than Town):

**PAGE TWO MUST BE SIGNED AND NOTARIZED**

## DEVELOPMENT REVIEW FEES

ANNEXATION		SUBDIVISION	
<input type="checkbox"/> Major (10+ acres)	\$ 4000.00	<input type="checkbox"/> Sketch Plan	\$ 1000.00 + 10.00 per lot
<input type="checkbox"/> Minor (less than 10 acres)	\$ 2000.00	<input type="checkbox"/> Preliminary Plat	\$ 2000.00 + 40.00 per lot
<input type="checkbox"/> Deannexation	\$ 1000.00	<input type="checkbox"/> Final Plat	\$ 2000.00 + 20.00 per lot
COMPREHENSIVE PLAN AMENDMENT		<input type="checkbox"/> Minor Subdivision Plat	\$ 2000.00
<input type="checkbox"/> Major	\$ 3000.00	<input type="checkbox"/> Minor Amendment Plat	\$ 1000.00 + 10.00 per lot
<input type="checkbox"/> Minor	\$ 1200.00	<input type="checkbox"/> Road Vacation (constructed)	\$ 1000.00
ZONING/REZONING		<input type="checkbox"/> Road Vacation (paper)	\$ 100.00
<input type="checkbox"/> Rezoning	\$ 1700.00 + 10.00 per acre	SITE PLAN	
<input type="checkbox"/> PUD Rezoning	\$ 1700.00 + 10.00 per acre	<input type="checkbox"/> Residential	\$ 1400.00 + 10.00 per unit
<input type="checkbox"/> PUD Amendment	\$ 1700.00 + 10.00 per acre	<input type="checkbox"/> Non-Resi. (>10,000 sq. ft.)	\$ 2200.00
<input type="checkbox"/> Major PD Amendment	\$ 3700.00 + 10.00 per acre	<input type="checkbox"/> Non-Resi. (>2,000 sq. ft.)	\$ 1000.00
<input type="checkbox"/> Minor PD Amendment	\$ 500.00	<input type="checkbox"/> Non-Resi. (<2,000 sq. ft.)	\$ 200.00
SPECIAL REVIEW USE		<input type="checkbox"/> Amendment (major)	\$ 1100.00
<input type="checkbox"/> Major	\$ 1000.00	<input type="checkbox"/> Amendment (minor)	\$ 350.00
<input type="checkbox"/> Minor	\$ 400.00	VARIANCE	
<input type="checkbox"/> Oil & Gas	\$ 1200.00		
		SERVICE PLAN	

All fees **include** both Town of Erie Planning & Engineering review. These fees **do not include** referral agency review fees, outside consultant review fees, or review fees incurred by consultants acting on behalf of staff. See Town of Erie Municipal Code, Title 2-10-5 for all COMMUNITY DEVELOPMENT FEES.

The undersigned is fully aware of the request/proposal being made and the actions being initiated on the referenced property. The undersigned understand that the application must be found to be complete by the Town of Erie before the request can officially be accepted and the development review process initiated. The undersigned is aware that the applicant is fully responsible for all reasonable costs associated with the review of the application/request being made to the Town of Erie. Pursuant to Chapter 7 (Section 7.2.B.5) of the Unified Development Code (UDC) of the Town of Erie, applicants shall pay all costs billed by the Town for legal, engineering and planning costs incurred by staff, including consultants acting on behalf of staff, necessary for project review. By this acknowledgement, the undersigned hereby certify that the above information is true and correct.

Owner: 

Date: 08/20/15

Owner: \_\_\_\_\_

Date: \_\_\_\_\_

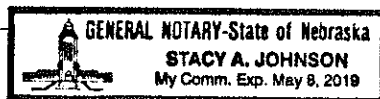
Applicant: Stegge Development, LLC, By: 

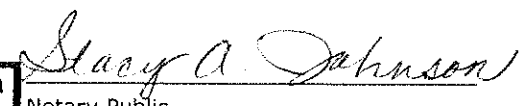
Date: 08/20/15

NEBRASKA  
STATE OF COLORADO )  
 ) ss.  
County of LANCASTER )

The foregoing instrument was acknowledged before me this 20<sup>th</sup> day of August, 2015, by Michael P. Green.

My commission expires: 5-8-19  
Witness my hand and official seal.

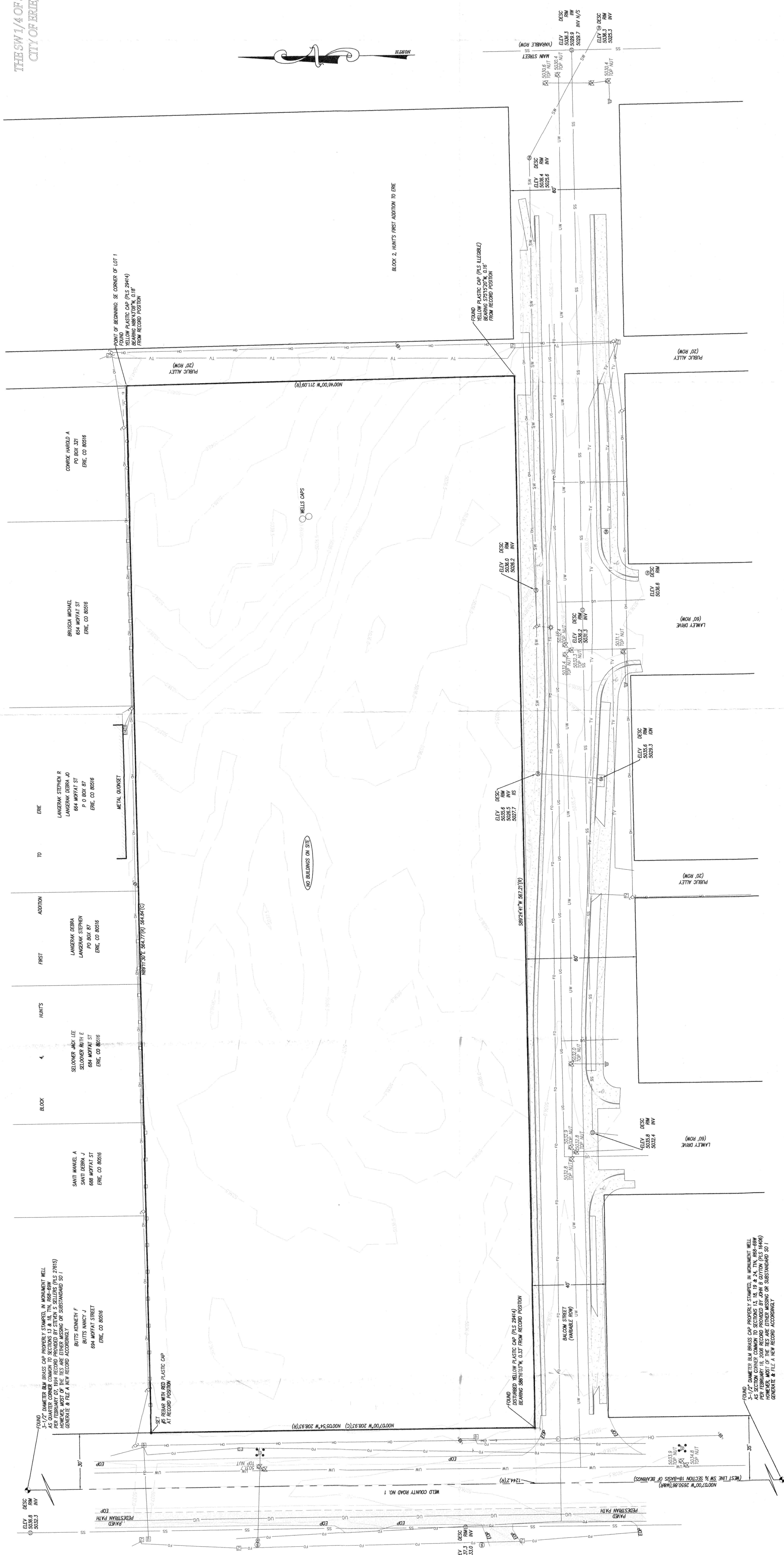


  
Notary Public



# ALTA/ACSM LAND TITLE SURVEY OF A PORTION

THE SW 1/4 OF SECTION 18, T.1.N., R.68.W. OF THE SIXTH P.M.  
CITY OF ERIE, COUNTY OF WELD, STATE OF COLORADO



- NOTES:**
5. ANY AND ALL UNPAID TAXES, ASSESSMENTS AND UNREDEEMED TAX SALES.
  6. (A) UNPAID MINE CLAIMS; (B) RESERVATIONS OR EXCEPTIONS IN PATENTS OR IN ACTS AUTHORIZING THE ISSUANCE THEREOF; (C) WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT THE MATTERS EXCEPTED UNDER (A), (B), OR (C) ARE SHOWN BY THE PUBLIC RECORDS.
  7. REAL ESTATE TAXES AND MUNICIPAL CHARGES AS FOLLOWS: SUBJECT TO TAXES AND ASSESSMENTS FOR THE YEAR 2015 AND ALL SUBSEQUENT YEARS, PARCEL NO. 14671830003
  8. NO LIABILITY IS ASSUMED FOR THE PAYMENT OF MAINTENANCE ASSESSMENTS AS SET FORTH IN THE RESTRICTIVE COVENANTS.
  9. ANY STATE OF FACTS THAT WOULD BE DISCLOSED BY A CURRENT AND ACCURATE LOCATION SURVEY OR PHYSICAL INSPECTION OF THE PREMISES.
  10. TERMS, CONDITIONS, EASEMENTS, RESTRICTIONS AND OTHER CRITERIA AS SHOWN ON THE PLAT REFERRED TO IN SCHEDULE A HEREOF.
  11. HOWEVER, THIS POLICY OF TITLE INSURANCE DOES NOT INSURE AGAINST POSSIBLE FUTURE TAX EVASION AND/OR FRONTAGE BENEFIT ASSESSMENTS, OR THE BALANCE THEREOF FOR EXISTING OR PROPOSED IMPROVEMENTS WHICH MAY HAVE BEEN LEVIED OR ASSESSED, OR TO BE LEVIED OR ASSESSED, BUT WHICH ARE NOT NOW DUE AND PAYABLE TO SAID STATE, COUNTY, MUNICIPALITY, METROPOLITAN DISTRICT OR COMMISSION. NOTE: THIS POLICY SPECIFICALLY INSURES THAT ANY PAST, PRESENT OR FUTURE VIOLATIONS OF THE RESTRICTIVE COVENANTS, BUILDING SEVERANCE AND EASEMENT AREA, MINING STRIPS, PARTIAL INTERESTS, REVERSIONS, REDEMPTIONS AND RESTRUCTIONS WILL SUPERIOR TO THE INTEREST OF THE MORTGAGEE TO BE INSURED HEREIN, AND THAT THE SAME HAVE NOT BEEN VIOLATED AS OF THE DATE OF THIS POLICY.
  12. ALLEGATION(S) OF UNMARKETABILITY OF THE TITLE DUE TO THE TAX DEED IN WHICH TITLE TO THE LAND WAS OBTAINED, THIS DOES NOT AFFECT THE COVERAGE AGAINST CHALLENGES OF TITLE WHICH THE INSURED HAS COVERAGE FOR.

- NOTES:
- PROPERTY DESCRIPTION, PER EXHIBIT "A" OF TAX ID: R5747086, BEING THE SAME PROPERTY AS DESCRIBED IN 23 OCTOBER 1987 DEED AS RECORDED IN BOOK 1174 AT PAGE 4429, AS RECEPTION NO. 02187225.
- PART OF THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 1 NORTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF WELD, STATE OF COLORADO,
- BEGINNING AT THE SOUTHEAST CORNER OF LOT 1, BLOCK 4, HUNT'S FIRST ADDITION TO THE TOWN OF ERIE, THENCE S00°46'00" ALONG THE WEST RIGHT-OF-WAY LINE OF A 20 FOOT ALLEY, A DISTANCE OF 21.089 FEET TO A POINT OF BEGINNING, THENCE S89°05'40" W ALONG BALCON STREET, THENCE S89°24'44" W ALONG THE WEST LINE OF WELD COUNTY ROAD NO. 1, THENCE TO A POINT ON THE EAST EASEL LINE OF WELD COUNTY ROAD NO. 1, THENCE N00°05'54" W ALONG THE EAST LINE OF LOT 1, THENCE N89°11'30" E ALONG THE SOUTH LINE OF SAND CREEK, A DISTANCE OF 564.77 FEET TO THE POINT OF BEGINNING, CONTAINING AN AREA OF 118,887.50 FT OR 2.73 ACRES, MORE OR LESS.
- RECORD TITLE INFORMATION: THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY TRISTATE SURVEYING, INC. THE INFORMATION OF RECORD SHOWN HEREON WAS OBTAINED FROM THE MANIPULITY OF JURISDICTION WHERE THE SUBJECT PROPERTY IS LOCATED & A FEBRUARY 2015 FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT FOR TITLE & A 2015 INSURANCE FILE NUMBER: A1-50683938. THE ITEMS IN SCHEDULE B-SECTION 2 EXCEPTIONS ARE AS FOLLOWS:
1. ANY FACTS, RIGHTS, INTERESTS, OR CLAIMS THAT ARE NOT SHOWN BY THE PUBLIC RECORDS, BUT WHICH COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND OR BY MAKING INQUIRY OF THE PERSONS IN POSSESSION THEREOF.
  2. EASEMENTS, OR CLAIMS OF EASEMENTS, NOT SHOWN BY THE PUBLIC RECORDS.
  3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGE IN AREA, ENCROACHMENTS, AND ANY FACTS WHICH A CORRECT SURVEY AND INSPECTION OF THE LAND WOULD DISCLOSE, AND WHICH ARE NOT SHOWN BY THE PUBLIC RECORDS.
  4. ANY LIES, OR DISPUTES, OR LIES FOR SERVICES, ABOVE OR MATERIAL THEREAFTER.

NOTES:

SURVEYOR'S CERTIFICATION:

THIS IS TO CERTIFY TO:

STEPPER DEVELOPMENT, LLC & FIRST AMERICAN TITLE INSURANCE COMPANY

THAT THIS PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "20TH MINIMUM STANDARD DETAIL REQUIREMENTS FOR LAND SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY THE BOARD OF SURVEYORS IN 2011, AND INCLUDES ITEMS 4, 5, 8, 11(G)&(H), 12, & 13 OF SAID REQUIREMENTS PURSUANT TO THE ACCURACY STANDARDS 5, 8, 11(G)&(H), 12, & 13 OF SAID REQUIREMENTS IN EFFECT ON THE DATE OF THIS CERTIFICATION.

UNDESIGNED FURTHER CERTIFIES IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR REGISTERED IN THE STATE OF COLORADO, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN.

*Bradley D. Peterson*  
BRADLEY D. PETERSON, P.L.S. NO. 28660  
FOR & ON BEHALF OF TRISTATE SURVEYING, INC.

NOTES:  
DATE OF SURVEY: 28 APRIL 2015.  
PROPERTY ADDRESS: 4060 COUNTY ROAD NO. 1.  
BASIS OF BEARINGS: A RECORD BEARING OF N00°07'00"W FOR THE WEST LINE OF SW ¼ SECTION 18, T.1N., R.68W., MONUMENTED AS SHOWN HEREON.  
LINEAL UNITS: U.S. SURVEY FEET.  
BASIS OF ELEVATIONS: AN NAVD88 ELEVATION OF 5027.91 FOR THE TOWN OF ERIE BENCHMARK BEING A NAIL & DISK IN THE NORTHEAST CORNER OF A 5 FOOT WIDE TYPE R INLET AT THE SOUTHEASTERNLY CORNER OF EVANS STREET & CARBON STREET, NOT SHOWN.

CONTOUR INTERVAL: 1/4 FOOT.

UNDERGROUND UTILITIES: TRISTATE SURVEYING, INC. MAKES NO REPRESENTATION REGARDING UNDERGROUND UTILITIES. ALL UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON ACTUAL FIELD LOCATES PROVIDED BY UNDERGROUND CONSULTING SOLUTIONS COMPANY REPRESENTATIVES. STANDARD UTILITY NOTIFICATION PROTOCOL SHOULD BE ADHERED TO PRIOR TO CONSTRUCTION OR EXCAVATION.

DIGITAL DISCLAIMER: TRISTATE SURVEYING, INC. MAKES NO WARRANTIES OR GUARANTEES EXPRESSED OR IMPLIED FOR DIGITAL RENDERINGS.

NOTICE 13-80-138(3)(d) C.R.S.: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOUR FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BE BASED UPON ANY DEFECT IN

[illegible]





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Excerpt from Title 10 - Unified Development Code dated: NOVEMBER 2013

#### County Line Road

i. A minimum 30-foot landscaped buffer shall be maintained on either side of the street. This buffer should utilize a variety of live plant material and berming to provide year-round visual interest. A minimum 8 foot wide sidewalk shall be incorporated as an integral component of the landscape buffer and landscape area within the right-of-way.

ii. All fencing facing the street shall be a maximum of 4 feet in height and should have an open character, such as split rail or picket. Opaque fencing is prohibited.

iii. Parking shall be screened to the greatest extent reasonably practicable from the street using a combination of berming, walls, or fencing and landscaping with a minimum height of 3 feet and maximum height of 4 feet. Parking, internal drives or streets may not extend into the landscape buffer.

iv. Permanent signage along County Line Road shall be limited to wall signs and monument signs constructed from similar materials as the primary buildings on the site. Ground signs shall be prohibited.

v. Garages may not be used as a barrier between the street and a development site.

BALCOLM FLATS (ERIE APARTMENTS) SKETCH PLAN  
PART OF THE SOUTHWEST QUARTER OF SECTION 18,  
TOWNSHIP 1 NORTH, RANGE 68 WEST OF THE 6TH  
PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF  
WELD, STATE OF COLORADO,  
2.73 ACRES  
SK-1.7

30' BUFFER  
ALONG COUNTY  
LINE ROAD

30' ADDITIONAL R.O.W.  
DEDICATION REQUIRED  
PER ERIE PUBLIC WORKS  
FOR A TOTAL OF 60' ROW  
FROM CENTERLINE

FRONT SETBACK  
20' PRINCIPLE  
30' ACCESSORY  
NOTE: BUFFER GOVERNS  
AS MOST RESTRICTIVE  
FOR BUILDING SETBACK  
PER ERIE COMMUNITY  
PLANNING

CITY OF ERIE PROPOSED - 20'  
ADDITIONAL ROW DEDICATION FOR  
TURN LANE

PROPOSED FACE OF CURB  
EXISTING PROPERTY LINE & ROW  
EXISTING FACE OF CURB

#### SUMMARY

- 32 DWELLING UNITS.
- 50 OFF-STREET PARKING SPACES REQUIRED (DOES NOT INCLUDE GUEST REQUIRED PARKING SPACES ASSUMES - 20% REDUCTION TAKEN PER SECT. 10.6.6:4 AUTOMATIC PARKING REDUCTION IN OTR), 15 GARAGE SPACES.
- UNIT BREAKDOWN:
  - 4) UNITS ARE 1 BEDROOM;
  - 24) UNITS ARE 2 BEDROOM;
  - 4) UNITS ARE 3 BEDROOM.
- REQUIRED ACCESSIBLE DWELLING UNITS AND REQUIRED ACCESSIBLE PARKING T.B.D.
- 11 GUEST SPACES REQUIRED, CURRENTLY SHOWN ON STREET. (NOTE: IF ON-STREET PARKING IS NOT ALLOWED GUEST SPACES WILL NEED TO BE PART OF OFF-STREET PARKING COUNT).
- POCKET PARK - +/- 11,000 SF PROVIDED (10,890 SF REQUIRED).
- OPEN SPACE, NEIGHBORHOOD AND COMMUNITY PARK TO BE FEE IN LIEU.

REQUIRED 5'  
SETBACK

POSSIBLE UTILITY  
EASEMENT

ASSUMED  
REAR

GARAGE PARKING PROVIDES SCREENING  
BUFFER BETWEEN ADJACENT SINGLE FAMILY  
RESIDENTIAL AND PARKING

EXISTING  
CAPPED WELLS  
IF POSSIBLE USE  
WELL WATER FOR  
IRRIGATION

REAR SETBACK  
20' PRINCIPLE  
5' ACCESSORY

BALCOLM STREET

EXISTING BALCOLM  
STREET ROW

TABLE 6.6-1: OFF-STREET PARKING SCHEDULE A		
du = dwelling unit    sf = gross square feet		
USE CATEGORY	USE TYPE	OFF-STREET SPACES REQUIRED
Household Living Residential	Dwelling, Duplex	2 per du
	Dwelling, Live/Work	See Subsection 6.6.D.3
	Dwelling, Mobile Home	2 per du
	Dwelling, Multi-Family	1.5 spaces per efficiency, studio or 1-bedroom du; 2 spaces per du with 2 or more bedrooms, plus 1 guest space per 3 du's
	Dwelling, Single-Family Attached	2 spaces per du, + 1 guest space per 3 du's
	Dwelling, Single-Family Detached	2 spaces per du
	Mobile Home Park	2 spaces per du, + 1 guest space per 4 du's
	Model Home	See Subsection 6.6.D.3

#### MULTIFAMILY DEVELOPMENTS SHALL MEET ONE OF THE FOLLOWING:

Chapter 6: DEVELOPMENT AND DESIGN STANDARDS  
Section 10.6.7 Residential USE CATEGORY DESIGN Standards

- (A) A minimum of 50 percent of the total planned dwelling units shall vary in size from other dwelling units by at least 250 square feet.
- (B) A maximum of 50 percent of the total planned dwelling units may have the same number of bedrooms.

UNIT DISTRIBUTION  
SATISFIES OPTION C

- (C) A minimum of 10 percent of the total planned dwelling units shall have at least 3 bedrooms.

District	Max/Min Density (DU/Acre)	Minimum Lot Standards			Minimum Setbacks (ft.)				Max Height (ft)
		Width (ft)	Net Area (sq ft)		Front	Street (all uses)	Interior Lot Line	Rear	
OTR	SF: 5/ha MF: 16/ha	SF: 50 MF: none	SF: 6,000 MF: 3,000 per DU		Principal: 20 Accessory: 30	20	Prin: 5 <sup>①</sup> Acc: 5 <sup>①</sup>	Principal: 20 Accessory: 5	Prin: 35 Acc: 25

- ZERO LOT LINE SETBACKS SHALL BE PERMITTED FOR ATTACHED BUILDINGS PROVIDED THAT THE BUILDING MEETS THE ZONE DISTRICT INTERIOR LOT LINE SETBACK ON THE SIDE OF THE BUILDING NOT ATTACHED.
- MULTIPLE PRINCIPAL BUILDINGS ON A SINGLE LOT SHALL BE SEPARATED A DISTANCE EQUAL TO THE DISTANCE THAT WOULD BE REQUIRED IF THEY WERE SEPARATED BY A LOT LINE.
- NET AREA IS THE SIZE OF THE LOT; NOT TO INCLUDE TRACTS AND STREETS AND THEIR RIGHT-OF-WAYS.

#### NOTE:

ZONE DISTRICT:

SITE AREA:

OTR (OLD TOWN RESIDENTIAL) UP TO 16 DWELLING UNITS PER ACRE.

118,867 GSF - 98,029 +/- NET SF (EXCLUDES COUNTY LINE ROAD 30' ROW INCREASE, BALCOLM STREET ROW & POCKET PARK)

98,029/43,560 = 2.25 NET ACRES X 16 DU = **36 TOTAL DU PERMITTED** (32 DU PROPOSED).

98,029 NET SF/3000 PER LOT PER DU = **32.68 DU PERMITTED** (LOT AREA RATIO MOST RESTRICTIVE)

THEREFORE: 32 DWELLING UNITS PERMITTED.

LANDSCAPE AREA:

98,029 NET SF X 15% = 14,704 REQUIRED NOTE: 32,000 +/- SF AREA OF SITE AVAILABLE FOR LANDSCAPING AND SIDEWALKS - FINAL DESIGN T.B.D.

#### DOCUMENTS USED IN SITE OPTION PREPARATION:

GOOGLE EARTH SATELLITE PHOTO

ALTA SURVEY BY TRISTATE SURVEYING, INC. DRAWING NO. 201525\_ALTA DATED: 01 MAY 15.



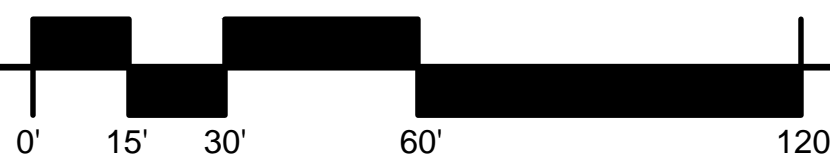
TRUE NORTH

SITE CONCEPT

1

1" = 30'

A100



RH 14-174

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8701 W. Farmer Unit 2118  
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BALCOLM FLATS

4060 COUNTY LINE ROAD  
ERIE, COLORADO 80516

#### ISSUE:

PRELIMINARY 06.19.2015  
PRELIMINARY 08.07.2015  
SKETCH PLAN 08.21.2015  
rev SKETCH PLAN 12.07.2015  
rev SKETCH PLAN 12.14.2015  
rev SKETCH PLAN 01.16.2016  
rev SKETCH PLAN 04.19.2016

PRELIMINARY  
SITE CONCEPT 7

A1.7





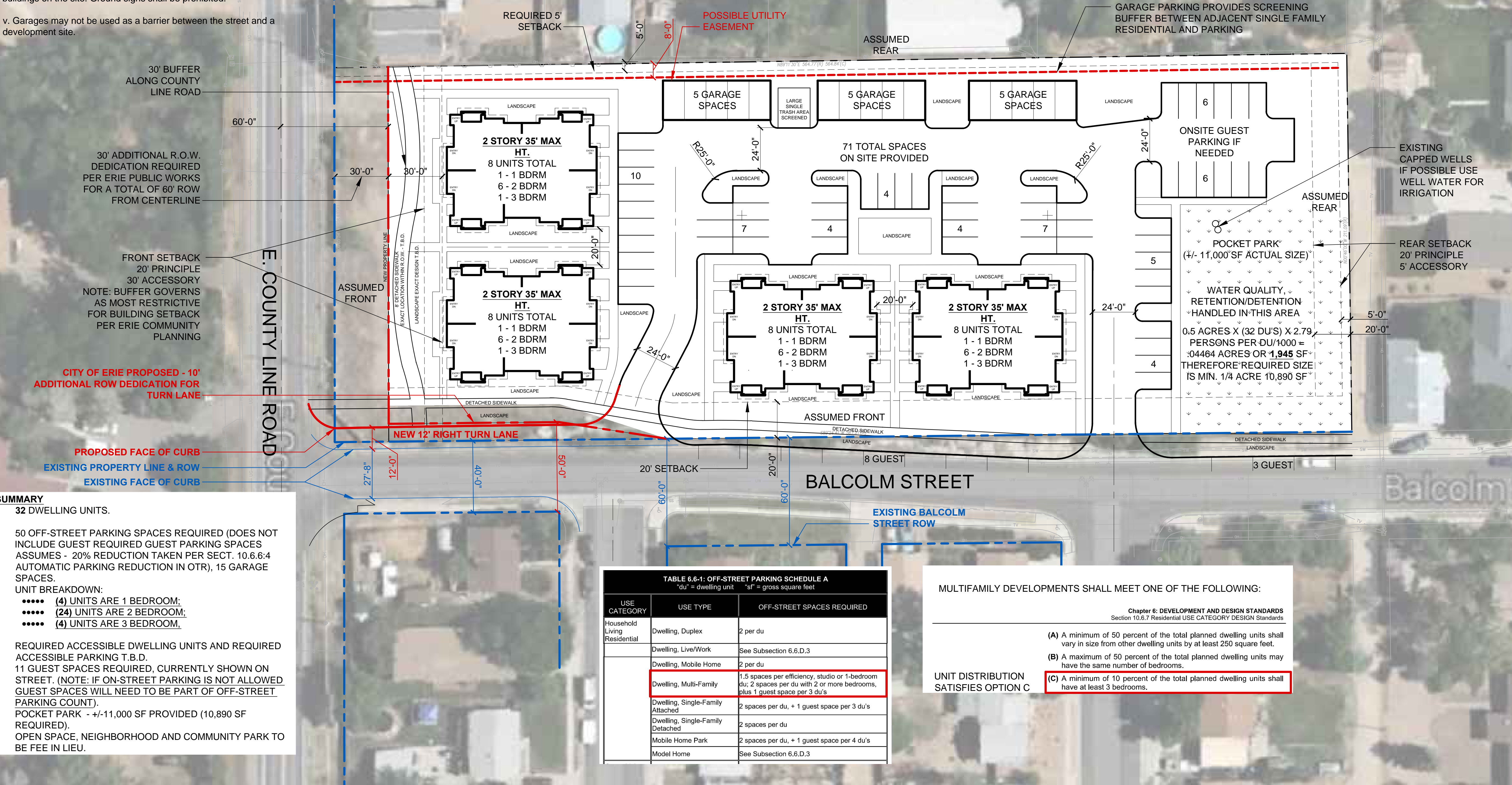
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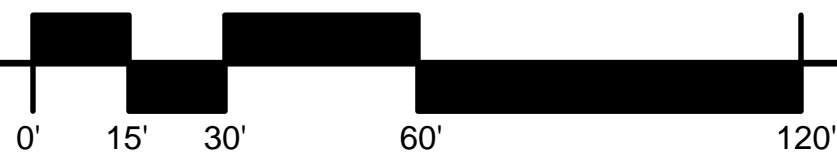


SITE CONCEPT

1

1" = 30'

A100



RH 14-174

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rev SKETCH PLAN 04.19.2016

PRELIMINARY  
SITE CONCEPT 7a

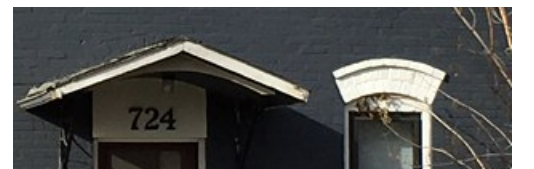
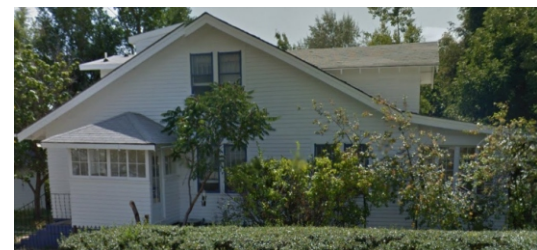
**A1.7a**







Balcolm Streetscape







Balcolm Streetscape







County Line Road Streetscape







County Line Road Streetscape







EVOKE APPEARANCE OF SINGLE FAMILY RESIDENCE - DIFFERENTIATE WITH USE OF ALTERNATE ARCHITECTURAL ELEMENTS AND COLOR

LOW SLOPE ROOF WITH PARAPET "CONNECTOR" TO HELP LOWER OVERALL BUILDING HEIGHT AND PROVIDE BETTER SCALE COMPATIBILITY WITH EXISTING NEIGHBORHOOD

STREET FACING PORCH ON BALCOLM

SIDE UNIT ENTRIES, INTERIOR STAIR FOR UPPER LEVEL





Balcolm Street Sidewalk



Balcolm Streetscape Perspective





County Line Road and Balcom Perspective



### ONE BEDROOM UNIT

BLUE DEPICTS AREA OF 1 BEDROOM UNIT +/- 825 SQUARE FEET (CONCEPTUAL FLOOR PLAN ONLY)

### THREE BEDROOM UNIT

ORANGE DEPICTS AREA OF 3 BEDROOM UNIT +/- 1375 SQUARE FEET (CONCEPTUAL FLOOR PLAN ONLY)

### TWO BEDROOM UNIT

GREEN DEPICTS AREA OF 2 BEDROOM UNIT +/- 1100 SQUARE FEET (CONCEPTUAL FLOOR ONLY)

### TWO BEDROOM UNIT

GREEN DEPICTS AREA OF 2 BEDROOM UNIT +/- 1100 SQUARE FEET (CONCEPTUAL FLOOR PLAN ONLY)

